CONCUSSIONS AND STUDENT-ATHLETES:
Medical-Legal Issues in Concussion Care & Physician and School System Risks

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INTRODUCTION

In Sebastian Junger’s book “The Perfect Storm,” a collection of meteorological phenomena coalescing at the same moment produced unexpectedly strong storm effects and ensuing disaster. Any one of the three key contributing factors – a dying Hurricane Grace, a weather system coming in from the west, and an unusual Nor’easter - would have been manageable, but the synergistic combination rendered the storm (ironically), “perfect,” and devastating.

In that vein, there are three factors simultaneously contributing to a new paradigm in student/athlete concussion management which foster a significant risk management challenge for youth sports programs, such as at high and middle schools, or in various town and private sports programs. The three factors are: new medical understanding, new levels of general public awareness, and a new attitude about what to do.

Rapidly advancing, highly sophisticated developments in medicine (particularly neurology and pathology) are changing what we know about concussions (e.g., about how young, developing brains react compared to mature brains; how to detect subtle injuries; and how to determine when it is safe to return to play.) New levels of general public awareness come from the Internet and 24/7 news cycles: these phenomena foster rapid dissemination of otherwise widely-dispersed anecdotes, and the rapid aggregation of these anecdotes into storylines accelerates identification of trends. (For example, a football player’s concussion in Spokane, WA and one in Shreveport, LA, can be quickly called up and folded into a story about a similar injury in Morristown, NJ, fitting each event into a larger, coherent context, and announcing a “trend.”)

In professional sports there has been a sea change in appreciation of concussion issues too; the economics of professional sports and the high profile of athletes exponentially increase the impact of this changed appreciation. Lawsuits by retired NFL players for compensation and treatment for damage from head injuries, and negotiated rule changes to protect current athletes are just two examples of a changed perspective on the significance of concussion injuries for athletes.

The drive to address concussion concerns inexcorably trickles down to amateur youth sports. The standard of care for prevention, recognition, and treatment of concussions is changing, and these changes are playing out in a very public way at the professional sports level. Similar scrutiny seems only a few short steps away for colleges and universities, secondary school systems, and even high-level club sports teams.

As evidence of this trend, the NCAA passed regulations in the spring of 2010 which now require any Division 1, 2 or 3 school to have a “concussion management plan” on file. Likewise, as of August 2011, 30 states have now passed youth sports concussion-related laws, an accelerating trend. These laws and regulations tend to include (1) mandates for formal training of coaches about how to identify signs and symptoms of a concussion, (2) requirements regarding removal from competition, and (3) “return to play” stipulations.

The legal system tends to work these scenarios (i.e. changing legislative, social, or scientific paradigms) out over time so that actors from all perspectives can organize their conduct and expectations. In the early, uncertain stages of this process, standards of care get litigated, after which jury verdicts and settlements help establish the “value” of claims, and everyone adjusts.

This article reviews the changes in medicine, and the current legal posture, concluding with some recommendations for preparing for the future.

1. MEDICAL ‘STATE OF THE ART’

a. What is a concussion?

A concussion is a mild traumatic brain injury, which leads to a cascade of neurochemical changes in the brain at the cellular level.
Changes are seen in ion flow, especially with potassium, calcium and glutamate. It is a functional disturbance of the brain, as compared to a structural injury: only 1 percent of concussion cases show any change on structural imaging studies such as CT or MRI scans of the brain.

The Centers for Disease Control (CDC) estimates that there are between 1.6 and 3.8 million sport-related concussions every year in the US, and that underreporting is very common, especially in youth sports. In the past, terms such as ‘getting your bell rung’ or ‘it’s only a ding’ were used, often as a way to downplay the concern of any type of injury. This likely was due to a lack of understanding of the true effects of a concussion. With recent international consensus statements such as the Zurich 3rd International Conference on Concussion from October 2008 (statement released in May 2009), and research showing the long term effects of multiple concussions, including Chronic Traumatic Encephalopathy (CTE), these euphemistic terms are simply no longer appropriate. A concussion is a brain injury, and must be treated appropriately.

