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INSURANCE CLAIMS PRACTICES, PROCEDURES AND SOFTWARE

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I N D E X

R I S E O F C O L O S S U S

By James J. Mathis[1]

PREFACE

The business of insurance has been around for a very long time. The first contract of insurance I could find was signed in Genoa in circa 1347. Insurance contracts were entered into by individuals, either alone or in a group. They each wrote their name and the amount of risk they were willing to assume under the insurance proposal. In Babylonia, traders assumed the risks of the caravan trade through loans that were repaid after the goods had arrived safely—a practice resembling bottomry and given legal force in the Code of Hammurabi (c.2100 B.C.). Hence, the term Underwriter. In the United States. the history of insurance involves two principles: risk protection and capital accumulation. Originally, underwriters, usually merchants and real-estate men who could assess risk and estimate profitable premium rates, insured policyholders for lost cargoes and the destruction of buildings by fire. Risk is now calculated by professional actuaries using complex statistical techniques.

The *Merriam-Webster Dictionary* describes insurance as, "coverage by contract whereby one party undertakes to indemnify or guarantee another against loss by a specified contingency or peril." So the basis of insurance is "guarantee against loss". Insurance can be considered to be a transfer of a future risk in exchange for a paid premium. Each policyholder pays a premium to their selected insurer with the promise from the insurer that the future economic exposures up to an agreed limit from a covered loss will be assumed by the insurer with the exception of any deductible or co-payment previously stipulated in the insurance contract. Essentially, a transfer of risk is paid for by the policyholder and assumed by the insurer.

Payment for the assumed risk by the insurer on behalf of the policyholder can be separated into two types of claims. A **first** party claim involves those risks paid directly to the policyholder (or any other party considered a policyholder). For example, collision, comprehensive, MPC (Medical Payment Coverage), PIP (Personal Injury Protection), Uninsured and Underinsured losses would all be first party claims. **Third** party claims are those risks paid to a party who has suffered a loss which the policyholder may be found to be negligent in causing. Since, this represents an economic risk to the policyholder and assuming the policyholder has contracted with the insurer for *Liability coverage*, the insurer assumes the cost of that economic risk (including any cost of investigation, analysis, resolution and legal defense of the policyholder should litigation occur).

Most states hold that a fiduciary responsibility exists either implicitly or explicitly between the policyholder and the insurer. Almost all states have adopted the Fair Claims Act into their statutes defining what is required of the insurer in the handling of first party claims. Only a few states have adopted the Fair Claims Act in their statutes where the claim is handled by the insurer as a third party claim. Where a duty or fiduciary responsibility under the individual state's statutes has not been completed or has been violated, it could then be defined as an act of "Bad Faith" or "Breach of Contract". In some cases, this has led to a lawsuit brought by the policyholder against the insurer.

[1] CV of James J. Mathis is in the back of this handout.

When the risk or claim involves damages to a third party, not a policyholder, which the policyholder will be found responsible for, the insurer has a duty to assume the cost of those damages (up the limit of the coverage contracted by the policyholder). If the insurer fails to resolve the third party claim within the limits of the policy, when it had an opportunity to, the insurer can be found have failed its fiduciary responsibility, breached its contract and/or committed an act of bad faith. Under this circumstance the third party may filed a suit against the policyholder to recover all damages as a result of the policyholder's negligence. Should the lawsuit result in a judgement in excess of the policy limits, the policyholder can choose to assign to the third party the right to bring a lawsuit against the insurer for the breach of contract and/or the act of bad faith.

THE LEGAL ENVIRONMENT TODAY

Here is a general history of the environment, which exists between the legal community and the insurance industry. When an individual was involved in an accident where they were injured, they would seek medical treatment for their injuries (medical specials). They might lose some time from their employment as well (income loss or economic specials). They could also have future needs for medical treatment and possibly future periods of income loss. They might also have permanent impairment or disabilities.

When the treatment was completed and their injuries were resolved, they would approach the insurance company adjuster to settle their claim. The injured party might perform this through a retained attorney as well. The claim would be evaluated by the adjuster utilizing his/her experience, training, education, and common sense. The claim, which was evaluated, consisted of medical specials, economic specials (medical treatment costs and income loss) and "pain and suffering". "Pain and suffering" are dollars paid for the inconvenience of the accident, injuries and consequences of the accident. The adjuster would understand the inherent issues associated with these claims. A claim would result in a settlement of approximately three to four times specials. This meant that a claimant with $3,000.00 in specials would most likely receive a settlement offer from the insurance adjuster of $9,000.00 to $12,000.00. This is assuming there were no unusual circumstances involved in the claim.

At some point in the late 80's and during the early 90's, the insurance industry determined that there was an opportunity to realize a profit in their claims departments by paying less for claims. The fact became obvious that only a small percentage of any attorney's clients' claims could actually be taken to suit and ultimately to judgment. So, if an attorney had one hundred clients, the attorney could probably only file suit and pursue that suit to judgment on 2 to 5 of his clients' claims. This would mean at least 95 of the attorney's 100 clients' claims would be resolved at whatever settlement offer the insurer determined. Also, of the 2 to 5 claims taken to judgment, the insurer could very well succeed in realizing a judgment in its favor.

Therefore, the most financially successful strategy for the insurance industry was to simply low-ball every claim with the sole exception of those claims which might have obvious value in excess of the policy limits. Any claim which had the slightest defense available for the insurer (i.e. **MINOR IMPACT – low property repair estimates**, comparative negligence, contributory negligence, causation issues, excessive treatment billing, excessive treatment duration, frequency or type, questionable injury diagnosis, multiple defendants, etc.) would be evaluated at a low settlement value. After a delay from the time a demand was received from the attorney on behalf of a client, an unreasonably low offer (IFO – Initial First Offer) would usually be extended to resolve the claim. The attorney would either counter this or file a lawsuit. If the attorney

countered the offer rather than filing a lawsuit, a second offer (only nominally increased from the IFO) would be extended by the insurer as a final offer (FO – Final Offer). The insurer would also advise the attorney, that if the settlement offer was not acceptable, the attorney should file a lawsuit. Thereby, inviting litigation to be brought against its insured (considered to be a bad faith act in some states). Again, the insurer is playing the odds that the attorney would not be able to take the lawsuit to judgment.

If 80 percent of the claims presented to the insurer fell into the category of the claim as described in the previous paragraph, and if those same injured parties were willing to pay an attorney 33.3 percent of their settlement dollars to deal with the insurance industry for them, then why couldn't the insurance industry make the allegation that $6,000.00 inclusive of the specials was a fair settlement value of the claim? ($3,000.00 X 3 = $9,000.00; $9,000.00 X 33 1/3% = $3,000.00; $9,000.00—$3,000.00 = $6,000.00)

This analysis would lead to the insurance industry significantly reducing settlement offers to all parties. They determined only 20 percent of the public would actually retain an attorney. They assumed that of that 20 percent, 80 percent would settle for the claim in the insurance industry's range of settlement (Even at the new low figure). They anticipated that the percent of lawsuits would increase, but the cost to defend those was negligible compared to the profits generated by the decrease in claim dollars paid out. The net effect was significant on the bottom line profit realized by the insurance industry from the mid 1990s continuing through the present.

The case reserve[2] in 1990 for a soft tissue injury liability claim was approximately $15,800.00. The case reserve for the same type of injury in 2001 was approximately $5,800.00. This reduction in claim severity was a direct result of the changed process and programs such as "MIST", "Minor Impact" and "No Damage/No Injury". This $10,000.00 savings per claim has a direct impact the profits realized from the claim department. Considering that State Farm Claim Vice President[3] recently stated in deposition State Farm experiences 15,000 claim per day. While only thirty percent of this number would represent the number of automobile claims experiencing the decrease in claim severity, the number is still a staggering 5,000. Multiplying that number by the number of days in a year equals 1,825,000. Realizing a savings of $10,000.00 claim payout per claim, this would represent an annual savings of $1,825,000,000. This dollar amount of savings in claim payouts multiplied by the total number of insurers would be a staggering annual dollar figure not being paid out to the general public in reasonable settlements. It might be an eye opening exercise to have some economist actually extrapolate the direct and indirect economic impact on the public over the last fifteen years.

THE MEDICAL COMMUNITY ENVIRONMENT

The Insurance Industry claim handling culture went through a major transformation during the mid 1990's adopting the opinions and advice of McKinsey Consulting. This was accomplished by each individual insurer in conjunction with McKinsey Consulting (Arthur Anderson or Accenture as it is currently known, also contributed to some insurers' transformation) through the creation and implementation of the McKinsey "Business Process Improvement" (BPI) culture. This transformation of claim culture is evident in the McKinsey documents Allstate has

[2] This is the amount of dollars set aside by the insurer in anticipating the amount to paid on this type claim at settlement. The figure is based on a three year historical severity realized by the insurer.

[3] Fowler vs. State Farm Mutual Automobile Insurance Company, Hawaii; The United States District Court For the District of Hawaii; Civil No. CV07 00071 SPK/KSC;

produced in other cases across the country[4]. There no longer exists, if there ever did, a proprietary or confidential nature concerning these documents. Similarly, since Allstate has previously produced these same documents in their production as required by the courts in other litigation, it cannot now claim to this court that the requests would be overly burdensome or require unreasonable time to produce.

These Allstate/McKinsey and CCPR documents fully describe the current culture in the insurance industry including Allstate's culture, to target individual treating facilities or practitioners. The targeted facility would generally have a large patient count with a significant presence of minority patients. The target facility or practitioner would have a history of testifying on behalf of their patients' injuries. In most cases the targets have been well respected in the medical community in which they practice. These targeted facilities and practitioners would then find themselves the object of a SIU (Special Investigation Unit) or Fraud Unit intensive investigation during which time all payments to the facility would be put "on hold". The information that this facility or practitioner was identified as a target would be disseminated throughout the insurance industry, resulting in other insurers placing all payments "on hold". During this time of harassment by the insurance industry, naturally, patient numbers would dramatically reduce. Ultimately, an opportunity would be extended to the facility or practitioner to pay back disputed charges paid by the insurer or, in some cases, a suit against that facility or practitioner would be brought by the insurer alleging fraud. In other situations, a "Request for Prosecution" document is created and submitted to the local District Attorney's office for criminal prosecution[5].

This practice by the insurance industry has a direct impact on the entire medical community in the geographic area in which it is executed. The insurance industry experiences an even more extensive secondary benefit by other Chiropractic facilities or practitioners in the geographic region reducing the number of automobile patients accepted, reducing the duration, type or frequency of treatment to automobile patients and/or reducing the amount in which is billed for that treatment. The insurance industry has taken the next step with programs such as State Farm's "Minor Impact", Farmer's "No Damage, No Injury" and Allstate's "MIST (Minor Impact Soft Tissue), in which the insurer is stating that based on the small amount of property damage[6], there can be no injury and therefore, no treatment costs.

This culture is being driven by a very basic pursuit of profits by the insurance industry. Allstate receives tens of thousands claims presented to it each day. The current industry percentage of these claims which would involve "soft tissue" injuries varies between 85 and 90 percent. The most common treating facility or practitioner sought for the treatment of "soft tissue" injuries is Chiropractic. The current industry percentage of Chiropractic involvement in these types of claims is as high as 95%. Most of the injured parties have either PIP/MPC benefits available to pay for the treatment. A very significant number of the injured parties also have either third party claims against an insured negligent tortfeasor or a first party claim under their UM/UIM (Uninsured Motorist/Underinsured Motorist) coverages.

This reasonably reflects an enormous exposure to the insurance industry as first or third party claim severities as well as one of the most significant obstacles to the insurance industry's pursuit of profits. McKinsey introduced the simple concept of creating profits within the claim section of an insurer by simply utilizing those tools available to reduce or deny claim payments.

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[4] ***(See the listing of cases involving this issue as an endnote to this section)***

[5] **The People of The State of California vs. Wilmer Origel, Superior Court of California, County of San Joaquin; No SFO94494A;**

[6] **Allstate's threshold was recently established at $1,500.00 or less in repair estimates to the vehicle.**

By eliminating the Chiropractic diagnosis of injuries and complaints of injured the parties and reducing or eliminating entirely the medical cost of treatment to those individuals, claim severities would decrease dramatically. This decrease would be realized in the area of greatest exposure to the insurance industry (soft tissue claims). If an insurer is experiencing 16,000 claims a day, ninety five percent of ninety percent of that number is 13,680 claims.

When Allstate instituted this culture (McKinsey/CCPR/MIST) of attacking Chiropractic treatment and "soft tissue" injuries, it then realized a claim payout savings that is continuing to increase today. Almost all of the claim files which I reviewed in this matter involved property damage repair costs under $1,500.00. The average claim cost of $15,000 per claim experienced in 1990 through 2000 dropped by as much as two-thirds. A claim savings of $10,000.00 per claim multiplied by 13,680 claims represents $13,680,000.00 in claim payout savings (Profit) per year. As of 2000 the insurance industry began to experience a reduction of claim frequency (fewer claims were being reported or accepted) while the claim severity began to increase[7]. The reduction in frequency is in part due to safer vehicles and in part due to the insurance industry culture changes. The increase in severity is the motivator for the insurance industry's more aggressive change in claim culture (*State Farm Insurance Company's "Minor Impact Defense", Farmers Insurance Company's "No Damage No Injury" and Allstate Insurance Company's "MIST" Programs*) and its attack on the Chiropractic community.

ENDNOTE: LISTING OF APPLICABLE CASES

Allstate Ins. Co. v. Fields, 842 N.E.2d 804 (Ind. 2006)., Allstate Ins. Co. v. Fields, 831 N.E.2d 750 (Ind. 2005), Dale Deer vs. Allstate Insurance Company and Paul Jason Aldridge, In the Circuit Court of Jackson County, Missouri, at Independence, Case No. 0516-CV24031, *Hensel, Individually and as Class Representative vs. Allstate Insurance Company, Allstate Indemnity Company, Gary Davis and Tina Watts; Alaska; In the Superior Court for The State of Alaska, Third Judicial District; Case No. 3AN-02-7154 CI;; Martinez vs. Davis, New Mexico; The State of New Mexico, County of Bernalillo Second Judicial District Court; Case No. CV 99-07598; McCallum vs. Allstate Property and Casualty Insurance Company, Washington; In the Court of Appeals of The State of Washington, Division II; (Pierce Co. Superior Court No. 06-2-09493-5); Allstate vs. Scroghan, In The Court of Appeals of Indiana; No. 03A04-0410-CV-554, Camus vs. State Farm Mutual Automobile Insurance; Colorado; El Paso County, CO, District Court 4th JD; Case Number: 05CV404; Armisted, et al v. State Farm Mutual Automobile Insurance Company, Michigan; United States District Court, Eastern District of Michigan, Southern Division; Civil Action No. 07-10259; Simonsen vs. Allstate, Montana; The United States District Court for the District of Montana, Butte Division; CV-01-64-BU-DWM; Hutt vs. State Farm Mutual Automobile Insurance Company, Pennsylvania; Court of Common Pleas, Philadelphia County; NO. 000176; Berry vs. Allstate Insurance Company, Michigan; United States District Court, Eastern District of Michigan, Southern Division; Case No. 2:07-CV-14627; Burger vs. Allstate Insurance Company, Michigan; State of Michigan in the Circuit Court for the County of Wayne; Doan vs. Allstate Insurance Company, Michigan; United States district Court, Eastern District of Michigan, Southern Division; Case No. 5:07-cv-13957; Van Emon vs. State Farm Mutual Automobile Company, Michigan, Unites States District Court For the Eastern District of Michigan, Southern Division; Case No.: 05-CV-72638; State Farm Mutual Automobile Insurance Company and State Farm Fire and Casualty Company vs. Robert J. Cavoto, Jr., Fishbone Advertising, Inc. Cavoto Chiropractors, P.C., Margaret Fisher-Catrabone, Penn Center pain management, Inc., Tiprof, Inc. and International Health Alliance, Inc., Court of Common Pleas Delaware County, No. 05-10716; Lynch vs. State Farm Mutual Automobile Insurance Company, Nebraska; The District Court of Douglas County, Nebraska; Case No. DOC. 980 NO. 654; Hill vs. State Farm Mutual Automobile Insurance Company, Oklahoma; The United States District Court for The Western District of Oklahoma; Case No. CIV-00-1877-T; Sitton vs. State Farm, Washington; Superior Court of Washington for King County; Case No. 00-2-10013; Plateros vs. State Farm Mutual Automobile Insurance Company, Nevada; The Second Judicial District Court of the State of Nevada in and for The County of Washoe; Case No. CV98-07605; Quynh Truong, et al. vs. Allstate Insurance Company, et al., New Mexico; Watkins vs. State Farm Fire & Casualty Company, Oklahoma; In The District Court of Grady County, State of Oklahoma; Case No. CJ-2000-303; Hernandez v. Allstate Insurance Company, Washington; King County, Washington; Cause No. 05-2-005891-9 SEA; Hagar v. Allstate Insurance Company, Kentucky; Commonwealth of Kentucky, Fayette Circuit Court, Eighth Division; Civil Action No. 98-CI-*

[7] **"*Trends in Auto Injury Claims, 2008 edition, "IRC (Insurance Research Council) reports falling claim frequency and rising claim severity."***

2482; Ebbert vs. Liberty mutual Insurance, In The Circuit Court of Ohio County, West Virginia; Civil Action No. 03-C-505; Hawkins v. Allstate Insurance Company, Supreme Court of Arizona, No.CV-86-0010-*PR, As amended March 4, 1987.*

There were other opportunities for the insurance industry such as the following aspects discussed. However, nothing could compare to the enormity of the dollars contributed to the insurers' bottom line increase in profits previously discussed.

PROFIT IN A CLAIMS DEPARTMENT

1. SEARCH FOR PROFIT

Every company in every industry has as its primary goal to be profitable. The alternative would be to realize failure and ultimately dissolution. Even the self-proclaimed "Mutual"

companies in the insurance industry recognize the importance of profitability. Their continued participation in the insurance market is dependent upon the pricing of their policies as compared to the other players in the market. However, the insurance company's pursuit of profits should not overshadow the contractual responsibility it has to its insureds. When it does, the claims handling becomes tainted.

The options available for the insurance company to maximize its opportunities for profit are limited. As in other industries, the insurance company must either reduce their costs or increase their income. The following are some of the areas which all insurance companies consider in this pursuit.

a) OVERHEAD

Overhead for an insurance company consists of more than just the buildings, which house its operations. Although, this factor can be significant in the long run, it doesn't provide immediate availability of funds. Each company at one time in its history has attempted to reduce the number of real estate holdings it has dependent on the market prices of course as well as available opportunities for alternative investments or uses for the funds made liquid. However, in order to reduce this aspect of its overhead, it must be able to either reduce the number of its employees or have a realistic opportunity to consolidate the different functions of the company. It can effect the reduction or consolidation in any of its departments including claims. When the change is directed at the claims department, it will have a direct influence on the individual claim representatives' handling of claims.

b) CLAIMS

The cost of paying claims has always been a major area for the insurance industry in its pursuit of profit. Reducing the amount paid in a legitimate manner is reasonable on the surface. However, the temptation to focus on this area can be in direct conflict with the contractual agreement the insurer has with its insureds. It doesn't necessarily follow that it will occur. However, an overzealous manager or claim handler could be motivated by sources discussed later which would result in the insurer's interests having more significance than that of the insureds'. The insurance industry in the past has recognized the opportunity to utilize its training capabilities, new processes or procedures to have a direct impact in reducing the amount, which is paid out in claims.

c) INCREASE IN POLICY COUNT

In order for any insurer to continue to be successful in the industry, it must recognize the importance of growing its market share. Absent the growth of policies, the rising cost of insurance must be passed to the remaining policyholders. Of course, this has the adverse affect of increasing the premiums, which the insureds pay for the same benefits originally contracted for with the insurer. A substantial or constant increase in premiums will naturally force the policyholders to move to other insurers with lower premiums. Every insurer must balance its goal of reduction of claim cost with the exposure to losing policyholders. There is a marginal point which an insurer can exercise cost control measures in the handling of claims without losing more than a marginal amount number of policyholders. Similarly, the insurer through its agents and different media forums, risks the expenditure of advertising against the increase or retention of policyholders. It is expected the advertising would be factually correct and without misleading impressions of the contractual promises being made by the insurer. However, when

the promises being marketed exceed the actual ones being kept in the day-to-day claim handling process, this is far from honest marketing.

d) INCREASE IN PREMIUMS

Another vehicle for increasing profits is to increase the premiums, which the insurer charges its insureds. Understandably, if the insurer can keep its costs from increasing or at least decrease the rise in increase and at the same time receive a higher premium from each of its insureds, it could recognize a significant increase in its profits. Premiums, in their simplest form, are a reflection of the history of companies' cost in paying and handling claims. If the insurer can reduce the cost of paying or handling claims, the premiums could be decreased or return a dividend. This would have a measurable impact on the market share of the insurer as well as the capability of retaining existing policyholders. Nothing sells better than selling for less.

e) INVESTMENTS

Most insurance companies are heavily dependent on the investments they have made. As funds become available they are invested incrementally throughout each day of the week. Naturally, this constant opportunity can only be realized if the company maximizes available funds. The reserve funds set aside in anticipation of claim payments become a tempting source of funds for the investments. Freeing up the funds frozen in the reserve account is the quickest and easiest way for an insurance company to have access for investments. This translates as a need for the company to close claims as soon as possible. There are many ways for the claims handlers to close claims. This also encourages the claims department to pay as little as possible for each claim.

Most insurance companies have some form of profit sharing program available for the personnel to participate in. These programs allow for the individual employee to participate in the profits generated by the company. The claim handlers have a direct incentive to reduce costs and close claims. When the company realizes a profit as a result of their claim handling procedures or their investment portfolio, there is less pressure on the claim department to reduce cost and close claims quicker. In contrast, when the market doesn't favor the investments made by the insurance company, even greater pressure is realized by the claims department to reduce the cost of claims and lower their pendings.

2. REDUCTION OF OVERHEAD

The insurance industry isn't different than any other industry. The pursuit of maximizing profits also includes the reduction of overhead. There are several aspects of the operation, which the insurance company can target for possible savings. These options have incrementally direct affect on each claim in some manner. Each of the insurers has the option of liquidating its physical holdings. However, in order to do that, it must analyze and make decisions regarding the following aspects of its business.

a) STAFFING

One of the largest areas of overhead for an insurance company is its personnel. The staffing includes underwriters, agents, support staff, estimators, claim handlers and management. Most insurance companies are reluctant to reduce their sales staff or the supporting personnel for them. These are the revenue generating members of the staff. The claims personnel don't generate revenue, though. In fact, most companies believe that with better procedures or

processes, the claims staff can be reduced. Initiating new practices or programs designed or intended to streamline the claim handling process is anticipated to result in more claims being handled by fewer people. This can also develop an opportunity to release the higher salaried employees and either replace them or not. Either way, the company reduces its payroll.

b) PENDINGS

Prior to any consideration of a reduction of the personnel, an insurance company must acknowledge the size of its pending claims. The size of the individual claim inventories of the claim handlers has a direct relationship to the quality of service. Should the company reduce its personnel without initiating any process for the handling of the pending inventories, it would be reflected in the individual handling of each claim or lack thereof. Some companies have affected processes to handle claims in a more automated process. These processes do not allow for the same personal involvement of a decade ago.

These programs have received considerable criticism lately. Nevertheless, fewer decisions are required to be made by the claims staff. Fewer decision responsibilities means more claims can be handled by fewer claim personnel. Managing average pending claims is necessary in the pursuit of profits. The management of pendings can translate into pressure on the claims staff to close claims prematurely. Excessive focus by the company could stimulate the use of procedures or practices in a less than reasonable fashion. When a claim handler has goals on their individual performance reviews, this will encourage the handler to follow any company procedure or practice to be successful.

c) CONSOLIDATION

The next logical step for the insurance industry after manipulating its personnel and number of claims each can handle is to consolidate. It seems the industry vacillates over time between centralizing and decentralizing. I suspect this is a natural phenomenon of the balance between claim cost and policy count. When profit margins drop consolidation looks promising. When policy count drops and customer satisfaction dips below acceptable levels, decentralization looks promising. In order to consolidate the insurance industry relinquishes its ability to react to regional dynamics. Rather than handling each claim individually, it must accept the fact a great number of claims will be painted with the same brush. Using computerized programs for evaluation and medical management become the standards.

These practices establish an opportunity for the company to centralize the handling of large numbers of claims as groups. It might be argued that ultimately the cost savings of these practices could be reflected in lower premiums. The concept of lower premiums is great as long as it isn't your claim, which is receiving the cost saving practice applied to it. The opportunity to realize a dollar or two in premium dividends doesn't help pay for the hundreds or thousands of dollars in unpaid medical billings.

d) USE OF PROCESSES AND PROCEDURES

Claim inventories or pendings for claim handlers has risen over the years. Currently, the average pendings of a claim handler can only be managed through the use of processes and procedures designed by the home offices. The individual claim handler knows that if a claim doesn't go well, he won't be held accountable as long as the company's processes and procedures were followed. This practice becomes a crutch for the claim handler. It's easier to follow a company procedure than to practice pro-active handling. No decision is required of

the claim handler if the processes are followed. The immediate manager will support the handler as long as the processes are followed. When the volume of claims in a claim handler's inventory reaches a level, the practices, which would allow for a denial or closure of a claim, are the only options available.

Medical cost management tools have become common in the industry both in first and third party claims. Computerized evaluation is another tool the insurance industry has accepted. Both these tools don't require decisions to be made by the claim handler. They are promoted by the insurance companies to their employees as the solution to the problems manifested by higher inventories and less experience. They protect the employee from any management criticism should the claim not go well. The insurance companies utilizing these tools see them as a viable and reasonable avenue in their quest for cutting costs. Insureds who find themselves involved as an object of one of these procedures have a difficult time accepting the justification of it.

Insureds have often paid premiums for many years. They didn't buy the policy many years earlier in order to be involved in an accident in which they would get injured and have an opportunity to be treated beyond the parameters of the insurance company's definition of reasonable or necessary. It's extremely sad when the insurance company chooses to punish its insureds for the treatment it has determined excessive according to their definition of the policy language.

3. AVOID LITIGATION

The cost of litigation can become an important factor in the process of cost reduction. There is a marginal point where the practices and procedures put into place result in an increase in law suits being filed either by third party claimants or first party insureds. An intelligent company will monitor this increase and weigh the cost against the benefits it is realizing by its practices. Some companies refuse to recognize that the increase in litigation cost may be a direct result of practices and/or procedures. Rather, they might feel the rise in cost is due to mismanaged attorney fees. Those companies have put into place a means or practice of having the legal fees reviewed by an outside source. Some of the other issues, which could affect the handling of claims after suit is filed, are listed below. Each of these factors can have a direct affect on the handling of an individual claim. However, this basic expense savings concept has been redefined and abandoned by the adoption of the "DOLF" program. This is explained in the section entitled "Legal Environment Today".

a) GROUP CLAIMS BY INJURY

There is a practice of grouping the claims with similar injuries. For example, all claims involving soft tissue injuries may be considered the same when referred to defense counsel. This could result in the handling of the claim taken out of the hands of the claim handler. The defense counsel now controls the handling. If the defense counsel is defending these on a cost and hourly basis, there may not be any motivation for the value to be re-analyzed. This also sets up an opportunity for the claim handler who at some point finds his inventory approaching unmanageable volume to stand on a single offer of settlement. This then forces the claim into litigation and off the adjuster's desk.

b) GROUP CLAIMS BY DOLLAR VALUE

Similarly, claims with approximately the same value range could realize the same treatment as above. Again, the result could be to reduce the number of claims in need of active handling by the claim handler. Recently, the trend has been to refer claims with a value under $25,000.00 and suit has been filed to those defense counsels offering a flat rate. This doesn't motivate the defense counsel to discuss a change in value based on any material discovery with the claim handler.

This grouping could result in some claims with other than ordinary circumstances to be lost in the process. The result is abandonment of the claim handling process throughout the duration of the litigation process until either arbitration or trial. One major flaw in this practice for the insurance industry is an award in mandatory arbitration could set up a situation for the limits of the policy to be exceeded by attorney fees and costs should the award by appealed by the insurance company.

4. MOTIVATION

Claim handlers are no different than employees of other firms in other industries. They perform to the best of their ability in hopes of increasing their yearly income, possible opportunities for promotion and securing their future employment. Management in the insurance industry tracks their performance in several different areas. Two of the most objective means of tracking the claim handler's performance are average paid claims and average pending claims. From these statistical results the managers can determine which employees are handling the assigned claims appropriately and in accordance with the company's goals. Based on the employee's performance in these areas as well as others, the claim manager will rate the performance for merit increases or promotional opportunities.

a) MERIT REVIEWS

Merit reviews are traditionally completed on a quarterly basis. These reviews include many items including the claim handler's goals for the year in both average paid claims and average pendings. Some companies have removed the statistical references so as to avoid discovery should litigation occur. However, there are still the inferences to these statistical goals written into the review. In all instances I am familiar with, the statistical goals when not actually written into the review are discussed verbally between the manager and the claim handler. The manager has statistical goals, which are set in accordance with the section, region, state, or national goals of the company. The claim handler is expected to use those tools available through the processes and procedures developed by the company in achieving their goals.

When the claim handler is on track with achieving the goals, the merit increase will be significantly greater than if the goals were not being met. In fact, if the goals are not being met, the claim handler can find himself in a precarious position until the situation improves. Should the claim handler exceed the goal of the company, he would receive an even greater merit rating or increase yearly salary. In order to achieve the goals as established by home office, the claim handler must pay special attention to the values paid in the handling of claims. Through this incentive program the company guarantees the procedures and practices it has developed are being followed in the line units.

b) PROMOTIONAL OPPORTUNITIES

Similar to the merit increases, the promotional opportunities are determined in part by the claim handler's success in achieving or exceeding the goals of the company. Some

companies even have as their requisite for promotional opportunities that all candidates for promotion must have exceeded the goals. Throughout the career of the claim handler any opportunities offered will in part be based on the performance of the claim handler in following company procedures and the individual success in meeting or exceeding the goals. This isn't a new concept nor is it isolated to the insurance industry. It makes sense, that the company would promote into management those individuals who will follow procedures and exceed the goals. Why would a company promote an employee who wouldn't follow procedures and ignore the goals of the company? That simply wouldn't make any sense at all.

As a result the individual claims handled by each of the claim handlers finds itself under this influence. The temptation to reduce claim payments in order to meet company goals can become overwhelming for the aspiring young claim handler. The tools provided by the company to assist the claim handler in achieving this success become the claim handler's best friend. The tools not only protect the claim handler, they provide an opportunity to realize exceeding success.

c) RECOGNITION

A claim handler's success does not stand-alone. This is traditionally recognized by the company in their internal publications or meetings. This exposure for the individual claim handler is an essential part in the path to success for him. It isn't necessary that the claim handler achieve this internal notoriety. However, it does expedite the opportunity for promotion. Visibility is important in a large company for the individual claim handler. If he is continually exceeding the goals of the company, he could find exposure, which would place him on a fast track for advancement.

This motivation is constant in the young claim handler's career. It does have a direct affect on each of the claims being handled by claim handler. Naturally, the claim handler would not want to receive complaints. This would be the wrong kind of exposure in his pursuit of a management position. However, if he is following the company procedures and processes, his claim average is dropping and his pending claim inventory is reducing, he could very well find the complaints are overlooked. This of course could have an adverse affect on the claims being handled by this individual. Nevertheless, the company has accepted the risk of losing some policyholders or possible litigation in the pursuit of their goals.

d) NO OWNERSHIP OF HANDLING

As a result of the procedures and processes developed by the company and the merit system, the individual claim handler is not taking ownership for the outcome of a particular claim. The claim is being handled as a group of claims by the claim handler. He is following the procedures provided by home office and he has been trained in. If the claim ends up in litigation as a result of denial of benefits or reduction of benefits owed, it isn't as a result of his handling. This is considered an acceptable risk and a part of doing business as an insurance company. The medical cost management procedures were followed by the claim handler. Therefore, he is protected from making decisions that could adversely affect his career. Or, the value was determined by the process available. The claim handler followed each of the approved steps in arriving at the authority level, which was offered. It isn't the fault of the claim handler if a number of his pending claims end up in litigation. It's a sign of the times.

5. SUMMARY

The individual claim is being affected by the insurance company's pursuit of profit. No one will argue that a company should pursue profit. The alternative would be ridiculous. However, pursuing profits should encompass first and foremost, the interests of the insureds being placed before those of the insurer. No insurer has the right to pursue its own interests at the cost of the individual insured. Handling claims individually based on the dynamics of the individual claim will always be considered the only way to handle claims. When an insurance company consolidates its personnel and claims, the temptation to move away from the practice of handling one claim at a time can become too great. Sacrificing the individual attention a policyholder deserves for the sake of saving costs will ultimately have an adverse affect on all claims.

Some companies become so focused on saving every dollar of cost possible they overlook the opportunity to pay every dollar. The approach has changed from finding a way to pay a claim to one of finding a way to deny the claim. The procedures and practices developed by the company are focused on discovering those claims, which should be reduced or denied. When these procedures and practices are then a part of the merit review for the individual claim handler, they become the driving force in each claim. The individual accountability for the handling of the claim disappears.

Each claim is subject to the influences as addressed. At different times of the year the influences are more apparent. As a recording period ends or a performance rating nears, the affect of the system as established could manifest itself as less than good faith handling. Rather, it becomes more similar to tainted handling.

BACKGROUND HISTORY

The Insurance Industry claim handling culture went through a major transformation during the mid 1990's adopting the opinions and advice of McKinsey Consulting. This was accomplished by each individual insurer in conjunction with McKinsey Consulting (Arthur Anderson or Accenture as it is currently known, also contributed to some insurers' transformation) through the creation and implementation of the McKinsey "Business Process Improvement" (BPI) culture. This transformation of claim culture is evident in the McKinsey documents Allstate has produced in other cases across the country[8]. There no longer exists, if there ever did, a proprietary or confidential nature concerning these documents. Similarly, since Allstate has previously produced these same documents in their production as required by the courts in other litigation, it cannot now claim to this court that the requests would be overly burdensome or require unreasonable time to produce.

These Allstate/McKinsey and CCPR documents fully describe the current culture in the insurance industry including Allstate's culture, to target individual treating facilities or practitioners. The targeted facility would generally have a large patient count with a significant presence of minority patients. The target facility or practitioner would have a history of testifying on behalf of their patients' injuries. In most cases the targets have been well respected in the medical community in which they practice. These targeted facilities and practitioners would then find themselves the object of a SIU (Special Investigation Unit) or Fraud Unit intensive investigation during which time all payments to the facility would be put "on hold". The information that this facility or practitioner was identified as a target would be disseminated throughout the insurance industry, resulting in other insurers placing all payments "on hold". During this time of harassment by the insurance industry, naturally, patient numbers would dramatically reduce. Ultimately, an opportunity would be extended to the facility or practitioner

[8] (***See the listing of cases involving this issue as an endnote to this section)***

to pay back disputed charges paid by the insurer or, in some cases, a suit against that facility or practitioner would be brought by the insurer alleging fraud. In other situations, a "Request for Prosecution" document is created and submitted to the local District Attorney's office for criminal prosecution[9].

This practice by the insurance industry has a direct impact on the entire medical community in the geographic area in which it is executed. The insurance industry experiences an even more extensive secondary benefit by other Chiropractic facilities or practitioners in the geographic region reducing the number of automobile patients accepted, reducing the duration, type or frequency of treatment to automobile patients and/or reducing the amount in which is billed for that treatment. The insurance industry has taken the next step with programs such as State Farm's "Minor Impact", Farmer's "No Damage, No Injury" and Allstate's "MIST (Minor Impact Soft Tissue), in which the insurer is stating that based on the small amount of property damage[10], there can be no injury and therefore, no treatment costs.

This culture is being driven by a very basic pursuit of profits by the insurance industry. Allstate receives tens of thousands claims presented to it each day. The current industry percentage of these claims which would involve "soft tissue" injuries varies between 85 and 90 percent. The most common treating facility or practitioner sought for the treatment of "soft tissue" injuries is Chiropractic. The current industry percentage of Chiropractic involvement in these types of claims is as high as 95%. Most of the injured parties have either PIP/MPC benefits available to pay for the treatment. A very significant number of the injured parties also have either third party claims against an insured negligent tortfeasor or a first party claim under their UM/UIM (Uninsured Motorist/Underinsured Motorist) coverages.

This reasonably reflects an enormous exposure to the insurance industry as first or third party claim severities as well as one of the most significant obstacles to the insurance industry's pursuit of profits. McKinsey introduced the simple concept of creating profits within the claim section of an insurer by simply utilizing those tools available to reduce or deny claim payments. By eliminating the Chiropractic diagnosis of injuries and complaints of injured the parties and reducing or eliminating entirely the medical cost of treatment to those individuals, claim severities would decrease dramatically. This decrease would be realized in the area of greatest exposure to the insurance industry (soft tissue claims). If an insurer is experiencing 16,000 claims a day, ninety five percent of ninety percent of that number is 13,680 claims.

When Allstate instituted this culture (McKinsey/CCPR/MIST) of attacking Chiropractic treatment and "soft tissue" injuries, it then realized a claim payout savings that is continuing to increase today. Almost all of the claim files which I reviewed in this matter involved property damage repair costs under $1,500.00. The average claim cost of $15,000 per claim experienced in 1990 through 2000 dropped by as much as two-thirds. A claim savings of $10,000.00 per claim multiplied by 13,680 claims represents $13,680,000.00 in claim payout savings (Profit) per year. As of 2000 the insurance industry began to experience a reduction of claim frequency (fewer claims were being reported or accepted) while the claim severity began to increase[11]. The reduction in frequency is in part due to safer vehicles and in part due to the insurance industry culture changes. The increase in severity is the motivator for the insurance industry's more aggressive change in claim culture (*State Farm Insurance Company's "Minor Impact Defense",*

[9] The People of The State of California vs. Wilmer Origel, Superior Court of California, County of San Joaquin; No SFO94494A;

[10] Allstate's threshold was recently established at $1,500.00 or less in repair estimates to the vehicle.

[11] "*Trends in Auto Injury Claims, 2008 edition, "IRC (Insurance Research Council) reports falling claim frequency and rising claim severity."*

Farmers Insurance Company's "No Damage No Injury" and Allstate Insurance Company's "MIST" Programs) and its attack on the Chiropractic community.

ENDNOTE:
LISTING OF CASES WHERE PRODUCTION OF DOCUMENTS ORDERED

Allstate Ins. Co. v. Fields, 842 N.E.2d 804 (Ind. 2006)., Allstate Ins. Co. v. Fields, 831 N.E.2d 750 (Ind. 2005), Dale Deer vs. Allstate Insurance Company and Paul Jason Aldridge, In the Circuit Court of Jackson County, Missouri, at Independence, Case No. 0516-CV24031, *Hensel, Individually and as Class Representative vs. Allstate Insurance Company, Allstate Indemnity Company, Gary Davis and Tina Watts; Alaska; In the Superior Court for The State of Alaska, Third Judicial District; Case No. 3AN-02-7154 CI;; Martinez vs. Davis, New Mexico; The State of New Mexico, County of Bernalillo Second Judicial District Court; Case No. CV 99-07598; McCallum vs. Allstate Property and Casualty Insurance Company, Washington; In the Court of Appeals of The State of Washington, Division II; (Pierce Co. Superior Court No. 06-2-09493-5); Allstate vs. Scroghan, In The Court of Appeals of Indiana; No. 03A04-0410-CV-554, Camus vs. State Farm Mutual Automobile Insurance; Colorado; El Paso County, CO, District Court 4th JD; Case Number: 05CV404; Armisted, et al v. State Farm Mutual Automobile Insurance Company, Michigan; United States District Court, Eastern District of Michigan, Southern Division; Civil Action No. 07-10259; Simonsen vs. Allstate, Montana; The United States District Court for the District of Montana, Butte Division; CV-01-64-BU-DWM; Hutt vs. State Farm Mutual Automobile Insurance Company, Pennsylvania; Court of Common Pleas, Philadelphia County; NO. 000176; Berry vs. Allstate Insurance Company, Michigan; United States District Court, Eastern District of Michigan, Southern Division; Case No. 2:07-CV-14627; Burger vs. Allstate Insurance Company, Michigan; State of Michigan in the Circuit Court for the County of Wayne; Doan vs. Allstate Insurance Company, Michigan; United States district Court, Eastern District of Michigan, Southern Division; Case No. 5:07-cv-13957; Van Emon vs. State Farm Mutual Automobile Company, Michigan, Unites States District Court For the Eastern District of Michigan, Southern Division; Case No.: 05-CV-72638; State Farm Mutual Automobile Insurance Company and State Farm Fire and Casualty Company vs. Robert J. Cavoto, Jr., Fishbone Advertising, Inc. Cavoto Chiropractors, P.C., Margaret Fisher-Catrabone, Penn Center pain management, Inc., Tiprof, Inc. and International Health Alliance, Inc., Court of Common Pleas Delaware County, No. 05-10716; Lynch vs. State Farm Mutual Automobile Insurance Company, Nebraska; The District Court of Douglas County, Nebraska; Case No. DOC. 980 NO. 654; Hill vs. State Farm Mutual Automobile Insurance Company, Oklahoma; The United States District Court for The Western District of Oklahoma; Case No. CIV-00-1877-T; Sitton vs. State Farm, Washington; Superior Court of Washington for King County; Case No. 00-2-10013; Plateros vs. State Farm Mutual Automobile Insurance Company, Nevada; The Second Judicial District Court of the State of Nevada in and for The County of Washoe; Case No. CV98-07605; Quynh Truong, et al. vs. Allstate Insurance Company, et al., New Mexico; Watkins vs. State Farm Fire & Casualty Company, Oklahoma; In The District Court of Grady County, State of Oklahoma; Case No. CJ-2000-303; Hernandez v. Allstate Insurance Company, Washington; King County, Washington; Cause No. 05-2-005891-9 SEA; Hagar v. Allstate Insurance Company, Kentucky; Commonwealth of Kentucky, Fayette Circuit Court, Eighth Division; Civil Action No. 98-CI-2482; Ebbert vs. Liberty mutual Insurance, In The Circuit Court of Ohio County, West Virginia; Civil Action No. 03-C-505; Hawkins v. Allstate Insurance Company, Supreme Court of Arizona, No.CV-86-0010-PR,* As amended March 4, 1987.

BUILDING THE CLAIM

The insurance industry spent little time training its claims adjusters (one to two days formal training). Colossus has over 10,720 value drivers, by the way. The insurance industry intentionally kept the claim personnel ignorant to all the specific manipulations of the Colossus program. The insurance industry was aware that their claims personnel would accept Colossus as a fair program for evaluating claims if they were less experienced and overworked. The average insurance adjuster has 200 injury claim files. This could represent as many as 300 injured parties, which require their claims be investigated and evaluated. The senior adjusters were encouraged to retire or find employment elsewhere.

The claims adjusters are required to complete a "dissection sheet" when reviewing the medical records. This same "dissection sheet" is then used to make all the entries into the Colossus program in evaluating a specific claim. The "dissection sheet" is intentionally vague and has very limited "value drivers" listed on it. There is one for "Neck and Back" soft tissue (Referred to as "Whiplash" injuries) and one for demonstrable injuries. The need for two forms was

brought about because Colossus enters the information differently for soft tissue Neck and Back than it does for all other soft tissue injuries and demonstrable injuries.

The resulting affect of these changes in the insurance industry were claim payouts were reduced, claim costs reduced, profits increased, senior personnel replaced with novice claims employees and claim inventories were increased for each insurance adjuster. The insurance industry was extremely pleased. The layperson was being forced to accept lower settlements. But, as anticipated by the insurance industry, only 20% to 30% of the public injured claimants were retaining representation by a lawyer. Of the number of claims where lawyers were involved, 80% of those claims were resolved for the Colossus settlement figures. That meant that only 20% of the 20 to 30% claims where an attorney was involved ended up in trial. The program was a huge success for the insurance industry. As the economic trend in the late 90's allowed for huge profits to be realized on investments, the insurers were taking the new found profits and investing heavily. However, as the economic environment changed and the returns on investments dwindled in the recent past, the insurance industry has had to recover lost returns on investments. This has led to the insurance industry calibrating the value ranges of Colossus arbitrarily lower. Farmers has recently reduced all values straight across the entire injury claim spectrum by 20%.

The legal community did not understand the new program and still don't. They don't understand how to communicate with the adjuster because they don't understand how to communicate with Colossus. The insurance industry is taking advantage of this absence of communication to realize ongoing low claim payouts. The terminology is alien to the medical community as well as the legal community. Therefore the medical records are missing the documented value drivers necessary to participate in the Colossus value ranges. The legal community creates and delivers thirty, forty, fifty (and many) more page demand letters in their attempt to persuade larger settlements. However, these still don't respond to the Colossus computer program. It's as if the medical community is speaking one language; the legal community another; and the insurance industry still yet another. With the absence of communication the public community is truly the victim.

IMPLEMENTATION AND APPLICATION OF SOFTWARE

Colossus, Injury IQ, Decision Point and other evaluation software are computer systems for assessing general damages for bodily injury claims. While all adjusters have their own personal authority levels, they are required by specific guidelines to not deviate from the values arrived at through the use of these softwares. The settlement results of each adjuster, unit and region are tracked and deviations from the softwares' evaluations result in monetary and promotional opportunities lost for the individual adjuster. For the rest of this discussion, the use of Colossus will be in a generic sense so as to include all evaluation software and the State Farm manual evaluation program TEACH.

The evaluation of a claim begins with the receipt of documents, records and billings for medical treatment and wage loss. The information is separated and tabbed according to procedures by a processor. The packet of information is then turned over to another processor for input of medical billings into the MBRS (Medical Billing Review System), ADP, AIM or other similar automated billing review system. The billings must contain the date of service, amount of each

modality, the ICD9 coding and the CPT code for each modality. The billing must contain the correct identity of the patient as well as the medical vendor. If the medical vendor is not one which is currently "on hold" due to an ongoing investigation by SIU (Special Investigation Unit or Fraud Unit), the billings are reviewed for "reasonable and necessary" allowance. Once, this is completed, the packet is then given to the adjuster for input into Colossus.

The adjuster must now compare each billing to each record to confirm all records and billings are received prior to continuing with the Colossus. Once all the information is confirmed to be present, the adjuster reviews the records and determines the appropriate data to input into the Colossus evaluation. Significant responses may increase or decrease the value ultimately arrived at by Colossus.

Each of the entries by the adjuster is reviewed for its accuracy by the manager. This includes the amount of medical billing being accepted by the adjuster. The medical billing must have been entered into the medical review software program. After receiving the packet of records and billings back from the processor, the adjuster will electronically review the billings input. Each individual entry must be reviewed in this step prior to input into Colossus. The adjuster makes a decision to accept or deny those entries which the system has questions about. The entire billing must be verified at this step prior to the billing being accepted and processed for the next step. The adjuster must verify the reason for accepting any rejected billings by the system in a separate entry in the electronic claim file. Absent this explanation, the manager will not accept the Colossus for review and return it. . The adjuster must then make the corrections and corresponding entries in the claim file before returning the Colossus to the manager for a "revision".