b. Pathologic Findings

One of most significant medical findings over the past few years concerning concussions is based on the neuropathology work of Dr. Bennet Omalu (University of Pittsburgh Medical Center) and Dr. Ann McKee (Boston University School of Medicine): they have discovered that the brains of athletes who suffered multiple concussions had accumulated tau protein deposits, known as Chronic Traumatic Encephalopathy (CTE), similar to beta-amyloid changes found in Alzheimer’s patients. It has been postulated that the multiple traumatic hits to the brain led to the tau protein accumulation, which clinically was seen as behavioral changes, emotional liability, substance abuse and cognitive decline. (e.g., a disturbing trend of retired middle aged athletes committing suicide has been identified.)

A striking example of this recently was the sad case of Dave Duerson, a former Chicago Bears All-Pro safety. Duerson had been a four-year starter at Notre Dame, an All-American, MVP, team captain (who later served for five years as the University Trustee). In the pros, he played on two Super Bowl teams and held an NFL sack record. After his playing days he became a very successful businessman. Yet on February 11, 2011, he committed suicide — leaving a text directing that his brain be donated to the ongoing study at Boston University, and he purposely committed suicide via a gunshot wound to the chest, in order to keep his brain intact. Upon post-mortem examination, his brain did show CTE changes.

The phenomenon is not confined to career NFL players, and a key issue to resolve is how to determine at what point the damage starts. In the past year medical research has demonstrated chronic changes from head injuries in teenagers, even in cases where there was never a diagnosed concussion. This is noted in the case of Owen Thomas, an All-Ivy League football team captain from the University of Pennsylvania, which drew much attention last year, after the 21-year-old hanged himself inexplicably: follow up research at Boston University showed his brain to be in “early stages” of CTE, despite his mother’s report that he had never been diagnosed with a concussion, and had never before shown any side effects normally associated with brain trauma. (Likewise, she reported he had no history of depression.) His case is cited as representing the young – and first amateur – football player demonstration of CTE.

c. The significance of “Second Impact Syndrome”

In the acute setting of concussion management, one rare but catastrophic situation that clinicians are trying to avoid is called Second Impact Syndrome. SIS occurs approximately once in a million concussion cases, or two or three times per year in the United States. It was first described in the medical literature in 1973, and was formally named in 1984 by neurosurgeons at Dartmouth Medical School. The cause of SIS is felt to be massive swelling due to a minor second injury to the brain that is still recovering from an initial head injury, usually within the prior two weeks. While some of these cases involve intracranial bleeding, it can also be due to brain edema. At no time should a concussed athlete be exposed to the potential of a second head injury before the first concussion has fully healed, due to the risk of SIS (usually in the first 14-21 days after the initial concussion). Even short of this rare but catastrophic event, however, is the recognized risk of a longer recovery time with the second head injury.

d. Testing

Testing encompasses both player evaluation and equipment testing. There have been rapid advances on both fronts.

(i) Cognitive evaluation.

Player testing involves pre-injury baseline testing, as well as post-injury evaluation. There are several new tests being marketed and used to test neurological consequences of head injuries. The neurocognitive evaluation is often done with computerized testing, such as those by ImPACT®, CogSport® or ANAM®. Ideally, such
a test is administered to each student athlete before the season, to establish baseline in each area; after an injury, the post-injury test results can then be compared to baseline data. Even if an injured student athlete has only 1 of the 22 different “positive” symptoms (for as short a time as only 15-30 minutes), a concussion could be diagnosed using this kind of tool. Symptoms which are self-reported may ultimately improve, but abnormal balance testing or abnormal neurocognitive test results would still indicate that the concussion has not fully resolved, even in a situation where the symptom score is zero.

(ii) Clinical evaluation.

The clinical evaluation of a concussion involves three main areas: symptom assessment (emotional, cognitive, physiologic and sleep changes), balance testing, and neurocognitive evaluation. The symptom assessment is often done using a 22-item graded symptom checklist, which is readily available in the SCAT 2 (Sport Concussion Assessment Tool 2) document which was issued at the time of the publication of the Zurich Consensus Statement on Sport Related Concussion. Symptom checklists are also available as part of the Acute Concussion Evaluation (ACE) kit which is published by the CDC. Each symptom is rated on a 0-6 scale, for total scores that can vary from 0 to 132. Scores that are above a total of 10 are often indicative of a concussion.

Balance testing is done using the Balanced Error Scoring System (BESS) which involves testing 3 different balance positions (single leg, tandem stance and parallel stance) on both a hard surface and on a foam pad. Trained clinical evaluators administer these tests essentially anywhere (no equipment required).

e. Treatment.

The current treatment recommendations for concussions are fairly straightforward: physical and cognitive rest is the initial recommendation, with consideration of medications to help with treatment of specific symptoms, such as headaches, dizziness or nausea. Anti-inflammatories should not be used for the first week, due to the risk of an undiagnosed subdural bleed.

Students may need to miss school early on, and may need to have modified school schedules and homework/test schedules while recovering from this injury. Recovery is often weeks to months in the youth/teenage population, and has been shown to take longer than college age or adult concussion recovery.

Once the symptoms have improved, an exercise “progression” can begin, often under the supervision of an athletic trainer or physical therapist, as long as symptoms do not get worse with exercise. The accepted model is a ‘Return to Play’ progression, which goes through 5 distinct stages:

1. Light aerobic exercise at less than 70 percent heart rate maximum
2. Sport specific exercise
3. Non-contact training drills
4. Full contact practice (after medical clearance by an appropriate health care professional)
5. Return to play (normal game activity).

The progression is individualized, as no two concussions recover along the same timeline—even in the same person (for example, with a second concussion years after the first resolved.) Concussions are no longer ‘graded’, as had been the medical practice for much of the past decade. For the youth student athlete population, the accepted time frame between stages in 24-48 hours. Some state athletic associations (such as New Jersey) have recommended a seven-day asymptomatic waiting period prior to beginning the return to play progression.

f. The Imperative to Act.

The point is that we are now aware of the far-reaching but often occult consequences of concussive head injuries, through accumulative effect. Likewise, we now see the perhaps counter-intuitive effects on younger brains (i.e., still developing and elastic brains are actually more vulnerable.) As Justice Cardozo wrote many years ago, “The risk reasonably to be perceived defines the duty to be obeyed . . .” Now that we understand, we must act.

II. THE LEGAL LANDSCAPE

The old days were characterized by a “play through it” mentality, and assumption of the risk as the legal paradigm; as one opinion stated it succinctly: “A participant in dangerous sports accepts the dangers inherent in that sport.” Thus, a participant’s decision to play in a sporting event “assumed the risk” that he or she might be injured by contact during the contest. An injury in the ordinary course, such as a “legal” tackle, was the participant’s own responsibility. Generally it was understood that even hits which might technically be infractions (i.e., in the “old days” a late hit in football, an elbow in hockey) were included in the expected and accepted milieu.

But the medical community did not yet appreciate the significance of concussion injuries on a long-term basis. On personal experience, the authors can assert that in prior generations, a player receiving a blow to the head would be briefly “examined” by a coach, who may or may not have had the proper training in concussion assessment and evaluation; the player might identify ongoing symptoms, but also a willingness to return to the field/ice/ring/court; and usually the coach would let the player return to competition. That this was the approach followed at the professional level, in the NFL, the NHL, and in boxing, is widely documented.

Now that test programs are widely available and increasingly in use, the “standard of care” is clearly moving towards a paradigm that encompasses their routine use in the secondary school athletic system, and in contact youth sports. With increased medical understanding and appreciation for what can be done, so comes the new duty.

Notably, it is (usually) not the on-field injury at issue, it’s the treatment after. At that point concussion cases most resemble medical negligence claims, though plaintiffs have employed other recognized
legal claims as well.

a. Liability Theories.

A host of potential claims exist, with several having been used in litigation already:

• School has no protocol — and should: as more states mandate youth or scholastic protocols, this becomes part of the standard of care; as noted, protocols typically address training of coaching staffs and of players, as well as requirements to implement protocols for “return to play.”