Once the billings have passed this hurdle, they appear in the next review section of medical review program. Here, the adjuster once again reviews and determines the billings which will be accepted. This step allows the adjuster to independently opine which treatment dates or modalities may be reasonable or excessive. The adjuster will allow those treatments deemed reasonable and deny the others. This could result in denial of treatment dates during an accepted period of the treatment plan, denial of specific modalities found on any particular date, or the denial of treatment after a certain date. The adjuster may determine that after some date specific, the treatment was excessive. The manager may also make this determination (especially where a "mist" or minor impact claim is involved) and reduce the medical billings allowed. The adjuster may have reason to only accept some medical billings due to some pro-ration issue (another accident is involved) and thereby reduce the amount of the billings accepted. The manager may also make this determination and reduce the total amount of accepted billings. If it is determined the adjuster is "overriding" the "medical review program too often and accepting treatment or billings, this could be a performance issue for the adjuster.

Colossus requires the adjuster to identify specific factors which are documented in the medical records. It does this through a series of questions requesting either a "Yes or No" response or selection from a multiple choice listing. Most of the responses are entered by an "x" in the provided box. Colossus will then determine a range of value for the claim. The adjuster prints this result and attaches it to the claim file. The evaluation by Colossus and the file are then reviewed by the manager.

Knowing and understanding the process, programs and procedures which determine medical treatment and billings that are to be accepted is essential in today's dealings with the insurance industry. Absence of this knowledge will only produce frustration, anger, confusion and most importantly lack of payment or reimbursement for reasonable and necessary treatment.

FEEDING COLOSSUS

UNDERSTANDING THE EQUATION

Colossus is an equation without any human intuitive abilities. The process depends on the input of the claim handler alone. All information not included in the equation has no value. The equation is made of variables which are weighted depending on the injuries identified, treatment, duration of complaints, disability and impairment. The weighted values are determined by Insurance Industry during the process of tuning and calibration with the assistance of Accenture.

The claim representative is allowed to input those injuries, history of complaints and treatment regimen, which are documented in the treating records. The cost of the treatment is not a part of the equation other than as a one-time additive to the final authority. The Colossus equation is designed to establish general damages on top of the economic damages. Therefore, it is imperative each injury is input separately. For example, if the neck and back are indicated as being injured, the claim representative is allowed to enter cs neck and cs back. "Cs" refers to a contusion. If the claimant also complained of right shoulder injury in the emergency room, but the treating records subsequent to the emergency room did not support the shoulder injury, the claim representative is barred from inputting that additional injury. The result would be significant to the final value of the claim. In fact, the treatment provided to the neck and back could receive a decreasing weighted value the longer it continued. If the shoulder had been included as an injury in the treatment records, it would have created an opportunity for additional treatment to be allotted to it. This also would have increased the weight assigned to the extended care provided. The entire treatment period most likely would have been allowed at its full weighted value. Also, there would have been other subsequent areas in the equation, which would have increased the value due to the additional injury.

The Colossus equation is structured to react to each variable entered by the claim representative. Each variable entered by the claim representative sets in motion the opportunity for additional variables which the claim representative can respond to. The series of questions created by the additional variables from just one additional body part diagnosed as being injured adds to the overall value. The equation cannot be manipulated by the claim representative without the support of medical documentation. In the example above, the resulting value increase is significant and most likely is the difference between a low value range and a fair one.

Correct identification of all significant variables and their weighted milestones will directly affect the value of a claim. Medical and economic specials are added to the equation but do not become a weighted variable. These items do not affect the other variables within the equation. However, if the duration of medical treatment is not accepted, it will directly affect many variables in the equation as well as the weighted value of variables.

PROPER AND COMPLETE DIAGNOSIS

The initial records should reflect all complaints of the patient. A thorough examination should indicate all injuries as such. Recognizing an injury to one body part and commenting on the pain radiating into another, does not allow the claim representative to input the injury to the body part where the pain is radiating into. However, if the other body part is in fact injured, it should be documented as such. Taking a look again at the example above, if the neck and back are recognized as two separate injuries, each will receive its own weighted value. If the neck is diagnosed as an injury, but the back is mentioned only as a radiating symptom of the neck pain,

the back will not be entered as a separate injury. Similarly, if the shoulder is only mentioned as having radiating pain without being diagnosed as a separate injury, it also, will not receive a weighted value. This situation also disallows for any input, which would have been assigned to the separate injuries.

Colossus is structured to recognize only the diagnosed injuries found in the records of the patient or claimant. Absent a correct diagnosis for each injured body part the evaluation will be incomplete and of less value. Although, the equation does place some value on radiating symptoms, it is of far less value than what would have been assessed for a separate injury.

Recommendation: Diagnose all injuries as such and separately from each other injuries' symptoms.

ICD-9 TO ICD-10 CONVERSION TABLE FOR INJURIES AND SYMPTOMS

NECK AND BACK—COLOSSUS	
SYMPTOMS/COMPLAINTS HIGHLIGHTED IN YELLOW	
839.0 Closed dislocation cervical vertebra	
839.00 Cervical Subluxation Unspecified	**S13.101** Dislocation of unspecified cervical vertebrae, initial encounter
839.2 Closed dislocation thoracic & lumbar	
839.20 Closed dislocation, lumbar vertebra	**S33.101A** Dislocation of unspecified lumbar vertebra, initial encounter
839.20 Subluxation, L1-2	**S33.110A**Subluxation, L1-2
839.20 Subluxation, L2-3	**S33.120A**Subluxation, L2-3
839.20 Subluxation, L3-4	**S33.130A**Subluxation, L3-4
839.20 Subluxation, L4-5	**S33.140A**Subluxation, L4-5
84821 Closed dislocation, thoracic vertebra	**S23.101A** Dislocation of unspecified thoracic vertebra, initial encounter
	S23.110A Subluxation, T1-2
	S23.120A Subluxation, T2-3
	S23.122A Subluxation, T3-4

	S23.130A Subluxation, T4-5
	S23.132A Subluxation, T5-6
	S23.140A Subluxation, T6-7
	S23.142A Subluxation, T7-8
	S23.150A Subluxation, T8-9
	S23.152A Subluxation, T9-10
	S23.160A Subluxation, T10-11
	S23.162A Subluxation, T11-12
	S23.170A Subluxation, T12-L1
839.4 Closed dislocation, other vertebra	**S23.20XA** Dislocation of unspecified part of thorax, initial encounter
OTHER INJURIES (C/T/L)--COLOSSUS	
524.60 TMJ Disorders (unspec)	**M26.60** Temporomandibular joint disorder, unspecified
722.0 Cervical disc displacement	**M50.20** Other cervical disc displacement, unspecified cervical region
	M50.11 Disc disorder, with radiculopathy, C2-3/C3-4
	M50.12 Disc disorder, with radiculopathy, C4-5/C5-6/C6-7
	M50.13 Disc disorder, with radiculopathy, C7-T1
	M50.21 Disc displacement, C2-3/C3-4
	M50.22 Disc displacement, C4-5/C5-6/C6-7
	M50.23 Disc displacement, C7-T1
722.11 Thoracic disc displacement	**M51.24** Other intervertebral disc displacement, thoracic region
	M51.25 Other intervertebral disc displacement, thoracolumbar region
	M51.15 Disc disorder, with radiculopathy, thoracolumbar
	M51.14 Disc disorder, with radiculopathy
722.10 Lumbar disc displacement	**M51.16** Disc disorder, with radiculopathy, lumbar
	M51.17 Disc disorder, with radiculopathy, lumbosacral
	M51.26 Disc displacement, lumbar
	M51.27 Disc displacement, lumbosacral
726.12 Bicipital Tenosynovits (char. by pain over anterior aspect of shoulder)	**M75.21**Bicipital tendinitis, right shoulder
M75.22 Bicipital tendinitis, left shoulder	
M75.21 Bicipital tendinitis, right shoulder	
M75.22 Bicipital tendinitis, left shoulder	
726.5 Enthesopathy of Hip region (inflam: gluteal, posas, or trochanteric tendinitis)	**M70.61**Trochanteric bursitis, right hip
	M70.62 Trochanteric bursitis, left hip
	M70.71 Bursitis, other, right
	M70.72 Bursitis, other, left
	M76.01 Gluteal tendinitis, right
	M76.02 Gluteal tendinitis, left
	M76.11 Psoas tendinitis, right
	M76.12 Psoas tendinitis, left
	M76.31 Iliotibial band syndrome, right

	M76.32 Iliotibial band syndrome, left
728.4 Laxity of ligament (specify region)	**M24.28**Disorder of ligament, vertebrae
M24.271 Disorder of ligament, right ankle	
M24.272 Disorder of ligament, left ankle	
M24.274 Disorder of ligament, right foot	
M24.275 Disorder of ligament, left foot	
	M24.211 Disorder of ligament, right
shoulder	
	M24.212 Disorder of ligament, left
shoulder	
	M24.221 Disorder of ligament, right
elbow	
	M24.222 Disorder of ligament, left
elbow	
	M24.231 Disorder of ligament, right
wrist	
	M24.232 Disorder of ligament, left
wrist	
	M24.241 Disorder of ligament, right
hand	
	M24.242 Disorder of ligament, left
hand	
840.9 Sprain/strain Shoulder & upper arm	**S43.401A**Unspecified sprain of right
shoulder joint, initial encounter	
	S43.402A Unspecified sprain of left
shoulder joint, initial encounter	
841.9 Sprain/strain of Elbow & forearm	**S53.409A** Unspecified sprain of
unspecified elbow, initial encounter	
	S53.401A Unspecified sprain of right
elbow, initial encounter	
	S53.402A Unspecified sprain of left
elbow, initial encounter	
842.00 Sprain/strain of Wrist (unspec)	**S63.509A**Unspecified sprain of
unspecified wrist, initial encounter	
	S66.919A Strain of unspecified muscle,
fascia and tendon at wrist and hand	
	level, unspecified hand, initial
encounter	
	S63.501A Unspecified sprain of right
wrist, initial encounter	
	S63.502A Unspecified sprain of left
wrist, initial encounter	
842.10 Sprain/strain of Hand (unspec)	**S63.90XA**Sprain of unspecified part of
unspecified wrist and hand, initial	
	encounter
	S66.919A Strain of unspecified muscle,
fascia and tendon at wrist and hand	
	Level unspecified hand, initial
encounter	
843.9 Sprain/strain of Hip & Thigh	**S73.109A**Unspecified sprain of
unspecified hip, initial encounter	
	S76.919A Strain of unspecified muscles,
fascia and tendons at thigh level,	
	unspecified thigh, initial encounter
	S73.101A Unspecified sprain of right
hip, initial encounter	

	S73.102A Unspecified sprain of left hip, initial encounter
844.9 Sprain/strain of Knee & Leg (unspec) unspecified knee, initial encounter	**S83.90XA**Sprain of unspecified site of
	S86.919A Strain of unspecified muscle(s) and tendon(s) at lower leg level,
	unspecified leg, initial encounter
845.00 Sprain/strain of Ankle (unspec) ligament of unspecified ankle, initial encounter	**S93.409A**Sprain of unspecified
	S96.919A Strain of unspecified muscle and tendon at ankle and foot level,
	unspecified foot, initial encounter
	S93.401A Sprain of unspecified ligament of right ankle, initial encounter
	S93.402A Sprain of unspecified ligament of left ankle, initial encounter
845.10 Sprain/strain of Foot (unspec) unspecified foot, initial encounter	**S93.609A**Unspecified sprain of
	S96.919A Strain of unspecified muscle and tendon at ankle and foot level,
unspecified foot, initial encounter	
846.9 Sprain/strain of Sacroiliac region lumbar spine and pelvis, initial encounter	**S33.9XXA**Sprain of unspecified parts of
847.0 Sprain/strain of Cervical cervical spine, initial encounter	**S13.4XXA** Sprain of ligaments of
	S13.8XXA Sprain of joints and ligaments of other parts of neck, initial encounter
847.1 Sprain/strain of Thoracic thoracic spine, initial encounter	**S23.3XXA**Sprain of ligaments of
	S23.8XXA Sprain of other specified parts of thorax, initial encounter
847.2 Sprain/strain of Lumbar spine, initial encounter	**S33.5XXA**Sprain of ligaments of lumbar
847.3 Sprain/strain of Sacrum lumbar spine and pelvis, initial encounter	**S33.8XXA**Sprain of other parts of
847.4 Sprain/strain of Coccyx lumbar spine and pelvis, initial encounter	**S33.8XXA**Sprain of other parts of
848.1 Sprain/strain of Jaw (joint, ligament) encounter	**S03.4XXA**Sprain of jaw, initial
848.5 Sprain/strain of Pelvic (ill-defined)	**S33.8XX** A=initial D=subsequent
851.41 Cerebral contusion w/o open wound hemorrhage of cerebellum without loss of	**S06.370A**Contusion, laceration, and
	consciousness, initial encounter
	S06.380A Contusion, laceration, and hemorrhage of brainstem without loss of
	consciousness, initial encounter
851.42 Cerebral contusion w/ brief coma hemorrhage of cerebellum with loss of	**S06.371A**Contusion, laceration, and
	consciousness of 30 minutes or less, initial encounter
	S06.372A Contusion, laceration, and hemorrhage of cerebellum with loss of
	consciousness of 31 minutes to 59 minutes, initial encounter
	S06.381A Contusion, laceration, and

hemorrhage of brainstem with loss of	
	consciousness of 30 minutes or less, initial encounter
	S06.382A Contusion, laceration, and hemorrhage of brainstem with loss of
	consciousness of 31 minutes to 59 minutes, initial encounter
910.8 Superficial Head injury	**S00.00XA**Unspecified superficial injury of scalp, initial encounter
	S00.30XA Unspecified superficial injury of nose, initial encounter
	S00.409A Unspecified superficial injury of unspecified ear, initial encounter
	S00.501A Unspecified superficial injury of lip, initial encounter
	S00.502A Unspecified superficial injury of oral cavity, initial encounter
	S00.90XA Unspecified superficial injury of unspecified part of head, initial
	encounter
	S10.10XA Unspecified superficial injuries of throat, initial encounter
	S10.80XA Unspecified superficial injury of other specified part of neck, initial
	encounter
920 Contusion of Face, Scalp, and Neck)	**S00.93XA**Contusion of unspecified part of head, initial encounter
	S10.93XA Contusion of unspecified part of neck, initial encounter
922.1 Contusion of Chest wall	**S20.219A**Contusion of unspecified front wall of thorax, initial encounter
922.2 Contusion of Abdominal wall	**S30.1XXA**Contusion of abdominal wall, initial encounter
924.00 Contusion of Thigh	**S70.10XA**Contusion of unspecified thigh, initial encounter
924.01 Contusion of Hip	**S70.00XA**Contusion of unspecified hip, initial encounter
	S70.01XA Right side, initial encounter
	S70.02XA Left side, initial encounter
COMMON HISTORY OF COMPLAINTS & SYMPTOMS--COLOSSUS	
307.81 Tension headache	**G44.209**Tension-type headache, unspecified, not intractable
308.0 Predominant disturbance of emotions (anxiety, panic state)	**F43.0**Acute stress reaction
719.41 Pain in joint, shoulder region	**M25.519**Pain in unspecified shoulder
	M25.511 Pain in right shoulder
	M25.512 Pain in left shoulder
719.46 Pain in joint, lower leg	**M25.569**Pain in unspecified knee
	M25.561 Pain in right knee
	M25.562 Pain in left knee
719.5 Stiffness of joint	**M25.60**Stiffness of unspecified joint, not elsewhere classified
724.6 Disorders of Sacrum (Ankylosis: immobility due to Injury, instability)	**M43.27**Fusion of spine, lumbosacral region
	M43.28 Fusion of spine, sacral and sacrococcygeal region

	M53.2X7 Spinal instabilities, lumbosacral region
	M53.3 Sacrococcygeal disorders, not elsewhere classified
728.85 Spasm of muscle	**M62.40**Contracture of muscle, unspecified site
	M62.838 Other muscle spasm
	M62.451 Contracture, thigh right
	M62.452 Contracture, thigh left
	M62.461 Contracture of muscle, right lower leg
	M62.462 Contracture of muscle, left lower leg
	M62.471 Contracture of muscle, right ankle and foot
	M62.472 Contracture of muscle, left ankle and foot
	M62.411 Contracture of muscle, right shoulder
	M62.421 Contracture of muscle, right upper arm
	M62.422 Contracture of muscle, left upper arm
	M62.412 Contracture of muscle, left shoulder
	M62.431 Contracture of muscle, right forearm
	M62.432 Contracture of muscle, left forearm
	M62.441 Contracture of muscle, right hand
	M62.442 Contracture of muscle, left hand
	M62.83 Muscle spasm
	M62.831 Muscle spasm of calf (Charley-horse)
729.5 Pain in limb (soft tissue disorder)	**M79.609**Pain in unspecified limb
780.4 Dizziness and giddiness	**R42**Dizziness and giddiness
780.50 Sleep disturbance	**G47.9**Sleep disorder, unspecified
780.79 Other malaise and fatigue (lethargy,tiredness)	**G93.3**Postviral fatigue syndrome
	R53.1 Weakness
	R53.81 Other malaise
	R53.83 Other fatigue
782.0 Disturbance of skin sensation	**R20.0**Anesthesia of skin
	R20.1 Hypoesthesia of skin
	R20.2 Paresthesia of skin, pins and needles
	R20.3 Hyperesthesia
	R20.8 Other disturbances of skin sensation
	R20.9 Unspecified disturbances of skin sensation
784.0 Headache (facial pain, pain in head)	**G44.1**Vascular headache, not elsewhere classified
	R51 Headache (chronic daily)

786.50 Chest pain, unspecified	**R07.9**Chest pain, unspecified
CERVICAL DIAGNOSES	
353.2 Cervical root lesions elsewhere classified	**G54.2**Cervical root disorders, not
723.4 Brachial neuritis or radiculitis NOS	**M54.12**Radiculopathy, cervical region
	M54.13 Radiculopathy, cervicothoracic region
721.0 Cervical spondylosis without myelopathy	**M47.812**Spondylosis without myelopathy or radiculopathy, cervical region
722.4 Degen. of cervical intervertebral disc	**M50.30**Other cervical disc degeneration, unspecified cervical region
	M50.31 Disc degeneration, C2-3/C3-4
	M50.32 Disc degeneration, C4-5/C5-6/C6-7
	M50.33 Disc degeneration, C7-T1
723.0 Spinal stenosis of cervical region	**M48.02**Spinal stenosis, cervical region
	M48.01 Stenosis, occipto-atlanto-axial region
	M48.03 Stenosis, cervicothoracic region
723.1 Cervicalgia	**M54.2**Cervicalgia
723.4 Brachia neuritis or radiculitis NOS	**M54.12**Radiculopathy, cervical region
	M54.13 Radiculopathy, cervicothoracic region
	M54.11 Radiculopathy, occipto-atlanto-axial region
723.5 Torticollis, unspecified	**M43.6**Torticollis
723.9 Unspecified musculoskeletal disorders symptoms referable to neck	**M53.82**Other specified dorsopathies, cervical region
739.0 Nonallopathic lesions, head region	**M99.00**Segmental and somatic dysfunction of head region
839.01 Dislocation of first cervical vertebra	**S13.111A**Dislocation of C0/C1 cervical vertebrae, initial encounter
839.02 Dislocation of second cervical vertebra	**S13.121A**Dislocation of C1/C2 cervical vertebrae, initial encounter
839.03 Dislocation of third cervical vertebra	**S13.131A**Dislocation of C2/C3 cervical vertebrae, initial encounter
839.04 Dislocation of fourth cervical vertebra	**S13.141A**Dislocation of C3/C4 cervical vertebrae, initial encounter
839.05 Dislocation of fifth cervical vertebra	**S13.151A**Dislocation of C4/C5 cervical vertebrae, initial encounter
839.06 Dislocation of sixth cervical vertebra	**S13.161A**Dislocation of C5/C6 cervical vertebrae, initial encounter
839.07 Dislocation of seventh cervical vertebra	**S13.171A**Dislocation of C6/C7 cervical vertebrae, initial encounter
	S13.181A Dislocation of C7/T1 cervical vertebrae, initial encounter
839.08 Dislocation of multiple cervical vertebra	**S13.101A**Dislocation of unspecified cervical vertebrae, initial encounter
THORACIC/RIB CAGE DIAGNOSES	
353.3 Thoracic root lesions elsewhere classified	**G54.3**Thoracic root disorders, not

721.2 Thoracic spondylosis without myelopathy	**M47.814**Spondylosis without
myelopathy or radiculopathy, thoracic region	
722.31 Schmorl's nodes, thoracic region	**M51.44**Schmorl's nodes, thoracic
region	
	M51.45 Schmorl's nodes,
thoracolumbar region	
722.51 Degen. of thoracic or thoracolumbar intervertebral disc	**M51.34**Other intervertebral disc
degeneration, thoracic region	
	M51.35 Other intervertebral disc
degeneration, thoracolumbar region	
724.01 Spinal stenosis, thoracic region	**M48.04**Spinal stenosis, thoracic region
724.1 Pain in thoracic spine	**M54.6**Pain in thoracic spine
739.8 Nonallopathic lesions, rib cage	**M99.08**Segmental and somatic
dysfunction of rib cage	
839.61 Dislocation of sternum, closed	**S43.206A**Unspecified dislocation of
unspecified sternoclavicular joint, initial	
	encounter
848.3 Sprains and strains of ribs	**S23.41XA**Sprain of ribs, initial
encounter	
848.40 Sprains and strains of sternum, unspec	**S23.429A**Unspecified sprain of
sternum, initial encounter	
LUMBOSACRAL DIAGNOSES	
353.1 Lumbosacral plexus lesions	**G54.1**Lumbosacral plexus disorders
722.52 Degeneration of lumbar/lumbosacral intervertebral disc	**M51.36**Other intervertebral disc
degeneration, lumbar region	
	M51.37 Other intervertebral disc
degeneration, lumbosacral region	
724.3 Sciatica	**M54.30**Sciatica, unspecified side
	M54.31 Sciatica Right
	M54.32 Sciatica Left
	M54.41 Low back pain with sciatica
(right)	
	M54.42 Low back pain with sciatica
(left)	
724.4 Thoracic/lumbosacral neuritis/radiculitis	**M54.14**Radiculopathy, thoracic region
	M54.15 Radiculopathy, thoracolumbar
region	
	M54.16 Radiculopathy, lumbar region
	M54.17 Radiculopathy, lumbosacral
region	
720.2 Sacroiliitis, not elsewhere classified	**M46.1**Sacroiliitis, not elsewhere
classified	
721.3 Lumbosacral spondylosis w/o myelopathy	**M47.817**Spondylosis without
myelopathy or radiculopathy, lumbosacral region	
722.32 Schmorl's nodes, lumbar region	**M51.46**Schmorl's nodes, lumbar region
	M51.47 Schmorl's nodes, lumbosacral
region	
724.02 Spinal stenosis, lumbar region	**M48.06**Spinal stenosis, lumbar region
724.2 Lumbago	**M54.5**Low back pain
724.5 Backache, unspecified	**M54.89**Other dorsalgia
	M54.9 Dorsalgia, unspecified
724.70 Disorders of coccyx unspecified	**M53.3**Sacrococcygeal disorders, not
elsewhere classified	
724.79 Disorders of coccyx, other	**M53.3**Sacrococcygeal disorders, not
elsewhere classified	

738.4 Acquired spondylolisthesis	**M43.00**Spondylolysis, site unspecified
	M43.10 Spondylolisthesis, site unspecified
	M43.05 Spondylolysis, thoracolumbar
	M43.06 Spondylolysis, lumbar
	M43.07 Spondylolysis, lumbosacral
	M43.15 Spondylolisthesis, thoracolumbar
	M43.16 Spondylolisthesis, lumbar
	M43.17 Spondylolisthesis, lumbosacral
	M43.08 Spondylolysis
	M43.18 Spondylolisthesis
756.11 Spondylolysis, lumbosacral region	**Q76.2**Congenital spondylolisthesi
756.12 Spondylolisthesis	**Q76.2**Congenital spondylolisthesis
839.41 Dislocation of coccyx, closed sacrococcygeal joint, initial encounter	**S33.2XXA**Dislocation of sacroiliac and
839.42 Dislocation of sacrum, closed sacrococcygeal joint, initial encounter	**S33.2XXA**Dislocation of sacroiliac and
846.0 Sprains and strains of lumbosacral lumbar spine and pelvis, initial encounter	**S33.8XXA**Sprain of other parts of
846.1 Sprains and strains of sacroiliac ligament initial encounter	**S33.6XXA**Sprain of sacroiliac joint,
846.8 Sprains/strains of other specified sites of Sacroiliac region lumbar spine and pelvis, initial encounter	**S33.8XXA**Sprain of other parts of
LOWER EXTREMITY DIAGNOSES	
719.45 Pain	**M25.551** Pain Right
	M25.552 Pain left
719.45 Pain in joint, pelvic region and thigh	**M25.559**Pain in unspecified hip
719.47 Pain in joint, ankle and foot joints of unspecified foot	**M25.579**Pain in unspecified ankle and
	M25.571 Pain in right ankle and joints of right foot
	M25.572 Pain in left ankle and joints of right foot
739.6 Nonallopathic lesions, lower extremity dysfunction of lower extremity	**M99.06**Segmental and somatic
843.8 Sprain / strains of other specified sites of Hip and thigh hip, initial encounter	**S73.199A**Other sprain of unspecified
	S76.111A Strain of right quadriceps muscle, fascia and tendon, initial encounter
	S76.112A Strain of left quadriceps muscle, fascia and tendon, initial encounter
	S76.211A Strain of adductor muscle, fascia and tendon of right thigh, initial encounter
	S76.212A Strain of adductor muscle, fascia and tendon of left thigh, initial
	encounter
	S76.311A Strain of muscle, fascia and tendon of the posterior muscle group at
	thigh level, right thigh, initial encounter
	S76.312A Strain of muscle, fascia and tendon of the posterior muscle group at
	thigh level, left thigh, initial encounter

844.8 Sprain/ strains of other specified sites of Knee and leg parts of unspecified knee, initial encounter	**S83.8X9A**Sprain of other specified
	S86.819A Strain of other muscle(s) and
tendon(s) at lower leg level, unspecified	
	leg, initial encounter
845.09 Sprains and strains of ankle, other tendon, initial encounter	**S86.019A**Strain of unspecified Achilles
	S93.499A Sprain of other ligament of
unspecified ankle, initial encounter	
	S96.011A Strain of muscle and tendon
of long flexor muscle of toe at ankle and	
	foot level, right foot, initial encounter
	S96.012A Strain of muscle and tendon
of long flexor muscle of toe at ankle and	
	foot level, left foot, initial encounter
	S96.111A Strain of muscle and tendon
of long extensor muscle of toe at ankle	
	And foot level, right foot, initial
encounter	
	S96.112A Strain of muscle and tendon
of long extensor muscle of toe at ankle	
	And foot level, left foot, initial
encounter	
	S96.211A Strain of intrinsic muscle and
tendon at ankle and foot level, right	
	Foot,initial encounter
	S96.212A Strain of intrinsic muscle and
tendon at ankle and foot level, left foot,	
	initial encounter
839.01 Dislocation of first cervical vertebra, closed vertebrae, initial encounter	**S13.111A**Dislocation of C0/C1 cervical
845.19 Sprains and strains of foot, other foot, initial encounter	**S93.699A**Other sprain of unspecified
	S93.611A Sprain of tarsal ligament of
right foot, initial encounter	
	S93.612A Sprain of tarsal ligament of
left foot, initial encounter	
UPPER EXTREMITY DIAGNOSES	
354.0 Carpal Tunnel Syndrome unspecified upper limb	**G56.0**0Carpal tunnel syndrome,
	G56.01 Carpal tunnel syndrome, right
upper limb	
	G56.02 Carpal tunnel syndrome, left
upper limb	
719.42 Pain in joint, upper arm	**M25.529**Pain in unspecified elbow
	M79.621 Pain in right upper arm
	M79.622 Pain in left upper arm
	M25.521 Pain in right elbow
	M25.522 Pain in left elbow
719.43 Pain in joint, forearm	**M25.539** Pain in unspecified wrist
	M79.631 Pain in right forearm
M79.632 Pain in left forearm	
M25.531 Pain in right wrist	
M25.532 Pain in left wrist	
719.44 Pain in joint hand	**M79.643** Pain in unspecified hand

	M79.646 Pain in unspecified finger(s)
	M79.641 Pain in right hand
	M79.642 Pain in left hand
739.7 Nonallopathic lesions, upper extremity dysfunction of upper extremity	**M99.07** Segmental and somatic
840.0 Sprains and strains of acromioclavicular acromioclavicular joint, initial encounter	**S43.50XA** Sprain of unspecified
acromioclavicular joint, initial encounter	**S43.51XA**Sprain of right
acromioclavicular joint, initial encounter	**S43.52XA** Sprain of left
840.8 Sprain/strain, specified sites of shoulder and upper arm shoulder joint, initial encounter	**S43.499A** Other sprain of unspecified
tendon(s) of the rotator cuff of unspecified	**S46.019A** Strain of muscle(s) and
	shoulder, initial encounter
tendon of long head of biceps, unspecified	**S46.119A** Strain of muscle, fascia and
	arm, initial encounter
fascia and tendons at shoulder and upper arm	**S46.819A** Strain of other muscles,
encounter	level, unspecified arm, initial
fascia and tendon at shoulder and upper	**S46.911A** Strain of unspecified muscle,
	arm level, right arm, initial encounter
fascia and tendon at shoulder and upper	**S46.912A** Strain of unspecified muscle,
	arm level, left arm, initial encounter
sternoclavicular joint, initial encounter	**S43.61XA**Sprain of right
sternoclavicular joint, initial encounter	**S43.62XA** Sprain of left
tendon(s) of the rotator cuff of right shoulder,	**S46.011A** Strain of muscle(s) and
	initial encounter
tendon(s) of the rotator cuff of left shoulder,	**S46.012A** Strain of muscle(s) and
	initial encounter
fascia and tendons at shoulder and upper arm	**S46.811A** Strain of other muscles,
	level, right arm, initial encounter
fascia and tendons at shoulder and upper arm	**S46.812A** Strain of other muscles,
	level, left arm, initial encounter
842.09 Sprains and strains of wrist, other unspecified wrist, initial encounter	**S63.599A** Other specified sprain of
fascia and tendon of right thumb at wrist	**S66.011A**Strain of long flexor muscle,
	and hand level, initial encounter
fascia and tendon of left thumb at wrist	**S66.012A** Strain of long flexor muscle,
	And hand level, initial encounter
fascia and tendon of right thumb at wrist	**S66.411A** Strain of intrinsic muscle,
	And hand level, initial encounter

	S66.412A Strain of intrinsic muscle,
fascia and tendon of left thumb at wrist and	
	hand level, initial encounter
842.19 Sprains and strains of hand, other unspecified wrist and hand, initial encounter	**S63.8X9A** Sprain of other part of
	S66.110A Strain of flexor muscle, fascia
and tendon of right index finger at wrist	
	and hand level, initial encounter
	S66.111A Strain of flexor muscle, fascia
and tendon of left index finger at wrist	
	And hand level, initial encounter
	S66.112A Strain of flexor muscle, fascia
and tendon of right middle finger at	
	Wrist and hand level, initial encounter
	S66.113A Strain of flexor muscle, fascia
and tendon of left middle finger at wrist	
	and hand level, initial encounter
	S66.114A Strain of flexor muscle, fascia
and tendon of right ring finger at wrist	
	And hand level, initial encounter
	S66.115A Strain of flexor muscle, fascia
and tendon of left ring finger at wrist	
	And hand level, initial encounter
	S66.116A Strain of flexor muscle, fascia
and tendon of right little finger at wrist	
	And hand level, initial encounter
	S66.117A Strain of flexor muscle, fascia
and tendon of left little finger at wrist	
	And hand level, initial encounter
	S66.211A Strain of extensor muscle,
fascia and tendon of right thumb at wrist	
	And hand level, initial encounter
	S66.212A Strain of extensor muscle,
fascia and tendon of left thumb at wrist	
	And hand level, initial encounter
	S66.310A Strain of extensor muscle,
fascia and tendon of right index finger at	
	Wrist and hand level, initial encounter
	S66.311A Strain of extensor muscle,
fascia and tendon of left index finger at	
	Wrist and hand level, initial encounter
	S66.312A Strain of extensor muscle,
fascia and tendon of right middle finger at	
	wrist and hand level, initial encounter
	S66.313A Strain of extensor muscle,
fascia and tendon of left middle finger at	
	Wrist and hand level, initial encounter
	S66.314A Strain of extensor muscle,
fascia and tendon of right ring finger at	
	Wrist and hand level, initial encounter
	S66.315A Strain of extensor muscle,
fascia and tendon of left ring finger at wrist	
	and hand level, initial encounter
	S66.316A Strain of extensor muscle,
fascia and tendon of right little finger at	
	Wrist and hand level, initial encounter

	S66.317A Strain of extensor muscle, fascia and tendon of left little finger at
	Wrist and hand level, initial encounter
GENERAL DIAGNOSES	
300.0 Anxiety States	
300.00 Anxiety state, unspecified	**F41.9** Anxiety disorder, unspecified
311 Depressive disorder, not elsewhere classified	**F32.9** Major depressive disorder, single episode, unspecified
339.21 Acute post-traumatic headache	**G44.319** Acute post-traumatic headache, not intractable
	G44.311 Acute post-traumatic headache, intractable
	G44.319 Acute post-traumatic headache, not intractable
368.8 Visual Disturbances	**H53.8** Other visual disturbances
719.0 Joint Swelling (719.00 Effusion of joint, site unspecified)	**M25.40** Effusion, unspecified joint
719.68 Crepitus of C, T, L spine	**R29.898** Other symptoms and signs involving the musculoskeletal system
722.2 Displacement of intervertebral disc, unspecified	**M51.9** Unspecified thoracic, thoracolumbar and lumbosacral intervertebral disc
	disorder
722.6 Degeneration of intervertebral disc, unspecified	**M51.34** Other intervertebral disc degeneration, thoracic region
	M51.35 Other intervertebral disc degeneration, thoracolumbar region
	M51.36 Other intervertebral disc degeneration, lumbar region
	M51.37 Other intervertebral disc degeneration, lumbosacral region
724.00 Spinal stenosis, unspecified region	**M48.00** Spinal stenosis, site unspecified
728.87 Muscle Weakness/General	**M62.81** Muscle weakness (generalized)
729.1 Myalgia and myositis, unspecified	**M60.9** Myositis, unspecified
	M79.1 Myalgia
	M79.7 Fibromyalgia
	M60.871 Other myositis, right ankle and foot
	M60.872 Other myositis, left ankle and foot
	M60.821 Other myositis, right upper arm
	M60.822 Other myositis, left upper arm
	M60.831 Other myositis, right forearm
	M60.832 Other myositis, left forearm
737.30 Scoliosis [and kyphoscoliosis], idiopathic	**M41.20** Other idiopathic scoliosis, site unspecified
787.0 Nausea and vomiting	
ABRASION DIAGNOSES	

910.0 Superficial injury of face, neck & scalp, except eye	**S00.01XA** Abrasion of scalp, initial encounter
	S00.31XA Abrasion of nose, initial encounter
	S00.419A Abrasion of unspecified ear, initial encounter
	S00.511A Abrasion of lip, initial encounter
	S00.512A Abrasion of oral cavity, initial encounter
	S00.91XA Abrasion of unspecified part of head, initial encounter
	S10.11XA Abrasion of throat, initial encounter
	S10.91XA Abrasion of unspecified part of neck, initial encounter
911.0 Superficial injury of trunk (includes abd. Wall, anus, back, breast, butt, chest wall, flank groin, interscapular region, genial region	
	S20.119A Abrasion of breast, unspecified breast, initial encounter
	S20.91XA Abrasion of unspecified parts of thorax, initial encounter
	S30.810A Abrasion of lower back and pelvis, initial encounter
	S30.811A Abrasion of abdominal wall, initial encounter
	S30.815A Abrasion of unspecified external genital organs, male, initial encounter
	S30.816A Abrasion of unspecified external genital organs, female, initial encounter
	S30.817A Abrasion of anus, initial encounter
912.0 Superficial injury of shoulder & upper arm	**S40.219A** Abrasion of unspecified shoulder, initial encounter
	S40.819A Abrasion of unspecified upper arm, initial encounter
913.0 Superficial injury of elbow forearm & wrist	**S50.319A** Abrasion of unspecified elbow, initial encounter
	S50.819A Abrasion of unspecified forearm, initial encounter
	S60.819A Abrasion of unspecified wrist, initial encounter
	S50 Superficial injury of elbow and forearm
914.0 Superficial injury of hand(s) except finger(s) alone	**S60.519A** Abrasion of unspecified hand, initial encounter
916.0 Superficial injury of hip, thigh, leg & ankle	**S70.219A** Abrasion, unspecified hip, initial encounter
	S70.319A Abrasion, unspecified thigh, initial encounter
	S80.819A Abrasion, unspecified lower leg, initial encounter
	S90.519A Abrasion, unspecified ankle, initial encounter

CEREBRAL CONTUSION	
851.40 Cerebral Contusion w/o open wound, unspecified state of consciousness	**S06.370A** Contusion, laceration, and hemorrhage of cerebellum without loss of
	consciousness, initial encounter
	S06.380A Contusion, laceration, and hemorrhage of brainstem without loss of
	consciousness, initial encounter
851.41 Cerebral Contusion w/o open wound no loss of consciousness	**S06.370A** Contusion, laceration, and hemorrhage of cerebellum without loss of
	consciousness, initial encounter
	S06.380A Contusion, laceration, and hemorrhage of brainstem without loss of
	consciousness, initial encounter
854.01 Intracranial injury/traumatic brain injury no loss of consciousness	**S06.1X0A** Traumatic cerebral edema without loss of consciousness, initial
	encounter
	S06.890A Other specified intracranial injury without loss of consciousness, initial
	encounter
	S06.9X0A Unspecified intracranial injury without loss of consciousness, initial
	Encounter
	S06.2X0A Diffuse traumatic brain injury without loss of
	consciousness, initial encounter
854.02 Intracranial injury/traumatic brain injury, with brief loss of consciousness (1 Hr)	**S06.1X1A** Traumatic cerebral edema with loss of consciousness of 30 minutes or
	less, initial encounter
	S06.1X2A Traumatic cerebral edema with loss of consciousness of 31 minutes
	To 59 minutes, initial encounter
	S06.9X1A Unspecified intracranial injury with loss of consciousness of 30
	Minutes or less, initial encounter
	S06.9X2A Unspecified intracranial injury with loss of consciousness of 31
	minutes to 59 minutes, initial encounter
	S06.2X1A Diffuse traumatic brain injury with loss of consciousness of 30
	minutes or less, initial encounter
	S06.2X2A Diffuse traumatic brain injury with loss of consciousness of 31
	Minutes to 59 minutes, initial encounter
854.03 Intracranial injury/traumatic brain injury, with moderate loss of consciousness (1-24hrs)	**S06.1X3A** Traumatic cerebral edema with loss of consciousness of 1 hour to 5
	hours 59 minutes, initial encounter
	S06.1X4A Traumatic cerebral edema with loss of consciousness of 6 hours to 24
	hours, initial encounter
	S06.9X3A Unspecified intracranial injury with loss of consciousness of 1 hour to
	5 hours 59 minutes, initial encounter

injury with loss of consciousness of 6 hours to	**S06.9X4A** Unspecified intracranial
	24 hours, initial encounter
with loss of consciousness of	**S06.2X3A**Diffuse traumatic brain injury
encounter	1 hour to 5 hours 59 minutes, initial
OTHER	
738.2 Loss of Cervical Curve	**M95.3** Acquired deformity of neck
780.7 Malaise & Fatigue	
780.79 Other Malaise & Fatigue	**G93.3** Postviral fatigue syndrome
	R53.1 Weakness
	R53.81 Other malaise
	R53.83 Other fatigue
780.09 Drowsiness, Alteration of consciousness other	**R40.0** Somnolence
	R40.1 Stupor
368.8 Burred Vision	**H53.8** Other visual disturbances
780.4 Dizziness	**R42** Dizziness and giddiness
780.93 Memory Loss	**R41.2** Retrograde amnesia
	R41.3 Other amnesia
850.5 Concussion w/loss of consciousness of unspecified duration consciousness of unspecified duration, initial	**S06.0X9A** Concussion with loss of
	encounter
300.00 Anxiety State Unspecified	**F41.9** Anxiety disorder, unspecified
300.09 Other Anxiety States	**F41.8** Other specified anxiety disorders
298.9 Confusion State substance or known physiological condition	**F29** Unspecified psychosis not due to a
780.52 Insomnia Unspecified	**G47.00** Insomnia, unspecified
296.90 Unspecified Episodic Mood Disorder	**F39** Unspecified mood [affective] disorder
296.99 Other Unspecified Episodic Mood Disorder [affective] disorders	**F34.8** Other persistent mood
850.11 Concussion 1sec to 30 min consciousness of 30 minutes or less, initial	**S06.0X1A** Concussion with loss of
	encounter
850.12 Concussion 31min to 1hr consciousness of 31 minutes to 59 minutes,	**S06.0X2A** Concussion with loss of
	initial encounter

DOCUMENTATION OF ALL SYMPTOMS

After the injuries are inputted by the claim representative, Colossus asks a series of questions associated with each injury. The corresponding input by the claim representative adds individual value amounts to the claim's general damage range. The following are those symptoms, which the claim representative is trained to search for in the records:

- Range of motion
- Stiffness
- Headaches
- Spasms
- Dizziness
- Visual Disturbance
- Sleep Disruption
- Radiating pain
- Anxiety/Depression (also recognized as a possible symptom of neck/back injuries) This recorded symptom would allow for additional questions, which could add to the general damage value of the claim.
- TMJ (also recognized as a possible symptom of neck/back injuries) This recorded symptom would allow for additional questions, which could add to the general damage value of the claim.

Each of the above symptoms must be documented in the treating records. It isn't necessary that they be included in each of the visiting records. However, some of these symptoms allow for additional input based on the length or severity of the symptoms. For example, dizziness, visual disturbance, anxiety or depression and TMJ allow for input associated with duration of symptoms, severity of symptoms and separate treatment modalities prescribed to each. Dizziness can be recognized as a form of Tinnitus. This would require the claim representative to indicate the length of time the symptom was experienced by the claimant/patient as well as additional treatment prescribed. Similarly, visual disturbance would require the claim representative to indicate the severity and length of complaint as well as other prescribed treatment. If anxiety or depression is indicated in the treatment records, it must be associated with a separate treatment regimen. This could be as simple as prescribed medication or exercises. It could also include counseling as a prescribed treatment. The severity of these symptoms and their duration should be documented in the chart notes.

Documentation of duration should be accurate so as to clearly reflect the impact the symptom is having on the claimant/patient. It isn't necessary that each date of treatment acknowledge the symptom. However, it might be accurate to do so. Nevertheless, the entire duration of the symptom should be reflected and clearly indicated in the chart notes. Certainly, one would expect a diminished complaint throughout the treatment regimen. There should be clear documentation of when the symptom has subsided. This would allow for the claim representative to accurately reflect the duration of the symptom resulting in higher general damages. Accurate duration documentation also applies to injured body parts other than the neck and back. A question, which must be answered by the claim representative on injured body parts other than the neck and back, is the stabilization period for the injury as well as the final prognosis. The range of stabilization answers is as follows:

0 - Unknown period
1 - up to 1 month
2 - 1 to 3 months
3 - 3 to 6 months
4 - 6 to 12 months
5 - 12 to 18 months
6 - 18 to 24 months
7 - 24 to 36 months
8 - More than 36 months

Colossus will question a stabilization period it has been calibrated to recognize as longer than expected. For example, a slight contusion to the right shoulder with a stabilization period of 18 to 24 months might trigger a warning that the time frame for stabilization period is longer than what would be expected. However, if the records clearly reflect the ongoing complaint and treatment with progressive improvement, the input will be accepted.

TREATMENT PERIOD

The next input required of the claim representative is the treatment period represented by the treatment dates, treatment numbers, treating physician specialty and prognosis. Each must be accurately reflected in the records. Unlike other body part injuries, the neck and back require specific treatment dates. The duration of treatment is determined by entering the first and last date of treatment as well as the number of visits. Colossus treats chiropractic treatment differently than it does treatment provided by a medical doctor. The weight assigned to the duration and number of chiropractic treatment decreases the longer it occurs. However, if the

treatment period by a chiropractor is sandwiched between medical doctor's visits, the weight is increased. The same affect is realized if the chiropractic treatment is punctuated with a visit to a specialist.

It is vitally important that any delay in seeking treatment or any gap in the treatment regimen is substantially explained in the records. Either of these situations unexplained would result in decreasing the weight of the treatment duration. If the records reflect the patient attempted to wait out the complaints for a short period of time, hoping the pain would subside, this would explain a delay. Likewise, if the patient attempted to mitigate their damages by attempting home exercises in lieu of formal treatment for a period of time, but subsequently found they had to return to treatment, the negative affect the gap would have on value would be eliminated.

Prognosis is another input required by the claim representative to input. The following are the different prognosis indicators allowed by the Colossus equation:

A - Undetermined
B - No treatment recommended/ no complaints
C - Complaints/ no treatment recommended
D - Complaints/ treatment recommended
E - Guarded

The only indicators of prognosis allowed for chiropractic treatment are A, B and C. Each of the indicators has an increasing weight on value. (A being the least and E being the highest) It is allowed to use the D indicator if documented by a medical doctor. This would be another reason to sandwich the chiropractic treatment between medical doctor visits.

COLOSSUS APPLICATION OF IMPAIRMENT AND DISABILITY RATINGS

COLOSSUS = "A knowledge-based system for assessing general damages for bodily injury claims."

COLOSSUS assigns general damage values within four categories – each comprised of many elements. These categories are:

- Trauma (pain and suffering)]
- Permanent Impairment
- Disability (performing "Duties Under Duress")
- Loss of Enjoyment of Life

Permanent Impairment is one of the two most powerful factors driving value of a claim. (The other factor is the actual injury code itself).

Permanent Impairment

Permanent Impairment is defined as:

- A permanent medical condition resulting from trauma or work related disease or illness.

- A deviation from normal function of a body part or an organ system.
- Something the body or body part can no longer perform normally.

How **does Permanent Impairment differ from Disability?**

- Disability is how the impairment affects and changes the person's ability to perform personal, social, or employment demands.
- Impairment is a medical assessment.
- Disability is a non-medical assessment.

COLOSSUS is **not capable** of establishing an impairment rating. Only qualified medical physicians can assess impairment ratings.

COLOSSUS is **not capable** of assessing brain damage, spinal cord injuries, or skin impairments. (Disfigurement is entered in an area on COLOSSUS separate from impairment.) The only head injury impairments, which may be entered to COLOSSUS are related to sight, hearing, equilibrium, air passage, or mastication.

COLOSSUS **applies general damage compensation** for impairment based on the following information that an adjuster enters into COLOSSUS after the medical documentation which supports these findings are identified on the claim:

- The **body part or system impaired**
- The degree **(amount) of impairment** assigned by the medical examiner

As part of their COLOSSUS training, adjusters are advised, "Impairment ratings must be **AMA** (American Medical Association) **derived**, **medically documented**, and the **patient is permanent and stationary**.

PERMANENT IMPAIRMENT CAN ONLY BE ENTERED IN THE COLOSSUS EVALUATION WHEN THE INJURY HAS BECOME **STABLE AND/OR STATIC**.

- Stable: Stopped receiving treatment
- Static: When a period of time has passed since treatment has stopped and the condition of the injury has not improved.

Adjusters are further advised to enter permanent impairment to the evaluation when documentation supports that it is related to the accident, the physician and the claimant are credible, the nature and severity of the impact and other factors provided supports its inclusion.

How the degree of Impairment is determined:

Although medical professionals have indicated degrees of impairment by both subjective and objective terms, many medical groups are trying to establish measurement and classification of permanent impairments on a more objective basis. Of the two most widely used classification methods, it is the ratings of the (AMA) American Medical Association's *Guides to the Evaluation of Permanent Impairment* that seems to be the guideline used in COLOSSUS.

Methods used in the **AMA Impairment Rating System:**

The five impairment-rating methods COLOSSUS accepts:

- **Amputation:** Removal of body limb or appendage resulting in complete loss of amputated body part function.
- **Ankylosis**: Immobility of stiffness of a joint due to injury, disease, or surgery. Under this method, the impairment rating assessed can range from a joint position which causes the least amount of impairment - to a severe change in position, which creates an inability of that joint to function that would be similar to a loss of function occurring from an amputation.
- **Diagnosis-Based Estimates (DBE)**: Diagnosis based estimates mostly are used for lower extremity impairments. (This would include specific fractures and deformities), various surgical procedures and some ligament instabilities.

- **Diagnosis-Related Estimates (DRE)**: This involves assigning the patient to an impairment category based on either the injury suffered or objective findings, which would include:

  - Muscle Spasm
  - Neurological changes (motor loss/anatomic sensory loss)
  - Observed asymmetric loss of motion
  - Observed changes on imaging studies that correlate to clinical findings
  - Observed evidence of loss of structural integrity on lateral flexion/extension x-rays
  - Loss of bladder and bowel functions
  - Long tract signs

- Range of Motion (ROM): Joints have different types/ranges of motion and each needs to perform normally – any restriction/impairment of one movement type will often affect another type of movement.

AMA Range of Motion Impairment Rating Method: Restriction in movement/function of a body part = A percentage of function lost.

0% = Normal use of body part

100% = Total loss of function/movement.

The AMA Guides also provide a system for translating impairment of a portion of a limb into impairment for the entire limb and a resulting impairment of the whole body. For example:

- 40% impairment of a thumb =
- 16% impairment of the hand =
- 14% impairment of the arm =
- 8% whole person impairment

For permanent impairment rating purposes, the musculosketal system is divided into four units:

Spine, Pelvis, Upper Extremity (arm), Lower Extremity (leg). Specific techniques are used to determine the permanent joint impairment rating based on the affected area/body part. Each

range of motion is rated separately, and then indicated in degrees of range of motion. (50% flexion, 30% extension).

How does COLOSSUS consider **Pre-existing Impairments**?

COLOSSUS will evaluate the difference between the pre-existing impairment percent and the current impairment percent. There are two impairment screens in the COLOSSUS evaluation that allows the adjuster to enter the percentage of impairment for both the pre-existing and for the current.

If there is a pre-existing impairment and no current impairment, the same percent is entered in both screens, and COLOSSUS compares them. Since there would be no difference between the two impairment percents, COLOSSUS will determine that no new impairment has occurred.

If there is a pre-existing plus an impairment from the current injury, when COLOSSUS compares the two impairment percents, it will subtract the current impairment percent from the pre-existing one and use the difference between the two percents to assess the impairment.

How does COLOSSUS view **Future Treatment and Impairment**?

COLOSSUS does consider in its assessment future treatment that could cause impairment. For it to be considered, the **need for future treatment must be documented in the medical reports**. Secondly, the future treatment is considered in one of three categories based on the probability of it occurring:

Possible:	0-49%	possibility of occurring
Probable:	50-75%	possibility of occurring
Definite:	76-100%	possibility of occurring

Please note that COLOSSUS will automatically **include only the *probable* and *definite* future treatments** into its calculations.

Loss of Enjoyment of Life is considered a permanent loss. The loss of enjoyment of life valuation screens appears in a COLOSSUS consultation only in cases of impairment and only after a certain threshold is passed. That threshold is determined by the COLOSSUS program. Generally, Loss of Enjoyment value screens can only be accessed in COLOSSUS if a "whole person impairment of 2% or more" is input in the evaluation.

There **must** be a **claim allegation of loss of enjoyment of life** for it to be considered. Specification must be made as to which phase of life is the subject of this type of claim. Choices are work, hobbies, domestic duties (outside the house), and household duties (inside the house). Additionally, there must be explicit statements in the medical records about the loss of enjoyment.
Points to consider under claims for Loss of Enjoyment are:

- Loss of Enjoyment of Work: Reason for the loss must be stated.
- Loss of Status within the organization
- Loss of Job Security
- Loss of promotional prospects
- Difficulty in performing duties

- Reduced quality of work

COLOSSUS is considering lost **enjoyment** of work not economic loss. For example, a K-9 police officer whose injuries and impairment have relegated her to desk duty following the accident could be considered to have lost certain portions of her previous position, which were enjoyable to her. She may claim loss of enjoyment of outdoor lifestyle, working with her K-9, etc.

- **Loss of Enjoyment of Domestic Duties**: This refers to a claim by someone who enjoys maintaining the home, and is unable to do because of her impairment. It does not pertain to the claimant being unable to perform the domestic duty to maintain the home.

- **Loss of Enjoyment of Household Duties**: Similar to domestic duties above but pertaining to duties outside of the home (gardening, mowing, house painting, etc.)

- **Loss of Enjoyment of Hobbies**: If making a claim for loss of income from a hobby (sewing, crafts, etc), be sure to include a claim for the person's loss of enjoyment of that hobby.

- **Loss of Enjoyment of Sport**: Claims for loss of enjoyment in this category are somewhat more complex. Consideration must be taken for the activity level pre-accident compared to post-accident restrictions. Pre-accident, did the claimant participate in sports on a social, competitive, or regionally recognized level? Post-accident, is the level of sport that the claimant is now playing best described as: regionally playing, competitive, social, cannot play original sport, or cannot play any sport?

- If the individual played multiple sports, for COLOSSUS valuation purposes, consider only the sport that has suffered the greatest impact.

HISTORY OF TREATMENT

Treatment by LMT's, MT's or LPT's is inputted differently than either chiropractic or medical doctor visits. The indicators for duration of treatment for these providers are as follows:

- Short less than 90 days
- Short Intensive less than 90 days and more than 2 times/week
- Prolonged longer than 90 days
- Prolonged Intensive longer than 90 days and more than 2 times/week

Each of these indicators has an increasing weight in determining the value of the claim. If there is no final medical doctor visit when the therapy is completed, it is allowed to use the last therapy visit as a medical doctor visit. This increases the value of the claim. However, it would also depend on the final prognosis as well.

The same indicators for duration are used in describing home exercise programs. Therefore, it's very important to document the period of time which the patient/claimant is performing home exercises.

The following are additional indicators of the history of treatment required by Colossus:

- Medication
- Home Traction
- Tens
- Injections
- MRI
- Discogram
- Myelogram
- Immobilization
- Confined to bed or Bed Rest
- Hospitalization

Each of these allow for additional weighted value to be added to the final range of authority for the claim. Each has additional questions, which must be answered by the claim representative.

Medication must be prescribed in the chart notes. Duration is determined to be either short term or long term. Short term is less than 30 days. As expected long term has a greater affect on value than short term.

Home traction must be documented in the chart notes that it is prescribed and the duration required.

Prescription or use of a Tens unit must be documented in the chart notes. It can be at home or provided in office. The duration must be documented in the charts.

Injections must be described as to type and number in the chart notes. The number and type have an affect on value.

MRI, Discogram and Myelogram must also be documented in the chart notes. Each has an incremental affect on the value of the claim.

Immobilization must be documented in the records as well as the type. Whether it is a collar or lumbar support, each has a direct weighted impact on value. Duration is also important to value and must be documented in the charts.

Confined to bed must be documented in the records as well as the duration. This has a substantial affect on the value of the claim.

ADDITIONAL FACTORS

There are three additional factors, which have a significant weighted affect on the general damage portion of a claim. It's surprising how few medical facilities document these two issues.

- Duties Under Duress
- Loss of Enjoyment of Life
- Impairment

Duties under duress is an area, which is designed to acknowledge the day to day living duties, which become painful or difficult as a result of the injuries. These could be the household responsibilities of the housewife, the responsibilities of the husband or other household or work

responsibilities performed by the patient/claimant. If the injuries are such that complaints arise from vacuuming, picking up the children, dusting, making dinner or other domestic responsibilities, these should be documented in the chart notes. It's not necessary that a prescription be made for the patient to refrain from these duties. Documenting the difficulty and reason for the difficulty in performing the duties is all that is needed. The duration is also necessary to add value to the claim. This has to be clearly acknowledged in the charts. It may be necessary for the patient/client to go to work for whatever reason. But, if the responsibilities at work are difficult or painful, this adds value to the claim. Of course the duration of the duress is significant to value as well.

Loss of Enjoyment of Life encompasses the areas of life, which the patient/claimant normally would have enjoyed had they not been injured. This includes athletics, vacationing, entertainment and socializing. It allows that the activity be informal and amateur, competitive, semi-professional and professional. It should be clearly documented in the charts as to the activities and the duration. This could be documented in the original questionnaire completed by the patient/claimant and subsequently documented in the chart notes as to duration. This area has a significant affect on the value of the claim.

Impairment rating is allowed when indicated by a medical doctor. It must be based on test results and based on AMA guidelines. This is a very heavily weighted factor in the value of a claim. However, the question for an impairment rating will not be asked if the prognosis is either an A or a B. (See above for prognosis definition) Impairment ratings must be in whole person. The age of the person is also significant to the severity of the impairment and the weight allowed towards general damage value.

CONCLUSION

The impact records have on the final authority of a claim is of more importance than any demand package put together by an attorney. Claim representatives do not read most packages. There is so little information, which is provided in them, which can be inputted into the Colossus equation. As indicated above, the specific value drivers, their duration, their severity and the correct identification of their application is what has weighted value in a Colossus evaluation. Colossus rates claims on a severity scale by assigning severity points to various factors about the case. The insurance industry claims, in this way it evaluates each case individually. Each individual insurer defines how these severity points should be converted into dollars for various geographic locations or economic regions. This conversion is based on the best claim experts in the company determining the market values for various types of claims in each region. Primarily, the industry has relied on the history of judgments to determine these numbers.

All injuries have an injury profile, which defines Colossus expectations and assumptions about that injury and assigns a base severity rating. Absent accurate information in the chart notes, the severity rating for an individual claim would not reflect a reasonable value. This base profile rating provides Colossus with a starting point for valuing the injury. During the consultation, Colossus questions the claim representative about different aspects of the case and, depending on the answers derived from the chart notes and records as well as their impact on severity, adjusts the base profile rating up and/or down.

PREPARING THE DEMAND AND NEGOTIATION

- The demand is not a snapshot taken at the end of your client's treatment period.
- Demand preparation begins when your client walks into your office.
- Make sure you acquire all the relevant information concerning the injuries. Each injury should be reflected in the medical records by an individual ICD9 code.
- Document all the symptoms based on your knowledge of "value drivers" and their associated impacts on your client's pain, treatment, complications, impact on life, duties under duress, loss of enjoyment and future costs and treatment.
- The keys to a successful negotiation process are:

    - Information
    - Preparation
    - Communication
    - Anticipation
    - Persistence

- Information
    - The more informed you are about your client's condition and the valuation methods used by the Insurance Industry, the more effective your negotiations will be.
    - The earlier you acquire information, the better you will be suited to dealing with creation and presentation of the demand.

- Preparation
    - Begin preparing your demand immediately and continue the process throughout your client's claim.
    - Be prepared to present your demand in the format the adjuster will need.
    - Know your client's claim better than the adjuster will know it.

- Communication
    - Communicate with your client how different value drivers are considered by the Insurance Industry.
    - Make sure your client is fully communicating with their treating physician.

- Be sure to communicate with the adjuster when the claim is becoming more severe.
- Present your demand to the adjuster in the format they need to input the claim so as to maximize value.
- Use the terms and significant value drivers which are common language to the adjuster.
- Solicit the highest offer from the adjuster after submitting your demand.

- Anticipation
  - Remember the first offer will most likely be 80% of the full authority extended on your client's claim.
  - Follow this offer up with a letter requesting the adjuster document in writing which value drivers were accepted or used in arriving at the value.
  - Don't argue the points at this juncture.
  - After you have received the written confirmation of which value drivers were used, make a counter demand to the first offer.
  - The adjuster will now extend a counter offer which will be the full extent of the authority based on value drivers used.
  - You can do the math to determine this.

- Persistence
  - Now that you have 100% of the full authority as an offer, you can begin a written discussion as to why not all the value drivers were used in arriving at full value of your client's claim.
  - If the value drivers were not accepted because additional information is needed, you can provide that to the adjuster
  - You have a right to know why valid value drivers were not used.
  - If there isn't a valid reason, ask to speak to a manager.
  - Once you have satisfied the requirements necessary for the "not used" value drivers to be used, request that a new and fair offer be extended.
  - Now that you've received a fairer offer, you can decide whether to take the next step or accept it.
  - It is possible that if a lawsuit is to be filed, there exists a window to increase the offer another $2500 to $3000.
  - When a lawsuit is filed on a claim with a value of less than $25,000.00, the claim file is "Dolfed". This term applies to a suit which the defense counsel has contracted a flat rate to defend. Once, the suit is sent to the defense, they receive the contract price whenever it settles.
  - This means that if the claim settles the day after it's referred to the "contracted" defense counsel, the insurer will pay the defense counsel the full contract rate. Since these rates run from $2500 to $3000, there is a window for you to negotiate for a portion of that amount.
  - This strategy will work best when dealing with a manager. However, in some instances you might find success increasing the offer by the "contracted" rate when dealing with the adjuster. After all, he will have to spend the money if you serve his insured.

- The Insurance Industry trains its employees that:
  - They control the money
  - Money represents power
  - Power is in the ability to control

    - If you lose control, stall and delay
    - Negotiate so as to reduce the expectations of the attorney

- Know when to negotiate
- Most of the larger insurers, at the corporate level, are not as concerned about the amount of a single settlement as they are concerned of creating bad law and adverse media exposure.
- Know when to negotiate
- Know who you're negotiating with
- Be realistic about the acceptable range of settlement
- Be persistent in discovery, but don't get lost
- Nothing should be given up without getting something in return
- Staying firm at an unrealistic settlement demand could cost your client a very reasonable settlement
-

  Understand the how the Insurance Industry and your role has changed

  Adapt to the change
-

  However, recognize when your client's rights and contractual privileges are being trampled on.

PRESENTATION

The claim should be presented in such a fashion as to allow the adjuster evaluating it to understand clearly what injuries were involved. This should be concise and based on exactly what is diagnosed in the records. All the economic specials should be listed clearly with an accurate total.

DOCUMENTATION

All supporting billings should be attached in the same order as the listing and in a separate section. The listing of medical specials should match the actual billings. Matching records for each date should support the billing dates. If there is a loss of income, all documentation should be included. Normally, this would include the amount of the income loss, a statement from the treating physician for the dates of wage loss and a statement from the employer confirming the loss for each date. If there are prescriptions, travel costs or other economic losses, these should be supported by physician records, receipts and other reliable documentation.

UNDERSTANDING THE PROCESS

Not all insurance companies use the same process. Some use evaluation forms necessary for file documentation and internal reviews. These forms are structured to allow the adjuster to enter the economic damages, diagnosed injuries, treating physicians, treatment modalities, negligence, decision and arguments or brief discussion of claim. These types of evaluation formats sometimes have pre-determined ranges of values based on severity of impact or other factors. Some allow for the adjuster to establish the range of value within which he/she will negotiate the claim. Other companies use electronic formats for evaluation of claims. These formats are calibrated on a periodic basis so as to reflect the changing claim environment. Those companies, which have been involved in the use of this type of format for sometime, have developed a form for soft tissue injury claims and one for objective injury claims. The adjuster completes an

analysis of the claim using a form, which will allow the adjuster to input the necessary information. The electronic evaluation process asks specific questions based on the responses and ultimately provides a range of general damage values. Traditionally, the adjuster then has only the authority, which is determined by this process. There may be another step added to this process by some companies to insure correct information was inputted.

COORDINATING DEMAND TO PROCESS

Understanding which process is being used to determine the value of your client's claim is essential. Absent this understanding, your demand may not address the specific areas, which would be value drivers. However, knowing which process is being used provides for clearer insight as to how to construct the demand so as to maximize the range of value for settlement. This allows the adjuster to increase the authority, which he/she has to negotiate settlement of the claim. Demands should be formatted to fit the different processes currently being used in the insurance industry today. The current electronic process for evaluation of claims has specific value drivers imbedded within the equation for general damages. Clearly pointing out these value drivers and the supporting medical chart entries provides for a maximum claim value range. The economic losses do not affect the range of general damages. They are simply an addition to the general damage range.

INITIAL OFFER

RESPONSE TO INITIAL OFFER

After the claim has been evaluated most companies are encouraging at least one initial offer. This is usually 85% of the top value of the range of authority for the claim. So, if the initial offer is $8,500.00 inclusive that would indicate to you the top value in the range of authority for the claim is $10,000.00 inclusive. I suggest that you confirm whether there is room to move or if that is all the authority the adjuster has to settle the claim. This is a difficult question for the adjuster to respond to. He/she will respond there is room to move or there is additional authority if in fact that is the case. Rarely, will they respond that is the top and final offer. They do not want to be accused of not fairly and reasonably negotiating the claim. Therefore, you now know there are additional monies to be negotiated for and you have a good idea of what the top end of the range is. The next series of questions to be asked are what specials were accepted, what injuries were evaluated, what symptoms or history of complaints were used as well as any other value drivers in determining the value. I don't suggest presenting any arguments at this time. Give yourself the opportunity to take this information and develop item-by-item arguments and foundation.

CLEAR COMMUNICATION

This is very necessary in the final outcome of getting all the authority allowed by the process being used. Document the responses to each of the items (amount of medical specials, income loss, injuries diagnosed, history of complaints, etc.). Confirm these responses in writing to the adjuster as well as the offer presented. Be specific as to the amount of specials allowed, the value drivers allowed and amount of general damages as relayed to you by the adjuster. This will cement the specifics, which can then be used during the next discussion with the adjuster.

WHAT WASN'T CONSIDERED

If you are fortunate enough to know which process is being used and have a good understanding of the process, documenting which value drivers were not allowed is essential. Again, I wouldn't bring up verbal arguments at this time to each of the value drivers not allowed. However, in the confirming letter you send to the adjuster as pointed out above, state the value drivers not allowed which were indicated to you by the adjuster. Be specific and list incrementally each of the items allowed and disallowed. This letter will then be a basis for you to assure all value is being accredited to your client's claim.

ADDITIONAL CONSIDERATIONS

Now, that you have a listing of the economic specials, diagnosed injuries, duration of treatment, treating physicians, treatment gaps or treatment delays (these are negative value drivers) and any other considerations for value, you can list those medical specials, diagnosed injuries or other value drivers not accepted and specifically state where in the records they would be supported. Having this information and the initial offer from the adjuster places you in the position of knowing how to increase the top end of the adjuster's authority range. Keep in mind; the adjuster wants to settle this claim as much if not more than you do. Just as you might find yourself caught between negotiating with the adjuster for more money on one side and explaining to your client why they might need to adjust their demand downward on the other side, the adjuster is in a similar position with his/her management. The difference being, the adjuster may have as many as 300 claim files and is being paid on salary. Understanding the time constraints of the adjuster in the handling of each claim might provide you with the ability to assist them in getting your client more money.

FORMATTING ADDITIONAL INFORMATION TO EVALUATION PROCESS

The next step I would suggest is to list each of the items not included in the evaluation or not allowed. This should be done concisely and organized so as to be very clear to the adjuster. For example, list an injury not allowed such as shoulder contusion. Then, indicate exactly where in the medical chart notes the diagnosis for this injury was documented by the treating physician. Suppose in the first conversation with the adjuster, he/she advised that only the contusions to the neck and back were allowed as diagnosed injuries. In reviewing the records now, you find in the emergency records the record of left shoulder contusion. You could make the following entry on your itemized list: (Contusion Left Shoulder- Dr. Mathis 09-20-2001 chart note - Patient complains of sore neck, lower back and left shoulder. The left shoulder shows bruising and has limited range of movement.) By completing this listing of value drivers, you will be in a position to increase the value range. This will be very easy for the adjuster to resubmit a revision of the evaluation and secure additional authority at a later date.

FINAL OFFER

CONFIRMING ALL FACTORS WERE CONSIDERED

Calling the adjuster back with a counter offer and once again confirming the items on your list will in most cases elicit a top offer from the adjuster and cement those factors he/she considered in arriving at that figure. Confirm this is the top offer and that it was based on the factors as previously discussed. This will set up the next call, which will be based on the list you have completed after the first call. The adjuster is now locked into a value based on the value drivers you have confirmed in writing. There will be no misunderstanding at a later date. This is important in the process. I would not recommend verbally addressing those items, which you can now identify which could be used in determining value but were not. The adjuster cannot

move above the top value of a claim in most instances. In order for the adjuster to increase the range of value, he/she must complete a resubmission for additional authority. I would recommend after receiving the top offer from the adjuster, a letter be sent with a final counter offer and specifically stating each item not allowed and where it is supported in the medical records. This will allow the adjuster to easily complete the resubmission and support additional authority. I would recommend once again this be done concisely and organized as the previous example indicated.

UNDERSTANDING WHICH FACTORS ARE NOT VALUE DRIVERS

A very important factor in this process is understanding the items which are value drivers and which aren't. It wouldn't do any good to list and document items, which wouldn't have any affect on the value range. For example, severity of impact is not necessarily a value driver (unless the claim is being handled as a minor impact). In most electronic processes there is no opportunity to input severity of damage. However, this doesn't mean that indicating the accident was a "T-bone" type accident wouldn't support a left shoulder injury, which may not have been allowed in the original evaluation. Note that the left shoulder injury in most cases would still need to be acknowledged somewhere in the medical chart notes. If you're not sure, don't be afraid to ask the adjuster. He/she may tell you. After all, it will assist them in getting one more claim settled and off their inventory. There are also several other resources available now for the different processes being used by the insurance industry. Take advantage of these.

WOULD ADDITIONAL DOCUMENTATION INCREASE VALUE

Don't be afraid to ask the adjuster if some form of additional documentation would assist in allowing for a value driver. It could be there is a valid impairment rating. But, the treating physician never addressed this other than to state there were ongoing limitations, which may not resolve. Requesting the treating physician to state the impairment rating based on AMA guidelines for the whole body has a significant impact on value. This is only one example of additional information, which could be very relevant to increasing the value range.

MEDIATION

In most instances, once the top offer has been made and there are no other indicators, which the adjuster can input to increase the value of the claim, mediation will not have any affect on the value. Absent the required value drivers, the value will remain the same. In those instances where the claim is being evaluated with other than an electronic process, the mediation avenue could be very affective. With these claims, the severity of impact, age of your client or other issues could very well result in a higher offer. Presented through the mediator, the adjuster is provided with the documentation, which he/she may otherwise have been unaware of. This might result in an agreeable settlement. Remember, in most instances, the final offer from you in the mediation should include that your share of the mediation be paid by the insurance carrier. This cost is paid separately and does not require additional authority to be requested by the adjuster.

FILING SUIT MAY NOT INCREASE VALUE

In discussing most soft tissue injuries, filing a lawsuit will not automatically increase the value of the claim. Most adjusters have been taken out of the loop where allocated costs are concerned.

They are told the cost of litigation is not a consideration for increased offers. Most insurance companies have moved to a flat rate defense. In most instances where the injuries are soft tissue in nature and the claim has a limited value, the adjuster is no longer involved. It becomes even more difficult at that point to return to the issue of value drivers, which might affect the top value. However, it's not impossibility. Reviewing the same issues with the defense counsel, which have been outlined above, could result in the same positive result even before the first deposition is taken. This is assuming they haven't already been addressed with the adjuster prior to suit being filed.

OTHER OUTSIDE FACTORS

END OF MONTH/QUARTER/YEAR-END

At the end of certain periods there is always a push to reduce inventories. It is possible to take advantage of these periods. Assuming your demand has already been presented, it would be very strategic to keep in mind the cycle, which may be ending in the near future. Timing your final counter offer with specific value drivers addressed two or three weeks prior to the end of one of these cycles could result if a quicker and higher offer. Of course, this would depend on the complexity of the claim and the clarity and accuracy of your final counter. Nevertheless, being aware of these timing issues could be very affective.

MERIT, PERFORMANCE REVIEWS AND PROMOTIONAL OPPORTUNITIES AFFECT VALUE

Merit increases are determined based on performance, which is monitored throughout the year. The possibility for achieving "Meets", "Exceeds" or "Exceptional" merit ratings are standard throughout the industry. Each company differs only slightly when making determinations on merit increases for their claims personnel.

Although severity is only one category in the equation to determine which rating the claims person will be awarded, it is significant in that it is one indicator which is tracked monthly in almost all institutions. This reflects in an ongoing attitude between management and the claims personnel. Imagine yourself as a manager with goals determined by your superiors and with little control for you to have a direct impact on achieving those. You would find yourself monitoring the monthly results of each of your claims personnel for their successes or failures to assist in the satisfaction of those goals. You would out of necessity utilize any and all available tools to stimulate or motivate your personnel.

You might practice positive reinforcement, negative reinforcement, ongoing emphasis on training, demands for established practices and procedures to be adhered to, contests or whatever other tools provided to you through your training when becoming a manager. You would definitely see the monthly reports and quarterly reviews as an effective vehicle to assist you in the management of your personnel. These would definitely provide you with a gauge of comparison among the different personnel you manage. They would also provide a most reliable stimulator throughout the year. You would have the capability of assessing the actual accomplishments of each claims person on a monthly basis. Thereby, realizing quickly which of the claims person you manage is failing to contribute to the satisfaction of the goals, which you are held accountable for.

Therefore, you establish with your claims people the urgency to evaluate and settle claims within a range of values not to exceed the goal on average. This reflects on each individual claim so as

to encourage the largest number of evaluations and settlements to be less than the average claim paid or severity average. It doesn't take a large number of severe injuries exhausting the liability policy limits to budge the average paid claim or average severity above the goal.

The same philosophy and company practices apply when pendings or claim inventories are reviewed on a monthly basis. The company wants to reduce the number of claims open. This in return reduces the amount of dollars, which are held in reserve for those claims. When fewer dollars are tied up in reserves, more investment earnings are realized. This can also be realized through the reserving process for each claim as well. Claims handlers are encouraged to properly evaluate claims early on. This results in proper reserves and avoids excess reserve dollars being tied up.

Although, the insurance industry argues that each claim is independently reviewed and valued, it continues to monitor average severity. This is a contradiction in the simplest of terms. If each claim were evaluated and settled in a vacuum of all other claims, then the average claim value and the attention paid to that figure would be insignificant. Any reference to an average severity or claim value would never reach the front line managers or claims personnel. What would be the relevance of identifying this figure to the front line people? What would be the anticipated reaction of the front line personnel?

There is a reason for tracking of this number at an executive level. It's understood that forecasts for funds needed to pay future claims would have impact on premiums charged the general public. Each insurance company in the market today has realized the importance of being competitively priced. This pricing would naturally reflect the cost of claims. Throughout the industry it has become even more competitive where pricing their product is concerned. Each company attempts to under price their competitor. This is a very strong stimulant for the executive office to then relay their expectations of the claims departments to reduce their averages.

This state of urgency can be even more obvious towards the end of each quarter and the end of the year. If, the individual claims person, unit, section or region has had a good average up to the end of a particular cycle; it will then do whatever it can to carry over larger claims into the next cycle period. If, the individual claims person, unit, section or region has had a poor average (represented by higher than goal average); it might attempt to resolve any and all larger claims within the present cycle. This would allow for a clean slate for the next cycle and explanation would be more acceptable for the failure to achieve company goal. It would also provide a possible for comparison as to how improved the following cycles are.

I realize this is probably more "behind the scene" information than you might feel is relevant to the evaluation to one claim. However, it is in this environment of ongoing pressure, which the claims person is evaluating each claim individually. The implication being, no claim is evaluated or settled in a vacuum. The temptation to take advantage of the possibility of including a settlement of a smaller claim in any cycle can be overwhelming for the front line manager and claims person. This can be attested to by those instances when a claim is severely under evaluated. This, of course, results in those offers, which appear ridiculously low.

In general, though, the result of these tools used to monitor the performance of claims personnel is seen in evaluations and settlements in the lower end of acceptable claim values.

HOW LONG SINCE CLAIM WAS INITIALLY EVALUATED

It was stated earlier that electronic processes for evaluation are calibrated on a periodic basis. If it has been a while since any evaluation was completed on the claim, a re-evaluation could result in a significant higher amount. This often occurs when your client has been negotiating directly with the insurance company without success. Although, there may not be any new information, which would impact the claim, the periodic calibration of the process could. Don't be afraid to ask when the claim was last evaluated. If there has been a significant time lapse, ask for a re-evaluation. This is a very simple process.

SMALL LIMITS

In those instances where the policy limits are low, it might have an impact on increasing the value of the claim. The insurance industry is becoming more aware of the exposure to excess awards as a result of the costs and fees of plaintiff counsel after an arbitration award is de novo is taken. They are more amenable to open up negotiations in these instances and place additional monies on the claim. This avoids the risk of not bettering the arbitration award and then realizing an excess possibility due to fees and costs. This potential risk could be a value driver even before arbitration or suit is filed if presented appropriately to the adjuster. Of course there would also have to be a claim value in a range that could realistically have this situation occur.

CONCLUSION

This is a personal opinion. As I am no longer an employee of an insurance company, I certainly cannot speak on their behalf. It is my belief the majority of claims presented to insurance companies could result in higher values. It is also my experience almost all adjusters try their very best in dealing with large inventories and cumbersome processes. One of my superiors once advised me when I was first promoted into management with State Farm, "Don't ever be so procedurally correct as to be practically stupid." I have seen the insurance industry in their attempt to reduce overhead costs, severity costs and litigation costs move into an environment of increased procedural requirements for their employees. This appears to have resulted in an increase in the number of claims each adjuster is responsible for. It has also created a great deal more procedures, which must be adhered to by the adjuster. Some of these procedures seem to have removed the adjuster as an experienced professional from the handling of the claim.

These frontline technicians honestly want to perform at the highest level possible. Given an opportunity and an environment of cooperation with the legal community, each of them would be able to do just that. Adjusters are required to work within the system of the company with which they are employed. It is not a choice for any of them to step outside the processes or procedures as required by their employer. I might suggest working with the adjusters, assisting them in their responsibilities of these processes and understanding the specific requirements of the evaluation system would be without question a positive outcome for all.

PROGRAM FOR EVALUATION

Demand Online® The First Computerized Claims Processing System For Attorneys. The Insurance Industry Has Been Using It For Decades, Now You Can Too. Create Demand Letters, Negotiation Letters And Most Importantly Find Out The Settlement Value Range Before Talking To The Insurance Carrier.

SOME OF THE FUNCTIONS INCLUDED IN THE "DEMAND ONLINE®":

- **Automatically Creates Your Clients' Demands Compatible With Insurance Industry Software**
- **Web-Based System (Access System Anywhere)**
- **Automatically Determines Settlement Value Range**
- **Automatically Creates Claim Label & Summary For Printout**
- **Automatically Creates Negotiation Letters**
- **Automatically Creates Timeline Of Significant Claim Drivers**
- **Automatically Creates Listing Of Possible Overlooked Or Missing Drivers**
- **Automatically Remembers Names, Addresses, Dates From Demand To Demand**
- **Automatically Networked With Our Medical Customers**
- **Compatible With Our Medical Software**
- **Capable Importing The Medical Data Of Your Client From Our Medical Customers' Software**
- **Client Listing With Search & Sort Functions By Client, Insurance, Statute, Date, Etc.**
- **Pre-Formatted Paragraphs, Discussions And Statements**
- **Code Express Icd-9/10 & Cpt Search Built-In Function For Accurate Coding**
- **Built-In Injury Listing For Quick Workup Of Injuries**
- **Built-In Duties Under Duress And Loss Of Enjoyment Checklists**
- **Built-In Medical Expense Summation**
- **Built-In Mileage Calculator**
- **Built-In Liability Checklist**
- **Free Client Worksheets To Match Insurance Industry Software**
- **Automatically Tracks Last Time Claim Was Worked And By Who**
- **Free Upgrades**
- **Free Training**
- **Free Tech Support**
- **Free Networking Support**
- **Free Review And Re-Write Of Demands**
- **Pre-Formatted Response Letters To Low Offers, Reductions, Denials, Ime's And Reviews**
- **Free Individual Client Claim Consultation**
- **Built In Analysis Of Missing Information And Listing Of Overlooked Drivers**
- **Built-In Dictionary**
- **Built-In Library And Storage For Legal/Medical Discussions**

The attorneys open the program in preparing a demand letter for damages to the insurance company. Once the program is opened, it leads the attorney through the medical records. As the attorney is responding to each question, his cursor is in the corresponding window. There is an informational window on the top of each screen, which describes what information is being requested. There are help buttons in each section and on each screen, which describe the value drivers and how to increase each of their values.

When the last piece of information is entered, the attorney can press the "Create Demand" button. This transforms the data entered into text format so that the demand can then be placed on any text editor (i.e. Word, Word Perfect, Correl, etc.) The demand is then ready to be printed and mailed to the insurance company for evaluation and settlement. The demand is saved in the attorney's client folder as a text file and as a data file. This allows the attorney to continue to edit or supplement the demand at any time. However, it is not recommended that the demand creation utilizing "Demand Expert" program begin until all medical and economic documentation has been gathered.

"Demand Expert" and "Medical Report Expert" are excellent educational tools for the legal and medical community as well as their clients and patients. For the first time, there exists a window of opportunity. The legal community has a unique opportunity to actively participate in the evaluation process of their client's claims regardless of which system is being used. It's as if the lawyer is sitting next to the adjuster prompting him to enter the correct information as well as the complete information.

The program does this by asking specific questions beginning with:

1. The general information:
    a. Where the demand is to be sent,
    b. Letterhead information, who is sending the demand
    c. Claim specific identification
        i. General description of the claim/accident
        ii. Discussion on Liability
    d. Facts of accident
    e. Including aggravated liability issues
    f. Multiple defendants
    g. Contributory negligence
    h. Comparative negligence
        i. More specific information on client and claim
    i. Age
    j. Weight
    k. Height
    l. Medical specials
    m. Economic specials
    n. Vehicle damage
2. Identification of Injuries with ICD9 coding
3. Prior or Subsequent injuries or events
    a. Include paragraph for discussion to include
        i. Delay in seeking treatment
        ii. Gaps in treatment

iii. Prior treatment stopped before this accident
iv. Treatment overlaps and pro-ration

v. Then Treatment details for Contusion treatment details (Neck and Back only – this is cervical, thoracic and lumbar regions) they are entered separately into the Insurance Industries computer program, Colossus separately from all other injuries' details. The necessary information needed in this sections is as follows:

b. Identify Neck (cervical) and/or Back (thoracic and lumbar)
c. Physician name
d. Type of physician
e. Last date of treatment
f. Number of treatment dates
g. Final prognosis
h. Discussion option available to support prognosis

4. (Note therapies are not entered yet – physical therapy, massage therapy, acupuncture, water therapy, self-exercise and medication details are all entered in a different section for Neck and Back soft tissue injuries. Therapy treatment for all other injuries is entered in the specific section of each of those injuries.

5. The next section is all the symptoms associated with the Neck and Back only. These are called value drivers. The specific symptoms allowed by Colossus are listed and there are additional increasing indicators allowed in drop down windows for some.

6. There is a section allowed for discussion of certain of the value drivers such as TMJ, Anxiety/Depression and any complications not normally associated with Neck and Back contusions.

7. (Injuries to the Neck and Back such as bulges, prolapses, herniations and fractures are treated in separate sections each as if they are other injuries. A claimant can have soft tissue injuries as well as each of these. They are not considered in this section of demand letter because Colossus deals with them separately.

8. The next section is for all other injuries. Identification of each injury with the name of the physician, type of physician, chart date where indicated, last date of treatment, number of treatments and final prognosis. This would include the following types of injuries available in this basic program:

a. Sprain/Strain cervical, thoracic and/or lumbar
b. Subluxation
c. Prolapse cervical, thoracic and/or lumbar
d. Bulge cervical, thoracic and/or lumbar
e. Herniation cervical, thoracic and/or lumbar
f. Dislocation cervical, thoracic and/or lumbar
g. Fracture cervical, thoracic and/or lumbar
h. Superficial Injuries all other body parts
i. Contusions all other body parts
j. Sprain/Strain all other body parts
k. Fracture all other body parts

l. Dislocation all other body parts
m. Ligament injuries – usually associated with joints
n. Laceration all other body parts
o. Penetrating wounds all other body parts
p. Crush wounds all other body parts
q. Amputation all other body parts
r. Concussion
s. Lastly, dental injuries

    i. Each of these injuries would have there own specific treatment details different from each other and different from the Neck and Back contusion treatment details. (See listing for each)

    ii. Each of these injuries would have specific complaints or symptoms, which would be different from Neck and Back contusion. (See listing for each)

    iii. Each of these could have complications associated individually and a paragraph option needs to be available.

    iv. The next section should deal with the therapies. Since these are entered differently into Colossus.

t. Name of physician or clinic
u. Duration
v. Frequency of treatments

9. This next section should include all the details of the dental injuries. Colossus does not allow dental injuries to be entered. Therefore, a separate section should include all the treating details including physician name, number of treatments, last chart date, prognosis.

10. There should be a window for discussion offered here to allow the attorney to discuss the value of the dental trauma. This will allow the insurance adjuster to enter a dollar figure for compensation.

    i. The next section should deal with testing as this is entered separately into Colossus

b. There are specific tests allowed

    i. X-rays
    ii. MRI
    iii. Cat scan
    iv. Myelogram
    v. Discogram

    vi. The next section would deal with disabilities. The disabilities and associated affects need to be documented by chart note dates and physician names.

c. Loss of enjoyment
d. Duties under duress

11. The next section should deal with impairments.

    a. Physician name
    b. Chart note date where this occurs
    c. AMA % (whole body)

12. This section is for any disfigurement, which resulted from the injuries. The section should include:

    a. Physician's name
    b. Type of physician
    c. Chart date or medical report date supporting
    d. Date of photograph
    e. Amount of compensation demanded
    f. Future treatment necessary – Yes or No

        i. See Future losses

13. A paragraph window should be offered if any of the previous sections were part of the injuries' records. This allows for additional supporting arguments for the insurance company to include these into their evaluation of the claim.

14. A section for Income loss should include the following:

    a. Name of physician
    b. Type of physician
    c. Last date of treatment
    d. Duration of disability from employment
    e. Name of employer
    f. Discussion window for explanation or variation

15. Future losses (Income and Medical costs) are the second to last section. This should include the following:

    a. Name of physician
    b. Type of physician
    c. Last treatment date recorded in charts
    d. Prognosis
    e. Future treatment needed
    f. Dollar amount of future treatment
    g. Dollar amount of future wage loss

16. There should be a listing of all medical billings and their amounts

17. There needs to be a final discussion window to allow the attorney to bring the claim demand together. Here he'll list the total of medical expenses, total income loss, overall summary of the claim, brief reference to liability, disabilities, impairment, prognosis,

complications, scarring, future medical treatment, and future income loss. He should close with his demand for settlement in this final paragraph.

NON-COLOSSUS CLAIM

The non-Colossus claim would include the following types of injuries as experienced by your client:

1. Severe brain damage.
2. Death.
3. Severe spinal cord trauma.
4. Dental trauma (Other than TMJ or TMD).
5. Dog bites.
6. Disfigurement (Although, if there are associated claims allowable for Colossus, the disfigurement amount can be added once it has been determined). This has become significant in recent years. Connective tissue claims which have pinched or compromised nerves due to ligament, tendon damage result of atrophy of muscles associated with the pinched nerves. The atrophy can be documented by monthly measurements by the treating physician.
7. Loss of consortium (Although, if there are associated claims allowable for Colossus, the loss of consortium amount can be added once it has been determined. Typically, no loss of consortium amount will be added if the underlying claim is valued at less than $50,000.00. Then, the loss of consortium claim is usually determined to be 5 to 10% of the underlying claim).
8. Emotional Distress claims.
9. Negligent Infliction of Emotional Distress.
10. Disability claims.
11. Claims for gross negligence factors (i.e. Driving under the influence, excessive speed, racing, driving without a license, etc.) Although, if there are associated other claims available for Colossus, the amount for these types of claims can be added once it has been determined. Amounts for these types of claims will be entered as a dollar figure to be added to the Colossus value range. It is best to provide jury verdicts which would be similar to these claims.

The type of demand created for the claims which have no associative Colossus type injuries will resemble the old form of demand. The following factors should be considered and addressed in separate paragraphs, if they are relevant.

1. Introductory paragraph.

    a. Provide an overview of the claim include the injuries descriptions as well as onset of injury and initial treatment sought.

    b. Be brief, but also, be thorough. If there is ongoing symptoms and treatment, state that briefly. This can be handled more thoroughly in later paragraphs.

    c. Provide a brief, but accurate description of your client (age, height, weight, in school, working, retired, etc.). This is an opportunity to influence the value of the injuries and symptoms based on the affect they would have on similar victims. If there are some special or unique attributes of your client which may have been directly affected by the injuries, this would be a great place to lay that foundation. For example, your client may have been a model prior to the incident. Now, the disfigurement as a result of the dog bite will affect future earning capacity. Your client may have been a minor and due to the dog bite, the minor has had behavioral problems (anger, tension, bed-wetting, nightmares, etc.).

2. The next paragraph should confirm liability agreements or address the issues which need to be presented in order to reach an agreement of negligence. If liability has been agreed to previous to the presentation of the demand (the most favorable position to be in, at this time), then a simple sentence stating that "liability has been determined and we are in agreement that my client has no negligence for the damages sustained in this incident".

3. The next paragraph should clearly state each injury and the treatment which was provided. The treatment can be a listing of medical providers, last date of treatment, prognosis and dollar amount of treatment billing.

4. The next paragraph should address the symptoms as well as any testing which occurred to support the treatment (duration, type and frequency). This paragraph should include the significant issues which needed both active and passive treatment modalities. This paragraph should include any issues which rose as a result of the injuries which may be contested by the insurer. For example, if there was psychological counseling necessary due to the injuries or disfigurement, that should be addressed here. It would be appropriate to quote the physicians who have addressed these issues in their reports.

5. The next paragraph should address the impairment rating which was determined by a doctor as a result of the injuries. This paragraph should also discuss each of the factors normally found in Duties under Duress and Loss of Enjoyment sections of the Colossus type claims.

6. The next paragraph should address the need for future treatment determined medically necessary on a "Probable" or "Definite" basis. It is appropriate to quote directly from the physicians' reports. Include in this section the necessary information for future need for plastic reconstruction as well as the cost of this. Future medical costs, including surgeries, should be projected in a single figure, not a range. If you provide range, the amount included in the settlement value range will be the lowest figure of the range you have provided here.

7. The next paragraph should address any past, current and future income loss. This would also be the appropriate paragraph to address issues such as loss of education, need to attend summer school to catch up, need to retake a year of education, loss of scholarships (scholastic or athletic). Any other issues which could be considered by a jury in arriving at a judgment for your client, which haven't already been discussed should be addressed in this paragraph.

8. This section of the demand should be a listing of all current medical and income loss, future medical and income loss, amount for disfigurement, aggravating factors, etc. A total should be shown for the damages which a jury would be instructed to consider in arriving at a judgment.

9. Finally, this paragraph should briefly summarize the claim, ongoing issues which will be realized by your client, a summary of the medical costs and income loss, a summation of future medical costs and income loss as well as the total amount you are presently demanding on behalf of your client. If there is an emotional distress claim you are presenting on behalf of your client's spouse, parents or children, address that in a brief paragraph prior to this one and include the case law or statutes you are relying upon in arriving at a total figure for that claim. Then, include only the amount for the claim in this paragraph.

10. You should request that the insurer request permission from their policyholder to release the policy limit information to you. Absent this information, you will probably want to demand the policy limits.

    Your attachments should include:

    1. All medical records

    a. Separate these by physician

    2. All medical billing statements

    a. Separate these by physician

    3. All income loss documentation

    4. Medical reports for future plastic surgery, reconstruction, etc.

    5. All police or investigation reports

    6. Quality photos, especially if there is a disfigurement claim.

    7. Physical capacity reports

    8. Economic reports

    9. Work hardening reports

    10. Disability reports

    11. Jury verdicts

        a. If there are multiple injuries, separate verdicts by injury type.

When submitting this demand, be sure to protect all possible sources of insurance coverage (PUP, PLUP, Umbrella, UIM and commercial policies of co-defendants as well as any other

resource for policy dollars. Look at the entirety of the claim and how it occurred to make sure that you have identified all possible defendants with any negligence.

INSURANCE INDUSTRY APPLICATION OF COLOSSUS

Colossus is a computer system for assessing general damages for bodily injury claims. It is acclaimed to have the capacity to train the user in assessing common law damages while honing the skills of even the most experienced claims assessor. While Allstate adjusters have their own personal authority levels, they are required by specific guidelines to not deviate from the values arrived at through the use of Colossus. The settlement results of each adjuster, unit and region are tracked and deviations from Colossus evaluations result in monetary and promotional opportunities lost.

In addition to assessing claims, Colossus is presented to adjusters as having the ability to explain trauma-related medical terms, provide basic anatomy and physiology descriptions of the human body, highlight inadequate evidence of a claim, and warn of any exaggeration or inconsistencies - particularly in non-demonstrable injuries such as whiplash. Colossus evaluation will result in a printout of all features of a particular claim. This summary represents an instant overview of the claim to the adjuster, assisting defense counsel as well in interrogation and defense to litigation.

Colossus has limitations where severe brain damage, death, severe spinal cord trauma, dental trauma (except for TMJ), dog bites or disfigurement are present. Colossus is dependent upon the data captured and entered by the individual adjuster. This data is reviewed and corrected by a manager. The manager after careful review of entered data according to specific guidelines and sometimes personal opinion will extend settlement authority to the adjuster. The authority for an individual claim cannot be exceeded without an exhaustive explanation as to why this occurred. Should an adjuster be found to have more than two claims where management extended authority is exceeded, this option would be considered a trend. Where a trend is recognized in the settlements of any adjuster, the ability to use personal discretion in exceeding management authority will be taken away for a period of time for as long as six months to a year.

Settlements and their percentage to Colossus evaluations are tracked on a weekly, monthly, quarterly and annual basis. Quarterly and annual monetary incentives are offered to the individual, unit and region for maintaining settlements less than the regional goals of the company. These incentives can be thousands of dollars to the region to spend on the employees of the unit or region. Awards are given based in part on the history of an individual who maintains a low percentage rate to Colossus evaluations. During individual annual performance salary reviews the percentage rate of an individual adjuster becomes part of the merit decision-making process. An adjuster who has had more than 100% adherence to Colossus values could realize a smaller merit increase in salary base pay.

Each adjuster is required to participate in some form of training in the use and preparation of a Colossus evaluation. Training consists of from one to three-day workshop as well as a part of Home Office courses. All the training classes stress the requirement to not deviate from the precise procedures for reviewing medical and wage loss records and billings, interpretation of these records and billings, and finally, precisely required insertion of the data into the Colossus equation for final evaluation of the claim.