• School protocol is flawed: As more states provide “model” more protocols, the characteristics of an acceptable protocol in this field are starting to be generalized. An inadequate protocol, or one which deviates significantly from the features of the most commonly found one, or from state-mandated models, invites litigation.

• School didn’t follow protocol: This could involve allowing a player to return to competition before the player is ready. It could also involve inadequate pre- and/or post- evaluations. For example, sometimes baseline data (i.e., the preseason testing) is demonstratively wrong. It should not be used as the basis for any valid comparisons of treatment decisions. Protocols should identify criteria for “valid” testing.

Anecdotally, players sometimes do “tank” on the baseline in a misguided attempt to offer themselves more “cushion” in any future post-injury test comparison. In other words, if they purposely score low in the different areas on their baseline, then a low score after a head injury in a game would not deviate significantly, such that the player might be erroneously cleared to play. (One would think this is a very foolish approach, but it has been known to happen!) In this example, the testing should be performed carefully enough to detect such an erroneous baseline result, and re-testing should be undertaken to replace invalid test results.

If a school agent ignored obviously inaccurate baseline test data or otherwise allowed a player to return to play without following accepted “return to play” protocols, that would be potentially actionable. Similarly, if pre-testing documentation were available but the school system made a decision to return a player to active participation without getting an appropriate set of post-injury comparison studies, this could be inappropriate. In the case of Ryne Dougherty v. Montclair High School, et al, a player who had had a concussion three and a half weeks before while playing football had a second impact and was taken off the field suffering from catastrophic brain bleed. An ImPACT® Test taken between the two injuries was deemed void because of problems with the test taking environment. A school administrator was quoted as saying “we actually had a problem in the room he was taking it, and all those tests became invalid, [because] another athlete [in the test- ing room] was being disruptive to everybody, so those people had to retake the test.” Tragically for Ryne, the issue was not resolved in time to identify his condition; he was allowed to play while still suffering from the effects of his first concussion and got hit again, resulting in catastrophic injury and his untimely death.

• Alternate Potential Theories: There are other potential claims that have or could be used in concussion cases, independent of protocol issues. For example, where a plaintiff might be unable to make a strong case on breach of an appropriate protocol, or where a potential immunity defense existed for the personnel involved, a plaintiff might include a count for “premises liability.” This was the approach taken by Jennifer Gill in her suit against Tamalpais Union High School in California. The 15 year old cut her eyebrow and suffered an apparent concussion when running into an unpadded outdoor court basketball hoop post, which was being used because the team’s indoor gym was unavailable. She was sent by the coach to the training room where a certified athletic trainer from an outside (contracted) medical group began to treat her; when the trainer went to get gauze and gloves, Jennifer became unconscious and fell to the floor, dislodging three front teeth. Evidently, immunity defenses were available for the personnel, because plaintiff proceeded

Best Practices: ‘A Reasonable Approach’

• Baseline computerized neurocognitive cognitive testing for all student athletes in contact/collision sports, repeated every two years. Results should be reviewed by the school’s concussion specialist.

• No return to contact activity/game activity before resolution of symptoms, normalized balance testing, neurocognitive testing within or above baseline results, and completion of Return to Play progression. Medical clearance only by an appropriate health care professional (physician, physician assistant, nurse practitioner, certified athletic trainer, or neuropsychologist) with commensurate training and experience in the assessment and management of youth sports-related concussions.

• Follow-up care and neurocognitive testing - athletes must meet certain criteria before returning to play. (see above)

• School-wide academic support for student athletes with concussion, reporting and follow-up to school nurses, guidance counselors, teachers, etc.

• A concussion information/warning sheet given to and signed by athlete/parent, before the start of the sport season.

• Good communication throughout, and adherence to the school’s concussion guidelines. These guidelines should also be distributed to the community health care providers and area hospital emergency rooms.