The evaluation of a claim begins with the receipt of documents, records and billings for medical treatment and wage loss. This information is required to be complete with very little latitude

allowed for any missing record. The information is separated and tabbed according to procedures by a processor. The packet of information is then turned over to another processor for input of medical billings into the MBRS (Medical Billing Review System), ADP, AIM or other similar automated billing review system. It is also possible that the medical chart notes and billings will be submitted to a contracted vendor to determine which treatment or billings may be denied. The billings must contain the date of service, amount of each modality, the ICD9 coding and the CPT code for each modality. The billing must contain the correct identity of the patient as well as the medical vendor. If the medical vendor is not one, which is currently "on hold" due to an ongoing investigation by SIU (Special Investigation Unit or Fraud Unit), the billings are reviewed for "reasonable and necessary" allowance. Once, this is completed, the packet is then given to the adjuster for input into Colossus.

The adjuster must now compare each billing to each record to confirm its corresponding match and to the demand from the plaintiff attorney. The adjuster must confirm all records and billings are received prior to continuing with the Colossus. Until such time as all records and billings, the adjuster in almost all but the rarest of occasions is barred from requesting management authority by completing the Colossus. Once all the information is confirmed to be present, the adjuster reviews the records and determines the appropriate data to input into the Colossus evaluation. This is done with the assistance of a "dissection sheet". The dissection sheet corresponds to the questions requiring response by Colossus in order to arrive at a particular value. Significant responses may increase or decrease the value ultimately arrived at by Colossus. At times these responses may be subjective in how the records were interpreted. It is the management's interpretation, which is final. As an example: the adjuster may interpret a record to indicate an individual suffered a shoulder injury. The manager may interpret the record to mean only that the cervical pain "radiates" into the shoulder. This is significant because Colossus is now reduced to allowing authority for only the neck injury. The shoulder injury is removed and no longer provides any settlement authority. The neck injury will increase with the symptom of "radiation". However, the increase is very insignificant when compared to the level of authority provided for an additional shoulder injury.

Each of the entries by the adjuster is reviewed for its accuracy by the manager. This includes the amount of medical billing being accepted by the adjuster. The medical billing must have been entered into the medical review software program and reviewed twice by the adjuster before the total amount can be considered by Colossus. After receiving the packet of records and billings back from the processor, the adjuster will electronically review the billings input. Each individual entry must be reviewed in this step prior to input into Colossus. The adjuster makes a decision to accept or deny those entries, which the system has, questions about. The entire billing must be verified at this step prior to the billing being accepted and processed for the next step. The adjuster must verify the reason for accepting any rejected billings by the system in a separate entry in the electronic claim file. Absent this explanation, the manager will not accept the Colossus for review and return it to the adjuster. The adjuster must then make the corrections and corresponding entries in the claim file before returning the Colossus to the manager for a "revision".

Once the billings have passed this hurdle, they appear in the next review section of medical review program. Here, the adjuster once again reviews and determines the billings which will be accepted. This step allows the adjuster to independently opine which treatment dates or modalities may be reasonable or excessive. The adjuster will allow those treatments deemed reasonable and deny the others. This could result in denial of treatment dates during an accepted period of the treatment plan, denial of specific modalities found on any particular date, or the denial of treatment after a certain date. The adjuster may determine that after some date specific,

the treatment was excessive. The manager may also make this determination (especially where a "mist" or minor impact claim is involved) and reduce the medical billings allowed. The adjuster may have reason to only accept some medical billings due to some pro-ration issue (another accident is involved) and thereby reduce the amount of the billings accepted. The manager may also make this determination and reduce the total amount of accepted billings. If it is determined the adjuster is "overriding" the "medical review program too often and accepting treatment or billings, this could be a performance issue for the adjuster.

Colossus evaluation is divided into two basic forms. The standard "whiplash" type injuries evaluation uses a dissection form, which allows for the traditional findings in records and billings. The "demonstrable" type injuries require a different dissection form. Each dissection form is designed to assist the adjuster with the requested input by Colossus in arriving at an evaluation. The forms deny individual knowledge or experience when evaluating a claim. The attempt is to uniformly assess injury claim values in a specific geographic area. Thereby, removing the ability of an adjuster to increase or decrease a value based on specific knowledge of the dynamics of a particular claim, claimant, or attorney involved. Supposedly, this represents the benefit of the value of the claim not being dependent upon the experience, prejudice or personal opinion of the adjuster. It would no longer matter what experience level the adjuster is. All values would be consistent.

Colossus requires the adjuster to identify specific factors, which are documented in the medical records. It does this through a series of questions requesting either a "Yes or No" response or selection from a multiple-choice listing. Most of the responses are entered by an "x" in the provided box. The medical billings and loss of use expected are the only sections which allow numerical input other than those requesting time responses or responses to "how many".

Colossus will then determine a range of value for the claim. The adjuster prints this result and attaches it to the claim file. The evaluation by Colossus and the file are then reviewed by the manager. The manager does one of the following actions:

- Extends settlement authority
- Returns the Colossus to the adjuster for a revision due to errors or disagreement with the inputted data
- Returns the Colossus to the adjuster for additional information missing from the demand (i.e. records or billings, prior records)
- Requests a verbal discussion with the adjuster for clarification
- Then extends settlement authority
- Or returns for revision
- Or returns with request for additional records, billings or other information

Each revision demanded by the manager of an adjuster is tracked. A revision will count against the adjuster when their individual performance review is completed for merit consideration. When additional information is later determined by the adjuster to be relevant to the claim value, the Colossus is redone and "resubmitted" to the management. These additional requests for authority are also tracked for the adjuster and the manager. They are considered as a negative action and could result in having an affect on any merit consideration. A large number of Colossus are returned for revisions based solely on the personal opinion of the manager in the area of type of treatment, length of treatment, number of treatments during any period of time and disagreement with the accepted diagnosed injuries by the adjuster.

Knowing and understanding the process, programs and procedures that determine medical treatment and billings that are to be accepted is essential in today's dealings with the insurance industry. Absence of this knowledge will only produce frustration, anger, confusion and most importantly lack of payment or reimbursement for reasonable and necessary treatment.

Beyond the issues of shop ownership and control, the cash out program, the ADCP control of preferred/select one/PRO Shop/participating vendor program, and the estimatic policy of "Write only what you can see". Although, each of those procedures assist not only in securing the claim into the MIST programs, but, also significantly increase the net capturing as much as 90 percent more claims which would never meet the procedural requirements for a MIST claim.
There are three major formal programs currently in use throughout all insurers:

- MIST (Minor Impact Soft Tissue),
- "No damage, No injury", and
- State Farm's "Minor Impact Program"

The other insurers each have derivative programs based on these three successful ones. State Farm was the first to have a formal procedure for the handling of these types of accidents. "Minor Impact Program" was designed to identify, manipulate and control these claims all the way to jury verdict. Let me know if you'd like to see the outline of this I participated in creating in 1990. The subsequent and most attacked program was Allstate's MIST program formally instituted in 1993 and created by Kathy Hale of the Seattle Allstate MCO. Farmers followed trend with the "No Damage, No injury" program.

The programs were designed to weed out the easiest claims to dissuade at the onset of the claim. The programs are specifically tied to the SIU units of each insurer. For instance, a minor impact claim for Allstate receives 40 automatic points towards a SIU referral. 100 points is all you need to transfer the claim off your desk, out of your inventory and into the SIU unit. Of course, this also increases your opportunity to receive a bonus of $250.00 each quarter if you transfer 6 claims into the SIU. Another quick note: An adjuster receives increased performance points for each "Cash Out" completed in each quarter. An estimator receives performance points as well if the "Cash Out" is completed by them in the field. One more quick note: Each insurer has a program called the "Early Bird" or "Less than 30" or "Early Settlement" contests. These programs allow for bonuses to the adjuster who has the largest number of settlements within 30 days following the new assignment of a claim. They are designed for BI (Bodily Injury) claims. The easiest claims to be successful settling within the 30 day period are the minor impact claims. I'm sure you've seen Allstate's Quick Settlement Evaluation Guide. These claim settlements occur when the MIST duty adjuster meets with the claimant of a minor impact and settles the claim for less than established amounts on the QSEG or when the State Farm adjuster settles them for under $1,000.00. There's more, but I wanted you to understand the motivation for settlement of the initial adjuster handling this claim.

Although these programs were instituted some time ago, they were most successful because of the greed, avarice and laziness of the medical and legal communities. I'm definitely not saying the programs are ethical in any way. However, they only succeeded because no one really objected to them. Very few people outside the insurance industry even knew about them. But, it was the attitude of the medical and legal communities which allowed these programs to become so successful. Let me explain. Picture the Personal Injury legal community in which you practice. OK, now, remove from that community the 5 percent top law firms or attorneys whom you know are most ethical. (The ones, who are not practicing law for the 33.3 percent fee.) (The ones who would fight the fight for the client because it’s the right thing to do.)

Now, picture just one law firm in the remaining community. He or she is in the office on a Friday around 3pm and the receptionist notifies them an unscheduled possibly new client has just walked into the office. The attorney goes out to meet with the client. The questions are asked

which would define the possible claim. What happened—the client was rear ended while stopped at a stop sign. Was the other party insured—Yes, Allstate. Were you injured—Yes, whiplash. Have you seen a doctor—Yes a Chiropractor—one I've seen before. Has the property damage been resolved—Yes, I already got a check for $385.00, or $585.00 or any amount under $1,000.00. I'm sure you can picture what this attorney is about to say to this prospective client. The client states that the repairs haven't been done and asks if the attorney would like to see the damage. The attorney asks the client if he/she has approached the insurer concerning the injury claim. The client states that the insurer told him/her, they would give him $250.00 for his injury claim. This attorney politely advises the client, "I can't take your case. You might try the attorney in the next office, next street or next block."

The client may go to the Chiropractor first to seek treatment. The same questions come up and unless the client is in good standing with the Chiropractor or is associated with an attorney the Chiropractor has worked with, the Chiropractor will make a similar referral.

This scenario is not unusual or uncommon. In fact, it has become the norm in today's world. This has been going on since early to mid 90's and has provided the success of these programs. It has become reality because both the attorney and the Chiropractor are aware that almost certainly; they will not be successful in getting recovery from the insurer. I've heard some courageous but misguided attorneys state that they'd take on these types of cases and would file suit immediately. Most of those claims fail long before they reach a jury. Even those that do reach a jury rarely are successful. At least, they're not successful enough to substantiate the cost, energy, time and ultimate economic disaster which results. A few (very few—maybe as few as ten throughout the country) succeed in a successful jury award. The communities where juries are picked from have been persuaded through intelligent marketing by the insurance industry to believe that whiplash is not an injury, Chiropractors are witch doctors practicing black magic and plaintiff attorneys are greedy and unethical. That it is these minor impact soft tissue claims which drive the cost of insurance up. Of course, it's these ten successes which everyone talks about. Almost all fail. However, more success would be realized if the legal community was more familiar with partial summary judgment motions for the medical costs and how that affects the DOLF and GateKeeper programs. But, that's another whole discussion.

So, the programs were successful from the onset. Now, it was obvious to the insurance industry it simply had to cast a larger net. This is exactly what they did. Just when you think the explanation to the situation is simple, the insurance carriers complicate it. That's because there is more profit to be made if you cast a larger net and catch more claimants trapped in it. To enlarge the net, the insurance carriers had to establish either a wider parameter to include more claimants or avoid the holes which some claimants may be slipping out of the net. If they broadened the thresholds (such as including claims with $2,000.00 in property damage), it might result in a significant negative affect on the success of these claims. So, the answer is simple from a business perspective. Simply transform the $2,000 to $3,000 claims into $1,000 claims. That way the net is larger, but the risks don't change. Success can be realized in a larger number of claims. Even more importantly, the medical and legal communities will support this type of increase rather than if the insurance industry began including the $2,000 to $3,000 claims. In fact, the success will be guaranteed because of the way those two communities refuse to take on these claims.

This is exactly where the "Cash Out", "Early Bird Settlement" and "Write **Only** What You Can See" programs become so effective. Beginning with the "Write **Only** What You Can See" program, the insurer can capture a greater number of damaged vehicles into the net. By keeping the estimate less than $1000, a claimant is now exposed to the "Cash Out" and "Early Bird

Settlement" programs. How is the claimant to know if there is damage that is hidden? How would secondary damage or other significant and necessary repairs become a part of the claimant's knowledge base? After all, isn't the claimant dealing with "The Good Neighbor"? State Farm insures two out of five cars on the road today. In many instances, the claimant is also insured with State Farm.

By writing **Only** what can be seen, quite a bit of necessary repair costs are overlooked. Secondary damage hidden behind the unibody structure cannot be written on an estimate. If the car is not put up on a hoist so that the undercarriage can be seen, no repair estimate will be written for that damage. Often, estimates are written to include aftermarket parts rather than OEM parts. This procedure is extremely cost saving for the insurer. In fact, an estimator will have his performance rating directly affected depending on the percentage of estimates written with aftermarket parts. Another significant safety issue never written on any estimate by any insurer is for certified inspection by a qualified technician of the safety belts or locking devices unless there is visible damage. This is truly a significant omission on the part of insurers and is a direct violation of the policyholder's contract as well as intentionally not making all necessary repairs on the damaged claimant vehicle.

All vehicles from the early 90's include specific directions in the vehicle's "Owner's Manual" found in the glove box of every car, addressing the seat belts and locking devices. It will be stated in these manuals that the seat belt locking device is designed for one use only. This means that once, an accident has occurred, the seat belt locking device will not function properly again. The manuals go on to say that it doesn't matter whether the seat belt is being worn or not. Once, the vehicle has been involved in an accident it simply will not perform as it was initially designed. In fact, the seat belt locking device could fail in the next accident so as to allow more significant injuries including death. Of the vehicles on the road today, 60 percent state in the "Owner's Manual" that the seat belt locking device must be replaced, period. This means every seat belt locking device in the vehicle, not just the one being worn at the time of the impact. The remaining 40 percent of vehicles on the road today state in the "Owner's Manual" that all seat belt locking devices in the vehicle including those not being worn at the time of the accident must be inspected by a certified and qualified technician to assure future adequate and safe function. (I would encourage you to check your vehicle's "Owner's Manual" and be familiar with its service requirements on this issue.)

All insurers are aware of this issue. At State Farm, we received the engineering reports of several vehicle manufacturers on this issue. However, at State Farm, in an "R&R" publication (State Farm internal property damage estimatic publication provided to Estimating Superintendents and executives only.) it states that we are aware of this opinion. However, we have decided to do our own testing before we initiate any response to this safety issue. In a subsequent "R&R" publication, it was stated that the company would continue with its internal procedure of testing seat belt safety in the following manner by its own estimators not certified or qualified technicians:

- Observe the belt for any tears or stretch marks.
- Observe any direct damage to the casing for the locking device.
- Jerk on the belt to assure that it locks (This should be done while the vehicle is moving and has achieved at least 10 mph)

I'm sure you're aware that none of the estimators took each and every vehicle out for a test run so that while they were driving the estimator could jump from seat belt to seat belt jerking on it. Also, there are no tools to remove the covering of the seat belt locking device so as to inspect the

locking devices of each belt. Even if we did have the tools, what were we supposed to be looking at? No estimator or Re-inspector has ever been certified as a qualified technician in this area. I know there are none employed at any body shop either. These individuals are employed only at a few select vehicle dealers. Since, the insurance industry won't pay for the procedure; there is no motivation for the expense and time to be assumed by any body shop. Even if the insured, claimant or shop were to request payment, the insurer will advise them in writing that it is not their procedure to pay for this inspection unless damage is found that can be directly related to the accident in question. Of course, if a body shop requests payment, it would have to be on a supplement and that brings us back to the issues of shop ownership and control, the cash out program, the ADCP control of preferred/select-one/PRO Shop/participating vendor program, and the estimatic policy of "Write only what you can see".

Supplements are exactly what they imply. When a shop is working off an estimate written by an insurer or even off their own written estimate, if there are additional repair issues or costs, the shop will send those over to the insurer for approval and payment on a supplement. All shops working within any of the programs established by the insurance industry must agree to repair all vehicles according to the written estimates or by pre-approved supplement. The insurer controls the payment and authority to grant repairs beyond the initial estimate. If a shop does not get pre-approval, it will not be paid for the repairs (with some exceptions). An estimator's performance rating will be directly affected by the number of supplements submitted on estimates written by him/her. This is almost in direct opposition to "Write Only What You Can See". Therefore, the estimator is highly motivated to encourage "Cash Outs". The estimator works directly with the shops and closely monitors the number of supplements requested by a shop. A shop can be removed from the approved vendor listing or preferred vendor listing if it has too many supplement requests or supplement requests which are not allowed. The outcome is obvious. Shops don't write for seat belt or locking device inspection. Few shops are even aware of vehicle owner's manual requirements in this area. But, one thing each and every body shop is aware of, their economic livelihood is dependent on each insurer's referrals and payments.

WHAT TO DO

If you are aware that your client's claim is being handled by a MIST (Minor Injury Soft Tissue) or Low Damage or Minor Damage adjuster, you should identify why the claim should not be handled in this procedure based on the following issues. You will need to know who these adjusters are in your area and for each company. The window of time which exists for you to have the claim transferred back into the normal population of claim handling is within the first 30 to 45 days of the notice of claim or within 30 to 45 days after the insurer has received your letter of representation. Therefore, if at all possible have as many of the following points addressed in your first correspondence to the insurer for best results.

The minor impact adjuster has extensive responsibilities required in the investigation and handling of these claims. If at all possible, they will appreciate the opportunity to transfer the claim from their desk and back into the normal population of claims. However, they will only be motivated to do so if they haven't already invested a great deal of time completing the required steps of investigation associated with these types of claims. They will also need as much assistance from you in identifying as many of the following points which exist in order to receive permission from their supervisor to transfer the claim.

POINTS OR ISSUES

1. The target vehicle has greater than $1,000.00 in repair costs. Repair costs may differ from repair estimates. Get multiple repair estimates to include frame time cost and OEM parts.

2. The bullet vehicle has greater than $1,000.00 in repair costs. Repair costs may differ from repair estimates. Get multiple repair estimates to include frame time cost and OEM parts.

3. The target vehicle's rear bumper absorbers have moved more than one inch. This should be memorialized with a 35mm photograph if possible.

4. The target vehicle's rear bumper absorbers have not moved at all and there is rust visible on the absorber armature. This should be memorialized with a 35mm photograph if possible.

5. The bullet vehicle submarined the target vehicle resulting in undercarriage damage but little visible damage to the unibody of the target vehicle.

6. The target vehicle requires greater than two hours of frame repair time. If at all possible, also document this with a certified frame inspection. Often times this is overlooked when the insurance carrier completes the estimate. They are taught to write only what can be seen. They are also taught to attempt a "Cash Out" settlement if at all possible and receive bonuses for doing so.

7. The bullet vehicle requires greater than two hours of frame repair time. If at all possible, also document this with a certified frame inspection. Often times this is overlooked when the insurance carrier completes the estimate. They are taught to write only what can be seen. They are also taught to attempt a "Cash Out" settlement if at all possible and receive bonuses for doing so.

8. The damage to the target vehicle travels beyond the rear wheel well. This should be documented by a 35mm photograph taken along the side of the vehicle. Often times this is overlooked when the insurance carrier completes the estimate. They are taught to write only what can be seen. They are also taught to attempt a "Cash Out" settlement if at all possible and receive bonuses for doing so.

9. Negligence is being disputed. This will not remove the claim from a minor impact program. However, it will assist in the determination to transfer it if other issues are present.

10. Multiple cars were involved in the accident. A police report will substantiate this. This is particularly effective when there are other vehicles with significant damage.

11. There are statements or facts, which support that there were multiple impacts to the target vehicle. This can be evidenced by statements from the drivers of either vehicles or their passengers or witnesses.

12. There is significant prior damage to the same impact area of the target vehicle.

13. The target vehicle was not a unibody vehicle.

14. The target vehicle has an attached item, which would eliminate the effectiveness of the unibody and/or low impact bumper. This is often seen when the target vehicle has a trailer hitch directly mounted onto the frame of the vehicle. Also, watch for items such as bicycle carriers, wheelchair lifts or other such devices, which would eliminate the functionality of the low impact bumper or unibody structure.

15. The bullet vehicle has an attached item, which would eliminate the effectiveness of the unibody and/or low impact bumper. It may also occur when there is a winch mounted on the front of the bullet vehicle. Also, watch for items such as bicycle carriers, wheelchair lifts or other such devices, which would eliminate the functionality of the low impact bumper or unibody structure.

16. The accident involves aggravated liability on the part of the bullet vehicle. This is evidenced by the police report documenting the insured left the scene of the accident, that alcohol was involved, that speed was involved, etc.

17. The target or bullet vehicles have injured parties who have demonstrable injuries.

18. The target vehicle injured party (your client) has suffered a subsequent demonstrable injury.

The "Target" vehicle is the one that was struck. The "Bullet" vehicle is the one that struck the target vehicle.

A REVIEW OF THE LITERATURE REFUTING THE CONCEPT OF MINOR IMPACT SOFT TISSUE INJURY (M.I.S.T.)

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Short Title: Refuting the M.I.S.T Concept

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M.I.S.T. is a acronym that stands for Minor Impact Soft-Tissue. The concept refers to the claim that low damage impacts cannot be associated with significant injuries. The literature concerning late whiplash is reviewed. This review focuses on medical research which refutes the M.I.S.T. concept.

Background: Minor Impact Soft Tissue is a concept that seeks to identify late whiplash as a psychosocial phenomenon. However, the medical literature in this area has not been systematically reviewed since the Quebec Task Force in 1995.

Objectives: To review the medical literature which claims that late whiplash is an organic phenomenon causing significant disability.

Methods: The medical literature was reviewed in a narrative format.

Results: There are a significant number of studies which refute the M.I.S.T. concept.

Conclusions: A review of the literature does not support the validity of M.I.S.T. In the mid nineteen nineties, the U.S. automobile insurance industry launched a new concept in claims handling called M.I.S.T., an acronym for Minor Impact Soft Tissue. The theory behind this claims stance was that it was virtually impossible to sustain a permanent or serious injury in a low damage car crash. As a result, these claims should be handled differently. This new concept has expanded to almost all major U.S. insurers, yet little has been published regarding its scientific validity. For many patients with objective physical exam findings but little automobile property damage, this policy has led to loss of insurance coverage for their injuries.

The Medical Literature Concerning Minor Impacts

Early studies suggested that the g-forces involved in low damage crashes were comparable to those commonly seen with normal everyday activities of daily living.[1] This concept was driven home by the Quebec Task Force in 1995.[2] This report seemed to demonstrate that whiplash was a short lived and self-limited condition that didn't require more than supportive care. In addition, other similar reports suggested that late whiplash didn't exist in countries where there is no legal system to recover damages. [3] In addition, more recent studies performed in Saskatchewan suggested that when the ability to sue for pain and suffering was removed, the duration of the insurance claim for medical coverage was reduced.[4] Based on this information, it would then seem reasonable that insurers would adopt the M.I.S.T. policy. However, since multimillion dollar decisions relay on this policy, the validity of the research in support of M.I.S.T. must be vetted.

Freeman was the first to point out that many of the studies refuting the existence of late whiplash had very poor methodology.[5] This author also published a research critique of the Quebec Task Force and the Saskatchewan study.[6] [7] which demonstrated that this research also suffered

from flaws in methodology. As a result, the conclusions of these studies were called into question. In light of this information, the foundation for the M.I.S.T. needs further investigation.

The Literature Linking Low Damage High Energy Crashes to Serious Injury

A major building block of the foundation for M.I.S.T. relies on the concept that vehicle damage and occupant damage must be closely linked. Said another way, there must be a linear relationship between how hard a vehicle is struck (delta V or change in velocity) and serious injury rates. However, as a research question this phenomenon is very difficult to study. Up until recently, staged crashes were the only way any information regarding delta V and injury rates could be gleaned. However, staged crashes are specifically designed not to injure the participants. Therefore, staged crashes are a poor place to study injury rates.

The advancement in technology has provided an opportunity for these questions to be answered in a real world crash setting. Krafft has now studied the relationship between real world delta V as measured by "Black Boxes" installed inside many vehicles and chronic injuries.[8] While one would expect a linear relationship, none was found. For instance, chronic injury rates at delta V's of 5-10 km/h were twice that of 10-15 km/h! In addition, again chronic injury rates at 15-20 km/h were twice the rates seen at 20-25 km/h delta V's. These rates likely relate to the stiffness and elasticity of the vehicle and the complex interplay of seat design, occupant mass, occupant position, and vehicle dynamics. In addition, Krafft also discovered a much higher AIS 1 (WAD II or WAD III) chronic injury rate in the presence of a tow-hitch. This external factor hints at a list of complex kinematics that the M.I.S.T. program does not utilize to determine injury risk. Finally, in the same study, Krafft also concluded, "The two crashes which resulted in long-term disabling neck injuries had the highest peak acceleration (15 and 13 x g), but not the highest change of velocity." This is again very concerning for the M.I.S.T. methodology, as it demonstrates serious neck injury resulting from high peak accelerations in high energy, but low damage and low delta V settings. Brault et al produced similar findings when investigating rear end collisions.[9] Their conclusions are also concerning for M.I.S.T.: "Objective clinical deficits consistent with whiplash associated disorders (WAD) were measured in both men and women subjects at both 4 km/h and 8 km/h. At 4 km/h, the duration of symptoms experienced by women was significantly longer when compared with that in men ($p < .05$). There were no significant differences in the presence and severity of WAD between men and women at 4 km/h and 8 km/h or in the duration of WAD at 8 km/h. There was also no significant difference in the presence, severity, and duration of WAD between 4 km/h and 8 km/h. No preimpact measures were predictive of WAD." In summary, Brault again concluded that trying to tie delta V to injury rates didn't work. Siegmund again echoed the same findings while trying to create a model of rear end crash dynamics and long-term injury risk.[10] Again, there was no connection between delta V and injury risk. Finally, Davis in a meta-analysis of the medical literature on delta-V and long-term injury risk reached the same conclusion.[11]

Why is this uncoupling of crash damage and long-term injury rates occurring? Some clues can be found in studies presented at international congresses that show that vehicle stiffness has increased to reduce property damage in low speed crashes. However, the vehicle is only one parameter. Much more attention recently has been paid to seat back design in rear end crashes. Viano has concluded that one reason whiplash injuries are increasing is that seats have been made stiffer to avoid rearward occupant ejection in a seat back failure.[12] As seats are made stiffer, the shear forces (NIC) on the neck increase. In addition, newer studies by the same author suggest that for females, a lower relative mass as compared to seat back stiffness may play a role in serious neck injury at low speeds.[13] Head restraint characteristics are also likely involved.

Clearly, the lack of a direct link between delta V and long-term AIS 1 neck injury rates calls into question the validity of a no damage, no injury policy.

The Literature that Defines Late Whiplash as a Serious Medical Condition

If late whiplash is a short-term mild muscle pull that should always resolve on its own with only supportive care, then the M.I.S.T. policy would again seem reasonable. However, if data exists that this injury is more serious, then again M.I.S.T. would be called into question.

The early medical literature for late whiplash is clearly supportive of a M.I.S.T. policy. The focus was on a muscle strain and possibly a ligament sprain. Hence the name sprain-strain was commonly used. Compared to other muscle strains such as a hamstrings injury, whiplash seemed to have an excessively long recovery time that could only be explained by psychological problems.[15-22] In addition, at that time, little was known about the central nervous system and pain and spinal ligament injuries that did not require surgery.

However, in the last decade, much been learned about what is injured in late whiplash patients. As a result, the landscape has been significantly altered. What we would previously call a "soft-tissue" injury has now been redefined into numerous injury categories.

Seminal studies by Taylor and Twomey demonstrated that serious spinal injuries could be detected on cadaver dissection.[23-25] These patients had all died of other causes such as blunt abdominal trauma, yet many seemed to have very serious spinal injuries. These injuries included bleeding into the dorsal root ganglia, small fractures of the facet joints, bleeding into the facet joints, and other injuries. While these insults could be easily detected on dissection, they couldn't be detected on more advanced imaging.

In-vitro studies by Grauer and Panjabi were also telling. In simulated low speed rear end collisions, they demonstrated facet joint spearing in the cervical spine as well as significant ligament stretch injury to the anterior longitudinal ligament and facet joint capsules.[26-28] Other authors have now confirmed these findings and added to the database of significant joint and ligament injuries that occur at low speeds.[29, 30] In addition, these findings have also been confirmed in live volunteers in simulated low speed crash tests.[31] If the cervical facet joints were injured, then clinical studies would have to confirm that these joints were pain generators in a late whiplash population. Indeed, numerous studies have now confirmed that when these joints are anesthetized and treated, both short-term and long-term relief is the result.[32-35] In addition, when double blinded prevalence studies are reported, approximately 50% of patients with late whiplash have been found with injured neck joints.[36]

More recently, central sensitization has been the focus of late whiplash research. The early studies above demonstrating injury to the dorsal root ganglion as well as crash research by Svensson showing injury to the same structure, has moved researchers to take a closer look at neurologic injury.[37-40] It has been noted by numerous researchers that late whiplash patients have different sensory thresholds than normal controls.[41-46] These patients show increased sensitivity to a variety of stimuli including pressure, light vibration, heat and cold, not only in the neck but also in body areas remote to the site of pain such as the front of the shin. This means that they feel things differently than someone with a normal sensory system. Importantly in those patients who fail to recover following injury, these sensory changes have been shown to be present from very soon after injury. As outlined above, the prevailing opinion in that this is due to sensitization of the central nervous system. For instance, recent research has correlated elevated levels of a protein only released in CNS injury with more severely injured whiplash

patients.[47] However, more surprising is that serum muscle injury markers are not elevated in whiplash patients, indicating that the muscle strain part of the whiplash theory espoused early on is likely not valid.[48]

Finally, as above, investigators over the last decade have reported that serious ligament injury is likely one cause of late whiplash injury. MRI indicators of upper cervical ligament injuries in the alar, transverse ligament, posterior atlanto-occipital membrane and tectorial membranes have been found in late whiplash patients but not in controls.[49-52] In addition, significant lower cervical ligament injury has also been reported by multiple authors both in vitro cadaver studies and in real world imaging studies.[29, 53-58] From all of the above evidence it can be seen that, at least in some patients, whiplash is a complex, multifaceted condition that requires a suitable classification system to address these complexities.

Long-term Prognosis for Late Whiplash Injury

If late whiplash is more than a muscle pull or mild sprain, then are these problems minor "soft-tissue" injuries or do they have a major functional impact?

Berglund has looked at this issue in a large epidemiologic study where several hundred patients who sought specialist care for a rear end crash were compared to several thousand people not exposed to such a crash. Seven years after the crash, there was a 160%-370% increased risk for headache, thoracic and low back pain, as well as for fatigue, sleep disturbances and ill health.[59] The same type of investigation found a threefold increased risk for neck and shoulder pain seven years after a rear end crash exposure.[60] In addition, Squires reported on a group followed for 15.5 years.[61] 70% of these patients continued to report symptoms related to the original crash. Between years 10 and 15.5, 18% had improved, while 28% had worsened and 54% had stayed the same. Finally, Bunketorp conducted a similar investigation seventeen years after a crash.[62] She found that when patients who sought specialty care for injuries reported in an ER were compared to patients also seen in the ER but with no MVC related complaints, that the disability rate in the injury group was 30-35% while the non-injury group reported an injury rate of only 6%.

Is M.I.S.T. Still Scientifically Viable?

While many authors have published studies that would seem to support the M.I.S.T. hypothesis, the vast majority of work published in the last 10 years would not support M.I.S.T. Assuming an insurer must take the position that policyholder must at all times be given the benefit of the doubt; the M.I.S.T. program does not have overwhelming scientific support. We would argue that its time to retire M.I.S.T. in favor of a research based severity indexing approach that allows insurers to better allocate resources.

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CHIROPRACTIC CARE AND THE INSURANCE INDUSTRY QUICK GUIDE

The insurance industry has aggressively revolutionized its practices and procedures over the last two decades. This revolution has adopted the use of computer programs (Colossus, Decision Point, ICE, AIM, ADP, MBRS, Med-Data and Mitchell Medical Expert), which allow the insurance industry to reduce the payout of claims. It has also had a direct impact on:

1. The number of claim files each insurer's employees can handle,
2. What amount of training is needed for the claim handlers to be most effective in reducing the claim payout?
3. Reducing the number of experienced and higher salaried employees,
4. Eliminating individual analysis by a claim handler based on experience and intelligence,
5. Standardizing the process by which each claim is reviewed and processed.
6. Increasing the profits of each insurer by the reduction of both first party and third party severity payments.

Unfortunately, the Chiropractic community has, to a great degree, assisted the insurance industry in its success. During the last two decades, the insurance industry has capitalized on the unreadable and inaccurate chart notes produced by Chiropractors. This alone has allowed the insurance industry to attack treatment duration, type and frequency of all Chiropractic physicians. In the absence of accurate and proper documented patient daily chart notes, the Chiropractic community is finding itself receiving less than full reimbursement for their patient treatment. The Chiropractor of today is forced to accept a reduced payment from the insurers on first party claims. The Chiropractor of today is repeatedly asked to accept a discounted payment from the attorney representing the patient on a third party claim because the claim settlement payment was significantly less than expected.

Is it any wonder that this is occurring to Chiropractors more so than any other rehabilitating physician? The answer to this question is, NO. Consider for just a moment what percentage of claims presented to the insurance industry are "soft tissue". Some insurers claim over 80% percent of all claims are "soft tissue". This huge body of "soft tissue" claims is more often than not receiving treatment from Chiropractors. Again, most insurers recognize the Chiropractic involvement in treating these types of claims exceeds 80%. This natural progression of type of claims, number of claims and treating physician for these claims has been the impetus to the insurance industry's focus on Chiropractic treatment costs. By reducing the cost of Chiropractic treatment costs, the insurance industry has and will continue to realize immeasurable reduction of claim payout and increased profits.

The focus of the insurance industry will not diminish in the future. In fact, with the introduction of computer programs capable of making claim decisions that reduce Chiropractic treatment costs and subsequently, third party claim settlement costs, the insurance industry is motivated to become even more aggressive in the future. Until such time as the Chiropractic community begins to adopt some very simple practices, it will continue to be the victim of this trend.

The solution is now available for the Chiropractor to address and realize full reimbursement of patient treatment. It begins with proper daily chart note recording. It would help a great deal if this was also readable. The eight most important issues in any claim for the insurance industry are the following:

1. Correct use of ICD-9/10 and CPT codes,
2. Proper identification of injuries,
3. Identification of **all** injuries (even those the physician isn't treating),
4. Correct documentation of all symptomology,
5. Manifestations (Duties under Duress and Loss of Enjoyment,
6. Accurate prognosis with consideration for **active** as well as passive treatment,
7. Documentation of daily **active** as well as passive treatment,
8. Probable or Definite determination of future treatment,
9. Documentation of specific body part reaching MMI
10. Determination of impairment ratings.

Some of this information the insurance industry requires to be validated by a medical doctor. Unfortunately, the insurance industry currently places more credibility in medical doctors than Chiropractors. This isn't a medical fact. It's a fact of the insurance industry's procedures, practices and training. Fighting that battle today won't reflect a full payment of treatment tomorrow. Not that the battle isn't worth fighting, it just won't realize an immediate success.

The solution also involves the Chiropractor understanding the insurance industry's accepted computer program terminology, injury definition, acceptable symptomology, prognosis and manifestations. There are points assessed to each aspect of these categories which allow the insurance industry's programs to accept or deny payment and credibility of Chiropractic treatment in determining claim value. This information can be acquired by extensive investigation and education by the individual Chiropractor. However, it would be unlikely the Chiropractor would ever realize complete knowledge absent being employed in the insurance industry. The answers can also be found in software currently available to the Chiropractic community. The only software which enables the Chiropractor full knowledge and user friendly access to this information is sold by Sequoia Visions, Inc. Of course, being owner and president of Sequoia Visions, Inc., might influence my preference of software.

In an attempt to educate and assist the Chiropractic community, I have created a "Quick Review" of issues to consider when completing daily chart notes. I was also limited in the amount of space allotted to this endeavor. Subsequently, the following listing developed specifically for this article. I hope that you find it both educational and surprisingly succinct. I would strongly recommend that each Chiropractor include the issues as presented on this listing in daily practice and patient recording. The result will be amazingly successful each Chiropractor who does.

Thank you for inviting me to address some of the obstacles Chiropractors are facing today. I would be happy to provide more information in future articles. More information on these issues and the Sequoia Vision's software may be found at www.SequoiaVisions.com.

QUICK REVIEW

1. Remember to put **all correct** CPT and ICD-9/10 codes in your records.

    - Identification of all injuries (Even those not being treated within your scope of practice) is necessary for acceptance of all treatment (duration, type and frequency);
    - Number and type of injuries drive the program;
    - Use of "Initial report" or supplemental HCFFA forms to include all injuries should be normal course of business with first submission of billings;
    - Values are assigned to the injuries, symptomology, treatment, prognosis, manifestations, impairment and the specific future treatments needs of the patient;
    - Injury diagnoses without treatment carry little value. However, it often does support further duration, frequency and/or type of treatment;

2. Document on an ongoing basis Duties under duress manifestations which result from ongoing complaints while activities continue to be performed in the areas of work, study, domestic or household.

- These are specific terms which trigger points and value in the systems being utilized by the insurance Industry.

3. Document on an ongoing basis all information about additional manifestations due to Loss of enjoyment of work, study, domestic and household activities as well as sporting opportunities. Sporting activities must be additionally separated out into as many 5 sub categories.

   - These are specific terms which trigger points and value in the systems being utilized by the insurance Industry.

4. Remember if isn't in your notes, as far as the insurance industry is concerned, it didn't happen.

   - Often, what is missing from treating physician daily notes are the end dates of symptoms and active treatment being performed by the patient (example of active treatment would be home exercise or home traction).

5. Always document all of the objective findings on each treatment date.

   - The insurance programs work based upon the last treatment date that the objective symptom is recorded in the physician's daily records. This is very similar to how these programs use the last date of recorded symptomology and manifestation.

6. Type of care is entered into the insurance programs based on type of treatment being provided. The care may be entered into these programs based on the CPT and description of care in the daily chart notes.

   - Chiropractic office visits and manipulations are entered as a chiropractic treatment date. When there are therapies such as massage therapy, exercise, or physical therapy being provided and documented (even if there is no charge for the correctly identified treatment), this allows for additional entries into the insurance programs as additional treatment dates or duration depending on the CPT code and description. This includes active treatment being performed by the patient at home.

7. Follow chiropractic standards on evaluations, re-evaluations and scope of treatment.

   - Failure to follow recommended procedures and guidelines could have adverse effect on the duration, frequency and type of treatment accepted as reasonable and necessary. In some cases, it may be cause for referral of the claim to the SIU or fraud units of the insurer.

8. Impairment and disability must be detailed in the chart notes, final prognosis and final report. This determination, unfortunately, will only be accepted by most insurers if it has been determined or validated by an MD.

   - Use the AMA Guides to the Evaluation of Permanent Impairment will assure that the information is entered into the program.
   - Use one of the five accepted final prognosis accepted by the insurers.

- Recognize that if active treatment is being recommended after final release of your patient, that ongoing complaints (such as continued range of motion deficiencies, stiffness, etc.) must be documented.
- Recognize that if it is being recommended that the patient continue to exercise, stretch, participate in a gym program or other active treatment performed after the patient's release from your passive care, that this represents ongoing treatment.

9. Note secondary or conflicting conditions in the records.

   - The insurance industry programs may add substantial points for pre-existing conditions that are exacerbated or aggravated by the accident depending on proper documentation at the earliest date.

   - Similarly proper and accurate documentation in the daily chart notes regarding subsequent events of injury may increase point assessment by the insurance industry.

   - Delay in seeking treatment may increase acceptance of duration, type and frequency of treatment allowed by the insurance industry if documented properly. Delays in seeking treatment may be viewed as a responsible attempt by the patient to mitigate their treatment costs and ethically avoid passive treatment by participating in active treatment of their injuries and symptoms.

   - Gaps in treatment may also be recognized as an attempt to mitigate medical costs by your patient. If properly documented in a similar manner as in a delay, these periods of absence of passive treatment may justify not just a substantial foundation for a return to passive treatment, but they may also support complete duration, frequency and type of treatment after the gap has occurred.

HOW TO PREPARE A CLAIM FOR EVALUATION

If you are just beginning to approach a patient/client's claim for the purpose of creating a medical report or demand letter, you may find the process a bit overwhelming. However, it doesn't need to be. In fact, the process can be simple and quick without the frustration you might normally experience. Here are some very simple techniques which could help you survive this adventure.

First, let's divide the types of individuals we have currently in our population base into two groups. There are those who retained your services prior to you using this newly learned process (Oldies). Then, there are those clients who retained you after you began using the new process and software, "Medical Report Expert" or "Demand Expert" or "Demand Online" (Newbies).

Now wasn't that simple?

Since we have two distinct groups now, we can address each one separately. The difference is significant between the two groups. The Oldies haven't completed a "pre-checklist or intake form or the DUD/LOE form. This group may not have been managed as carefully as the Newbies, either. Whereas, the Newbies have completed both forms when they first came

into your office and you have been more sensitive to the different aspects of their claims, such as the "value drivers".

Let's address the Newbies first. By starting with this group, when we later address the Oldies, we'll discover how easy the entire population of clients can be brought up to speed. Newbies are those clients who have walked into your offices since you have begun to really understand the process. You've already installed the software, "Medical Report Expert", "Demand Online" or "Demand Expert" and are actively utilizing the forms.

When the Newbie arrives for his/her appointment, your CA, paralegal or assistant should have him/her complete the initial "Intake" or "Pre-checklist" form as well as the "DUD/LOE" form. There are several different "DUD/LOE" forms in the "Users' Center" on the Sequoia website. You can travel to the center by entering your id and password after selecting the button, "Users' Center". On the right hand side of this page, you'll find the four different forms as well as the "Pre-checklist form" and others. All documents and forms on this page are free to download by utilizing the id "alpine" and password "forest". They are in a Word document format. Once you have downloaded the forms, you want or need, onto your desktop, you can then place them anywhere in your computer it's convenient for you to find them later.

Since these documents are in Word format, you will be able to change and customize them to suit your needs. You can print them out as you need them or have an available supply already printed and ready for your clients as they flood into your office.

Your paralegal or assistant should assist the client in understanding some of the terms or questions on these forms. However, we recommend that the client fill the forms out in their own hand. Especially, the DUD/LOE form should be completed in the patient/client's handwriting. The reason for this is simple. The patient/client, after completing the forms and after you've made a copy of these for your records, should take the form to their representing attorney or treating physician, whichever may be the case. This assures that a record of this information exists in the file of the attorney or treating physician for later use. Should it be discovered at a later date, there is no misunderstanding as to who completed the forms.

The information taken in the intake/pre-checklist forms should be immediately entered into the software programs. By doing this your medical report or demand letter is almost completed. When the treatment regimen is through, you simply enter the new "Last Date Noted" from the medical chart notes in order to establish duration. If, during the course of treatment there are new diagnoses, symptoms of complaints, tests, therapies or other drivers, simply update the data in the software with that date.

Here are some very simple points to remember when finalizing the claim:

1. All injuries must be diagnosed correctly and have the correct ICD-9/10 codes assigned.
2. All symptoms must be documented throughout the claim. Especially on the last office visit date. Use of the correct terminology is adamant.
3. Recognition of possible Anxiety/Depression and TMJ in the medical records is very important.
4. All treatment for the injuries and complaints must be documented. Especially the active treatments such as: home exercises, home stretching, home traction and other activities performed by the patient outside the medical clinic.
5. Address any prior, subsequent, delay in seeking treatment or gaps in treatment.

6. All injuries must have a final prognosis. Remember, if there are any ongoing complaints or restriction at the end of the passive treatment and active treatment is recommended for the patient, the correct prognosis is: Ongoing complaints, Continuing Treatment.
7. Future treatment should be in the form of specific recommendations for duration and cost.
8. The medical probability of future treatment necessary for the cost to be included in the claim evaluation must be either “Probable” or “Definite”.
9. Each patient must have a specific body part to have reached MMI with treatment either in a static or stable description. A patient who is medically documented as having achieved whole body MMI will not receive credit for any future treatment.
10. All Duties under Duress and Loss of Enjoyment factors must be documented in the medical records and appear in the demand letter.
11. An impairment rating of at least 2% whole body is the threshold for the value screens to be opened for DUD and LOE.
12. Each of the above aspects should be **validated** or determined by a medical doctor.

CLAIM REVIEW WORKSHEET

Here is a simple outline for collecting information to input into Demand Expert and Demand Online as well as Medical Report Expert:

Review the client's chart notes and billing forms to identify the following information:

1. **Injuries**

    a. ICD-9/10 codes
    b. Description

    Number of codes should match number of descriptions. Identify individual injuries NOT injured body regions. For example in the Cervical, Thoracic and Lumbar body regions there are the following body parts:

        i. Vertebral
        ii. Muscle
        iii. Ligament
        iv. Tendon
        v. Nerve

    While the Cervical, Thoracic and Lumbar subluxation or Whiplash injuries will be addressed in the "Neck and Back" section of the program, injuries to the muscles,

ligaments and tendons will be addressed individually in the "Other Injury" section of the program. Also, in skeletal section of the neck and back individual injuries will be identified by specific vertebral and type. For example, the following injuries at each level are separately addressed in the program:

i. Prolapse
ii. Bulge
iii. Herniation
iv. Dislocation
v. Fracture

2. <u>Treatment</u>

a. CPT codes
b. Description

List each treatment type and enter only once.
Match each billing date with its specific chart note.

c. Identify Last Treatment Date Provided and by which Physician
d. Identify all Hospital Dates Including ER
    i. Count Number of Visits
        1. ER counts as One Day MD and Hospital
    ii. Count Number of Nights for Each Stay

3. <u>History of Complaints (Symptoms)</u>

a. Identify all symptoms which are common to all injuries
b. Identify those symptoms which are specific to certain injuries only
c. Identify Last Date Each Symptom was stated in Chart Notes
d. List Physician who made Last Notation

4. <u>Physician or Facility Name and Type</u>

a. Identify Name of Each Facility
b. Identify Total amount of charges for Each
c. Identify Last Date of Treatment for Each
d. Identify Total Number of Treatment Dates for Each
e. Identify When a Physician can be Identified as different Type
    i. Any Kind of Therapy Provided
    ii. MD or DO Providing DC or Therapy Modalities

5. <u>Body Part which has reached MMI</u>

a. Which specific body part can be determined to have reached MMI
b. Do Not Identify an Entire Region if it can be avoided

6. <u>Impairment Rating</u>

a. Must be Provided by MD Utilizing AMA 5th Edition Guideline
b. What is the final Prognosis

i. Ongoing Complaints, Continuing Treatment?
    1. Active and/or Passive
ii. Guarded?

7. <u>Duties Under Duress</u>

a. Have Worksheet Completed by Client and Included in Physician's Charts
b. Confirm Employer Records also Support
c. May also need statements from:
    i. Coworkers
    ii. Family
    iii. Friends
    iv. Neighbors
    v. Billings from Paid Assistance
d. Number and Ages of Children

8. <u>Loss of Enjoyment</u>

a. Have Worksheet Completed by Client and Included in Physician's Charts
b. Confirm Employer Records also Support
c. May also need statements from:
    i. Coworkers
    ii. Family
    iii. Friends
    iv. Neighbors
    v. Billings from Paid Assistance
d. Number and Ages of Children

9. <u>Medical Costs and Probability</u>

a. Current Medical Costs
b. Future Medical Costs
    i. Type of Treatment
    ii. Duration
    iii. Probability
        1. Probable
        2. Definite

10. <u>Income Loss</u>

a. Current Income Loss
b. Future Income Loss
    i. Supported by Probability of Future Medical Treatment
    ii. Employer's Statement
    iii. Projected Amount

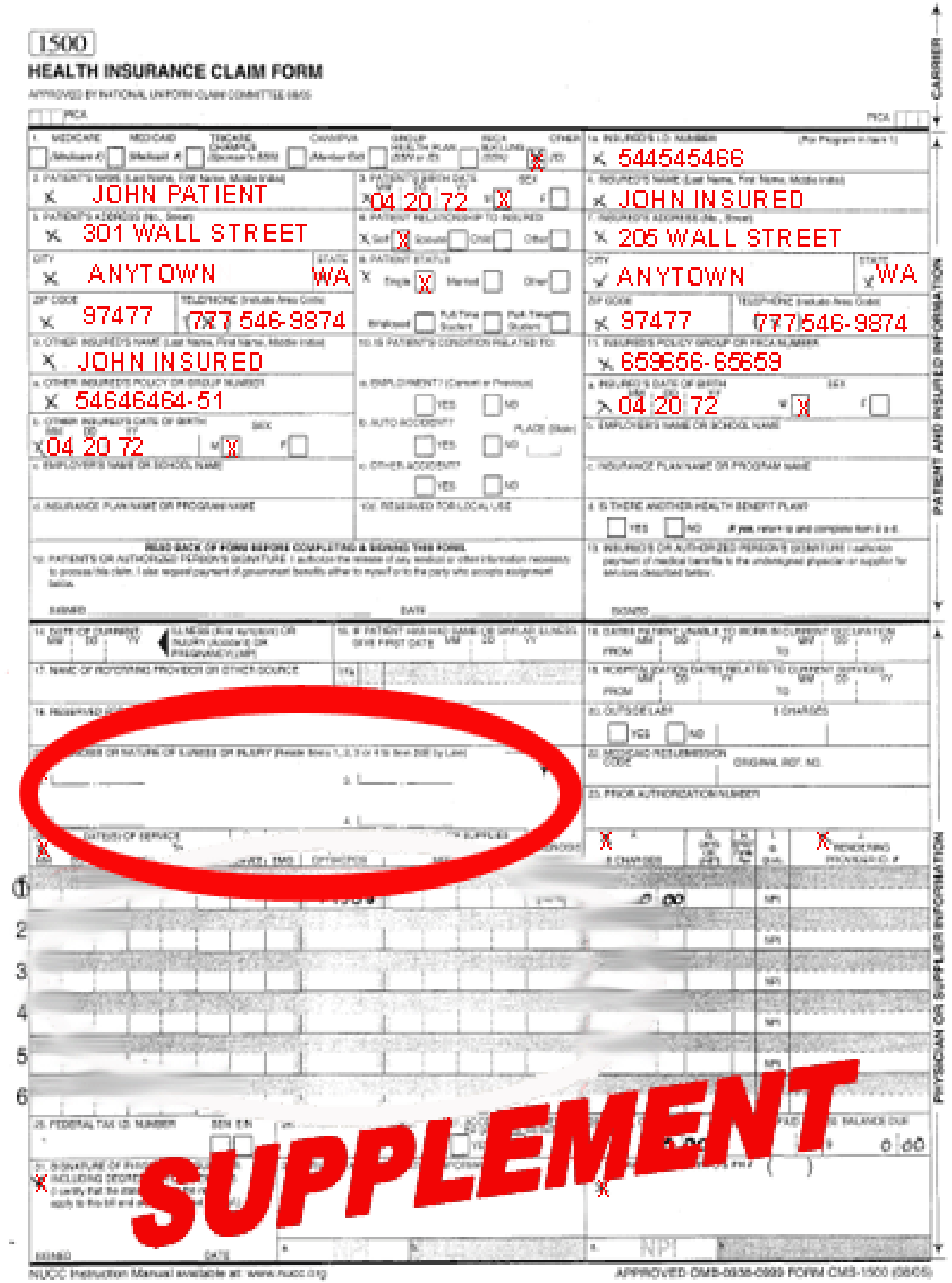
11. <u>Other Issues</u>

a. Aggravated Liability
b. Loss of Consortium
c. Scarring or Deformity

i. List Cases from Juryverdicts.com

d. Emotional Distress
e. Mileage Expense (Use Mileage Calculator in Program)
    i. Number of Miles from Each Provider to Client's Home
    ii. Number of Visits to Each Provider
f. Property Damage
    i. Additional Damage
    ii. Lost or Damaged Articles
    iii. Rental or Loss of Use Funds
    iv. Divinization
    v. Seatbelt Retraction
        1. Inspection
        2. Replacement

One final note to remember, the HCFA forms do not allow all injuries to be included on one form. It is appropriate to include a Supplemental HCFA form with the identification of additional injuries. The template for this form can be found on the website, ***Sequoiavisions.com***. The "Supplemental" form should be included with the first and final submission of billings, medical report or demand letter.


1500
HEALTH INSURANCE CLAIM FORM
JOHN PATIENT
04 20 72
JOHN INSURED
544545466
301 WALL STREET
205 WALL STREET
ANYTOWN
WA
97477
777 546-9874
54646464-51
659656-65659
SUPPLEMENT
PATIENT AND INSURED INFORMATION
PHYSICIAN OR SUPPLIER INFORMATION

DOG BITE SCARRING OR DEFORMATION DEMAND PREPARATION

Individual - Age, gender, social status, social activities, appearance and employment
Actual injuries - bite penetration and subsequent other objective or subjective injuries
Symptoms or recorded complaints - including emotional and psychological
Complications - non healing or infection
Scarring - Size, appearance, location, future concerns and need for future attention. A good photo of the scarring is necessary. Also, see factors under "Individual".

Social effects of a disfiguring injury

Without intending it, people may cause a disfigured dog bite victim to feel humiliated and discriminated against. An unmarried person may have trouble getting dates. Consider these shameful, true stories from the actual case files of attorney Kenneth Phillips:

- A prominent scientist had an ugly scar on her wrist from a dog's teeth; she repeatedly was asked whether she had tried to slit her wrists.

- An attractive lady was bit in the face and the end of her nose was ripped away; she reported that men were less attracted to her, even after reconstructive surgeries.

In our society, good-looking people have more friends, get more invitations and are treated better than those who are disfigured. Disfigured victims are unjustly required to endure stares, painful questions and social discrimination.

Medical cost - current and future - Future revisions of the scar should be projected in dollar costs.
Income Loss - current and future
Impairment - not normally considered in dog bites
Impact on life in general - Also, see factors under "Individual".

If so, this needs to be worked up as to future treatment.

FEAR OF DOGS AND THE OUTDOORS

One of the most painful effects of a dog bite can be the resulting morbid fear of dogs. A victim frequently is a dog lover; after being attacked, however, he or she no longer feels comfortable around dogs, and thereby can no longer enjoy the companionship of "man's best friend."

This may interfere with friendships and the quality of life. For example, a woman who lived in the countryside found that she no longer could take walks because she feared being attacked. This left her a "shut-in" for a period of months.

The emotional reactions of children who are the victims of, or witnesses to, dog attacks include fear, depression, withdrawal and anger. These problems can occur immediately or sometime after the tragic event. Many such children will develop post traumatic stress disorder ("PTSD") and/or other persistent problems."

Trauma" includes emotional as well as physical experiences and injuries. Emotional injuries are essentially a normal response to an extreme event. Emotional injury involves the creation of

emotional memories, which arise through a long lasting effect on structures deep within the brain. The more direct exposure to the traumatic event, the higher the risk for emotional harm.

The "undifferentiated thinking" of children frequently leads them to derive "wrong" conclusions from traumatic events. A child, especially a very young one, attempts to read the environment in order to enhance his comfort and further survival. A traumatic event like a dog bite is often misunderstood as a statement about life in general, that it is uncertain, painful and precarious. Furthermore, such an event might be internalised as a statement about the child himself, that he is somehow "bad" and even responsible for not only his physical pain but even the emotional pain suffered by his parents as a result of the dog attack. These psychic wounds may become significant determinants of the adult personality, so that the dog attack truly affects the child victim for life.

Either being exposed to violence within the home for an extended period of time or exposure to a one-time event like an attack by a dog can cause PTSD in a child. Some scientists believe that younger children are more likely to develop the disorder than older ones. PTSD can develop at any age, including in childhood. Symptoms typically begin within 3 months of a traumatic event, although occasionally they do not begin until years later. Once PTSD occurs, the severity and duration of the illness varies. Some people recover within 6 months, while others suffer much longer.

Emotional reactions to trauma may appear immediately after the dramatic event or days and even weeks later. Rates of PTSD identified in child and adult survivors of violence and disasters vary widely. For example, estimates range from 2% after a natural disaster (tornado), 28% after an episode of terrorism (mass shooting), and 29% after a plane crash. The disorder may arise weeks or months after the traumatic event.

Children and adolescents exposed to a dramatic events frequently lose trust in adults and have fear that the event may occur again. Other reactions vary according to age:

- For children five years of age and younger, typical reactions may include a fear of being separated from the parent, crying, whimpering, screaming, immobility and/or aimless motion, trembling, frightened facial expressions and excessive clinging. Parents may also noticed children returning to behaviours exhibited at earlier ages (these are called regressive behaviours), such as thumb-sucking, bedwetting, and fear of darkness. Children in this age bracket tend to be strongly affected by the parents' reactions to the traumatic event.

- Children six to eleven years old may show extreme withdrawal, disruptive behaviour, and/or inability to pay attention. Regressive behaviours, nightmares, sleep problems, irrational fears, inability or refusal to attend school, outbursts of anger and fighting are also common in traumatized children of this age. Also, the child may complain of stomach aches or other bodily symptoms that have no medical basis. School work often suffers. Depression, anxiety, feelings of guilt and emotional numbing or "flatness" are often present as well.

- Adolescents 12 to 17 years old may exhibit responses similar to those of adults, including flashbacks, nightmares, emotional numbing, avoidance of any reminders of the traumatic event, depression, substance abuse, problems with peers, and anti-social behavior. Also common are withdrawal and isolation, physical complaints, suicidal thoughts, school

avoidance, academic decline, sleep disturbances, and confusion. The adolescent may feel extreme guilt over his or her failure to prevent injury or loss of life, and may harbor revenge fantasies that interfere with recovery from the trauma.

Some children and adolescents will have prolonged problems after a traumatic event. These potentially chronic conditions include depression and prolonged grief. Another serious and potentially long-lasting problem is post-traumatic stress disorder (PTSD). This condition is diagnosed when the following symptoms have been present for longer than one month:

- Re-experiencing the event through play or in trauma-specific nightmares or flashbacks, or distress over events that resemble or symbolize the trauma.

- Routine avoidance of reminders of the event or a general lack of responsiveness (e.g., diminished interests or a sense of having a foreshortened future).

- Increased sleep disturbances, irritability, poor concentration, startle reaction and regressive behaviour.

PTSD may resolve without treatment, but some form of therapy by a mental health professional is often required in order for healing to occur. Fortunately, it is more common for a traumatized child or adolescent to have some of the symptoms of PTSD than to develop the full-blown disorder.

People with PTSD are treated with specialized forms of psychotherapy and sometimes with medications or a combination of the two. One of the forms of psychotherapy shown to be effective is cognitive/behavioural therapy, or CBT. In CBT, the patient is taught methods of overcoming anxiety or depression and modifying undesirable behaviours such as avoidance. The therapist helps the patient examine and re-evaluate beliefs that are interfering with healing, such as the belief that the traumatic event will happen again. Children who undergo CBT are taught to avoid "catastrophizing." For example, they are reassured that dark clouds do not necessarily mean another hurricane, that the fact that someone is angry doesn't necessarily mean that another shooting is imminent, etc.

Play therapy and art therapy also can help younger children to remember the traumatic event safely and express their feelings about it. Other forms of psychotherapy that have been found to help persons with PTSD include group and exposure therapy.
A reasonable period of time for treatment of PTSD is 6 to 12 weeks with occasional follow-up sessions, but treatment may be longer depending on a patient's particular circumstances.
Research has shown that support from family and friends can be an important part of recovery and that involving people in group discussion very soon after a catastrophic event may reduce some of the symptoms of PTSD.

There has been a good deal of research on the use of medications for adults with PTSD, including research on the formation of emotionally charged memories and medications that may help to block the development of symptoms. Medications appear to be useful in reducing overwhelming symptoms of arousal (such as sleep disturbances and an exaggerated startle reflex), intrusive thoughts, and avoidance; reducing accompanying conditions such as depression and panic; and improving impulse control and related behavioural problems. Research is just beginning on the use of medications to treat PTSD in children and adolescents.
There is preliminary evidence that psychotherapy focused on trauma and grief, in combination with selected medications, can be effective in alleviating PTSD symptoms and accompanying depression.

More medication treatment research is needed to increase our knowledge of how best to treat children who have PTSD.

Parents' responses to a violent event or disaster strongly influence their children's ability to recover. This is particularly true for mothers of young children. If the mother is depressed or highly anxious, she may need to get emotional support or counselling in order to be able to help her child.

PTSD is often accompanied by depression. In a group of teenage. Depression must be treated along with PTSD in these instances, and early treatment is best.

IMPAIRMENT & DUD/LOE

I would strongly recommend that before you submit a demand, you find an MD to determine the AMA impairment rating. If you submit this impairment determined by a DC and not an MD, it will not be accepted AND none of the DUD or LOE factors will be included in the evaluation as a result

of this. We have posted several physicians throughout the country on our website who understand and can determine impairments.

YOU NEED AN IMPAIRMENT RATING OF AT LEAST 2% WHOLE BODY, IN ORDER TO GET THE DISABILITIES ENTERED INTO COLOSSUS. Soft tissue whiplash type injuries typically bring in impairments in the range of 5 to 8%. Ligament Laxity (728.4) will bring a 25 to 35% whole body impairment.

IF NO PHYSICIAN HAS PROVIDED AN IMPAIRMENT - CONSIDER: IMPAIRMENT

In regards to permanent impairment assessment, it must be performed in accordance with the AMA *Guides to the Evaluation of Permanent Impairment*, Fifth Edition. Adequate information is provided in the medical records to analyze this case and provides the needed data for the rating criteria in the Fifth Edition. The *Guides* state, "**If the clinical findings are fully described, any knowledgeable observer may check the findings with the *Guides* criteria"**.

Therefore, after review of the medical documentation to include any and all diagnostic testing, the most recent patient visit with Dr. _____ it can be determined that the following **whole person permanent impairment rating of 8%** as it relates to the AMA *Guides to the Evaluation of Permanent Impairment,* Fifth Edition would be medically correct.

THE FOLLOWING FACTORS MUST BE DOCUMENTED BY YOUR CLIENT/PATIENT

DUTIES UNDER DURESS:

Work
Study
Domestic
Household

Due to:

Difficulty with Stability/Mobility
Difficulty with Postural Difficulties
Difficulty with Dexterity
Fatigue
Anxiety/Depression
Reduced Concentration
Pain (must interfere with work or studying capacity)

These Duties under Duress factors (choose) - are ongoing
- have been experienced since the incident
- were experienced for __ weeks
__ months

LOSS OF ENJOYMENT

Work

_____Loss of Status within the organization
Loss of Job Security
Loss of promotional prospects
Difficulty in performing duties
Reduced quality of work

Other

School

Loss of Attending class
Loss of Attending functions
Loss of Gym class
Loss of studying
Other

Domestic

Loss of Interior Cleaning
Loss of Interior Maintaining
Loss of Interior Preparing meals
Loss of Attending to spouse
Loss of Attending to children
Loss of Interior Decorating
Loss of Entertaining
Loss of Pet Care
Other

Household

Loss of Exterior Cleaning
Loss of Exterior Landscaping
Loss of Exterior Maintenance
Loss of Exterior Decorating
Loss of Pet Care
Other

Hobbies

Sports

Pre-incident level:

Played Socially
Played Competitive
Played Regionally

Current level:

Cannot play regionally
Cannot play competitive,
Cannot play social,
Cannot play original sport
Cannot play any sport

These Loss of Life Enjoyment factors
- are ongoing
- have been experienced since incident
- were experienced for __ weeks
__ months

S E Q U O I A V I S I O N S

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JAMES J. MATHIS

205 Scotch Pine Road **Reno, Nevada 89511** **(775) 849-8400**

I have extensive professional experience in the Insurance Industry, as an expert consultant on insurance claim handling issues, and as a speaker for Trial Lawyers' Associations and Medical Associations. As owner of Sequoia Visions, Inc., I have designed and created innovative software for the Legal and Medical Communities to address the ongoing changes and demands of the Insurance Industry. I have lectured at numerous workshops and seminars in the following areas: Claim Practices, Evaluation and Negotiation, Medical Claim Documentation and Presentation, General Claim Processing and Handling.

I have specific knowledge of Insurance Industry processes, procedures, manuals, memos, literature, claim handling practices, advertisements, electronic systems, computer maintained data, computer retrieval reporting, personnel guides, training guides and literature, trial defenses and discovery preparation.

I have assisted in the discovery process for law firms dealing with issues of bad faith, extra-contractual, breach of contract and consumer violation lawsuits. This is due to my extensive experience in varied positions in the insurance industry as well as management positions while employed with All Insurance and ongoing review of insurance procedures, processes, literature and claim files in my capacity as a consultant.

ACHIEVEMENTS WHILE EMPLOYED IN THE INSURANCE INDUSTRY

CREATED, DEVELOPED AND IMPLEMENTED a program concept designed to solve two major problems, service to customers and the relative costs. Presented findings and the complete plans for a centralized department designed to improve service, decrease cost per claim, cost of handling and reserves cost. The result was a charter to implement the plan.

EXCEPTIONALLY SUCCESSFUL as an insurance company representative speaking to internal departments, individual members and groups in the medical and legal communities. In this position I was designated company expert and administrator in suits against the company including class action litigation involving first party benefits within the state of Washington.

HIRED, TRAINED and MANAGED a new department of 5 supervisors, 5 attorney negotiators, 22 medical claim examiners and 12 support personnel. As a result, this new cohesive and efficient department was able to successfully process approximately 15,000 claims annually and over 1,500 pieces of mail daily. Previous positions as superintendent in casualty and property also required I hire and train personnel in those areas, including third party claims, UIM and UM claims, first party property claims, estimators and field inspectors.

CONCEPTUALIZED, ORGANIZED and AUTHORED an operational guide for an innovative department consisting of new and creative processes, procedures and formats. This expanded my responsibility to provide continual internal auditing and external troubleshooting combined with published instructional articles and motivational seminars.

EXPERIENCE

Mathis Insurance Consulting, Inc.	Owner and President
Sequoia Visions, Inc.	Owner and President
National Claims Services, Inc.	Owner and President
Allstate Insurance	Senior Staff Adjuster Litigation and Attorney Negotiator
State Farm Insurance	Superintendent, Consolidated Claims
	Superintendent, Metro Property, Casualty and Litigation
	Resident Superintendent, Casualty and Property
	Claim Representative, Life, Casualty and Property
University of Oregon	Research Assistant

Mathis Farms Owner/Operator

EDUCATION

Bachelor Degree	University of Oregon, Eugene, OR
Associate of Arts	Lane Community College, Eugene, OR
AIC	Insurance Institute of America
Two Parts CPCU	Insurance Institute of America
ICAR certified (all parts)	ICAR

STATE FARM INSURANCE COMPANY

Negotiation Skills for the Claims Professional (Certified)	State Farm Insurance Company
Superintendent School	State Farm Insurance Company
Casualty Supervision	State Farm Insurance Company
Property Supervision	State Farm Insurance Company
Management (Parts I, II, III)	State Farm Insurance Company
Claims School	State Farm Insurance Company
BCC (Parts I, II, III, IV)	State Farm Insurance Company
Bodily Injury School	State Farm Insurance Company
Negotiation Skills for the Claims Professional Facilitator	State Farm Insurance Company
Personnel Management School	State Farm Insurance Company

ALLSTATE INSURANCE COMPANY

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MBRS Workshops and Training	Allstate Insurance Company
Casualty Skills Workshop	Allstate Insurance Company
P-CCSO Workshops and Training	Allstate Insurance Company
MIST Workshops and Training	Allstate Insurance Company
Colossus and Evaluation Training	Allstate Insurance Company
Claim Portfolio Workshops and Training	Allstate Insurance Company
Liability Investigation Matrix Workshop	Allstate Insurance Company
Damage Investigation Matrix Workshop	Allstate Insurance Company
MIST Investigation Matrix Workshop	Allstate Insurance Company
CDS Best Practices Training	Allstate Insurance Company
Claim Performance Measurement System	Allstate Insurance Company
Allstate Profit Sharing Enhancement	Allstate Insurance Company

TESTIMONY AND PRESENTATIONS

I have been retained as an expert and consultant throughout the country to review the uniform claim handling practices and procedures of the Insurance Industry. I am paid $300.00 per hour as a consultant and $100.00 per hour for travel time not including costs. I am paid $300.00 per hour for deposition and testimony with an additional one-time charge of $500.00 if the deposition is video-taped. This has resulted in my review of more than 7,500 insurance claim files. I have testified in the following lawsuits:

- Bien Aime vs. State Farm Mutual Automobile Insurance Company, Florida; Circuit Court of the 17th Judicial Circuit, Broward County, Florida; Case No. 95-008749-25;
- Boll vs. State Farm Mutual Automobile Insurance Company in the state of Idaho; The District Court of the Fifth Judicial District, State of Idaho, County of Twin Falls; Case No. CV-97-4624;

- Holderness vs. State Farm Mutual Automobile Insurance Company in the state of Alaska; Superior Court, Alaska, Third Judicial District at Anchorage; Case No. 3AN-94-9277 CI;
- Mesa vs. State Farm Mutual Automobile Insurance Company, Wyoming; The District Court Eighth Judicial District; Case No. 13559;
- Morgan vs. State Farm Mutual Automobile Insurance Company, Louisiana; Twenty-Second Judicial District Court, Parish of St. Tammany, State of Louisiana; Case No. 99-10917;
- Robinson vs. State Farm Mutual Automobile Insurance Company, Idaho; The District Court of the Fourth Judicial District of the State of Idaho, in and for the County of Ada; Case No. CV OC 94-98099D;
- Schroeder vs. State Farm Mutual Automobile Insurance Company, Arizona; The Superior Court of the State of Arizona, in and for the County of Maricopa; No. CV2002-010179;
- The People of The State of California vs. Wilmer Origel, Superior Court of California, County of San Joaquin; No SFO94494A;
- Vittorio vs. Grange Insurance Companies; The Court of Common Pleas, Franklin County, Ohio; Case No. 03CVC-04-3849;
- Waddell vs. Allstate, Montana; United States Federal Court, Montana; Case No. CV-99-65-BU-CCI;

I have been deposed in class action lawsuits in the state of Washington, Crannell vs. State Farm, Van Noy vs. State Farm and Sitton vs. State Farm, in Nebraska, Lynch vs. State Farm, Oklahoma, Burton vs. Mountain West Farm Bureau Mutual Insurance Co. in the state of Montana and in Arizona, Skene vs. State Farm, in California, Watts vs. Allstate. I have also been deposed or provided a written opinion in the following lawsuits.

- Allstate Insurance Company ET AL. vs. Michael Kent Plambeck, D.C., ET AL; Texas, United States District Court for the Northern District of Texas, Dallas Division; Civil Action No 3:08CV-0388-BD;
- Adams vs. State Farm Mutual Automobile Insurance Company, State of Michigan in the Circuit Court for the County of Kent Civil Division, Case No. 02-08360-NF;
- Barerra vs. Western United dba AAA Nevada Insurance Company, a California Corporation; Case No. 2:09-cv-02289-ECR-PAL; filed in United States District Court, District of Nevada.
- Bien Aime vs. State Farm, Florida; Circuit Court of the 17th Judicial Circuit, Broward County, Florida; Case No. 95-008749-25;
- Blair vs. Allstate, California; Superior Court of California, County of San Francisco; Case No. 313720;
- Boe vs. Allstate, Washington; Superior Court of Washington for King County, Case No. 01-2-19280-9SEA;
- Boll vs. State Farm Mutual Automobile Insurance Company in the state of Idaho; The District Court of the Fifth Judicial District, State of Idaho, County of Twin Falls; Case No. CV-97-4624;
- Brewer vs. State Farm Mutual Automobile Insurance Company in the state of Indiana; Superior Court of Indiana, County of Bartholomew, Case No. 03C01-9912-CT-1795;
- Carlson vs. Progressive Insurance Company; in The Superior Court of the State of Washington, In and For the county of King; Case No. 08-2-23495-9 SEA;

- Carlson vs. State Farm Mutual Automobile Insurance Company in the state of Montana; The Montana Eighth Judicial Court, Cascade County, Case No. BDV-00-140;
- Crannell and Tesfamariam vs. State Farm Mutual Automobile Insurance Company, State of Washington, In The Superior Court Of The State Of Washington For King County, NO. 92-2-264433-1;
- Crump vs. State Farm Mutual Automobile Insurance Company, Michigan; Circuit Court, State of Michigan, County of Genesee; Case No. 02-72839-NF;
- Dunn vs. State Farm Mutual Insurance Company, Michigan; State of Michigan In The Circuit Court For The County of Wayne; Case 2:08-cv-12831;
- Elizabeth Ann Pakenas, Guardian of Patti Rogers vs. State Farm Mutual Automobile Insurance Company, United States District Court, Eastern District of Michigan, Southern Division; Case NO: 05 CV60152;
- Feldotto vs. State Farm Mutual Automobile Insurance Company, Colorado; District Court, Douglas County, State of Colorado; Case No. 01 CV 480;
- Foltz vs. State Farm Mutual Automobile Insurance Company, Oregon; United States Court of Appeals for the Ninth Circuit; Case No. CV-94-06293-MRH;
- Furrier vs. Allstate Property And Casualty Insurance Company, State Of Arizona; In The Superior Court Of The State Of Arizona, In And For The County Of Maricopa; No. Cv2009-003464;
- Henke vs. State Farm Mutual Automobile Insurance Company, Washington; The Superior Court State of Washington for King County; Case No. 99-2-11808-7;
- Hill vs. State Farm Mutual Automobile Insurance Company, Oklahoma; The United States District Court for The Western District of Oklahoma; Case No. CIV-00-1877-T;
- Holderness vs. State Farm Mutual Automobile Insurance Company in the state of Alaska; Superior Court, Alaska, 3rd Judicial District at Anchorage; Case No.3AN-94-9277 CI;
- Isham vs. Hitchman, Jean-Charles, State Farm Mutual Automobile insurance Company, Griffin Insurance Agency, Inc., Progressive Express Insurance Co., and Gibbs, P.A., Florida; In The Circuit Court for Broward County, Florida, General Jurisdiction Division; Case No.: 02-16942 CA CE (04);
- Joy vs. Allstate Indemnity Company; Washington; Superior Court, State of Washington, Spokane County; Case NO. 03-2-06286-8;
- Lehman vs. State Farm Mutual Automobile Insurance Company, Washington; The Superior Court State of Washington for King County; Case No. 00-2-26450-0 SEA;
- Liebig v. State Farm Mutual Automobile Insurance Com., Indiana; Cause No. 53C04-0502-CT-00339;
- Lynch vs. State Farm Mutual Automobile Insurance Company, Nebraska; The District Court of Douglas County, Nebraska; Case No. DOC. 980 NO. 654;
- Martinez vs. Davis, New Mexico; The State of New Mexico, County of Bernalillo Second Judicial District Court; Case No. CV 99-07598;
- McAllister vs. State Farm Mutual Automobile Insurance Company, Washington; Superior Court of Washington for Grays Harbor County; Case No. 92-2-01187-6;
- Mesa vs. State Farm Mutual Automobile Insurance Company, Wyoming; The District Court Eighth Judicial District; Case No. 13559;
- Morgan vs. State Farm Mutual Automobile Insurance Company, Louisiana; Twenty-Second Judicial District Court, Parish of St. Tammany, State of Louisiana; Case No. 99-10917;

- Nettles and Czarnedki et. al. v. Allstate Insurance Company, Illinois; In The Circuit Court of Cook County, Illinois County Department, Chancery Division; Case No, 02 CH 14426;
- O'Reilly vs. State Farm Mutual Automobile Insurance Company, Washington; Superior Court of Washington for County of King; Case No. 00-2-11548-2KNT;
- Passy-Fontes vs. State Farm Mutual Automobile Insurance Company, California; Superior Court of the State of California for the County of San Bernardino Central District; Case No. SCVSS74793;
- Plateros vs. State Farm Mutual Automobile Insurance Company, Nevada; The Second Judicial District Court of the State of Nevada in and for The County of Washoe; Case No. CV98-07605;
- Rel vs. State Farm Mutual Automobile Insurance Company, New Mexico, The United States District Court for The District of New Mexico; Case No. CIV-04-0033 ACT/RLP;
- Reyher vs. State Farm Mutual Automobile Insurance Company, Colorado; District Court, County of Otero, State of Colorado; Case No. 03 CV 18;
- Robinson vs. State Farm Mutual Automobile Insurance Company, Idaho; The District Court of the Fourth Judicial District of the State of Idaho, in and for the County of Ada; Case No. CV OC 94-98099D;
- Schroeder vs. State Farm, Arizona; The Superior Court of the State of Arizona, in and for the County of Maricopa; No. CV2002-010179;
- Simonsen vs. Allstate, Montana; The United States District Court for the District of Montana, Butte Division; CV-01-64-BU-DWM;
- Sitton vs. State Farm, Washington; Superior Court of Washington for King County; Case No. 00-2-10013;
- State Farm Mutual Automobile Insurance Company and State Farm Fire and Casualty Company vs. Robert J. Brown, Spectrum DX services, Inc. and Gary M. Weiss; Florida; United States District Court Middle District of Florida Orlando Division; No. 03 CV 3936;
- The People of The State of California vs. Wilmer Origel, Superior Court of California, County of San Joaquin; No SFO94494A;
- Van Noy vs. State Farm Mutual Automobile Insurance Company, Washington; The Superior Court of the State of Washington, The County of King; Case No. 94-2-17363-4;
- Waddell vs. Allstate, Montana; United States Federal Court, Montana; Case No. CV-99-65-BU-CCI;
- White vs. Benjamin Rodriquez, Javier Rodriquez, American Family Mutual Insurance Company, Nevada; District Court, Clark County, Nevada; Case No. A499947, Department XVII;

Prior to those lawsuits, I was designated as a company representative in the class action, Cranell v. State Farm, Washington and testified on behalf of State Farm in single lawsuits brought against them by their insureds. I am sought as a speaker, at workshops, seminars and educational forums. Included with these presentations is my authored handout exceeding 100 pages. The following is a listing of those functions:

- Alaska Trial Lawyers Association,
- Alabama Trial Lawyers Association,
- Arizona Trial Lawyers Association,
- Arkansas Trial Lawyers Association,

- Association of Trial Attorneys of America,
- Brain Injury Association of Michigan,
- California Bar Association,
- California Advocacy Association of San Diego,
- California Chiropractic Association,
- Colorado Trial Lawyers Association,
- Colorado Chiropractic Association,
- Delaware Trial Lawyers Association,
- Florida Trial Lawyers Association,
- Florida Chiropractic Association,
- Georgia Paralegal Association,
- Indiana Trial Lawyers Association,
- International Chiropractic Association,
- Kansas Association of Trial Attorneys,
- Kansas Chiropractic Association,
- Kentucky Academy of Trial Lawyers,
- Louisiana Trial Lawyers Association,
- Massachusetts Association of Trial Attorneys,
- Michigan Trial Lawyers Association,
- Michigan Chiropractic Association,
- Mississippi Trial Lawyers Association,
- Missouri Trial Lawyers Association,
- Nevada Trial Lawyers Association,
- Nevada Bar Association,
- New Jersey Trial Lawyers Association,
- New Mexico Trial Lawyers Association,
- North Carolina Academy of Trial Lawyers,
- Ohio Academy of Trial Lawyers,
- Ontario Trial Lawyers Association, Canada,
- Oregon Chiropractic Association,
- Oregon Trial Lawyers Association,
- Rhode Island Association of Trail Attorneys,
- San Diego Consumer Advocate Association,
- Santa Clara County Trial Lawyers Association,
- Spokane WA Chiropractic Association,
- Southern California Advocate Association,
- Southern California Physician Network,
- Utah Association of Chiropractic Physicians,
- Vermont Association for Justice,
- Washington State Chiropractic Association,
- Washington Association of Independent Medical Examiners,
- Washington Trial Lawyers Association,
- West Virginia Trial Lawyers Association,

In addition to the written opinions, affidavits and declarations provided in the above listed cases, I have been interviewed, quoted, video-taped, or provided written articles on Insurance Industry policies, practices and procedures in the following:

- “American Chiropractic Magazine” - Article
- “ATLA Audio Presentation”, - Lecture
- “Business Week”, - Interview
- “CNN” News - Interview
- “King 5 News”, Seattle, Washington, - Interview
- “Lawyers USA”, - Article
- “Lawyers’ Weekly”, - Interview
- “Massachusetts Trial News”, - Interview
- “NBC Dateline”, - Interview
- “NBC News Affiliate”, Portland, Oregon”, - Interview
- “Nevada Chiropractic Newsletter”, - Article
- “Newsweek”, - Interview
- “Plaintiff”, Journal Of Consumer Attorneys Association For Northern Calif., - Article
- “Seattle Post Intelligencer”, - Interview
- “The Advocate”, Journal Of Consumer Attorneys Association For So. Calif., - Article
- “The Los Angeles Times”, - Interview
- “The Los Angeles Weekly”, - Interview
- “The Medical-Legal News”, - Article
- “The Oregonian”, - Interview
- “The Pinet Directory” - Article
- “The Wall Street Journal”, - Interview
- “The Washington Post”, - Interview
- “US News And World Report”, - Interview
- “United Policyholders Of America” - Article
- Co-authored “Minor Impact Soft Tissue” - Book

NOTES

NOTES

LAW OFFICES OF JUSTICE JONES

Justice Jones, Attorney at Law
1506 Claim Drive
Claim Hill, Claim 11111

SAMPLE SETTLEMENT DEMAND

Mutual Insurance Company 7/30/2007
Attn: Jay Paycheck
P.O. Box 1111
Claim Hill, Claim 11111

Claim No: 44-444-4444
Your Insured: Mr. And Mrs. Insured
Date of Loss: 8/10/2004
Claimant: Janice Doe

Dear Mr. Paycheck:

This demand is prepared in an attempt to resolve my client's claim. This demand is not intended to be used in future litigation. This is an opportunity for your company to settle my client's claim within the policy limits of your insured. I am aware of the computerized programs which your company utilizes to evaluate claims and I have organized this demand so as to make that process as easy as possible.

My client was involved in the automobile accident of 8/10/2004 with your insured. After the accident my client experienced severe pain in my neck, mid-back, lower-back, and chest. My client was examined at the accident scene and transported to the emergency room by ambulance. These injuries were all expressed to and documented by Dr. Sam Feelgood, D.C.

The following aspects of my client's claim were gathered from the medical records for your convenience in evaluating my client's claim for settlement.

DOB: 9/28/1957 I am Right-Handed.
Gender: Female

Medical Specials: $10,879.00

Date of First Treatment: 8/10/2004

INJURIES:

Neck and Back, Disc Bulges at L5-S1, C4-5, C5-6, and C6-7, Left Hip Contusion, Cervical, Lumbar Sprain/Strains

LIABILITY:

Liability is not an issue at this time and will have no affect on the settlement value of my client's claim. If this is not correct, please inform me immediately.

ICD9 Injury Codes: 359.3, 729.1, 799.1, 799.4
CPT Treatment Codes: 97010, 97014, 97012, 98941, 98942, 97032

PRIOR/SUBSEQUENT INJURIES:

Degenerative Disc Disease existed prior to this accident. However, there were no existing complaints or symptoms being experienced prior to this accident. There was no treatment being provided for this condition. This condition is only relevant in that, the injuries caused by this accident took longer to heal and the complaints directly related to the injuries caused by this accident were more severe as a result of the Degenerative Disc Disease.

SURPRISE IMPACT

According to Mertz and Patrick, the unaware occupant is at greater risk of injury. *(Mertz JH, Patrick LM. Investigation of the Kinematics and kinetics of whiplash. 1967; SAE 670919.)*

Our client stated that he was wearing his safety belts (lap and shoulder harness) at the time of the accident.

"According to Allen, Barnes and Bowidala, shoulder belts are very effective at saving lives in auto accidents, but there is some evidence that they can actually cause more damage in a rear end collision. Because the body is held in place, the neck suffers worse hyperflexion. The cervical spine may also undergo a twisting motion from the head restraint, causing a more complex injury. " *(Allen MJ, Barnes MR, Bodiwala GG. The effect of a seat belt legislation on the injuries sustained by car occupants. Injury: The British Journal of Accident Surgery 1985; 16; 471-476)*

NECK AND BACK INJURIES

Provider	# of Tx	Last Tx Date	Prognosis
Dr. John Doe	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. John Doe	7/19/2007
Anxiety/Depression	Dr. John Doe	7/19/2007
Dizziness	Dr. John Doe	7/19/2007
Headaches	Dr. John Doe	7/19/2007
Spasms	Dr. John Doe	7/19/2007
Visual Disturbance	Dr. John Doe	7/19/2007
Radiating Pain	Dr. John Doe	7/19/2007
Sleep Disruption	Dr. John Doe	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. John Doe	7/19/2007
Acupuncture	Prolonged Regular	Dr. John Doe	8/12/2006
Bed Rest	Prolonged Regular	Dr. John Doe	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

OTHER INJURIES

CERVICAL SPRAIN/STRAIN

Provider	# of Tx	Last Tx Date	Prognosis
Dr. John Doe	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. John Doe	7/19/2007
Anxiety/Depression	Dr. John Doe	7/19/2007
Dizziness	Dr. John Doe	7/19/2007
Headaches	Dr. John Doe	7/19/2007
Spasms	Dr. John Doe	7/19/2007
Visual Disturbance	Dr. John Doe	7/19/2007
Radiating Pain	Dr. John Doe	7/19/2007
Sleep Disruption	Dr. John Doe	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. John Doe	7/19/2007
Acupuncture	Prolonged Regular	Dr. John Doe	8/12/2006
Bed Rest	Prolonged Regular	Dr. John Doe	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

LUMBAR SPRAIN/STRAIN

Provider	# of Tx	Last Tx Date	Prognosis
Dr. John Doe	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted

Range of Motion	Dr. John Doe	7/19/2007
Anxiety/Depression	Dr. John Doe	7/19/2007
Dizziness	Dr. John Doe	7/19/2007
Headaches	Dr. John Doe	7/19/2007
Spasms	Dr. John Doe	7/19/2007
Visual Disturbance	Dr. John Doe	7/19/2007
Radiating Pain	Dr. John Doe	7/19/2007
Sleep Disruption	Dr. John Doe	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. John Doe	7/19/2007
Acupuncture	Prolonged Regular	Dr. John Doe	8/12/2006
Bed Rest	Prolonged Regular	Dr. John Doe	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

The following injuries were documented on the MRI's which occurred on July 19th, 2005 and read by Dr. Sam Feelgood, M.D. In his reading, Dr. Sam Feelgood states under Findings:

L5-S1: Degenerative signal loss is present in the disc. Mild to moderate, 2-3 mm, central and bilateral paracentral posterior disc bulge. Minimal posterior osteophytosis. Minor bilateral articular facet hypertrophy. Minor central stenosis. Moderate bilateral neural foraminal narrowing.

C4-5: Degenerative loss of signal and height is present in the disc. Mild to moderate, 2-3 mm, posterior annular disc bulge. Minor posterior osteophytosis. Mild to moderate bilateral uncovertebral joint hypertrophy. Mild to moderate central stenosis and bilateral neural foraminal narrowing.

C5-6: Minimal posterior annular disc bulge without osteophytosis. Minor bilateral uncovertebral joint hypertrophy. Minor central stenosis and bilateral neural foraminal narrowing.

C6-7: Degenerative loss of signal and height is present in the disc. Mild to moderate, 2-3 mm, posterior annular disc bulge. Minor posterior osteophytosis. Mild to moderate bilateral uncovertebral joint hypertrophy. Moderate central stenosis and bilateral neural foraminal narrowing.

Conclusion: Spondylotic change at L4-5, L5-S1, C4-5, C5-6, and C6-7.

L5-S1

Injury Type:	Disc Injury - bulge
Duration:	25 to 36 months
Prognosis:	Complaints/treatment recommended
Physician:	Dr. William Well, M.D., BioImaging
Last Date Noted:	7/19/2005

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. John Doe	7/19/2007
Anxiety/Depression	Dr. John Doe	7/19/2007
Dizziness	Dr. John Doe	7/19/2007
Headaches	Dr. John Doe	7/19/2007
Spasms	Dr. John Doe	7/19/2007
Visual Disturbance	Dr. John Doe	7/19/2007
Radiating Pain	Dr. John Doe	7/19/2007
Sleep Disruption	Dr. John Doe	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. John Doe	7/19/2007
Acupuncture	Prolonged Regular	Dr. John Doe	8/12/2006
Bed Rest	Prolonged Regular	Dr. John Doe	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

C4-5

Injury Type:	Disc Injury - bulge
Duration:	25 to 36 months
Prognosis:	Complaints/treatment recommended
Physician:	Dr. William Well, M.D., BioImaging
Last Date Noted:	7/19/2005

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. John Doe	7/19/2007
Anxiety/Depression	Dr. John Doe	7/19/2007
Dizziness	Dr. John Doe	7/19/2007
Headaches	Dr. John Doe	7/19/2007
Spasms	Dr. John Doe	7/19/2007
Visual Disturbance	Dr. John Doe	7/19/2007
Radiating Pain	Dr. John Doe	7/19/2007
Sleep Disruption	Dr. John Doe	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. John Doe	7/19/2007
Acupuncture	Prolonged Regular	Dr. John Doe	8/12/2006

Bed Rest	Prolonged Regular	Dr. John Doe	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

C5-6

Injury Type:	Disc Injury - bulge
Duration:	25 to 36 months
Prognosis:	Complaints/treatment recommended
Physician:	Dr. Sam Feelgood, M.D., BioImaging
Last Date Noted:	7/19/2005

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. John Doe	7/19/2007
Anxiety/Depression	Dr. John Doe	7/19/2007
Dizziness	Dr. John Doe	7/19/2007
Headaches	Dr. John Doe	7/19/2007
Spasms	Dr. John Doe	7/19/2007
Visual Disturbance	Dr. John Doe	7/19/2007
Radiating Pain	Dr. John Doe	7/19/2007
Sleep Disruption	Dr. John Doe	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. John Doe	7/19/2007
Acupuncture	Prolonged Regular	Dr. John Doe	8/12/2006
Bed Rest	Prolonged Regular	Dr. John Doe	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

C6-7

Injury Type:	Disc Injury - bulge
Duration:	25 to 36 months
Prognosis:	Complaints/treatment recommended
Physician:	Dr. William Well, M.D., BioImaging
Last Date Noted:	7/19/2005

History of Complaints:

Symptom	Physician	Date Noted

Range of Motion	Dr. John Doe	7/19/2007
Anxiety/Depression	Dr. John Doe	7/19/2007
Dizziness	Dr. John Doe	7/19/2007
Headaches	Dr. John Doe	7/19/2007
Spasms	Dr. John Doe	7/19/2007
Visual Disturbance	Dr. John Doe	7/19/2007
Radiating Pain	Dr. John Doe	7/19/2007
Sleep Disruption	Dr. John Doe	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. John Doe	7/19/2007
Acupuncture	Prolonged Regular	Dr. John Doe	8/12/2006
Bed Rest	Prolonged Regular	Dr. John Doe	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

LEFT HIP

Injury Type: Contusion
Duration: 1 to 3 months
Prognosis: Undetermined

Physician: Dr. John Doe
Last Date Noted: 7/19/2007

Physician: Dr. Sam Feelgood
Last Date Noted: 8/10/2004

Anxiety/Depression

Physician: Dr. John Doe
Duration: Undetermined
Chart Date: 7/19/2007
Treatment(s): Exercise

FREQUENCY, TIMING, AND COURSE OF DEPRESSIVE SYMPTOMOTOLOGY AFTER WHIPLASH.

Carroll LJ, Cassidy JD, Cote P.Department of Public Health Sciences, University of Alberta,Edmonton, Alberta, Canada. lcarroll@ualberta.ca

STUDY DESIGN: Population-based incidence cohort. OBJECTIVE: To report the incidence, timing, and course of depressive symptoms after whiplash.

SUMMARY OF BACKGROUND DATA: Evidence is conflicting about the frequency, time of onset, and course of depressive symptoms after whiplash. METHODS: Adults making an insurance claim or seeking health care for traffic-related whiplash were followed by telephone interview at 6 weeks, and 3, 6, 9, and 12 months post-injury. Depressive symptoms were assessed at baseline and at each follow-up. RESULTS: Of the 5,211 subjects reporting no pre-injury mental health problems, 42.3% (95% confidence interval, 40.9-43.6) developed depressive symptoms within 6 weeks of the injury, with subsequent onset in 17.8% (95% confidence interval, 16.5-19.2). Depressive symptoms were recurrent or persistent in 37.6% of those with early post-injury onset. Pre-injury mental health problems increased the risk of later onset depressive symptoms and of a recurrent or persistent course of early onset depressive symptoms.

CONCLUSIONS:

Depressive symptomotology after whiplash is common, occurs early after the injury, and is often persistent or recurrent. This suggests that, like neck pain and headache, depressed symptomotology is part of the cluster of acute whiplash symptoms. Clinicians should be aware of both physical and psychological injuries after traffic collisions.

PMID: 16845342 [PubMed - indexed for MEDLINE]

IMPAIRMENT

Physician	Chart Date	Whole Body %	Body Part
Dr. John Doe	7/19/2007	26	Cervical, Thoracic, Lumbar vertebra

DUTIES UNDER DURESS

Hobbies
Work
Domestic Duties
Household Duties

Physician	Chart Date
Dr. John Doe	7/19/2007

Dr. Doe documented the following statements of my client:

"Extended sitting or attending computer classes cause radiating pain from my low back and pain as well as stiffness in my neck. It resolves into rigid and stiffness, restricted movement, which never seems to go away. Vacuuming increases low back pain. I have difficulty preparing larger meals such as Thanksgiving and Christmas. I have had to hire a person to help with heaving cleaning throughout the home. Yard work increases neck and low back pain. Transporting my family increases numbness in my hands and they go to sleep. While standing in the checkout line during shopping my pain increases and I experience dizziness and nausea. When I awake in the morning my arms are numb."

LOSS OF ENJOYMENT OF LIFE

Domestic Duties

Household Duties
Hobbies
Work\Study
Sports

My client stated the following in Dr. Doe's records:

"I have had to limit my relationship with my husband as this causes pain in my lower back to increase. I am unable to participate in recreational activities with my children because it will increase my pain. I was not able to participate with my children in rafting, attending amusement parks or water parks. I could not enjoy dancing with my husband or playing volleyball with my family. I have been reduced to a spectator.

While in school, drafting and drawing would increase the pain in my upper back and neck. I have stopped doing a lot of activities such as dancing, driving and sewing because it increases my pain. My husband is legally blind and I am responsible for all the driving in our family of 4 children."

Physician	**Chart Date**
Dr. John Doe	7/19/2007

DISABILITY

Dr. Sam Feelgood, D.C. in his report of August 01, 2005, he states the following:

"...Her injuries are permanent in nature and she has been given the following restrictions to avoid an aggravation of her condition:

1. no lifting over 15lbs
2. no repeated overhead lifting or working with the arms in an outstretched position
3. no sitting or standing for over 30 minutes at a time without changing positions and taking a break
4. no repeated bending and twisting at the waist

She will need to receive treatment over the next three year period on a prn basis to control her symptoms and exacerbations which are likely to occur. Approximate treatment will cost $60.00 per visit for therapies and spinal adjustments at an estimated 15-20 visits yearly, $900-1,200 per year.

Physician	**Chart Date**
Dr. Sam Feelgood	8/1/2005

CURRENT MEDICAL EXPENSES

Exercise Program		$792.00
Dr. John Doe, DC	Physician	$4,845.00
BioImaging, MD	Physician	$1,960.00
Dr. Sam Feelgood, DC	Physician	$3,132.00
Natural Oasis Spa, TH	Physician	$150.00
Total Physician Expenses		$10,879.00

FUTURE MEDICAL EXPENSES

My client stated that he felt pain immediately after the accident.

"A study by Radanov found that patients who reported pain immediately after their accidents were more likely to have pain at two years post-injury. It is generally recognized that patients with immediate symptoms are at a higher risk of long-term pain from whiplash." *(Radanov, BP, Sturzenegger M, De Stefano G. Long-term outcome after whiplash injury. A two-year follow-up considering the features of injury mechanisms and somatic, radiologic and psychosocial findings. Medicine 1995; 74(5): 281-476.)*

Dr. Sam Feelgood, D.C. in his report of August 01, 2005, states the following:

"...Her injuries are permanent in nature and she has been given the following restrictions to avoid an aggravation of her condition:

1. no lifting over 15lbs
2. no repeated overhead lifting or working with the arms in an outstretched position
3. no sitting or standing for over 30 minutes at a time without changing positions and taking a break
4. no repeated bending and twisting at the waist

She will need to receive treatment over the next three year period on a prn basis to control her symptoms and exacerbations which are likely to occur. Approximate treatment will cost $60.00 per visit for therapies and spinal adjustments at an estimated 15-20 visits yearly, $900-1,200 per year.

Future Treatment	Future Cost	Physician	Chart Date
Chiropractic and Therapy	$3,600.00	Dr. Sam Feelgood	8/1/2005

Total Future Medical Costs: $3,600.00

MILEAGE

Mileage to/from Physicians

Mileage for all 121 visits is based on 35 miles round-trip. The total miles driven for medical treatment equals 4,235. This figure multiplied times the federal mileage rate of $.425 per mile equals $1,799.88.

EXPENSES SUMMARY

Physician Expenses:	$10,087.00
Mileage to and from physicians:	$1,799.88
House Cleaning:	$4,620.00
Future Medical:	$3,600.00
Future Income Loss:	*Undetermined*
Total Medical Expenses:	$20,106.88

On behalf of my client, I am asking that you request permission from your policyholder to release all information concerning all policies and their respective limits which would be available to satisfy the

damages of this claim. In consideration of current medical specials, current income loss, ongoing disabilities which will constitute future medical expenses and income loss, my client has agreed to release your policyholder in exchange for the payment of all available policy limits.

My client reserves all rights and defenses known or unknown that arise at either law or equity. The above claim for bodily injury and damages has been submitted with the current knowledge of my client's injuries and damages, however, we reserve the right to supplement or amend either the claim for liability or damages. No comment action or inaction should be construed as to waive, alter, or modify any rights and or defenses possessed by my client. All rights and defenses are reserved.

Please respond to the above requests and demand within 10 business days of your receipt of this demand.

Sincerely,

_____
Justice Jones, Attorney at Law

EXHIBIT LISTINGS:

Medical Reports
Medical Records
Medical Billings
DUD/LOE Worksheets

F e e l g o o d M e d i c a l C l i n i c

Dr. Sam Feelgood, D.C.
1111 Getwell Drive
Anywhere, State 2222

SAMPLE MEDICAL REPORT

LAW OFFICES OF JUSTICE JONES
Justice Jones, Attorney at Law
1506 Claim Drive
Claim Hill, Claim 11111

Claim No: 44-444-4444
Your Client: Janice Doe
Date of Loss: 8/10/2004
My Patient: Janice Doe

Dear Mr. Jones:

My patient was involved in the automobile accident of 8/10/2004. After the accident my patient experienced severe pain in her neck, mid-back, lower-back, and chest. My patient was examined at the accident scene and transported to the emergency room by ambulance. Ms. Doe came into my clinic for her visit on August 10th, 2004.These injuries were all expressed to me and documented in my medical records attached for your review.

The following aspects of my patient's claim were gathered from the medical records for your convenience.

DOB: 9/28/1957 I am Right-Handed.
Gender: Female

Medical Specials: $10,087.00
Future Medical Costs: $3,600.00

Date of First Treatment: 8/10/2004

INJURIES:

Neck and Back, Disc Bulges at L5-S1, C4-5, C5-6, and C6-7, Left Hip Contusion, Cervical, Lumbar Sprain/Strains

ICD9 Injury Codes: 739.1, 739.2, 739.3, 839.0, 839.2, 839.4, 847.0, 847.1, 847.2, 728.4 (Cervical, Thoracic and Lumbar areas), 359.3, 729.1, 799.1, 799.4, 307.81, 308.0, 780.5, 728.85, 780.4, 780.79, 782.0

CPT Treatment Codes: 97010, 97014, 97012, 98941, 98942, 97032

PRIOR/SUBSEQUENT INJURIES:

Degenerative Disc Disease existed prior to this accident. However, there were no existing complaints or symptoms being experienced prior to this accident. There was no treatment being provided for this condition. This condition is only relevant in that, the injuries caused by this accident took longer to heal and the complaints directly related to the injuries caused by this accident were more severe as a result of the Degenerative Disc Disease.

SURPRISE IMPACT

According to Mertz and Patrick, the unaware occupant is at greater risk of injury. *(Mertz JH, Patrick LM. Investigation of the Kinematics and kinetics of whiplash. 1967; SAE 670919.)*

Our patient stated that she was wearing her safety belts (lap and shoulder harness) at the time of the accident.

"According to Allen, Barnes and Bowidala, shoulder belts are very effective at saving lives in auto accidents, but there is some evidence that they can actually cause more damage in a rear end collision. Because the body is held in place, the neck suffers worse hyperflexion. The cervical

spine may also undergo a twisting motion from the head restraint, causing a more complex injury." [12]

NECK AND BACK INJURIES

Provider	# of Tx	Last Tx Date	Prognosis
Dr. John Smith, MD	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

OTHER INJURIES

CERVICAL SPRAIN/STRAIN

Provider	# of Tx	Last Tx Date	Prognosis
Dr. Sam Feelgood, DC	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007

[12] **Allen MJ, Barnes MR, Bodiwala GG. The effect of a seat belt legislation on the injuries sustained by car occupants. Injury: The British Journal of Accident Surgery 1985; 16; 471-476**

Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

THORACIC SPRIAN/STRAIN

Provider	# of Tx	Last Tx Date	Prognosis
Dr. Sam Feelgood, DC	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

LUMBAR SPRAIN/STRAIN

Provider	# of Tx	Last Tx Date	Prognosis
Dr. Sam Feelgood, DC	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

CERVICAL LIGAMENT LAXITY

Provider	# of Tx	Last Tx Date	Prognosis
Dr. Sam Feelgood, DC	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007

Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

THORACIC LIGAMENT LAXITY

Provider	# of Tx	Last Tx Date	Prognosis
Dr. John Smith, MD	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

LUMBAR LIGAMENT LAXITY

Provider	# of Tx	Last Tx Date	Prognosis
Dr. John Smith, MD	79	8/5/2006	Complaints/treatment recommended
Dr. Sam Feelgood	42	7/22/2005	Complaints/treatment recommended

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

The following injuries were documented on the MRI's which occurred on July 19th, 2005 and read by Dr. John Smith, MD. In his reading, Dr. Smith states under Findings:

L5-S1: Degenerative signal loss is present in the disc. Mild to moderate, 2-3 mm, central and bilateral paracentral posterior disc bulge. Minimal posterior osteophytosis. Minor bilateral articular facet hypertrophy. Minor central stenosis. Moderate bilateral neural foraminal narrowing.

C4-5: Degenerative loss of signal and height is present in the disc. Mild to moderate, 2-3 mm, posterior annular disc bulge. Minor posterior osteophytosis. Mild to moderate bilateral uncovertebral joint hypertrophy. Mild to moderate central stenosis and bilateral neural foraminal narrowing.

C5-6: Minimal posterior annular disc bulge without osteophytosis. Minor bilateral uncovertebral joint hypertrophy. Minor central stenosis and bilateral neural foraminal narrowing.

C6-7: Degenerative loss of signal and height is present in the disc. Mild to moderate, 2-3 mm, posterior annular disc bulge. Minor posterior osteophytosis. Mild to moderate bilateral uncovertebral joint hypertrophy. Moderate central stenosis and bilateral neural foraminal narrowing.

Conclusion: Spondylotic change at L4-5, L5-S1, C4-5, C5-6, and C6-7.

L5-S1

Injury Type:	Disc Injury - bulge
Duration:	25 to 36 months
Prognosis:	Complaints/treatment recommended
Physician:	Dr. William Well, M.D., BioImaging
Last Date Noted:	7/19/2005

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

C4-5

Injury Type:	Disc Injury - bulge
Duration:	25 to 36 months
Prognosis:	Complaints/treatment recommended
Physician:	Dr. William Well, M.D., BioImaging
Last Date Noted:	7/19/2005

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007

Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

C5-6

Injury Type:	Disc Injury - bulge
Duration:	25 to 36 months
Prognosis:	Complaints/treatment recommended
Physician:	Dr. Sam Feelgood, M.D., BioImaging
Last Date Noted:	7/19/2005

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted

MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

C6-7

Injury Type: Disc Injury - bulge
Duration: 25 to 36 months
Prognosis: Complaints/treatment recommended
Physician: Dr. William Well, M.D., BioImaging
Last Date Noted: 7/19/2005

History of Complaints:

Symptom	Physician	Date Noted
Range of Motion	Dr. Sam Feelgood, DC	7/19/2007
Anxiety/Depression	Dr. Sam Feelgood, DC	7/19/2007
Dizziness	Dr. Sam Feelgood, DC	7/19/2007
Headaches	Dr. Sam Feelgood, DC	7/19/2007
Spasms	Dr. Sam Feelgood, DC	7/19/2007
Visual Disturbance	Dr. Sam Feelgood, DC	7/19/2007
Radiating Pain	Dr. Sam Feelgood, DC	7/19/2007
Sleep Disruption	Dr. Sam Feelgood, DC	7/19/2007

Therapies:

Therapy	Duration	Physician	Last Date Noted
Massage Therapy	Short-Term	Natural Oasis Spa	12/10/2004
Self-Exercise	Prolonged Regular	Dr. Sam Feelgood, DC, MD	7/19/2007
Acupuncture	Prolonged Regular	Dr. Sam Feelgood, DC, MD	8/12/2006
Bed Rest	Prolonged Regular	Dr. Sam Feelgood, DC, MD	8/12/2006

Testing:

Test Type	Test Result	Physician	Date Noted
MRI	Positive	BioImaging	7/19/2005
X-Ray	Positive	Dr. Sam Feelgood	8/10/2004

LEFT HIP

Injury Type: Contusion
Duration: 1 to 3 months
Prognosis: Undetermined

Physician: Dr. Sam Feelgood, DC, MD
Last Date Noted: 7/19/2007

Physician: Dr. Sam Feelgood
Last Date Noted: 8/10/2004

Anxiety/Depression

Physician: Dr. John Smith, MD
Duration: Undetermined
Chart Date: 7/19/2007
Treatment(s): Exercise

FREQUENCY, TIMING, AND COURSE OF DEPRESSIVE SYMPTOMOTOLOGY AFTER WHIPLASH.[13]

STUDY DESIGN: Population-based incidence cohort. OBJECTIVE: To report the incidence, timing, and course of depressive symptoms after whiplash.

SUMMARY OF BACKGROUND DATA: Evidence is conflicting about the frequency, time of onset, and course of depressive symptoms after whiplash. METHODS: Adults making an insurance claim or seeking health care for traffic-related whiplash were followed by telephone interview at 6 weeks, and 3, 6, 9, and 12 months post-injury. Depressive symptoms were assessed at baseline and at each follow-up. RESULTS: Of the 5,211 subjects reporting no pre-injury mental health problems, 42.3% (95% confidence interval, 40.9-43.6) developed depressive symptoms within 6 weeks of the injury, with subsequent onset in 17.8% (95% confidence interval, 16.5-19.2). Depressive symptoms were recurrent or persistent in 37.6% of those with early post-injury onset. Pre-injury mental health problems increased the risk of later onset depressive symptoms and of a recurrent or persistent course of early onset depressive symptoms.

CONCLUSIONS:

Depressive symptomotology after whiplash is common, occurs early after the injury, and is often persistent or recurrent. This suggests that, like neck pain and headache, depressed symptomotology is part of the cluster of acute whiplash symptoms. Clinicians should be aware of both physical and psychological injuries after traffic collisions.

IMPAIRMENT

Physician	Chart Date	Whole Body %	Body Part
Dr. John Smith	7/19/2007	26	Cervical, Thoracic, Lumbar vertebra

DUTIES UNDER DURESS

Hobbies
Work
Domestic Duties
Household Duties

Physician	Chart Date
Dr. John Smith	7/19/2007

I have documented the following patient comments:

[13] **Carroll LJ, Cassidy JD, Cote P.Department of Public Health Sciences, University of Alberta,Edmonton, Alberta, Canada. PMID: 16845342 [PubMed - indexed for MEDLINE]**

“Extended sitting or attending computer classes cause radiating pain from my low back and pain as well as stiffness in my neck. It resolves into rigid and stiffness, restricted movement, which never seems to go away. Vacuuming increases low back pain. I have difficulty preparing larger meals such as Thanksgiving and Christmas. I have had to hire a person to help with heaving cleaning throughout the home. Yard work increases neck and low back pain. Transporting my family increases numbness in my hands and they go to sleep. While standing in the checkout line during shopping my pain increases and I experience dizziness and nausea. When I awake in the morning my arms are numb.”

LOSS OF ENJOYMENT OF LIFE

Domestic Duties
Household Duties
Hobbies
Work\Study
Sports

My patient stated the following:

“I have had to limit my relationship with my husband as this causes pain in my lower back to increase. I am unable to participate in recreational activities with my children because it will increase my pain. I was not able to participate with my children in rafting, attending amusement parks or water parks. I could not enjoy dancing with my husband or playing volleyball with my family. I have been reduced to a spectator.

While in school, drafting and drawing would increase the pain in my upper back and neck. I have stopped doing a lot of activities such as dancing, driving and sewing because it increases my pain. My husband is legally blind and I am responsible for all the driving in our family of 4 children.”

Physician	**Chart Date**
Dr. John Smith	7/19/2007

DISABILITY

On August 01, 2005, I documented the following regarding my patient:

"...Her injuries are permanent in nature and she has been given the following restrictions to avoid an aggravation of her condition:

5. no lifting over 15lbs
6. no repeated overhead lifting or working with the arms in an outstretched position
7. no sitting or standing for over 30 minutes at a time without changing positions and taking a break
8. no repeated bending and twisting at the waist

She will need to receive treatment over the next three year period on a prn basis to control her symptoms and exacerbations which are likely to occur. Approximate treatment will cost $60.00 per visit for therapies and spinal adjustments at an estimated 15-20 visits yearly, $900-1,200 per year.”

Physician	Chart Date
Dr. Sam Feelgood	8/1/2005

CURRENT MEDICAL EXPENSES

Exercise Program		$792.00
Dr. John Smith, MD	Physician	$4,845.00
BioImaging, MD	Physician	$1,960.00
Dr. Sam Feelgood, DC	Physician	$3,132.00
Natural Oasis Spa, TH	Physician	$150.00
Total Physician Expenses		$10,879.00

FUTURE MEDICAL EXPENSES

My patient stated that she felt pain immediately after the accident.

"A study by Radanov found that patients who reported pain immediately after their accidents were more likely to have pain at two years post-injury. It is generally recognized that patients with immediate symptoms are at a higher risk of long-term pain from whiplash."[14]

On August 01, 2005, I documented the following regarding my patient:

"...Her injuries are permanent in nature and she has been given the following restrictions to avoid an aggravation of her condition:

5. no lifting over 15lbs
6. no repeated overhead lifting or working with the arms in an outstretched position
7. no sitting or standing for over 30 minutes at a time without changing positions and taking a break
8. no repeated bending and twisting at the waist

She will need to receive treatment over the next two year period on a prn basis to control her symptoms and exacerbations which are likely to occur. Approximate treatment will cost $60.00 per visit for therapies and spinal adjustments at an estimated 15-20 visits yearly, $900-1,200 per year.

Future Treatment	Future Cost	Physician	Chart Date
Chiropractic and Therapy	$3,600.00	Dr. Sam Feelgood	8/1/2005

Total Future Medical Costs: $3,600.00

EXPENSES SUMMARY

Physician Expenses:	$10,087.00
Future Medical:	$3,600.00
Total Medical Expenses:	$13,687.00

All injuries as documented are a direct result of this accident. Treatment will continue for Ms. Doe

[14] **Radanov, BP, Sturzenegger M, De Stefano G. Long-term outcome after whiplash injury. A two-year follow-up considering the features of injury mechanisms and somatic, radiologic and psychosocial findings. Medicine 1995; 74(5): 281-476.**

on an as needed basis as stated above. If there is a claim any of the medical treatment was unnecessary or any of the bills were unreasonable, please request in writing specific identification which bills are in dispute and the factual basis for this dispute. If there is a dispute by a qualified expert opinion from a doctor willing to testify, then please provide me with a copy of the report. If not then please confirm in writing that the bills are disputed by an adjuster and not a qualified medical professional.

If you do not respond in writing to this request, I will assume the amount of medical bills associated with the duration, type and frequency of the necessary treatment is not in dispute.

Please respond to the above requests and Medical Report within 10 business days of your receipt of this Medical Report.

Sincerely,

_____
Dr. Sam Feelgood, D.C.

ATTACHMENT LISTINGS:

Medical Reports
Medical Records
Medical Billings

AUTOMOBILE ACCIDENT TRAUMA AND YOUNG VICTEMS

We live in an era in which many children, adolescents, and their families in American society are exposed to traumatic life events. Mental health professionals are, of course, deeply concerned about the impact of traumatic exposure on children and how these children and their families can best be helped The Task Force on Posttraumatic Stress Disorder and Trauma in Children and Adolescents is a presidential initiative of 2008 APA President Alan E. Kazdin, PhD. The primary goals of the task force are to identify "what we know" and "what we need to know" regarding the development and treatment of posttraumatic stress disorder (PTSD) in youth and to present current knowledge and information, as well critical gaps in knowledge, about this
important area.

Much of our knowledge about PTSD is based on studies of adults. As evidenced by the birth of new scientific disciplines (e.g., developmental translational neuroscience), it is clear that what we learn from research involving adults may not necessarily be applicable to children and adolescents. Indeed, the field of child and adolescent PTSD and trauma is relatively young, although the knowledge base has increased substantially over the past 2 decades. Moreover, task force members recognize that mental health professionals may have many different perspectives on child and adolescent trauma, particularly in regard to the specific nature of its effects and what interventions may be most effective in reducing negative outcomes and enhancing adaptive functioning. Although we attempt to summarize here what is currently known about child and adolescent PTSD and trauma, we welcome ongoing discussion and novel perspectives, which help to advance the field.

The task force understands that the United States is a highly diverse society comprising many different racial and ethnic groups. There is no doubt that because of poverty and discrimination, racial and ethnic minority youth and families are more likely to be subjected to traumatic events,
and immigrant youth and families may be particularly at risk. Cultural context and background, as well as membership in a minority group, will affect how individuals perceive a traumatic event and its impact and how the community can assist in recovery. Mental health professionals must be sensitive to this array of issues and provide help in a culturally responsive manner.2

A significant number of children in American society are exposed to traumatic life events. A traumatic event is one that threatens injury, death, or the physical integrity of self or others and also causes horror, terror, or helplessness at the time it occurs. Traumatic events include sexual abuse, physical abuse, domestic violence, community and school violence, medical trauma, motor vehicle accidents, acts of terrorism, war experiences, natural and human-made disasters,
suicides, and other traumatic losses. In community samples, more than two thirds of children report experiencing a traumatic event by age 16. However, estimates of trauma exposure rates and subsequent psychological sequelae among children and youth have varied depending on the type of sample, type of measure, informant source, and other factors.

Rates of youths' exposure to disasters are lower than for other traumatic events, but when disasters strike, large proportions of young people are affected, with rates varying by region and type of disaster. Children and adolescents have likely comprised a substantial proportion of the nearly 2.5 billion people affected worldwide by disasters in the past decade. Other acute and potentially traumatic events also affect large numbers of children. In 2006, 7.9 million U.S. children received emergency medical care for unintentional injuries (from motor vehicle crashes, falls, fires, dog bites, near drowning, etc.), and more than 400,000 for injuries sustained due to violence. Race and ethnicity, poverty status, and gender affect children's risk of exposure to trauma.
For example, significantly more boys than girls are exposed to traumatic events in the context of community violence, and serious injury disproportionately affects boys, youths living in poverty, and Native American youths. It is more common than not for children and adolescents to be exposed to more than a single traumatic event. Children exposed to chronic and pervasive trauma are especially vulnerable to the impact of subsequent trauma. When children, adolescents, and families come to the attention of helping professionals, the identified trauma may not be the one that is most distressing to the child. For this reason, gathering a thorough, detailed history of trauma exposure is essential.

Children and adolescents vary in the nature of their responses to traumatic experiences. The reactions of individual youths may be influenced by their developmental level, ethnicity/cultural factors, previous trauma exposure, available resources, and preexisting child and family problems. However, nearly all children and adolescents express some kind of distress or behavioral change in the acute phase of recovery from a traumatic event. Not all short-term responses to trauma are problematic, and some behavior changes may reflect adaptive attempts to cope with a difficult or challenging experience.

Many of the reactions displayed by children and adolescents who have been exposed to traumatic events are similar or identical to behaviors that mental health professionals see on a daily basis in their practice. These include:

- the development of new fears
- separation anxiety (particularly in young children)
- sleep disturbance, nightmares
- sadness
- loss of interest in normal activities
- reduced concentration
- decline in schoolwork
- anger
- somatic complaints
- irritability

Functioning in the family, peer group, or school may be impaired as a result of such symptoms. Therefore, when working with children who may display these types of reactions, the clinician must make a careful assessment of possible exposure to trauma.

The majority of children and adolescents manifest resilience in the aftermath of traumatic experiences. This is especially true of single-incident exposure. Youths who have been exposed to multiple traumas, have a past history of anxiety problems, or have experienced family adversity are likely to be at higher risk of showing symptoms of posttraumatic stress. Despite exposure to traumatic events and experiencing short-term distress, most children and adolescents return to their

previous levels of functioning after several weeks or months and resume a normal developmental course. This resilience typically results in a reduction in both psychological distress and physiological arousal.
3
Research has provided evidence about predictors of trauma recovery, although there are no perfect predictors. Recovery can be impeded by individual and family factors, the severity of ongoing life stressors, community stress, prior trauma exposure, psychiatric comorbidities, and ongoing safety concerns. Also, poverty and racism can make this recovery much more difficult. Caretakers are affected by children's exposure to trauma, and their responses affect children's reactions to trauma. On a positive note, individual, family, cultural, and community strengths can facilitate recovery and promote resilience. Social, community, and governmental support networks are critical for recovery, particularly when an entire community is affected, as when
natural disasters occur.

Although most return to baseline functioning, a substantial minority of children develop severe acute or ongoing psychological symptoms (including PTSD symptoms) that bother them, interfere with their daily functioning, and warrant clinical attention. Some of these reactions can be quite severe and chronic. Most children and adolescents with traumatic exposure or trauma-related psychological symptoms are not identified and consequently do not receive any help. Even those who are identified as in need of help frequently do not obtain any services. This is especially true for children from ethnic and racial minority groups and for recent immigrants, who have less access to mental health services. Even when children are seen for mental health services, their trauma exposure may not be known or addressed. For those children who do receive services, evidence-based treatment is not the norm. Many of the treatments that traumatized children and adolescents receive have not been empirically studied. Although it is possible that some of these unexamined treatments could be helpful, it is also possible that some pose a risk for those who receive them. Despite the fact that diverse samples are included in many studies, there has been little work to understand the way in which culture affects the experience of trauma and the impact of treatment.

Cognitive–behavioral therapy (CBT) techniques have been shown to be effective in treating children and adolescents who have persistent trauma reactions. CBT has been demonstrated to reduce serious trauma reactions, such as PTSD, other anxiety and depressive symptoms, and behavioral problems. Most evidence-based, trauma-focused treatments include opportunities for the child to review the trauma in a safe, secure environment under the guidance of a specially trained mental health professional. CBT and other trauma-focused techniques can help children with cognitive distortions related to the trauma, such as self blame, develop more adaptive understanding and perceptions of the trauma.

Like all clinical work, the quality of the therapeutic relationships among therapist, child, and parents/caretakers is the foundation for treatment of trauma. Safe, secure, and trusting therapeutic relationships support recovery processes and encourage children and parents to do the hard work of dealing with the impact of traumatic exposure. Developing these trusting therapeutic relationships is particularly challenging but critical for children and parents from ethnic and racial minority groups. This may stem in part from distrust associated with racism and poverty and also from mental health providers who may not fully understand the child's and family's cultural context. Culturally responsive efforts to engage families in treatment can be effective in meeting those challenges.

Mental health professionals have an important role in facilitating the recovery of children, adolescents, and families when traumatic events occur. Opportunities to help can come about by working with first responders and community organizations that serve families with children, by working with existing clients who experience trauma, and by reaching out to help children and

families affected by trauma in their community. Psychologists and other mental health providers can also register with the American Psychological Association's (APA) Disaster Response Network or volunteer their services through their local chapter of the American Red Cross (see p. 7 for contact information). In addition, mental health providers can obtain training in developmentally and culturally appropriate evidence-based therapies for child trauma to effectively treat those children who do not recover on their own.

The opportunity to help is not limited to those who specialize in working with children. Mental health professionals who treat adults have the opportunity to identify and provide support to the potentially trauma-affected offspring of the adults. Mental health professionals can provide consultation to other professionals (in schools, health care settings, spiritual settings, and other service systems) about responding to trauma-exposed children, adolescents, and families. With special training and preparation, mental health professionals can participate in disaster or emergency response teams in their community.4

By drawing on existing strengths and resources of the child, family, and community, mental health professionals can help to reduce stress and foster the use of existing adaptive coping strategies by children and parents. Specific help in solving problems may be useful for children and their families in order to reduce stress. Traumatic events often lead to other stressors, or secondary traumas, such as police investigations; court proceedings; funerals; disruption of and
displacement from school and other routines; housing and custody issues; loss of possessions, friends, and pets; and financial stress. Mental health professionals can help families navigate these real-life challenges and serve as advocates for social justice.

In times of extreme stress, individuals often fail to use their tried-and-true ways of coping. Thus, helping children and families figure out how to apply their existing skills to a new and unfamiliar type of event is in order. Other times, individuals need to build new skills to be able to handle a traumatic event. Training in coping skills and problem solving is often a part of evidence-based treatment. Mental health professionals must be sensitive to providing training that is consistent with children's developmental level and the family's cultural/ethnic background.

Although children are shaped by their life experiences, most children recover from traumatic events. Some even report finding new strengths and skills for coping. Conveying information about common reactions to trauma can often be helpful, not only to the child but also to the people around him or her, including parents, teachers, coaches, clergy, and community leaders. Knowing what to expect and what reactions are most common can relieve adults' worries that the child will not recover or will be damaged forever. This information can also be useful before a traumatic event, and thus can be used in a preventative format. It is important for adults to know that children and adolescents understand and respond to traumatic events based on their developmental level. Parental expectations need to be consistent with what is typical for their child's age. If the individuals in a child's support system understand his or her behavior and distress as normal reactions to abnormal events, they can better support the child during the recovery period. Many useful materials are available on this topic, including those listed at the end of this document.

Helping children, families, and communities reestablish routines and roles can help return normalcy to a child's life, providing reassurance and a sense of safety. Resuming regular mealtimes and bedtimes, returning to school, renewing friendships and leisure activities, and playing in a safe environment can all help in this regard.

Because every child reacts to traumatic events in his or her own way, it is important to listen and try to understand children's unique perspectives and concerns, as well as those of the family. Culture

plays an important role in the meaning we give to trauma and our expectations for recovery. Thus, trying to understand the child's experience (from the child's own point of view), as well as that of the child's family and community, can help guide intervention efforts. Those unfamiliar with mental health care may be reluctant to seek help and may need time to convey their concerns about treatment before they are ready to seek it. Also, children and families from ethnic and racial minority groups may encounter additional barriers, including limited access to mental health services and insensitivity from the majority culture regarding the impact of racism and poverty on their experience of traumatic events.

In some communities in which trauma exposure is prevalent both currently and historically, particular attention must be paid to the context of the trauma. Engaging community leaders such as clergy and other spiritual leaders, school personnel, health professionals, and caregivers will help everyone to understand the problems faced and the ways in which the community is prepared to handle them.

Different strategies are called for at different times and for different levels of symptom severity. For instance, because most children experience distress immediately after a traumatic event, a supportive, problem-focused approach may be useful in the acute phase of recovery. Later on, however, that same level of distress experienced by a child may indicate that a more intensive, trauma-focused approach is needed, such as one that emphasizes both skills training and the opportunity for the child to review the trauma. Similarly, it is useful to differentiate between 5 universal assistance that is likely to be useful to all trauma exposed children and families (e.g., basic information on what to expect, support for existing coping resources) and targeted interventions that are appropriate only for those with demonstrated need (e.g., formal psychological intervention).

Although behavioral problems are readily noticed by parents and teachers, children's anxiety and depressive symptoms are not. Thus, it is good practice to assess anxiety and depression by asking children directly and obtaining children's own reports on those symptoms. Routine screening for traumatic exposures upon intake is recommended, and larger scale screening efforts to identify trauma exposed children who are experiencing problems may also be warranted.

Children and families are not always ready for treatment when it is offered, and some may prefer not to engage in treatment at all. Whether in the immediate aftermath of an acute event or when ongoing trauma exposure or symptoms are initially identified by a professional, the help offered by mental health professionals may not come at the right time for that child or family. Particularly when traumatic events have led to other stressors or secondary traumas, the family may be focused on getting through these problems before they have the energy to turn to mental health needs. It is important to inform children and families about treatment options and let people know that treatment is available to them in the future, in case they are more receptive at a later time. Most important, keep doors to treatment open for the child and family.

Mental health professionals have extensive training in privacy issues and how to ensure confidentiality of their clients, but it can be challenging to protect confidentiality outside of the traditional office setting when working with children exposed to trauma. For instance, following a natural disaster or school wide trauma, mental health professionals may be working with children and families in school or community settings and may not be able to apply normal safeguards to protect privacy. In addition, many children with trauma-related distress may be identified in the juvenile justice or child welfare setting rather than in mental health settings. Mental health professionals must be careful to secure permission from children and parents before conveying information to school personnel or other community members.

Since treatments such as cognitive–behavioral therapy work for children with persistent PTSD and related symptoms such as anxiety or depression, mental health professionals should advocate for this type of treatment when they encounter a child with such symptoms. Implementation of these treatments can be flexible, allowing for adaptations that are relevant to the child's developmental level and culture, as long as core concepts are delivered with fidelity to these treatment models. In areas where few mental health professionals have this type of training, psychologists can help develop training and supervision opportunities to enhance the community's capacity to deliver such care. Knowing who in the community has trauma treatment expertise can help even nonspecialists be prepared to connect children with the appropriate type of care.

In this rapidly evolving and expanding field, psychologists and other mental health professionals will need to keep up with advances in assessment and treatment to stay informed about new developments and to receive ongoing training in new intervention methods. Mental health professionals must advocate for trauma-informed treatment programs and techniques that have been studied, have empirical support, and can be implemented with children and families from diverse backgrounds and cultural experiences.

The emotional toll of trauma can wear on professionals as well as the children and families they serve. Some types of traumas affect a whole community, thus affecting the helping professional both directly and indirectly through their clients' experiences. Self-care for professionals is important and includes watching for signs of burnout (e.g., exhaustion, numbing or distancing from others, over involvement with trauma survivors). Taking time to take care of yourself, limiting hours spent focusing on trauma, and seeking peer consultation can be effective ways to alleviate this type of stress.

Despite many recent advances in the field related to child trauma, there is still much to learn, including the key issues listed below. In all cases, studies are needed that include diverse populations (e.g., with respect to culture, ethnicity, and developmental level), as well as diverse types of trauma.
6

We need to understand the varied trajectories of children's reactions to, and recovery from, traumatic events. In particular, longitudinal studies are needed that identify risk and resilience factors and that evaluate how these factors interact to shape outcomes. Understanding what occurs biologically, behaviorally, and psychologically after exposure to traumatic events and how and why some children and adolescents recover over time will enable us to better determine who is in need of treatment and how best to deliver such treatment. Understanding the normal trajectories of recovery for children of different ages over time would also help determine the appropriate timing of preventive and treatment interventions. Until we know more about how to work with children who have been traumatized, mental health providers are in the position of ensuring that they "do no harm" and encouraging best practices in their communities.

The limited research to date assessing risk for ongoing distress after trauma exposure has identified some indicators of risk but no reliable way to gauge whether a given child will recover on his or her own or will require some intervention. More research is needed in this area, including the development of well-validated risk assessment tools that can be feasibly implemented in diverse settings and for diverse traumatic events and that will help identify the high-risk youth and families who are in need of clinical services.

We need to determine whether commonly used treatment and intervention approaches, such as supportive therapy and play therapy, are effective and, if so, for whom. Similarly, the use of medication to address trauma-related symptoms and reactions in trauma-exposed youth is very

poorly understood. Progress in these areas would enable us to add more evidence-based treatments to our repertoire. We also need intervention development that targets risk-enhancing and buffering influences on children's trauma reactions. As interventions are developed and evaluated, we need to understand how to match the type, intensity, and duration of the treatment to the needs of children and families over time. Finally, we need to understand whether current treatments can be used with children and families across diverse types of trauma, diverse developmental levels, and in diverse environments and cultural contexts, or whether they need adaptation.

Two particular gaps in intervention are noteworthy. First, we have almost no information on the effectiveness of interventions for the early or acute phase of trauma recovery. Second, there are gaps in our treatments for those exposed to pervasive, widespread, or chronic trauma, where whole communities are affected.

Finally, we need to determine how to disseminate the evidence-based treatments we already have so that they are readily accessible to mental health professionals across the country. Practical, flexible, and feasible tools that professionals can use to augment their current practice are greatly needed.[15]

[15] **References**

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4. **(PTSD Practice Parameters) soon to be released http://www.aacap.org**
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6. **Centers for Disease Control and Prevention http://www.bt.cdc.gov/mentalhealth/general.asp**
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8. **National Center for Posttraumatic Stress Disorder http://www.ncptsd.va.gov/ncmain/providers**
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PTSD IN TEENS: SYMPTOMS, CAUSES, & TREATMENT

Author: Alexis Cate, LCSW
Published: September 18, 2023

Post-traumatic stress disorder (PTSD) occurs in 15% of teenage girls and 6% of teenage boys who experience trauma.[1] It can have lifelong implications, including high levels of depression, a propensity for addiction, and the possibility of self-harm. However, PTSD in teens is treatable, and with the proper treatment and support, a teenager can heal.

What Is Post Traumatic Stress Disorder (PTSD)?

Post-traumatic stress disorder (PTSD) is a disorder that can develop after an individual has experienced a direct or indirect life-threatening and/or horrifying experience. Trauma(s) are often constituted by a loss of power, control, and agency over ourselves. PTSD can occur at any point in a person's life. Symptoms include severe anxiety, panic attacks and flashbacks of the traumatic event.

How Common Is PTSD in Teenagers?

Not all teens who experience trauma will have PTSD. However, there is often misdiagnosis and underdiagnosis because the symptoms of teenage PTSD are similar to symptoms of other mental health conditions. According to the United States Department of Veterans Affairs, "Studies show that about 15% to 43% of girls and 14% to 43% of boys go through at least one trauma. Of those children and teens who have had a trauma, 3% to 15% of girls and 1% to 6% of boys develop PTSD."[1]

PTSD Symptoms in Teenagers

PTSD symptoms often manifest differently across the lifespan. Additionally, symptoms will not manifest the same for each person. Teens, in particular, will often show increased irritability, hypervigilance, poor concentration, and isolation. This contrasts with younger children, who may act out the behaviors in play and show increased impulsivity.

Some PTSD symptoms in teenagers include:[2]

- Intrusive thoughts surrounding the traumatic event
- Difficulty remembering the details of the traumatic event
- Flashbacks of the traumatic event
- Avoidance of situations or circumstances that could remind them of the traumatic event
- Nightmares
- Problems concentrating
- Depressed Mood
- Anxious Mood
- Hypervigilance

- Feeling “on edge”
- Emotional numbing
- Not feeling joyful or fulfilled
- Irritability and behavioral outbursts

Signs of PTSD in Teens

Signs of PTSD in teens are often behavioral. Therefore, they can easily be mistaken as a part of teen development. However, it is important to be aware of when shifts in behaviors are dramatic, seemingly from one day to the next.

Common signs of PTSD in teenagers are:

- Angry Outbursts
- Using drugs or alcohol, either new use or if used previously increased use
- Isolation and withdrawal from family and/or peers
- Lack of engagement in previously enjoyed activities, such as sports, clubs
- Decline in school performance
- School refusal
- Trouble falling asleep or staying asleep
- Night terrors regarding the traumatic event
- Changes in Appetite
- High-risk sexual behaviors
- Regression, such as talking more childlike
- Restlessness or appearing slowed down

Causes of PTSD in Teenagers

There are a multitude of causes for PTSD in teenagers, from dating violence to family violence. Additionally, certain factors put teens more at risk, including intergenerational trauma, living in a high-crime community, and a family history of substance misuse.

Some common causes of PTSD in teens include:[2]

- Sexual abuse, including parent and sibling sexual abuse
- Physical abuse and/or physical neglect
- Emotional abuse and/or emotional neglect

- Community violence
- Dating/Intimate partner violence
- Unexpected loss
- Violent loss of a loved one
- Natural disasters, including hurricanes, illnesses
- Violent crimes such as school shootings and terrorism
- Family violence, such as witnessing domestic violence
- Accidents such as a car crash

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10 Tips for How to Help a Teen With PTSD

When your teen is experiencing mental health difficulties, it can be alarming. This is especially true with PTSD, given the symptoms are prompted by a traumatic event. However, parents, guardians, and caregivers can do many different things to help their teen with PTSD.

Begin by finding a therapist for your teen who specializes in treatment for adolescents as well as PTSD. It is important to be supportive of your teen as they go through the therapy process. They may be struggling with the stigma of attending therapy or shame around their PTSD. Normalize their feelings and suggest alternative ways to think about the stigma and shame.

Additionally, getting support as a parent, guardian, and caregiver from a trained professional is a good step. Not only are you better equipped to support your teen, but it can also show the teen that asking for support is okay. The more comfortable with therapy you are, the more comfortable your teen will be.

Here are ten ways parents and caregivers can help teens with PTSD:[3]

1. Create a Safe Place for Them to Heal

The first and more important aspect of healing from trauma is establishing a sense of safety in the world again. As parents and caregivers, creating a safe enough place is essential. There is often shame attached to trauma; thus, talking about the experience is even more difficult. However, with a sense of safety, shame can start to dissipate.

2. Allow Them to Feel How They Feel
Many emotions come up following traumatic exposure. All of these feelings are valid and have a biological basis due to changes in our central nervous system following trauma. The emotion your teen is experiencing, such as extreme anger, may be uncomfortable for you. Recognize that experiencing these emotions, as opposed to suppressing them, is an important part of your teen healing.

3. Let Them Talk About Trauma at Their Own Pace
Any survivor of trauma must be granted a safe enough space that allows them to take their time in talking about it. As well-intentioned as parents and caregivers may be, bringing up certain details regarding the trauma can cause retraumatization, especially if it is talked about before the teen is ready. Additionally, allow the teen to express their feelings in their own way.[4] If talking is too much, maybe they can journal about their trauma, draw the event that occurred, or practice trauma-informed yoga.

4. Manage Expectations
Managing expectations as a parent or caregiver is crucial. It is challenging to get back to "how things were" before a trauma occurred. A person who has survived trauma needs time, and with that time, they also need your patience.

5. Manage Your Own Emotions
Seeing your teen in pain is devastating. You are allowed to feel devastated. It is also important to manage your emotions in front of your teen. You do not want them to feel like they must also take care of you while trying to mend themselves.

6. Limit Exposure to Any Potential Reminders of the Trauma
Support your teen by limiting any exposure to potential reminders of trauma. This is especially important if the trauma occurred in or around the home/your community. This could look like finding a different route to walk or requesting changes to their class schedule if the trauma occurred with a fellow classmate in school.

7. Support Them in Sticking to Their Routine
As hard as it will be, routine will give your teen a sense of regularity. Of course, managing expectations around this is important. Start with supporting them in returning back to their self-care practices geared towards teens. Then moving toward sleep habits, amongst other areas. Regularity is ideal. Please remember this will take time and patience to resume and allow for changes that better support your teen.

8. Pay attention to any sudden changes in behavior and emotional state
Any and all sudden changes in behavior and emotional state can mean an emergent risk is developing that could result in hypersexuality, misuse of alcohol and substances, self-harming, or suicidality. All situations that could result in immediate harm should be assessed by a medical and psychiatric professional in the Emergency Room.

9. Encourage Scheduling a Follow Up With Their Doctor
It can be very scary to go to a medical professional after a trauma. This is something that can be encouraged and also given time for the teen to agree to. An example of how to approach this would be, "I can imagine how scary it feels to be in a vulnerable state, I'll be there, and it is to make sure you're okay physically."

10. Encourage and Schedule a Session with a Therapist
Similarly to seeing a medical professional, seeing a therapist can feel even more daunting. Therapy requires some level of vulnerability that a teen experiencing PTSD may not be ready for. Again, encouragement is what is important. Although your teen needs counseling, you do not want teens to feel pressured or pushed. The therapy won't be effective if they are going against their will.

Treatment Options for PTSD in Teenagers
Finding a therapist who specializes in teenage PTSD is extremely important. A well-trained therapist knows the ins and outs of PTSD symptoms. There are many options for trauma therapy, and you should discuss with potential therapists their style of therapy to ensure you are matching with the right person. The most important component of therapy is your teen feeling safe with and connected to their therapist.

Treatment options for teen PTSD include:

- **Cognitive behavior therapy (CBT)**: CBT for teens has been shown to be extremely beneficial. This modality can be tailored to a teen audience by focusing on the specific struggles teens experience. With trauma, mindful and self-soothing interventions support regulation along with cognitive restructuring.

- **Trauma-focused cognitive behavior therapy (TF-CBT):** TF-CBT is a specific CBT model for trauma treatment. It takes a whole-person approach by engaging parents/guardians (as long as they are not the root cause of the trauma) in psychoeducation while also providing central nervous system regulation skills. Lastly, it supports adopting a more ego-syntonic view of the traumatic experience(s) through cognitive restructuring.

- **Cognitive processing therapy (CPT):** CPT is another form of CBT. It is a time-limited therapy, around 12 weeks. CPT is geared toward imaginal exposure of the trauma(s) in order to support desensitization so that trauma triggers/reminders do not impact the survivor as readily.

- **Eye Movement Desensitization and Reprocessing (EMDR):** EMDR for PTSD is a form of therapy that was specifically developed to treat trauma(s). EMDR utilizes bilateral stimulation while remembering trauma(s) and these two experiences together support a teen in releasing tension and dissipating the intensity of somatic experiences and emotions associated with trauma(s).

- **Dialectical Behavior Therapy (DBT):** DBT for PTSD was developed following the success of DBT treatment for borderline personality disorder (BPD). The practices with BPD clients are applicable to survivors of trauma as they holistically offer self-regulation, mindfulness, and building of distress tolerance skills.

- **Narrative Exposure Therapy (NET):** NET is a time-limited treatment approach that offers behavioral, narrative processing, and neuroscience-based interventions. The long-term goal is to reimage the story one has attached to the trauma(s) in a way that does not spark symptoms as readily.

Where to Find Professional Help for Teen PTSD

There are many options for finding a therapist for teens experiencing PTSD symptoms. A parent or guardian can look through an online therapist directory to be connected to a therapist in their local area who specializes in PTSD. If your teen feels overwhelmed at the thought of attending therapy, online therapy options for teens can be effective. It allows the teen to be in their own safe environment when bringing up challenging thoughts and emotions.

Teenage PTSD, whether from childhood or a recent trauma, is treatable. I highly recommend seeking a therapist who has specialized in trauma treatment. It is also crucial for your teen to feel safe and comfortable with their therapist. The outlook for treatment of teen PTSD is bright when all factors can come together, from a supportive therapist to understanding adults in the teen's life.

When clients come to my office with PTSD symptoms at any age, I ensure psychoeducation around their experience and how it is connected to current symptoms. One of the most important offerings is when I advise that there are no expectations for my client to trust me. I will continue to be there and be present as trustworthy. The client has the power and control to decide if and when I can be trusted.

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OCD in Teens: Signs, Symptoms, and Treatment

OCD symptoms are hard enough on fully developed adults—but what about teens who begin to exhibit signs and symptoms of obsessive-compulsive disorder (OCD) just as they're growing into their individualism and sense of self? Unfortunately, that's the way it is for many, as OCD most commonly develops in teen and adolescent years.

With so many truly amazing online therapy options for teens, choosing one can be difficult. Some of the most important factors to consider before selecting a company are your budget, who takes your insurance, which ones can answer your questions, and most importantly, who your teen likes the best. Supporting and listening to your teen is crucial for a successful therapy experience.

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The first and more important aspect of healing from trauma is establishing a sense of safety in the world again. As parents and caregivers, creating a safe enough place is essential. There is often shame attached to trauma; thus, talking about the experience is even more difficult. However, with a sense of safety, shame can start to dissipate.

2. Allow Them to Feel How They Feel

Many emotions come up following traumatic exposure. All of these feelings are valid and have a biological basis due to changes in our central nervous system following trauma. The emotion your teen is experiencing, such as extreme anger, may be uncomfortable for you. Recognize that

experiencing these emotions, as opposed to suppressing them, is an important part of your teen healing.

3. Let Them Talk About Trauma at Their Own Pace
Any survivor of trauma must be granted a safe enough space that allows them to take their time in talking about it. As well-intentioned as parents and caregivers may be, bringing up certain details regarding the trauma can cause retraumatization, especially if it is talked about before the teen is ready. Additionally, allow the teen to express their feelings in their own way.[4] If talking is too much, maybe they can journal about their trauma, draw the event that occurred, or practice trauma-informed yoga.

4. Manage Expectations
Managing expectations as a parent or caregiver is crucial. It is challenging to get back to "how things were" before a trauma occurred. A person who has survived trauma needs time, and with that time, they also need your patience.

5. Manage Your Own Emotions
Seeing your teen in pain is devastating. You are allowed to feel devastated. It is also important to manage your emotions in front of your teen. You do not want them to feel like they must also take care of you while trying to mend themselves.

6. Limit Exposure to Any Potential Reminders of the Trauma
Support your teen by limiting any exposure to potential reminders of trauma. This is especially important if the trauma occurred in or around the home/your community. This could look like finding a different route to walk or requesting changes to their class schedule if the trauma occurred with a fellow classmate in school.

7. Support Them in Sticking to Their Routine
As hard as it will be, routine will give your teen a sense of regularity. Of course, managing expectations around this is important. Start with supporting them in returning back to their self-care practices geared towards teens. Then moving toward sleep habits, amongst other areas. Regularity is ideal. Please remember this will take time and patience to resume and allow for changes that better support your teen.

8. Pay attention to any sudden changes in behavior and emotional state
Any and all sudden changes in behavior and emotional state can mean an emergent risk is developing that could result in hypersexuality, misuse of alcohol and substances, self-harming, or suicidality. All situations that could result in immediate harm should be assessed by a medical and psychiatric professional in the Emergency Room.

9. Encourage Scheduling a Follow Up With Their Doctor
It can be very scary to go to a medical professional after a trauma. This is something that can be encouraged and also given time for the teen to agree to. An example of how to approach this would be, "I can imagine how scary it feels to be in a vulnerable state, I'll be there, and it is to make sure you're okay physically."

10. Encourage and Schedule a Session with a Therapist
Similarly to seeing a medical professional, seeing a therapist can feel even more daunting. Therapy requires some level of vulnerability that a teen experiencing PTSD may not be ready for. Again, encouragement is what is important. Although your teen needs counseling, you do not want teens to feel pressured or pushed. The therapy won't be effective if they are going against their will.

Treatment Options for PTSD in Teenagers

Finding a therapist who specializes in teenage PTSD is extremely important. A well-trained therapist knows the ins and outs of PTSD symptoms. There are many options for trauma therapy, and you should discuss with potential therapists their style of therapy to ensure you are matching with the right person. The most important component of therapy is your teen feeling safe with and connected to their therapist.

Treatment options for teen PTSD include:

- **Cognitive behavior therapy (CBT)**: CBT for teens has been shown to be extremely beneficial. This modality can be tailored to a teen audience by focusing on the specific struggles teens experience. With trauma, mindful and self-soothing interventions support regulation along with cognitive restructuring.

- **Trauma-focused cognitive behavior therapy (TF-CBT):** TF-CBT is a specific CBT model for trauma treatment. It takes a whole-person approach by engaging parents/guardians (as long as they are not the root cause of the trauma) in psychoeducation while also providing central nervous system regulation skills. Lastly, it supports adopting a more ego-syntonic view of the traumatic experience(s) through cognitive restructuring.

- **Cognitive processing therapy (CPT):** CPT is another form of CBT. It is a time-limited therapy, around 12 weeks. CPT is geared toward imaginal exposure of the trauma(s) in order to support desensitization so that trauma triggers/reminders do not impact the survivor as readily.

- **Eye Movement Desensitization and Reprocessing (EMDR):** EMDR for PTSD is a form of therapy that was specifically developed to treat trauma(s). EMDR utilizes bilateral stimulation while remembering trauma(s) and these two experiences together support a teen in releasing tension and dissipating the intensity of somatic experiences and emotions associated with trauma(s).

- **Dialectical Behavior Therapy (DBT):** DBT for PTSD was developed following the success of DBT treatment for borderline personality disorder (BPD). The practices with BPD clients are applicable to survivors of trauma as they holistically offer self-regulation, mindfulness, and building of distress tolerance skills.

- **Narrative Exposure Therapy (NET):** NET is a time-limited treatment approach that offers behavioral, narrative processing, and neuroscience-based interventions. The long-term goal is to reimage the story one has attached to the trauma(s) in a way that does not spark symptoms as readily.

Where to Find Professional Help for Teen PTSD

There are many options for finding a therapist for teens experiencing PTSD symptoms. A parent or guardian can look through an online therapist directory to be connected to a therapist in their local area who specializes in PTSD. If your teen feels overwhelmed at the thought of attending therapy, online therapy options for teens can be effective. It allows the teen to be in their own safe environment when bringing up challenging thoughts and emotions.

Teenage PTSD, whether from childhood or a recent trauma, is treatable. I highly recommend seeking a therapist who has specialized in trauma treatment. It is also crucial for your teen to feel safe and comfortable with their therapist. The outlook for treatment of teen PTSD is bright when all factors can come together, from a supportive therapist to understanding adults in the teen's life.

When clients come to my office with PTSD symptoms at any age, I ensure psychoeducation around their experience and how it is connected to current symptoms. One of the most important offerings is when I advise that there are no expectations for my client to trust me. I will continue to be there and be present as trustworthy. The client has the power and control to decide if and when I can be trusted.

Talkspace – Online Therapy For Teens. A space for your teen to talk about what's going on, develop coping skills, and start feeling better. Covered by most major insurance plans.

Charlie Health – Therapy Once Per Week Isn't Always Enough. Charlie Health's virtual mental health program includes curated peer groups, individual therapy, and family therapy for teens and young adults with serious mental health issues. Insurance accepted.

Equip – Eating Disorder Treatment That Works – Delivered At Home. Are you worried that your child has an eating disorder? With the right treatment, lasting recovery is 100% possible. Equip offers virtual evidence-based care, so you can help your loved one recover at home. We take insurance!

OCD in Teens: Signs, Symptoms, and Treatment

OCD symptoms are hard enough on fully developed adults—but what about teens who begin to exhibit signs and symptoms of obsessive-compulsive disorder (OCD) just as they're growing into their individualism and sense of self? Unfortunately, that's the way it is for many, as OCD most commonly develops in teen and adolescent years.

With so many truly amazing online therapy options for teens, choosing one can be difficult. Some of the most important factors to consider before selecting a company are your budget, who takes your insurance, which ones can answer your questions, and most importantly, who your teen likes the best. Supporting and listening to your teen is crucial for a successful therapy experience.[16]

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UNDERSTANDING NEEDS OF TRAUMA EXPOSED MIDDLE AGED AND OLDER ADULTS

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Middle-aged and older adults who have been exposed to traumatic events may have developmentally specific needs with respect to engagement in mental health treatment. The current study examined factors that potentially facilitate or inhibit attitudes towards mental health service use (ATMHSU) in a trauma-exposed sample of treatment seeking adults age 50 and older.

Methods

In this mixed-methods study, quantitative data (*N*=165) were analyzed to examine relationships with trauma exposure, posttraumatic stress disorder (PTSD), quality of life (QOL) and ATMHSU. Semi-

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structured interviews were conducted assessing similar constructs with a sub-sample of the data (*n*=12).

Results

Regression analysis revealed higher QOL-environmental well-being as associated with more positive ATMHSU and higher QOL-social support with more negative ATMHSU. Qualitative themes emerged around perceived distress in managing lifelong traumas due to challenges with functioning, coping, and accessing services.

Conclusion

Emphasizing resources to help manage the impact of distress on daily life needs may support aging trauma-exposed populations.

Keywords: Trauma, Mental Health Service Use, Quality of Life, PTSD, Traumatic distress

Introduction

In public healthcare settings, up to 90% of clients report experiencing some form of trauma over the course of their lives (SAMSHA, 2015). Trauma exposure is defined as one event or a series of harmful or life-threatening events that potentially yield lasting adverse physical or emotional effects on an individual's functioning, health, mental health, social and/or spiritual well-being (SAMSHA, 2015). Traumatic life events are also equated with stressful life events which create a cumulative level of stress impacting adaptive capacities to manage various domains of quality of life and psychological well-being as one ages (Krause, 2004; Maschi, Viola, & Morgen, 2013; Platt, Lowe, Galea, Norris, & Koenen, 2016). Many adults develop posttraumatic stress disorder (PTSD) or other mental health issues as a result of trauma exposure and may greatly benefit from mental health treatment; however, trauma-exposed middle-aged and older aged adults in public care systems are often less likely than younger populations to seek out and engage in care when in need, extending disparities in access and use of mental health services (Mosqueda & Dong, 2011; Teaster, Stansbury, Nerenberg, & Stanis, 2009). Although some studies have identified positive attitudes towards mental health treatment as an important factor associated with engaging in treatment (Elhai & Simmons, 2007; Ghafoori, Fisher, Koresteleva, & Hong, 2014), no study has focused specifically on aging trauma-exposed adults. More work is necessary to understand the components that facilitate and inhibit positive attitudes towards treatment in trauma-exposed middle-aged and older populations.

Cumulative disadvantage theory (Dannefar, 2003) frames the understanding that complicated adjustments to lifetime experiences with health, socioeconomic status, and traumatic life events reduce opportunities to access and engage with social, educational, and healthcare resources creating increased risk for inequalities and disparities in mental health outcomes with age. This theory proposes that early life events, including traumatic events, set up a chain of events that lead to either positive or negative developmental trajectories as one ages (Aldwin, Levenson, & Kelly, 2009). For example, a supportive environment has been found to have lifelong protective effects in veterans who have experienced traumatic events, whereas an environment characterized by conflict has been found to set up lifelong patterns of pessimistic or negative attitudes (Kang, Aldwin, Choun, & Spiro, 2016).

Aging adults are disproportionately affected by trauma, having higher rates of complications relating to self-reported mental health and physical functioning once trauma exposure occurs (Kessler, 2005; Krause, Neal, & Shaw, 2004). Among aging adults, PTSD may be a result of childhood or young adult trauma exposure or a result of a new trauma (Averill & Beck, 2000; van Zelst, deBeurs, Beekman, Deeg, & van Dyck, 2003). Middle-aged and older adults with PTSD have a higher risk for

other mental health conditions and medical conditions such as hypertension, stomach disorders, and arthritis (Pietrzak, Goldstein, Southwick, & Grant, 2012).

Service use literature supports the notion that reduced access to healthcare and insurance, perceived need, and support resources create a context that decreases likelihood of formal service use even when evaluated need exists for adults in general (Alegría, Pescosolido, & Canino, 2011; Andersen, 1995). Among adults aged 50 and older in need of mental health care, less than half access services. Only 43% report receipt of outpatient therapy coupled with prescription medication treatment and 34.7% medication only treatment (Federal Interagency Forum on Aging Statistics, 2016). Aging adults with untreated mental health needs report increased rates of healthcare utilization, chronic illness, functional impairment and ultimately decreased quality of life (Blazer, 2003). In trauma-exposed populations, the complications related to service use, competing health demands, and cumulative stress create a burden on managing mental health needs that can increase with age associated losses and life transitions (Glass, DeLeon, Bassuk, & Berkman, 2006; Krause, Shaw, & Cairney, 2004). However, the cumulative impact of early and ongoing trauma related stress can be buffered by protective factors, lessening the adverse effects of trauma exposure and illustrating the potential for resiliency when individuals are appropriately supported (Maschi, Viola, & Morgen 2013).

Attitudes on Service Use and Trauma

Disentangling the interplay between individual attitudes towards managing trauma associated distress and potential facilitators and barriers to use of formal care may clarify how individuals prioritize treatment decisions. A few studies to date on trauma-exposed populations suggest more positive attitudes about mental health treatment have been positively associated with increased mental health service use (Elhai & Simmons, 2007; Ghafoori, Fisher, Koresteleva, & Hong, 2014). After controlling for insurance and access to services, decisions to seek care among trauma-exposed populations have been found to be related to one's self-perceived need, specifically PTSD, as well as support and prior service use experiences (Davis et al., 2008; Ghafoori et al., 2014).

Quality of life, particularly in later life, has been associated with formal service use in managing psychological distress in non-trauma exposed populations (Hansen & Aranda, 2012; Hansen, Fuentes, & Aranda, 2018; Krause, 2004). Poor quality of life in the area of psychological health and better quality of life in the area of physical health has been found to significantly predict initiation of treatment in trauma-exposed populations (Ghafoori, Hansen, & Garibay, 2019). It is possible that trauma-exposed older adults with lower perceived quality of life may have more negative attitudes towards treatment; however, more research is needed to investigate this relationship. When examining the relevance of person and physical environment congruence (security, safety, connectedness to community resources) within quality of life for midlife and older age adults, current well-being and successful aging connects with perceived future well-being, capacity to positively engage in current life experiences, and balancing out vulnerabilities with available individual resources (Mejía, Ryan, Gonzalez, & Smith, 2017). The influence of such environmental factors can potentially attenuate perceived deficits for those struggling with managing the impact of trauma on their connections to self and others.

Few studies capture the possible service use complications that emerge with age for trauma-exposed populations (Clapp & Beck, 2012). Questions remain as to what factors support attitudes associated with engaging in treatment for trauma-exposed middle and older aged adults. This knowledge will not only highlight risk and protective factors for treatment outcomes in this population but also support future approaches to engage clients in treatment tailored to address the unique needs of trauma-exposed individuals as they age.

The aim of this mixed-methods study was to develop a comprehensive understanding of the relationship between quality of life factors and attitudes towards mental health services among a sample of racially/ethnically diverse trauma-exposed adults aged 50 and older. We explored whether better quality of life, specifically the domains of physical health, psychological health, social relationships, and environmental quality of life, would be associated with more positive attitudes towards mental health service use. Qualitative data from a subset of participants were then used to inform a descriptive review of the nature and extent that trauma related distress impacts daily life and how it can inform treatment attitudes in middle and older adulthood.

Design and Methods

A mixed-methods approach was employed using a two-phase explanatory sequential design (Creswell & Zhang, 2009). In using this approach, secondary client level data were examined (N = 165) in the first phase to assess correlates associated with attitudes towards mental health treatment. In a second phase, data were collected using semi-structured individual interviews (n = 12) to further explore the impact of traumatic distress on attitudes towards treatment. This approach allows for the qualitative inquiry to further investigate experiences and perceptions of the client population reported in the quantitative analysis to explore the study aims at a deeper level (Creswell & Zhang, 2009; Banyard & Williams, 2007).

The first phase of the current study included data extracted from client records of adults who contacted a community-based trauma recovery center in southern California for mental health services. Clients who sought mental health care and participated in an initial assessment to assess qualification for trauma-based care provided data included in the current study. The study was approved by the Long Beach State University, Institutional Review Board (#16–052).

Secondary Quantitative Data

Cross-sectional secondary data were examined from de-identified client level data from a community mental health agency that included 165 adults ages 50 to 78 years (M = 56.3, SD = 5.53) over a 2-year period. Data provided was based on information gathered by clinic staff during the initial consultation session prior to beginning mental health treatment. The agency service eligibility criteria from which the data were obtained included: self-reported having witnessed, experienced, or been confronted with any traumatic event that involved actual or threatened death or serious injury and no cognitive impairment that may interfere with trauma-focused treatment. All clients receiving services from the community mental health agency provided consent upon enrollment for services that information gathered at the intake assessment could be used on a de-identified basis for research purposes as part of the overall mission of the agency. The study from which the presented research is based used the following inclusion criteria for the dataset utilized in the secondary data analysis: participation in the agency consultation session; self-reported as 50-years or older; and English as a primary language. Within the scope of the study, individuals aged 50 – 59 years (77%) of age were considered the middle-aged subset of the sample and 60 years and older the older adult subset (23%). The agency provided a password-protected database containing the following de-identified client data associated with the study aims to support the secondary data analysis: self-reported demographics, experiences with trauma, PTSD symptoms, quality of life indicators, mental health service use history, and attitudes towards mental health treatment.

Measures

Demographic characteristics were reviewed that included self-reported age at time of the assessment, age of last reported trauma, gender, ethnic identity (African-American, Non-Hispanic White, Hispanic, Asian-Pacific Islander, Other, Decline), marital status (single or unmarried versus married or partnership), self-reported annual income, previous mental health service use, and highest level of

education achieved (some high school or less, high school degree, associate's degree or higher). Ethnic identity was included for review of Non-Hispanic Whites compared to those who identified as Hispanic and African-American in the sample independently. Those who identified as Asian-Pacific Islander and "Other" were omitted from the primary regression analysis due to the overall small sample size (less than 5%, $n = 8$).

Trauma(s) experienced

A comprehensive account of the types of violence experienced and numbers of traumas were obtained using the Life Events Checklist (LEC; Gray, Litz, Hsu, & Lombardo, 2004), a 17-item scale assessing exposure to various types of common traumatic events. The utility of the LEC in assessing exposure to trauma has been previously demonstrated (Gray et al., 2004). The LEC provided the basis for the average number of traumas reported by the participants based on responses totaled from the scale, representing the possibility of exposure to single and/or multiple trauma experiences. In a review of the measure psychometrics, there is strong reliability with the sample (Cronbach's α =.880).

PTSD - measure of symptomology

The PTSD Checklist for DSM-5 (PCL-5; Weathers et al., 2013) is a 20-item self-report PTSD symptom instrument that has been shown to have good internal consistency, strong correlations with other PTSD scales, and high diagnostic efficiency. Items were summed to yield a total score that serves as a measure of PTSD symptom severity (Cronbach's α = .922). Following Blevins, Weathers, Davis, Witte, & Domino (2015), we used a cut off score of 33 and over to define probable PTSD in our sample.

Quality of Life

The World Health Organization Quality of Life Brief Scale (WHOQOL-BREF; World Health Organization, 1998) is a 24-item self-report questionnaire on the quality of life. The questionnaire tests four domains: physical health (7 items), psychological health (6 items related to mental well-being), social relationships (3 items), and environmental quality of life (8 items). The physical health domain inquires on degree that engagement with activities with daily living, experiences with medical illness, pain, mobility, and energy levels impact quality of life. Psychological health encompasses assessment of reported positive and negative feelings, self-esteem, coping, and concentration/thinking ability. The social relationship domain within the scale refers to personal relationships, social support, and sexual activity. The environmental domain includes questions assessing financial resources, physical safety and security, perceived access and quality of health and social service based care, quality of the home environment, participation in recreation and leisure activities, opportunities for acquiring new information and skills, and assessment of physical environment related to pollution, traffic, climate, and transportation (World Health Organization, 1998). The items are rated on a Likert scale from 1 to 5, with domains scores ranging from 3 to 37, where higher scores indicate a reported perceived better quality of life (Cronbach's α = .832).

Attitudes towards treatment

The Attitudes Toward Seeking Professional Psychological Help-Short Form (ATSPPH-SF; Fischer & Farina, 1995) was used to assess this outcome variable. It is a self-report measure comprised of 10 questions assessing treatment seeking behaviors and attitudes. The 10-item measure uses a response set of 0 (disagree) to 3 (agree) representing level of agreement with questions about perceptions of using formal services for mental health needs. A total score is based on a sum score of all the items (reverse scoring 5 of the items). Higher scores represent more positive attitudes towards mental

health treatment. The scale has been used and presented with good reliability with similar profiles of trauma exposure among adult samples (Cronbach's α = .791; Ghafoori et al., 2014)

Quantitative analysis examined associations of perceived quality of life on attitudes towards mental health treatment (ATSPPH-SF) using descriptive analysis and linear regression among a community sample of trauma-exposed middle to older aged adults.

Semi-Structured Interviews

Semi-structured in-depth qualitative interviews were conducted in English with a sub-sample recruited from the agency data (n = 12) to further understand complexities in seeking treatment and the impact of trauma related distress on attitudes towards mental health treatment. Individuals were referred by the agency staff with consent to the lead author if they met the study inclusion criteria and expressed interest in voluntarily participating in the interview. Study information sheets were distributed to eligible clients by the agency front office staff. A consent document to share personal contact information with the study research staff was signed by the interested agency clients and provided to the lead author for follow-up. The lead author contacted the referred client by telephone to review the study in more detail and confirmed inclusion criteria were met. If inclusion criteria were met and the client expressed interest, a time was set up to meet in-person at the agency to complete the informed consent and interview. Reminder calls were made prior to the day of the scheduled meeting to support participation. The lead author and/or a trained research assistant conducted the interviews. All participants received a $15 gift card for completing the one time 1-hour interview.

An interview guide informed by Kleinman's (1998) framework of explanatory models was used to understand illness narratives as related to reported experience with trauma. The following domains guided by the study aims and resulting quantitative analysis results were explored in the semi-structured interviews: (1) explanatory models of trauma, (2) perceived relations between trauma and current mental health, (3) perceptions of treatment for exposure to trauma, (4) reported mental health treatment experiences for exposure to trauma, and (5) reflections on how to best support individuals as they age in managing trauma related symptoms. Sample questions include a review on experiences with trauma, discussion of the impact of the trauma on daily life and relationships, and a review of formal, informal, and individual resources accessed to manage effects of traumatic experiences. Questions also included those related to the impact of experiences with trauma over the course of life as informed by Dannefar's (2003) Cumulative Disadvantage Theory, age-related differences in coping and treatment seeking for experiences with trauma previously compared to now, social norms /stigma around treatment seeking and managing mental health needs, and suggestions for community based treatment programs looking to support middle-aged and older adult mental health. Questions were asked about treatment experiences overall and not specific to the agency from which they were currently affiliated.

Analysis

Quantitative data were analyzed using SPSS 24.0. All descriptive analysis, as well as cleaning of data and constructing variables that included examination of outliers and missing data analysis, was done initially. Mean, standard deviation, frequencies, and percentages are presented to describe characteristics of the study sample (Table 1). Bivariate analysis was done using a series of Pearson correlations and independent t-tests to study initial relationships among variables and to identify the significant demographic and clinical functioning variables to be included in the final regression analysis. Direct effects on attitudes regarding mental health treatment among the sample was assessed using linear regression. Missing data were examined and treated with a pairwise deletion method.

Table 1:

Summary of sample characteristics of middle and older aged low-income trauma-exposed adults (N = 165)

Variable (range)	**% (n)**	**Mean (*SD*)**	**Pearson *r* / *t-test (df)* Attitudes towards treatment**
Age (50–78 years)		56.2 (5.53)	.074
50–60 years of age	77.0%		
60–78 years of age	(127)		
Gender: Female	23.0% (38)		1.17 (130)
	75.2%		
	(124)		
Unmarried - single	74.4%		.108
	(116)		
Race/Ethnic Identity			
Non-Hispanic White	31.5% (51)		2.85 (130)*
African-American	20.4% (33)		1.60 (130)
Hispanic	42.0% (42)		1.97 (130)*
Asian-Pacific Islander	1.9% (1.9)		-----
Other – Race/Ethnicity	3.1% (3.1)		-----
Decline	1.2% (2)		-----
Education level			.169
Some high school or less	31.4% (49)		
High school graduate or equivalent	14.1% (22)		
Associates degree or higher			
	54.4% (85)		
Experienced Trauma (LEC)			−.020
Assaultive trauma (most frequently reported):			
Physical	76.1%		
	(105)		
Sexual	51.8% (72)		
Assault with a weapon	46.9% (61)		
Number of Traumas Experienced		6.71 (3.43)	.093
Quality of Life (WHOQOL-BREF)			
Physical Health		18.8(5.53)	−.020
Psychological Health		16.7(7.03)	.127
Social Relationships		7.33(2.69)	−.109
Environmental Health		22.5(5.94)	.283**
Patient Checklist (PCL-5)		51.4(18.1)	.060
Attitudes Towards Treatment Scale (ATSPPH-SF)		24.2(4.64)	-----

*p≤ .05
**p≤ .01

***p≤ .001

Qualitative data were gathered from transcripts based on digital recordings of completed semi-structured interviews. All study participants provided permission as part of the informed consent process for the interviews to be recorded. Verbatim transcription was completed by study research assistants and reviewed by the lead author for accuracy. Transcripts were analyzed using strategies based on principles of Grounded Theory (Glaser, 1978). The lead author and a trained research assistant took an iterative approach to examining the narrative data independently using NVivo 11 software. Each reviewed the transcripts independently for initial patterns and themes based on a priori and emerging themes. Analytical memos were written to describe definitions of codes and decisions during the analytic process, highlighting sample text segments for each code. The lead author and the study research assistant met weekly to debrief and discuss the coded data to corroborate or modify themes as they emerged. The finalized codebook was developed from this iterative process that then served as the basis for conducting a line-by-line analysis of the remaining interviews. This enabled us to further the process of axial coding to identify associations between a priori and emergent themes. By constantly comparing the thematic categories with one another, repeated categories were condensed into broad themes as applicable. Inter-coder reliability was assessed using standard methods (Creswell, 2007; Glaser, 1978).

RESULTS

SAMPLE

DEMOGRAPHICS

Sample characteristics (N = 165) are summarized in Table 1. The mean age of the sample was 56.2 years (SD = 5.53; 50–59 years 77%, 60–78 years 23%), were predominately female (75.2%), self-reporting as Hispanic (42%), single un-married (74.4%), and living in poverty (80% with income under $18,000). Based on the LEC measure, the top 3 most commonly reported types of traumas experienced and/or witnessed over the course life included assaults identified as physical (76.1%), sexual (51.8%), and with a weapon (46.9%). The average reported age of the last traumatic event experienced was 46.7 (SD = 16.2) with 6.71 (SD = 3.43) average number of lifetime traumas experienced or witnessed. Relating to reported previous mental health service use, 51.6% of the sample reported “yes” to previous use.

Clinical measures

Reported degree of experienced PTSD associated symptoms based on a mean score of the PCL-5 was 51.4 (SD = 18.1) out of the highest possible score of 80. Within the sample, 82.9% met the clinical cut off criteria for probable PTSD (Blevins et al., 2015) reflecting a sample with significant PTSD associated symptoms. Quality of Life (WHOQOL-BREF) presented a range of 7–76 across the four domains with a possible range of 0–100. With higher scores indicating higher quality of life, the sample reflected a low to moderate level within each domain with quality of life related to social relationships as the lowest (physical health M = 18.8, SD = 5.53; psychological health M = 16.7, SD = 7.03; social relationships M = 7.33, SD = 2.69; environmental health M = 22.5, SD = 5.94).

Outcome measure

The average ATSPPH-SF score was 24.2 (SD = 4.64; range 8–30), indicating a moderately positive attitude towards mental health treatment overall for the sample. Correlation analysis revealed significant differences with attitude towards treatment between groups for racial/ethnic identity for those self-reporting as Non-Hispanic White (t(130) = 2.85, p =.05) and Hispanic having a positive association (t(130) = 1.97, p = 0.05). There was also a significant positive association with attitude

toward mental health treatment only with the environmental domain for Quality of Life (r = .283, p = .01). No other demographic or functional outcomes measures were associated with attitudes towards mental health treatment, including degree of reported PTSD symptoms or number of reported traumas over the life course.

Secondary Data, Quantitative Results

Multiple regression analysis was done to determine correlates predictive of attitudes towards mental health treatment among a sample of middle and older aged adults with previous exposure to trauma. Predictors included in the model were based on review of significant constructs from the bivariate analysis. Table 2 presents the results. All necessary assumptions of multiple regression analysis were met, including multicollinearity, homoscedasticity, normality, and independence of residuals. Findings reveal a significant model ($F(7, 99)$ =4.74, p = .000) with 25.1% of the variance in the model explained. Significant predictors of more positive attitudes towards treatment included self-reporting as non-Hispanic White (β = .392, p = 0.03) and having a strong environmental domain of the WHOQOL-BREF (β = .475, p = 0.000). The social relationship domain of the WHOQOL-BREF was also negatively significantly associated with attitudes towards treatment (β = −.279, p = 0.01); higher quality of life based on social support factors predicted more negative attitudes towards treatment. However, domains of quality of life representing psychological and physical health were not significant predictors of attitudes towards treatment among the sample.

Table 2:

Results of regression analysis examining correlates with attitudes towards mental health service use for low-income trauma-exposed middle and older aged adults (N = 165)

Variable	Unstandardized Beta	Standard Error	Standardized Beta
Racial/Ethnic Identity			
Non-Hispanic White	3.90	1.80	.392*
Hispanic	2.06	1.77	.219
African-American	3.14	1.87	.273
Quality of Life (WHOQOL-BREF)			
Physical Health	−.187	.096	−.223
Psychological Health	.113	.067	.171
Social Relationships	−.481	.184	−.279**
Environmental Health	.371	.087	.475***

*p≤ .05
**p≤ .01
***p≤ .001

Semi-Structured Interviews, Qualitative Results

Based on guidance from the regression analysis results, qualitative semi-structured interviews (n = 12) with a sub-sample of adults from the quantitative analysis was done using a prepared interview guide. The sample included 7 females and 5 males with a mean age of 56.9 (SD = 5.71). The ethnic/racial breakdown of the sample was diverse with 5 identifying as Hispanic, 2 as African-American, 4 as non-Hispanic White, and 1 as "Other". Three distinct themes relevant to study aims emerged from the semi-structured interviews and domains explored. Participants' narratives that

contributed to the understanding of their experiences with trauma and attitudes towards treatment were rooted in the following: (1) reported experiences with and impact of trauma on daily life including relationships, mental health, work, and finances; (2) perceived age-related differences in coping with trauma associated symptoms; (3) barriers to accessing services in their current life phase.

Experiences with and impact of trauma

Experiences with trauma were discussed with themes associated with emotional impact on the individual that included fear and anger. The depth of this effect was further explored by participants as they talked about not only functioning as survivors of their trauma but feeling that they are meeting the basic level of their daily needs. One female participant discussed how it was difficult to live a life beyond one focused on survival due to uncontrollable emotions around her experience with trauma. She explained her current mental outlook within what she perceives as survival in her current life:

"It's been kinda feeling like I'm just barely surviving. um…not really able to trust people,

isolate a lot, um, uh, sometimes driving is, is hard I really have to concentrate when I

drive, you know, not to run lights and that kind of thing, really pay attention because um,

sometimes even though you might not be in a trauma at the time, you're thinking about it.

[living life beyond the trauma means]… to be able to go to the movies and maybe

go out to dinner every once in a while, go for drives, take a vacation…" (Female,

African-American, 58-years old)

The impact of trauma was described as contributing to and/or taking away from perceived personal growth. Commonly, participants spoke about their relationships with family and/or friends or how they interacted with the world as they grew older.

"well you know I, I guess it's shaped me, you know as like a, shaped me as a man getting older [trauma of physical abuse as a child] … not that just, that, that last incident that happened to me [most recent trauma of being mugged] but it, you, you know the, the trauma kind of and it made me, make me, made me meaner too" (Male, African-American, 66-years old).

Another female participant provided an example of this stress in managing the emotions stemming from experiences with trauma that led to negative emotions in the role as a parent. She reported showing anger she regretted, "I was always arguing with my 7 year old for no reason and I used to cry a lot [*about the parental stress*]" (Female, Hispanic, 51-years old).

Difficulties with daily functioning were also referenced by the sample as they talked about struggles due to age related disabilities that were enhanced by trauma related emotional distress. Referenced were struggles with arthritis and injuries associated with the trauma, that made daily activities such as going to the grocery store or working stressful. One male participant reported this theme in expressing feeling unequipped with managing the heightened emotions that emerged with physical pain.

"…depression works in a lot of different ways too. And physically it took a toll on me and I know I wouldn't be able to function if I tried, uh, even going back to work would be, I'd be fine for a minute and then the next minute I'd be an emotional basket so how could I deal to work that way?" (Male, Non-Hispanic White, 50-years old)

Participants' outlook on life was also discussed as affected negatively. Participants referenced a lack of trust in people, anger, and fear resulting from experienced traumas:

"I just let go, cry, and the other anger is that me being angry I'm always been angry all my life since I can remember when I was little." (Female, Non-Hispanic White, 63-years old)

One male participant discussed a distrust in humanity that developed after experiencing a physical assault:

"I think for a long time I didn't really trust people and I didn't wanna trust people. I just didn't believe in them." (Male, Other race/ethnicity, 55 years-old)

Age-related differences in coping with trauma

Participants shifted their focus from their experiences associated with their trauma to their experiences on coping with trauma, comparing how approaches changed or appeared changed as they aged. One of the most commonly reported themes associated with coping with trauma was religion/spirituality as a means to withstand the difficulties in managing trauma related distress.

"Being more aware to what's, to what's going on in my life maybe spiritually you know, uh, and try to, you know put myself around positive people … maybe you know start going to church and you know I already go to the senior building … I just think I need to be around you know positive people now". (Male, African-American, 66-years old)

The ongoing use of faith to manage the numerous traumas experienced was discussed by another study participant.

"…it always had been a biblical and a spiritual, uh, attachment to the body of Christ. And that's been a strong thing for us and I mean that's what happened with us both, being able to cope with whatever we did deal with in all of the trauma that we went through in all of our lives." (Male, Non-Hispanic White, 50-years old)

However, it was also noted that physical changes with age and a perspective of a shortened amount of available time left in life to make change post trauma exposure compounded the coping needs :

"When you are younger, you are more… you have more faith I think, it's more easy to have faith. But when you are old, you start saying, okay, I'm not the same anymore. You have more problems in your body because it's not the same [in dealing with stress]" (Female, Hispanic, 55-years of age)

"From my own experience, I think it's probably a little bit more heightened because of the age. You don't see a lot of years to get through the trauma itself and then make your life whole again…you see your life as shortened, so you don't have that extra time that you have when you're younger to, to move forward, I guess." (Female, Non-Hispanic White. 63-years old)

Additionally, participants discussed seeking comfort in friends and family after their trauma as a means to incorporate support in their coping. One female participant talked about seeing friends and volunteering her time given she was retired from working as part of this process:

"I try to go visit my friends, try to, because if I don't do that, you know I don't feel well… I'm trying to look for volunteer things." (Female, Hispanic, 57-years old)

Barriers to accessing services

Factors influencing the process of accessing and engaging in mental health care when in need was discussed by the sample. Relevant themes that emerged included perceived societal expectations for

older individuals to effectively manage distress, reporting limited knowledge of mental health needs, competing age related priorities in supporting mental health needs, and daily stressors of family and finances. When speaking about concerns rooted in a perceived ill fit with societal expectations on managing distress, participants reported they did not seek mental health care because they did not want to be poorly perceived or were embarrassed that the trauma occurred, especially given their age.

"…the age thing still is there. You're older you should know better than this and, you know, and…yeah it's…it's tough." (Female, Non-Hispanic White, 64-years old)

There was a broad reference by the sample to feeling one should be able to cope better with distress as one ages given increased life experiences or society's perception of older people having more skills to manage distress. One female participant spoke about recently leaving a long time abusive spouse and thoughts of shame in her coping associated with her age.

"If I would've known that there was help back then, I would've gotten help back then [when younger]. And you want to ask for help but you're ashamed because you're of certain age, at certain age we think, "Oh we're not supposed to be abused."

The same participant went onto share her lack of knowledge of experience with trauma:

"Honestly I didn't even know that I was being traumatized… people our age they don't think that… they kind of think like they're supposed to know how to handle it." (Female, African-American, 58-years old)

Participants also talked about not having knowledge about mental health symptoms or the available support services that existed. Participants specifically discussed a lack of awareness of the impact of the experienced trauma on well-being. They talked about this and societal age related expectations on how they should cope, which forced them to move through much of their adult years without support. These perceptions created a barrier to needed services.

"Yeah I haven't done much of anything with mental health. I didn't really think I had a mental health problem or help was out there" (Female, Hispanic, 55-years of age)

Discussion

Profiling predictors of attitudes towards mental health treatment may assist practitioners in improving outreach and engagement with treatment models for trauma-informed care for middle-aged and older trauma-exposed adults (Ghafoori, Barragan, & Palinkas, 2012; Roberts, Gilman, Breslau, & Koenan, 2011). The presented study results suggested that of all the variables assessed, the environmental domain of quality of life was most relevant in predicting better attitudes towards treatment for the sample. This encompasses considerations related to perceived accessibility and quality of health and social care, financial security, access to information, and feelings of safety. Findings may be reflective of the struggles managing the daily needs of the sample who reside in a predominately high crime and low resourced community. Aligned with the quantitative findings, themes associated with attitudes towards seeking treatment that emerged from the qualitative interviews included maintaining safety and financial security. Respondents noted the impact of their lifelong traumas as contributing to more distress with respect to the ability to work, maintain healthy personal relationships, engage in treatment, and feeling capable to recover as they age.

Study results suggested trauma-exposed middle-aged and older adults who had higher reported environmental quality of life had a higher likelihood to have a more positive attitude towards treatment. This finding is consistent with previous research utilizing cumulative disadvantage theory, such that an experience of a more facilitative environment over the life course has perhaps led to a

more positive outlook on treatment in middle and older adulthood (Kang, Aldwin, Choun, & Spiro, 2016). Providing supports that help increase environmental quality of life are crucial in the process of increasing engagement with care for middle-aged and older trauma-exposed adults who need care. Specifically, the degree an individual is made aware of available resources to improve or acquire new skills and access resources focused on addressing financial security and improve safety and a sense of stability are highly relevant with respect to positive attitudes towards treatment seeking (Hansen & Aranda, 2012; Hansen, Fuentes, & Aranda, 2018; Krause, 2004). Accounting for these quality of life considerations in the treatment experience can influence the degree individuals engage and remain in treatment and ultimately may impact outcomes (Hansen & Ghafoori, 2016).

The current study found that a higher level of the quality of life domain of social support was predictive of more negative attitudes towards treatment seeking. It is challenging to disentangle that finding from another result in the study that suggested non-Hispanic Whites were more likely to have a more positive attitude toward treatment. Previous studies in the wider mental health literature have found that family support can be protective for mental health conditions, but may also result in delaying use of services (Stein et al., 2003, Pescosolido & Wright, 2004). Perhaps for the racially/ethnically diverse population studied, which may be particularly underserved with respect to mental health supports, higher social support may become a normative experience contributing to a negative attitude towards treatment (Bleich et al., 2003; Rousseau & Drapeau, 2004). Previous studies have shown that Hispanic and African-American trauma-exposed individuals face multiple barriers to accessing mental health services, including structural barriers such as lack of health insurance, income, and language, as well as barriers such as shame, stigma, and low support (Ghafoori et al., 2014; McVittie & Willock, 2006). Future research is necessary to understand the complex relationships between race/ethnicity, social support, attitudes towards treatment.

The qualitative results from the study showed that overall, participants had ongoing difficulty dealing with their trauma as they aged and felt hopeful once they began treatment. From the apriori themes reviewed in the interview guide, three major domains emerged as relevant for the sample. These included unique experiences that highlighted the developmental complexities in meeting daily needs while managing the impact of the trauma, struggles with coping with distress, and discussion of barriers to care (individual and environmental). Age related needs due to traumatic distress, specifically related to coping and help-seeking, appeared more urgent as health issues, job security, and family/friend relationships changed. Shame as a barrier to engaging in care was also commonly discussed in connection to expectations for the sample in managing their needs. Understanding the role of reported social supports, formal and informal, is important to account for preferences and perceptions about seeking care in managing trauma related distress that emerge in middle and late life (Krause, 2004; Hansen & Aranda, 2012).

Implications for Practice

Services that can support these considerations for trauma-exposed populations as they age may include peer-based models, case management and patient navigation support, and/or formal clinical treatment (Hansen & Ghafoori, 2017). Case management and patient navigation can address connecting to available social services that will allow for increased safety and sense of stability to facilitating one's capacity to address trauma and associated distress within environmental considerations. Use of peer support models may also help to normalize the acknowledgment of need for treatment, especially among a population such as middle-aged and older adults who struggle with societal stigma and perceived negativities around acknowledging mental health needs (Bartels & Naslund, 2013). Simultaneously integrating both care approaches can build on the sustained supports needed to manage emerging health, social, and emotional needs common for many middle and older aged adults (Bryant, Bei, Gilson, Komiti, Jackson, & Judd, 2012). Further, such approaches will not only support those least likely to seek services independently as needs increase with age, but can

enhance capacity for patient centered care strategies that make treatment models more accessible and culturally congruent (Ghafoori et al., 2014). Policy initiatives around supporting mental health and health services needs that promote a concurrent preventative care and a trauma informed lens are widely being adopted at all levels of services. Alignments of Medicare and Medicaid funding for integrated care models as part of the Affordable Care Act foster the needed adjustment in care models for a rapidly emerging large older adult population in the United States with complex integrated care needs (Hudson, 2013).

Limitations

The two-phase explanatory sequential design (Creswell & Zhang, 2009) of the study provided a strong methodology to bring forth a more nuanced understanding from the semi-structured interviews of the significant quality of life dimensions that may be associated with attitudes towards treatment. An acknowledgement of the limitations is also important as the results are considered. Study findings from both the quantitative and qualitative approaches are not generalizable as they represent one set of individuals already receiving services. The sample were not randomly selected. The questionnaires used for data collection were based on self-report. Self-report instruments cannot replace a structured clinical interview and diagnosis; therefore, the external validity of our results is limited. The qualitative findings have limited inference as they present the unique experience of those who agreed to participate in the interviews. It is also important to note that the study sample as a whole received mental health services at no cost, therefore study findings do not account for common barriers to care that includes health insurance limitations, lack of coverage, and financial costs in accessing care. Future studies would benefit from considering how changes in health insurance coverages and finances as one enters older adulthood can influence decisions to seek services.

Conclusion

Despite the limitation, the current study findings allow for insight into potential priorities that should be considered to enhance the treatment experience of middle-aged and older trauma-exposed adults. Findings suggest treatment seeking adults who have perceived access to social and health care, financial resources, skill-building resources, and safety may have more positive attitudes during treatment, which may improve their ability to benefit from trauma-informed care. Perhaps case management or peer models may improve environmental quality of life for trauma-exposed middle and older aged adults. Future research is necessary to further examine how to adapt evidenced-based outreach and intervention approaches that meet the unique mental health and health needs of trauma-exposed adults as they enter middle and late life.[17]

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SENIOR VICTEM TRAUMA: INITIAL EVALUATION AND MANAGEMENT

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In almost every developed country, the proportion of people over 60 years of age is growing faster than any other age group because of longer life expectancy and declining birth rates [1]. As a result, more older individuals are presenting to emergency departments following trauma [2]. In addition, advances in the care of chronic diseases have increased the number of older adults with active lifestyles, which predispose them to injury [3].

Although trauma remains a leading cause of morbidity and mortality across all ages, geriatric patients differ significantly from their younger counterparts in their greater number of comorbidities [4,5], and higher risk of severe disability and death [6,7]. Older adult patients are more susceptible to injury from minor mechanisms and less able to compensate from any injury. To manage their chronic ailments, older adult patients are more likely to take multiple medications, some of which may blunt their response to the physiologic stress of trauma and increase their risk for complications [8].

This topic will review important issues involved in the initial assessment and management of trauma in older adult patients. Detailed discussions of trauma care in the adult and of the management of specific injuries are found separately. (See "Initial management of trauma in adults".)

DEFINITION

Debate continues regarding the exact age at which a trauma patient should be considered an older adult, with some suggestions starting as low as 50 [9]. One large observational study showed increased mortality, adjusted for injury severity, starting at age 70, suggesting this age is an appropriate cutoff for defining the older adult population [9]. As most studies use 65 as the threshold to define the geriatric patient (albeit often without providing evidence to support the choice), we too will use this age for the purposes of the following discussion.

It is likely more important to consider the patient's age in the context of their overall health when determining their relative risk of injury following trauma than to consider age alone. Observational studies suggest that frail older trauma patients fare worse than their healthier counterparts and that pre-existing comorbidities may be more important than chronological age [10-13].

EPIDEMIOLOGY AND MECHANISMS OF INJURY

Falls and motor vehicle crashes are the most common mechanisms of injury among older adults. However, most importantly, older adult trauma patients experience higher mortality than their younger counterparts regardless of the mechanism involved [7,14,15]. Up to one-third of all older

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adult patients presenting with an Injury Severity Score (ISS) greater than 15 can be expected to die while in the hospital.

Falls are the most common cause of injury in patients over the age of 65, accounting for nearly three-quarters of all trauma in this population [14,16]. According to a systematic review of 18 studies, the probability of falling at least once in any given year for individuals 65 years and older is approximately 27 percent [17]. In the United States, over 28 percent of adults aged 65 and over fell in 2014, and age-adjusted mortality from falls in older adults increased from 2000 to 2016 [18]. Older adult patients requiring emergency department evaluation for a fall are at high risk for recurrence with one study reporting a readmission rate of 14.4 percent for patients initially admitted for a fall-related injury [19]. Falls in older adults most often occur from a standing position on a level surface, with orthopedic injury (eg, hip or long bone fracture) the most common significant complication. Despite the seemingly benign mechanism in many cases, falls can lead to dire medical and economic consequences for older adult patients, including the need for tracheal intubation or blood transfusion, cervical spine or thoracic injury, and death [5,14,20,21]. Falls in older individuals are discussed in detail separately. (See "Falls in older persons: Risk factors and patient evaluation".)

Motor vehicle crashes are the second most common mechanism of injury among older patients, and the most common cause of traumatic mortality [5,14,22]. About one-quarter of all older adult victims of motor vehicle crashes sustain a chest injury (most often rib fractures), which can exacerbate preexisting cardiopulmonary disease and increases the risk of significant complications, including pneumonia and respiratory failure [23,24]. Older adults are second only to children as victims of automobile-pedestrian accidents, but account for the largest percentage of the auto-pedestrian fatalities [14,25-28]. The highest mortality rate in geriatric trauma is among pedestrians struck by a vehicle.

With all types of blunt trauma, geriatric patients are more likely to sustain injuries of all types, particularly fractures, than their younger counterparts [5,29-31]. Based largely upon retrospective data, it appears that fractures of the spine (especially of the cervical spine), ribs, hip, and extremities are among the injuries more likely to occur in older patients. (See 'Common and high-risk injuries' below.)

Burns can have a devastating effect on geriatric patients, in whom mortality is significantly higher for any size burn than in younger adults [32,33]. The authors of a retrospective study of a predictive model for older adult burn patients reported that the median lethal dose (LD_{50}) for patients aged 60 to 70 was 43.1 percent total body surface area (TBSA) burned, for those aged 70 to 80 the LD_{50} was 25.9 percent TBSA, and for those 80 and older the LD_{50} was only 13.1 percent TBSA [32]. (See "Emergency care of moderate and severe thermal burns in adults".)

While assaults and penetrating trauma are less common in geriatric patients, they are associated with higher morbidity and longer hospital stays than that experienced by younger adults [34,35]. Physicians should always consider the possibility of older adult abuse and suicide attempt when caring for older trauma victims. (See "Elder abuse, self-neglect, and related phenomena".)

CLINICAL ANATOMY AND PATHOPHYSIOLOGY

A number of the anatomic and physiologic changes that accompany aging place the geriatric trauma patient at greater risk of injury and death, and impair their capacity to respond to the stress of severe injury. The physiology of aging is discussed in detail separately, but changes of particular relevance to trauma and their implications are briefly described below and summarized in the following table (table 1). (See "Normal aging" and "Immune function in older adults".)

Older adults have reduced vital capacity, functional residual capacity, and forced expiratory volume (FEV1), which diminishes respiratory reserve and limits the ability to tolerate even minor trauma [16,36]. Responses to hypoxia, hypercarbia, and acidosis are often blunted in older adults [37]. In addition, they are less able to compensate for metabolic disturbances and more likely to present with

a normal respiratory rate despite becoming progressively hypoxic and hypercarbic, making clinical assessment challenging [38].

The myocardium of older adults becomes stiff, compromising cardiac output, and less sensitive to catecholamines, which often results in a less profound tachycardic response to hemorrhage, pain, or anxiety following trauma. The absence of an absolute tachycardia due to this blunted response may create a false sense of security on the part of clinicians. Systemic vascular resistance is increased, often contributing to baseline hypertension, which can lead to the misinterpretation of blood pressure readings following trauma when expected declines may not manifest despite the onset of shock. Put another way, the values that should be considered abnormal for vital signs are different in older patients. As an example, according to a large retrospective review of geriatric blunt trauma patients, heart rates above 90 beats per minute and systolic blood pressure less than 110 mmHg correlate with increased mortality in this population. Among younger trauma patients, comparable increases in mortality are not seen until the heart rate reaches 130 beats per minute and systolic blood pressure drops below 95 mmHg [39].

In older patients, the dura adheres tightly to the skull and bridging veins become stretched, thereby increasing the risk of subdural hemorrhage from head injury, while reducing the risk of epidural hemorrhage. In addition, there is approximately a 30 percent reduction in brain size between the ages of 30 and 70 [40]. This brain atrophy increases the space in which blood can accumulate and may delay the development of symptoms and signs associated with subdural hemorrhage. In some older adults, dementia complicates medical assessment following trauma. Cerebrovascular autoregulation declines with age, making the brain potentially more susceptible to injury during periods of systemic hypotension [41]. (See 'Head injury' below.)

Lower bone density and compliance results in increased risk for all types of fractures, particularly those of the hip, vertebra, and wrist [42]. Rib fractures are more common and associated with higher complication rates. (See 'Cervical spine injury' below and 'Chest trauma' below and 'Musculoskeletal injuries of the pelvis, hip, and extremities' below.)

AGE-RELATED RISK FACTORS

Medication and disease-related — Older individuals are more likely to have chronic disease and to take multiple medications to manage these ailments. Medications that pose special risks to the older adult trauma patient include anticoagulants, antiplatelet agents, beta blockers, calcium channel blockers, and glucocorticoids. Pre-injury beta blockade has been shown to increase the odds of death, likely due to the masking of normal physiologic responses to shock [43]. Chronic glucocorticoid use, as might be seen in patients with chronic obstructive pulmonary disease, also increases mortality in trauma [44].

Drug metabolism is altered in older adults. The increase in total body fat and reduction in lean body mass that occurs with aging increases the volume of distribution of many medications, which can prolong their duration of effect. Declines in hepatic and renal function alter the metabolism and elimination of many medications. These changes not only complicate the management of older trauma patients but also increase their risk for sustaining trauma, as found in a meta-analysis published in 2009 that reported a strong association between the use of benzodiazepines, sedative-hypnotics, and antidepressants and falls in older adults [45]. The addition of any medication is associated with a significant increase in the risk of falls among older adult patients [46]. (See "Falls in older persons: Risk factors and patient evaluation".)

Although hypertension and heart disease are the most common preexisting conditions among older adult trauma patients, hepatic disease, renal insufficiency, and cancer confer the greatest mortality risk of all comorbid medical conditions [47]. In addition, decompensated (congestive) heart failure increases mortality substantially, particularly in patients taking anticoagulants, beta blockers, or both [48].

Impact of frailty — Among older adults, evidence suggests that frailty may be a better predictor of both short- and long-term morbidity and mortality following trauma than age alone. Several scores intended to provide insight into patient frailty and its impact on trauma outcomes have been developed [49]. The Trauma-Specific Frailty Index (TSFI) is one example of a validated measure that uses a combination of comorbidities, daily activities and function, health attitude, and nutrition to create a frailty score. In a prospective, multicenter, observational study of 1321 geriatric trauma patients (mean age 77), the TSFI was an independent predictor of worse outcomes, as patients categorized as frail (n = 494) had significantly higher mortality (OR 1.93, 95% CI 1.12-3.32) and major complications (OR 3.55, 95% CI 2.26-5.57) compared with their non-frail counterparts [50]. In a small, retrospective study, use of a modified TSFI score was associated with lower 30-day readmission rates compared with the Emergency Severity Index (ESI) [51]. Although the exact clinical implications for frailty assessment await clarification, such assessment may be a useful tool when determining disposition and follow-up for older adult trauma patients.

ASSESSMENT AND INITIAL INTERVENTIONS

Problem of under-triage — Traditional physiologic parameters used to identify high risk trauma patients, such as systolic blood pressure below 90 mmHg or heart rate above 120 beats per minute, do not account for the declining physiologic capacities of older adult patients. Although there is limited prospective data to guide triage decisions about geriatric trauma patients, given the increased risk for severe injury and death in this population, we suggest that trauma patients over the age of 70 be evaluated at a trauma center with trauma team activation whenever possible, regardless of the mechanism (ie, falls from standing warrant such evaluation). A number of large, observational studies support this approach [9,52,53].

In addition we concur with guidelines published by the United States Centers for Disease Control (CDC) calling for direct transport to a trauma center for any patient 65 or older with a systolic blood pressure <110 mmHg [54]. We also believe it is reasonable to use a pulse of 90 or above as the threshold defining tachycardia, which may be a sign of hemorrhage or significant injury warranting careful investigation. We make these suggestions in the hope of helping clinicians to avoid under-triage, which is a significant problem in the management of geriatric trauma patients [55].

Multiple observational studies demonstrate the problem of under-triage [52,56-59]. As an example, one retrospective study of 26,565 trauma patients reported an under-triage rate of 49 percent in patients older than 65 [56]. Under-triage may be due in part to lack of recognition that older adult patients are at greater risk of injury and in part to traditional triage tools (eg, vital signs, mechanism of injury, or the American College of Surgeons Committee on Trauma triage criteria) that may be relatively insensitive for signs of injury in older patients. The impact of insensitive triage criteria is supported by several retrospective studies, including a review of 51,227 adult trauma cases in which many of the classic physiologic criteria used for trauma team activation, such as blood pressure and heart rate, failed to predict hospital mortality in geriatric trauma patients [52,57]. In this study, trauma team activation occurred significantly less often for older adult patients (14 versus 29 percent) despite a similar percentage of severe injuries (defined as Injury Severity Score >15). Under-triaged geriatric patients injured from ground-level falls have a higher mortality rate than younger adults injured from more severe mechanisms and evaluated by a trauma team [60]. It is likely that under-triage has multiple causes. Some researchers suggest that inadequate training of clinicians and age bias contribute to the problem [61,62].

Under-triage is particularly concerning given studies that show improved outcomes when older adult patients with significant injuries are taken to level one or level two trauma centers [63]. In addition, advancing age is associated with an increasing risk of death even among minimally injured patients, according to another large retrospective study [55].

Another problem in geriatric trauma is the implementation and consistent use of appropriate triage criteria. In an observational study comparing the periods before and after geriatric trauma criteria

were introduced to a state EMS system, researchers found that the proportion of older adults meeting the criteria for trauma center transport increased substantially after the introduction but no actual increase in trauma center transports occurred [64].

History — It is important to obtain a precise history whenever possible, although this can be challenging with some older adult trauma patients. A general discussion of the history in adult trauma is found separately. (See "Initial management of trauma in adults", section on 'History'.)

In addition to standard inquiries about events and mechanism, important questions to ask older patients (or their family members, emergency medical services (EMS) personnel, or others who may have insight) include:

- What happened immediately before the trauma (eg, altered consciousness, difficulty breathing, change in vision)?
- What medications is the patient taking (eg, anticoagulant, antiplatelet, beta blocker, calcium channel blocker)?
- What underlying illnesses does the patient have (eg, cardiovascular or renal disease, diabetes)?
- What was the patient's baseline level of motor and cognitive function prior to the traumatic event?
- Does the patient have a written advanced directive or a health care proxy that may be useful for determining the goals of care?

Prehospital management — Emergency medical services (EMS) providers must be taught that minor trauma, such as falls from standing and minor motor vehicle accidents, can cause significant injuries and even death in geriatric patients. We suggest that trauma patients over the age of 70 be evaluated at a trauma center whenever possible, regardless of the mechanism of injury [65]. (See 'Problem of under-triage' above.)

In addition to the relatively common injuries sustained in trauma, older adult patients are more likely to sustain otherwise rare injuries, such as C1 or C2 cervical spine fractures, which may result from a simple fall onto a hard surface. At the same time, older adult patients do not tolerate standard cervical spine motion restriction procedures as well as their younger counterparts. While there are no hard and fast rules, provider judgment may be needed to determine when spinal motion restriction is necessary and how this can best be accomplished. This might entail allowing for slight (<30 percent) elevation of the head of the bed or foregoing a rigid backboard or cervical collar.

Based upon evidence of increased morbidity and mortality among older trauma patients, a number of specialists advocate transport to a trauma center and activation of the trauma team based solely upon patient age regardless of the mechanism of injury [52,55,66]. As an example, one retrospective observational study of 883 trauma patients aged 70 or older reported a mortality rate of 16 percent among the 660 "stable" patients who did not meet any standard trauma team activation criteria [52]. Another retrospective cohort study of 87 geriatric patients with significant pelvic fractures reported a lower complication rate among those transported directly to a level one trauma center compared to those brought to a non-trauma center [67].

Nevertheless, evidence about the appropriate transport and evaluation of older trauma patients is limited and other groups use different criteria. As an example, the American College of Surgeons (ACS) recommends transport to a designated trauma center for trauma patients over the age of 55 regardless of mechanism or apparent severity [68].

Primary survey

Overview — The standard primary survey is appropriate for the management of older trauma patients and is reviewed in detail separately. Issues of special importance in older trauma patients are discussed here. Although older trauma patients are at increased risk of death and disability, many respond well to resuscitative measures and aggressive management is appropriate [69,70]. Of note, blunted responses to hypoxia, hypercarbia, and acidosis can delay clinical signs of distress in older trauma patients. Therefore, providers should assume that serious injuries are likely to be present even when concerning clinical findings are not apparent initially. (See "Initial management of trauma in adults", section on 'Primary evaluation and management' and "Normal aging", section on 'Respiratory system'.)

Airway and breathing — When performing the primary survey in an older adult trauma patient, clinicians should look for airway anomalies that are likely to complicate management, such as limited mouth-opening (temporomandibular arthritis) and dentures. Laryngoscopy and intubation are more difficult in patients with limited mouth opening. Bag mask ventilation is often more difficult once dentures are removed; intact dentures should be kept in place should assisted ventilation become necessary. Geriatric patients have limited respiratory reserve, making early administration of supplemental high flow oxygen of great importance. According to one retrospective study of geriatric trauma patients, a respiratory rate below 10 breaths per minute is associated with a greater risk of death [71]. (See "Basic airway management in adults" and "Rapid sequence intubation in adults for emergency medicine and critical care", section on 'Preoxygenation'.)

Diminished respiratory reserve often prevents geriatric patients from compensating adequately for chest injuries. Early aggressive airway management, including tracheal intubation, may be necessary. Should rapid sequence intubation be required, the doses for drugs that may cause hemodynamic compromise, such as benzodiazepines, barbiturates, and even etomidate, should be reduced between 30 and 50 percent to minimize the risk of cardiovascular depression. (See "Rapid sequence intubation in adults for emergency medicine and critical care" and "Airway management in the geriatric patient for emergency medicine and critical care" and "Overview of advanced airway management in adults for emergency medicine and critical care".)

Although evidence is scant, older trauma patients not in need of immediate intubation but suffering from some respiratory difficulty may benefit from noninvasive positive pressure ventilation (NIPPV). In one prospective observational study of 22 patients with blunt thoracic trauma, use of noninvasive bilevel positive pressure ventilation substantially improved gas exchange and vital signs enabling 18 patients to avoid tracheal intubation [72]. (See "Noninvasive ventilation in adults with acute respiratory failure: Benefits and contraindications".)

Circulation — "Normal" vital signs in geriatric trauma patients may be substantially different from their younger counterparts, and recognizing early shock can be more difficult. Baseline hypertension is common among older patients and in the setting of trauma may contribute to a false sense of comfort on the part of clinicians when a blood pressure in the "normal" range actually represents relative hypotension. Thus, trends of vital signs are likely to be more useful than any individual measurement. Repeat measurements should be obtained frequently and all readings interpreted in light of the patient's baseline and previous readings.

The effect of medications the patient takes regularly can further obscure the meaning of vital sign measurements. Beta blockers and other antihypertensive medications commonly taken by geriatric patients can blunt the normal tachycardic response to hemorrhagic shock. This effect is compounded by the decreased sensitivity of older myocardium to circulating catecholamines. (See 'Clinical anatomy and pathophysiology' above.)

Multiple studies demonstrate the unreliability of vital signs in older trauma patients. According to one retrospective study, mortality increases among older trauma patients when their heart rate rises above 90 beats per minute and systolic blood pressure falls below 110 mmHg, while the same increase in mortality is not evident in younger patients until heart rates reach 130 beats per minute

and systolic blood pressure falls below 95 mmHg [39]. Another study found evidence of tissue hypoperfusion despite "normal" blood pressures in older adult trauma patients without isolated head injury [73].

Given that vital signs may be an unreliable guide to hemodynamic status, it is important to look for signs of shock in patients who would otherwise be considered "normotensive." Signs such as subtle alterations in mental status (eg, mild confusion, somnolence, or agitation), mild tachypnea, delayed capillary refill, and low urine output may reflect hypoperfusion and early shock. (See "Approach to shock in the adult trauma patient".)

Using ultrasound as part of the primary survey to look for evidence of internal hemorrhage in older patients, who may not manifest signs of shock, is a sound approach. Ultrasound is both sensitive and specific for detecting significant hemoperitoneum in blunt trauma, and is useful for detecting pneumothorax. In addition, geriatric trauma patients are at increased risk of cardiac dysfunction and ultrasound can be useful for identifying such problems. Serial examinations improve the sensitivity and accuracy of ultrasound. (See "Emergency ultrasound in adults with abdominal and thoracic trauma".)

Other tools that can help to identify hypoperfusion and shock in older adults include serial diagnostic testing using a blood lactate concentration or a venous or arterial blood gas. (See 'Diagnostic testing' below.)

Aggressive resuscitation is appropriate for the initial treatment of older adult trauma patients with hypotension or signs of hypoperfusion. One reasonable approach is to rapidly infuse a bolus of 500 mL and assess the patient's response (eg, measure blood pressure, auscultate for lung crackles), and then repeat the bolus, if needed. However, preexisting conditions such as ischemic heart disease, heart failure, or renal dysfunction can cause older adult patients to decompensate from excessive fluid administration or blood loss. Therefore, it is reasonable to begin transfusing blood products early if hypotension or signs of hypoperfusion exist, even before any crystalloid is infused. Standard ratios for transfusion of blood products are appropriate and effective in older adult trauma patients [74]. Transfusion for trauma patients with severe bleeding is discussed separately. (See "Initial management of moderate to severe hemorrhage in the adult trauma patient".)

While hemorrhage remains the most important cause of shock in older trauma patients, clinicians should be aware of other potential causes, including myocardial ischemia and pneumothorax. (See "Approach to shock in the adult trauma patient".)

As with all trauma patients, excessive crystalloid administration may be harmful. The potential benefit of permissive hypotension, and how best to define hypotension, has not been clearly established in the older trauma patient.

Disability — Obtaining an accurate assessment of neurologic function can be difficult in older trauma patients. Such patients can sustain a significant intracranial injury (eg, subdural hemorrhage) and yet manifest no neurologic deficits during their initial examination [75]. Furthermore, performing the examination can be complicated by comorbidities such as underlying dementia or changes such as reduced sensation that are part of normal aging. (See "Normal aging" and "The mental status examination in adults" and "The detailed neurologic examination in adults".)

Monitoring — Particularly in older trauma patients, who may not manifest obvious signs of injury, close monitoring is essential. Monitoring should include serial examinations, including vital signs, mental status, and reassessment of any areas of concern. There is inadequate evidence to support firm guidelines, and the frequency and intensity of reevaluation will vary depending upon the baseline health of the patient, the clinical scenario, and available resources. As a general guideline, we suggest that a relatively healthy 70 year old without an apparent severe internal injury but who was involved in significant trauma (eg, motor vehicle collision) receive a focused reassessment

approximately every 5 minutes while the primary and secondary surveys are performed, every 15 minutes during the first hour after the surveys are completed, and hourly thereafter until the patient is discharged or admitted, and assuming no problem arises while in the emergency department.

In addition to a cardiac monitor and pulse oximeter, we suggest using an end-tidal CO2 monitor for any older patient with the potential for respiratory problems. This may include patients complaining of mild shortness of breath or those who sustained a seemingly minor fall with a possible chest wall injury. (See "Carbon dioxide monitoring (capnography)" and "Initial evaluation and management of chest wall trauma in adults".)

Secondary survey — Older individuals have decreased pain perception and may have difficulty localizing the pain they do experience, which increases their risk for occult injuries [48]. Thus, the clinician must perform a thorough systematic secondary survey in all older trauma patients. A detailed description of the secondary survey is provided separately; elements of particular importance in older adult patients are discussed here. (See "Initial management of trauma in adults", section on 'Secondary evaluation and management'.)

Older adult patients have a limited capacity to compensate for the physiologic stress of injury, and the secondary survey should focus on detecting signs of injury that may not be readily apparent. Among the important items to assess are alterations in mental status, especially compared to presentation, trends in vital signs, urine output, and any worsening symptoms including pain and respiratory difficulty.

Important and common injuries to keep in mind while performing the secondary survey include:

- Head (including intracranial) injury (see 'Head injury' below)
- Cervical spine injury (see "Suspected cervical spine injury in adults: Choice of imaging" and "Cervical spinal column injuries in adults: Evaluation and initial management" and "Spinal column injuries in adults: Types, classification, and mechanisms")
- Burns (see "Emergency care of moderate and severe thermal burns in adults")
- Clavicle and rib fractures (see "Initial evaluation and management of chest wall trauma in adults" and "Clavicle fractures" and "Inpatient management of traumatic rib fractures and flail chest in adults" and "Initial evaluation and management of rib fractures")
- Hip fracture (see "Overview of common hip fractures in adults")
- Pelvic fracture (see "Pelvic trauma: Initial evaluation and management" and "Minor pelvic fractures (pelvic fragility fractures) in the older adult")

The use of systematic management protocols (eg, checklist of examinations to perform during secondary survey) may improve outcomes for older adult trauma patients. A retrospective study reported improved survival and lower disability rates by adding age above 70 to the criteria for trauma team activation and instituting early intensive monitoring for these patients [76]. Another retrospective study reported reduced mortality after instituting a high-risk protocol for injured patients over the age of 75 based upon comorbidities, physiologic parameters, and the results of laboratory tests [61].

Analgesia — Pain control is essential to the management of injured older adults. Failure to provide analgesia is inhumane and increases the risk of delirium in this population. Nevertheless, some observational studies suggest that older trauma patients receive inadequate analgesia [77,78].

Opioids are best for older patients with significant pain. Fentanyl is a good choice in trauma patients because it has a rapid onset, a relatively short duration of effect, and does not cause histamine

release so it is less likely to cause hypotension. Hydromorphone may also be used but has a longer duration of effect. Morphine has a toxic metabolite that is renally cleared and can cause respiratory depression and seizures if it accumulates. Sedation, urinary retention, and nausea are among the side effects of opioids. (See "Pain control in the critically ill adult patient".)

Physiologic changes (eg, decreased renal or hepatic function and altered body fat distribution) may result in higher serum drug concentrations in older adult patients given the same dose of a medication as younger individuals, so standard doses should be reduced by approximately 30 to 50 percent and then titrated to effect. Depending upon the patient's age, weight, comorbidities, and other clinical factors (eg, chronic opioid use), fentanyl doses of 25 to 100 mcg IV are reasonable for older trauma patients. (See 'Clinical anatomy and pathophysiology' above and 'Age-related risk factors' above.)

We prefer to avoid nonsteroidal antiinflammatory drugs (NSAIDs) in older adult trauma patients. Such patients are likely to have some degree of compromised renal function and are likely to be at increased risk of gastrointestinal bleeding and therefore are more susceptible to complications from NSAIDs. (See "Nonselective NSAIDs: Overview of adverse effects".)

Diagnostic testing — In general, we obtain the following laboratory studies in older adult trauma patients with known or at significant risk for major injuries:

- Blood type and crossmatch
- Blood lactate
- Arterial or venous blood gas
- Serum hemoglobin concentration and hematocrit
- Serum creatinine and BUN
- Serum glucose
- Basic serum electrolyte concentrations (including Na+, K+, Cl-, HCO3-)
- Prothrombin time with international normalized ratio (PT and INR)
- Electrocardiogram (ECG)

Indiscriminate laboratory testing is rarely helpful in initial trauma management, but additional tests may be needed depending upon clinical circumstances. As an example, it is reasonable to obtain a creatine kinase to assess for rhabdomyolysis in an older patient who may have been lying on the ground for several hours following a fall.

Lactate concentrations and base deficit measurements can be helpful in the management of geriatric patients with multi-system trauma, who are at increased risk of occult injury. For patients with signs of hypoperfusion or patients without such signs but whose initial serum lactate or blood gas results suggest hypoperfusion, we suggest obtaining repeat measurements every one to two hours. Combined with clinical parameters (eg, heart rate, urine output), serial laboratory values can help clinicians determine whether resuscitation is adequate. Rising or persistently elevated serum lactate measurements (≥2.4 mmol/L) strongly suggest ongoing hypoperfusion. (See "Initial management of trauma in adults", section on 'Laboratory tests'.)

Both lactate and base deficit are sensitive markers of hypoperfusion, even in situations where the older adult patient is "normotensive" [79]. In addition, both may help clinicians to gauge the patient's response to initial resuscitation efforts, and determine appropriate disposition (ie, whether ICU admission is necessary) and mortality risk [80]. According to one review, a base deficit greater than -6 on the admission arterial blood gas is associated with a 60 percent mortality rate in trauma patients 55 years and older [8].

Imaging studies — Given the increased risk of severe occult injury and less concern about the effects of radiation exposure, it is reasonable to use a lower threshold for performing extensive imaging studies of older trauma patients. Older patients at risk for significant internal injury and whom it is difficult (eg, dementia, head injury) or impossible (eg, intubated) to assess adequately should be imaged liberally if possible and consistent with the goals of care. When performing computed tomography (CT) imaging in this population, contrast nephropathy is a concern and all suitable steps to prevent this complication should be taken. (See "Prevention of contrast-associated acute kidney injury related to angiography".)

COMMON AND HIGH-RISK INJURIES

Head injury — Older age is an independent risk factor for morbidity and mortality in patients with head trauma, both major and minor [21,81]. According to large retrospective studies, older adult patients with severe traumatic brain injury (defined as a sustained Glasgow Coma Scale [GCS] <9) have at least an 80 percent likelihood of death or major disability leading to placement in a long-term care facility [82]. Most head trauma in older adult patients occurs from falls. Early diagnosis and intervention is critical to reducing the dangers associated with intracranial hemorrhage. (See "Management of acute moderate and severe traumatic brain injury".)

Of note, the GCS may be less accurate in geriatric patients. Given the physiologic changes in this population, significant intracranial injury may be present even in the setting of a normal or relatively high GCS score [83,84]. (See "Stupor and coma in adults", section on 'Glasgow Coma Scale'.)

Whom to image — In nearly all cases of head trauma in geriatric patients, it is prudent to obtain a computed tomography (CT) scan of the head. In addition to the increased risk of injury in this population, the neurologic examination can be unreliable for detecting signs of significant intracranial hemorrhage [75,85]. Observational studies strongly suggest that patients with a minor mechanism of injury and no abnormalities on neurologic examination may still have significant subdural or epidural bleeding.

Although several well-validated clinical practice guidelines may be used to reduce the number of CT scans performed on younger patients with head trauma (eg, New Orleans Criteria, NEXUS II, and the Canadian CT Head Rule), they cannot be so used for older patients, as older age is an explicit criteria for obtaining imaging (>60 years in the New Orleans Criteria, >65 years in the Canadian rule and NEXUS II). (See "Acute mild traumatic brain injury (concussion) in adults", section on 'Imaging'.)

Patients taking anticoagulants

Risk of bleeding — Nearly 10 percent of older adult patients presenting with head trauma are taking warfarin, while a significant percentage take other anticoagulants or antiplatelet agents [86]. The rate of intracranial hemorrhage in asymptomatic head injury patients on warfarin approaches 15 percent in some studies [87]. Intracranial hemorrhage can occur following minimal trauma [88]. Even therapeutic anticoagulation is associated with adverse outcomes in the geriatric patient with a head injury, according to retrospective data [89]. Reversal of anticoagulation should be performed as soon as the need is recognized, as the rate and volume of bleeding are among the most important determinants of morbidity and mortality from intracranial hemorrhage [90].

Treatment of life-threatening bleeding — We concur with management guidelines from the Eastern Association for the Surgery of Trauma, which suggest that all older adult patients taking warfarin who have evidence of a post-traumatic intracranial hemorrhage on CT have their international normalized ratio (INR) corrected toward a normal range (eg, <1.6 x normal) within two hours of admission [80]. We suggest the same approach be taken with older trauma patients taking warfarin who manifest any decline in mental status or develop a neurologic deficit, or who have a supratherapeutic INR and sustained head trauma of any kind [75,91]. In resource-limited settings,

reversal of anticoagulation may be necessary without confirming the presence of intracranial hemorrhage by CT.

Several treatments may be used to reverse anticoagulation, including fresh frozen plasma (FFP), vitamin K, cryoprecipitate, prothrombin precipitate complex (PCC), and possibly recombinant human factor VIIa (factor VIIa). Non-crossmatched FFP may be given initially to reduce the time required for reversal [91]. FFP should be administered using the smallest volumes possible to minimize the risk of fluid overload. For the initial treatment of potentially life-threatening bleeding, we suggest stopping warfarin, transfusing FFP (initial dose is 2 to 3 units), and administering 10 mg of vitamin K by **slow** intravenous infusion (eg, over 20 minutes). PCC or factor VIIa can be given instead of FFP if they are available and the bleeding is life-threatening. The following table summarizes the initial emergency treatment to reverse anticoagulation due to warfarin in patients with life-threatening hemorrhage (table 2). Additional information about reversing warfarin is provided separately. (See "Management of warfarin-associated bleeding or supratherapeutic INR", section on 'Serious/life-threatening bleeding'.)

Some older adult trauma patients may be taking anticoagulants other than warfarin. The management of bleeding due to these agents is discussed separately, while emergency treatment to reverse anticoagulation from direct oral anticoagulants (eg, dabigatran) is summarized in the following table (table 3):

- Heparin (see "Heparin and LMW heparin: Dosing and adverse effects", section on 'Bleeding')
- Low molecular weight heparin (see "Heparin and LMW heparin: Dosing and adverse effects", section on 'Bleeding')
- Direct thrombin inhibitors (eg, dabigatran) and factor Xa inhibitors (eg, rivaroxaban, apixaban, edoxaban) (see "Management of bleeding in patients receiving direct oral anticoagulants", section on 'Anticoagulant reversal')

Observation in patients without bleeding initially — Largely due to the limited evidence available, debate continues about what constitutes appropriate observation for patients on warfarin who sustain a closed head injury but whose initial CT scan shows no acute intracranial hemorrhage. We suggest a 12-hour period of observation for such patients, with reassessment (including a focused, standardized neurologic examination) every two hours. Patients who remain clinically stable with no change in their neurologic examination during this period may be discharged.

Evidence to determine the optimal approach to observation is scant, but includes the following:

- A prospective observational study of 97 consecutive patients who sustained minor head trauma while on warfarin used a protocol of 24-hour observation followed by a second CT scan reported a 6 percent rate of delayed bleeding and identified all but two patients with such bleeding [92]. These two patients were admitted two and eight days later with symptomatic subdural hematomas but neither required surgical intervention. It is not clear from this study whether a shorter observation period or symptoms alone would have identified those with a delayed bleed.
- Another prospective observational study assessed immediate and delayed bleeding in 1064 patients who sustained blunt head trauma while on anticoagulants and found a higher prevalence of immediate hemorrhage in patients receiving clopidogrel (33 out of 276, 12 percent) compared to warfarin (37 out of 724, 5.1 percent) (relative risk [RR] 2.31; 95% CI 1.48-3.63) [93]. The study found few delayed bleeds in either group (4 out of 687 warfarin patients; 0 out of 243 clopidogrel patients).

Cervical spine injury — The original studies of the major clinical decision rules used to assess cervical spine injury, including the National Emergency X-Radiography Utilization Study (NEXUS) [94] and the Canadian Cervical Spine Rule [95], specifically excluded older adult patients (>60 and >65 years, respectively). This is because the incidence of cervical spine injury is greater in geriatric patients and evaluation is more difficult (history and examination may be less sensitive for injury) [96-99]. The effectiveness and application of these decision rules to trauma patients, including geriatric patients, is discussed separately. (See "Cervical spinal column injuries in adults: Evaluation and initial management" and "Suspected cervical spine injury in adults: Choice of imaging" and "Spinal column injuries in adults: Types, classification, and mechanisms".)

Older adult patients can sustain cervical fractures from seemingly minor mechanisms, such as a fall from a standing position [24,99,100]. In a systematic review of studies that included adults ≥65 years old who sustained low-level falls (eg, fall from sitting, level ground, or no more than two steps; 21 studies, 17,192 patients), researchers found that approximately 4 percent suffered a cervical spine fracture, dislocation, or ligamentous injury [99].

In particular, high cervical fractures (eg, odontoid) are significantly more common [96]. Type II odontoid fractures are among the most common cervical spine fractures in older adults (image 1) [29]. Conditions such as cervical stenosis and degenerative rheumatoid and osteoarthritis, which are also more common in older patients, make the spine more vulnerable to fracture and the interpretation of plain radiographs more difficult. In addition, both the history and physical examination may be less sensitive for detecting injury in older adult patients [97,98]. Therefore, liberal use of advanced imaging studies (eg, computed tomography) is warranted for those at risk for spinal injury.

Central cord syndrome is a complication of cervical spine injury that occurs more often in older trauma patients. It is most frequently the result of a hyperextension injury in individuals with long-standing cervical spondylosis, and is characterized by disproportionately greater motor impairment in upper compared with lower extremities, bladder dysfunction, and a variable degree of sensory loss below the level of injury. (See "Anatomy and localization of spinal cord disorders", section on 'Central cord syndromes'.)

Chest trauma — Rib fractures are the most common chest injury sustained by older adult patients and are associated with an increased risk of complications and death [30,101-104]. Given these risks, admission and close observation is generally indicated for older patients with even one rib fracture, and advanced imaging is warranted in older patients with multiple rib fractures. Many older patients, especially those with three or more rib fractures or any sign of respiratory difficulty, are admitted to an intensive care setting. Disposition of patients with rib fractures is reviewed in greater detail separately. (See "Initial evaluation and management of rib fractures", section on 'Disposition'.)

The initial management of chest wall trauma and thoracic injury are discussed separately. (See "Initial evaluation and management of blunt thoracic trauma in adults" and "Initial evaluation and management of chest wall trauma in adults" and "Initial evaluation and management of rib fractures".)

A systematic review of studies of risk factors for death following blunt chest wall trauma confirmed that older adults are at significant risk of complications (eg, pneumonia, pulmonary contusion) and mortality with even three or fewer non-displaced rib fractures [102]. In this review, the major risk factors for mortality following blunt chest wall trauma were age 65 years or older, three or more rib fractures, and pre-existing cardiopulmonary disease. According to one retrospective cohort study, mortality increases by approximately 19 percent for each rib fracture in patients over the age of 65 [30].

Another systematic review of data from the United States National Trauma Data Bank that included several hundred thousand patients with rib fractures found that control of pain with neuraxial

blockade and intensive care unit (ICU) admission were associated with reduced mortality among patients older than 65 years with three or more rib fractures, but that eligible patients often did not receive these interventions [105].

Abdominal trauma — Although abdominal injury patterns are similar in older and younger adult trauma patients, diminished pain sensation and increased laxity of abdominal wall musculature make the abdominal examination less reliable in geriatric patients. Thus, early evaluation to detect intraperitoneal hemorrhage (most often using ultrasound) is important. (See "Emergency ultrasound in adults with abdominal and thoracic trauma" and "Initial evaluation and management of blunt abdominal trauma in adults".)

In stable patients, it is best to obtain a CT scan if intra-abdominal injury is suspected. The risk of contrast-induced nephropathy is higher in older adult patients, particularly in the presence of hypovolemia, chronic renal disease, or diabetes, and measures should be taken to avoid this complication. (See "Initial evaluation and management of blunt abdominal trauma in adults" and "Prevention of contrast-associated acute kidney injury related to angiography" and "Contrast-associated and contrast-induced acute kidney injury: Clinical features, diagnosis, and management".)

It is best to obtain early surgical consultation for known or suspected intra-abdominal injury because such injuries can be difficult to assess in older patients and because operative management of solid organ injuries (eg, splenic injury) may be preferable to non-operative management [106]. Strategies for reversing anticoagulation in older adults with significant bleeding are discussed above. (See 'Treatment of life-threatening bleeding' above.)

Musculoskeletal injuries of the pelvis, hip, and extremities — Musculoskeletal injuries are the most common type of injury sustained by geriatric trauma patients. Many of these injuries are associated with increased mortality in this population [5]. Hip fractures are the most common injury requiring hospital admission [22]. Plain radiographs are often sufficient to identify hip fractures, but magnetic resonance imaging may be needed to assess occult fracture. (See "Overview of common hip fractures in adults".)

Pelvic fracture patterns among older adult patients with major trauma are similar to younger adults, although lateral compression fractures may be more common [107]. Following minor trauma, older adult patients may sustain fractures of the pubic rami or sacral ala, as well as hip fractures and other more common injuries. (See "Pelvic trauma: Initial evaluation and management" and "Minor pelvic fractures (pelvic fragility fractures) in the older adult".)

Regardless of type, pelvic fractures in older adults are associated with significantly greater morbidity, including major hemorrhage, and mortality [37,108,109]. One review of geriatric trauma reported a mortality rate of up to 30 percent in older adult patients from acute or delayed complications of pelvic fractures [110]. A retrospective study of 234 older adult patients with pelvic fractures found that patients over the age of 55 were four times more likely to die from complications of their pelvic fracture than younger patients [108]. The authors suggest that every older adult patient with a pelvic fracture be considered hemodynamically unstable until proven otherwise. Strategies for reversing anticoagulation in older adults with significant bleeding are discussed above. (See 'Treatment of life-threatening bleeding' above.)

Given the increased risks associated with pelvic fractures in this population, we suggest taking an aggressive approach to identifying and stopping bleeding. The approach will vary by institution, but early surgical consultation and investigation (eg, angiography, CT-angiography) is warranted in any geriatric patient with a pelvic fracture, other than a minor fracture of a pubic ramus, and evidence of hemorrhage (eg, elevated heart rate, ongoing transfusion requirements, pelvic hematoma on standard CT) [37].

In addition to hip and pelvis fractures, other common injury sites include the distal radius and ulna, proximal humerus, and clavicle [111]. As many of these extremity injuries too are associated with increased mortality, clinicians should look carefully for such fractures when evaluating geriatric trauma patients [5].

Skin wounds — Older adult trauma victims are more likely to sustain skin tears and other superficial wounds. Although these injuries often require longer to heal than comparable wounds in younger patients, management is essentially the same. (See "Basic principles of wound management" and "Clinical assessment of chronic wounds" and "Minor wound evaluation and preparation for closure".)

DISPOSITIONDisposition of the geriatric trauma patient depends upon their underlying health and the injuries sustained or suspected. Admission or transfer to a trauma center is appropriate for patients over the age of 65 with an injury from blunt chest trauma (even a single rib or clavicle fracture), blunt abdominal trauma associated with any symptoms or findings, head trauma with **any** alteration in mental status or other sign of injury (eg, hemotympanum, retroauricular ecchymosis), extremity trauma that limits the patient's ability to perform activities of daily living, or concerning symptoms such as pain that is not easily controlled or shortness of breath. Transfer to a trauma center should not be delayed in order to complete imaging studies. Special care should be taken with older patients who have significant underlying comorbidities such as cardiopulmonary disease, as such conditions dramatically increase the risk for adverse outcomes following trauma. (See 'Age-related risk factors' above.)

In addition to the general guidelines above, we suggest admission to an intensive care setting in a trauma center whenever possible for older adult patients with significant injury to one or more organ systems, two or more rib fractures, a serum lactate concentration ≥2.4 mmol/L, or concerning vital sign trends (eg, increasing heart or respiratory rate), even if the absolute measurements are not grossly abnormal.

Potential causes of trauma in older adults include cardiac syncope, myocardial infarction, infection, and stroke. Therefore, determining the cause of trauma is another potential reason for admitting the older adult patient to the hospital. Advanced age is not an absolute predictor of poor outcome following trauma and should not be used as the sole criterion for denying or limiting care [80]. The Geriatric Trauma Outcome Score (GTOS) is a useful tool for assessing in-hospital mortality risk in the injured older adult patient [112-114].

Older adults found to have only minor injuries from trauma, no concerning underlying medical cause, and appropriate social supports and medical follow-up may be discharged. The importance of follow-up cannot be overemphasized. Among older adults who are discharged appropriately from the emergency department following minor injury, a substantial number experience functional decline following the incident. As an example, in a prospective, multicenter study of nearly 3000 adults over the age of 65 discharged home following minor trauma, 17 percent (95% CI 12.5-23 percent) experienced a significant functional decline over the subsequent six months [115]. Thus, it is important to ensure that appropriate follow-up is arranged. This may include assessments by primary care, physical therapy, visiting nursing, and social services. (See "Comprehensive geriatric assessment".)

SOCIETY GUIDELINE LINKS Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: General issues of trauma management in adults".)

SUMMARY AND RECOMMENDATIONS

- **Definitions and epidemiology** – There is no clear definition of geriatric trauma; we consider patients 65 and older to be geriatric. Geriatric patients have greater morbidity

and mortality for virtually all traumatic injuries and mechanisms. Even apparently benign mechanisms (eg, fall from standing) can cause significant injury. With proper care and appreciation for the differences in injured older adults, a return to baseline functional status is a reasonable expectation for many patients, including those with major injuries. (See 'Definition' above and 'Epidemiology and mechanisms of injury' above.)

●**Anatomy and physiology** – Multiple anatomic and physiologic changes that accompany aging place the geriatric trauma patient at greater risk of injury and death, and impair their capacity to respond to the stress of injury (table 1). In addition, older patients frequently have pre-existing conditions that diminish physiologic reserve and take medications that mask signs of injury. Clinicians must remain vigilant, even in the setting of "normal" vital signs and "minor" mechanisms. (See 'Clinical anatomy and pathophysiology' above and 'Age-related risk factors' above.)

●**Under-triage** – Geriatric trauma patients are chronically under-triaged, increasing their risk for morbidity and death. We suggest that trauma patients over the age of 70 be evaluated at a trauma center with trauma team activation whenever possible, regardless of the mechanism. In addition, we suggest that any patient 65 or older with a systolic blood pressure <110 mmHg be transported directly to a trauma center for evaluation, and that a heart rate of 90 be used as the threshold for tachycardia in patients in this age group. (See 'Problem of under-triage' above.)

●**History** – In addition to the standard trauma history, the following questions are important to address with geriatric trauma:

- What happened immediately before the trauma (eg, altered consciousness, difficulty breathing, change in vision)?
- What medications is the patient taking (eg, anticoagulant, antiplatelet, beta blocker, calcium channel blocker)?
- What underlying illnesses does the patient have (eg, hypertension, cardiovascular or renal disease, diabetes)?
- What was the patient's baseline level of motor and cognitive function prior to the traumatic event?
- Does the patient have a written advanced directive or a health care proxy that may be useful for determining the goals of care?

●**Airway and breathing** – Blunted responses to hypoxia, hypercarbia, and acidosis can delay clinical signs of distress in older adult trauma patients. Serious injuries are likely to be present even when concerning clinical findings are not apparent initially. Diminished respiratory reserve often prevents patients from compensating adequately for chest injuries. Early aggressive airway management may be necessary, and may include tracheal intubation or noninvasive positive pressure ventilation. (See 'Overview' above and 'Airway and breathing' above.)

●**Circulation** – "Normal" vital signs in geriatric trauma patients may be substantially different from their younger counterparts; recognizing early shock is more difficult. Baseline hypertension is common and can cause relative hypotension to be misinterpreted as a blood pressure in the "normal" range. The effect of medications (eg, beta blocker) can obscure the meaning of vital sign measurements. Trends of vital signs are often more useful than any individual measurement. (See 'Circulation' above.)

Aggressive resuscitation is appropriate for the initial treatment of older adult trauma patients with hypotension or signs of hypoperfusion. One reasonable approach is to

rapidly infuse a bolus of 500 mL, assess the patient's response, and repeat the bolus if needed. However, preexisting conditions such as ischemic heart disease, heart failure, or renal dysfunction can cause older adults to decompensate from excessive fluid administration or blood loss. Therefore, it is reasonable to begin transfusing packed red blood cells if hypotension or signs of hypoperfusion persist after just 1 or 2 L of crystalloid are infused. (See 'Circulation' above.)

●**Monitoring** – As older trauma patients may not manifest obvious signs of injury, close monitoring is essential. Monitoring should include serial examinations, including vital signs, mental status, and reassessment of any areas of concern. In addition to a cardiac monitor and pulse oximeter, we suggest using an end-tidal CO2 monitor for any older patient with the potential for respiratory problems. (See 'Monitoring' above.)

●**Diagnostic testing** – We obtain basic laboratory studies in older adult trauma patients with known or at significant risk for major injuries. These studies are listed in the text. Lactate concentrations and base deficit measurements can be helpful in the management of geriatric patients with multi-system trauma, who are at increased risk of occult injury. (See 'Diagnostic testing' above.)

●**Secondary survey** – A thorough systematic secondary survey is necessary for all older adult trauma patients. Important and common injuries to keep in mind include: head (eg, intracranial) injury, cervical spine injury, major burns, clavicle and rib fractures, hip fracture, and pelvic fracture. (See 'Secondary survey' above and 'Common and high-risk injuries' above.)

●**Intracranial hemorrhage and cervical spine injury** – Older age is an independent risk factor for morbidity and mortality from head trauma. Thus, in nearly all cases of head trauma in geriatric patients, it is prudent to obtain a computed tomography (CT) scan of the head. The management of patients taking anticoagulants is described in the text. High cervical fractures (eg, odontoid) are more common in older adult patients. (See 'Head injury' above and 'Cervical spine injury' above.)

●**Abdominal trauma** – Diminished pain sensation and increased laxity of abdominal wall musculature make the abdominal examination less reliable in geriatric patients. Early evaluation to detect intraperitoneal hemorrhage (eg, using ultrasound) is important. In stable patients, it is best to obtain a CT scan if intra-abdominal injury is suspected. The risk of contrast-induced nephropathy is higher in older adult patients and preventative measures should be taken. (See 'Abdominal trauma' above.)[i]

FINDING A PROVIDER USING THE INTERNET

Beyond using your insurance company provider lists, the links below can help you find a therapist, counselor or mental health professional. Note: These online locators can be used by anyone, and if you are a Veteran, see the "Help for Veterans" section below for additional options.

Locators for specific trauma-focused talk therapies

- Cognitive Processing Therapy for PTSD offers an international CPT Provider Roster for mental health professionals who offer this therapy in the community.
- Emory University School of Medicine offers a nationwide list of Prolonged Exposure Providers trained by their programs.
- Perelman School of Medicine at the University of Pennsylvania's Center for the Treatment and Study of Anxiety offers an international list of therapists trained in Prolonged Exposure.
- EMDR International Association has a locator that lists EMDR providers.

Locators for mental health providers

- Anxiety and Depression Association of America offers a therapist search by location, treatment options and mental health disorder.
- ISTSS Clinician Directory is a service provided by the International Society for Traumatic Stress Studies (ISTSS) that lets you consider many factors in searching for a clinician, counselor or mental health professional.

- American Psychological Association has a Psychologist Locator that allows you to search by location, specialty, insurance accepted and gender identity of provider.
- Psychology Today offers a therapist directory by location. You can also find treatment centers teletherapists (online services) or support groups.
- Substance Abuse and Mental Health Services Administration (SAMHSA) offers a Behavioral Health Services Locator by location and type of facility (e.g., inpatient, outpatient, residential). Call for assistance 24 hours a day 1-800-662-HELP (4357).

Finding a Provider by Phone

In addition to the resources listed above, you can also find a therapist, counselor or mental health provider in the following ways:

- Some mental health services are listed in the phone book. In the Government pages, look in the "County Government Offices" section, and find "Health Services (Dept. of)" or "Department of Health Services." "Mental Health" or "Behavioral Health" will be listed.
- In the yellow pages, mental health providers are listed under "counseling," "psychologists," "social workers," "psychotherapists," "social and human services," "mental health" or "behavioral health."
- You can also call the psychology department of a local college or university.

Attendee Evaluation Form

Thank you for attending this seminar. Please complete this form and hand it in at the back of the room or leave it on the table where you are sitting. We sincerely appreciate your participation.

I attended the seminar and overall I found it to:

(1=Strongly Agree; 2=Agree; 3=Disagree; 4=Strongly Disagree)

	Strongly Agree			Strongly Disagree
Have a suitable program	1	2	3	4
Have good speakers	1	2	3	4
Be in a good location	1	2	3	4
Be well organized	1	2	3	4

Specific Comments:

How valuable were these parts of the program to you?

(1=Quite valuable; 2=Valuable; 3=Somewhat valuable; 4=Not at all; N/A=Not applicable)

	Quite Valuable			Not at all	
Keynote Speaker	1	2	3	4	N/A
Invited Speaker	1	2	3	4	N/A
Other Speaker	1	2	3	4	N/A

The seminar was on Friday. For future conferences, would you prefer?

[ ] Weekend (Saturday [ ] Midweek pattern
(e.g. Monday-Wednesday)

How would you rate the seminar manual provided?

[ ] Excellent [ ] Good [ ] Fair [ ] Poor

How would you rate the vendors present at the seminar?

[ ] Excellent [ ] Good [ ] Fair [ ] Poor

How would you rate the _____ Hotel as the site for the seminar?

[ ] Excellent [ ] Good [ ] Fair [ ] Poor

Would you attend a future seminar on this topic?

[ ] Yes [ ] No

Please feel free to provide additional comments on the reverse of this form. Thank you for your time.

ADDENDUM
CPT CODINGS AVAILABLE

CPT Codes	Definition
Active Treatment	Charged at $0.00
97010	Home Use of Ice/Heat Pack
97012	Home Traction
97110	Therapeutic exercise, one or more areas, each 15 min.
97113	Aquatic Therapy, one or more areas, each 15 min.
97535	Self Care / ADL's
27193	Home Bed Rest
64550	Tens Use Training
97014	Tens Home Use
97124	Home Massage Therapy
97140	Home Manual Therapy
	Hone Neck, Back, Extremity Immobilizer
Passive Treatment	
	Neuromuscular Re-education, one or more areas, each 15 min.
97112	Training for home exercises involving functional activities
97350	Training for self management/ HEP
98960	Training for use of Supply and DME

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