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on causes of action for general negligence (which was dismissed by the court on the pleadings), and for premises liability. The premises liability claim asserted the school district maintained a dangerous condition of public property, and was the plaintiff’s avenue to victory: California’s appellate court upheld a jury’s award of approximately $477,000.00 on appeal. 22

Schools or other youth sports organizations could potentially face liability for a claim of provision of inadequate safety equipment, such as outdated helmets, inappropriately refurbished helmets, inappropriately sized helmets, etc. 23 In Rodriguez v. Ridell, Inc., 24 a high school football player’s family filed a lawsuit against a helmet manufacturer claiming strict liability for an unreasonably unsafe design of its helmet. The case involved a high school football player who suffered a head injury on a tackle, lost consciousness, and was ultimately diagnosed with a subdermal hematoma causing permanent brain injury and a permanent vegetative state. A Texas jury awarded $11 million in verdict, which was reversed on appeal and remanded for a new trial. Much of the dispute revolved around the reconditioned helmets issued to players and whether Rodriguez’s had been adequately reconditioned. While it was a helmet manufacturer as principal defendant in this case, football programs which employ a reconditioning program for their helmets would be wise to review the case and findings. 22

A claim that inadequate information was provided to a player and their guardian (i.e., informed consent) is always a possibility, as would be inadequate provision of information to other care providers, to promote most effective treatment). In Hunt v. Coach Sunbelt, et al., 25 a student sued a football coach and school district complaining of permanent brain injury after his complaints of headache and signs of concussion were ignored. The suit alleged that the coach exhibited a “win at all costs” mentality, and that the parents were not informed when their son was injured, such that they could not exercise parental discretion in seeking treatment.

Likewise, in assessing how future care was arranged, one might face a claim asserting failure to refer to a specialist in a timely fashion, or at all.

Finally, a plaintiff might allege negligent supervision regarding referees and/or coaches, in the way in which a particular game was allowed to proceed resulted in someone having a significant head injury. (See below at Section C. Immunity)

b. Legislative responses to the risk.

Increased awareness and/or new laws have led school systems to assess their rules, policies and guidelines to determine if they adequately ensure the safety of student athletes, and will decrease the liability for their school, district and town.

Much of this awareness began with the case of Zackery Lystedd, a 13-year-old middle school football player who suffered permanent brain damage and disability after being injured in a game in Washington State in the fall of 2006. In the first half of a football game he suffered a concussion, but was allowed to play in the second half. He subsequently suffered multiple repeat hits to his head, which led to the development of increased swelling in the brain, which in turn caused the above-mentioned Second Impact Syndrome. Zackery was flown to the closest trauma center that could treat him, underwent emergent neurosurgery to relieve the pressure and swelling in the brain, and did survive, but he is permanently disabled due to the brain injury. His family, friends and doctors have spent a number of years since the injury increasing public awareness of concussions and brain injuries in the youth sports setting. Their efforts led to the passage of the “Zackery Lystedd law” in May 2009 in the state of Washington. 26 This bill has become a model for legislation passed in other states. A recent review shows that as of August 2011, 30 states have passed concussion legislation. 27

New Hampshire does not have any type of concussion legislation enacted. SB 95, 28 which called for a study commission to look at youth concussions in the school setting, was discussed this year, but did not pass.

Legislation modeled on the Lystedd law tends to include three prongs:

1. Efforts to inform and educate athletes, parents and coaches;
2. Mandated removal of athletes who may have suffered a concussion during a game or practice;
3. Required adherence to predetermined “return to play” protocols, including evaluation by a trained professional before being cleared.

c. Immunity

New Hampshire case and statutory law provides immunity to governmental entities in at least certain situations, and some caps on damages. 29 Schools qualify as a governmental entity in this context, and employees are covered. Volunteers, such as assistant coaches, should be covered under R.S.A. 508:17, I.

New Hampshire law considers ten key factors in assessing whether immunity is applicable:

1. The nature and importance of the function being performed which might be afforded immunity;
2. The importance of unhampered judgment in execution of the function;
3. Would a private individual be liable?
4. What is the impact of potential liability (i.e., would it be impossible to recruit people to perform that valuable function if they didn’t have the protection of immunity)?
5. The likelihood of false accusations;
6. The threat of vexatious lawsuits and the time and effort required to respond to them;
7. Whether insurance coverage is available;
8. The nature of the harm to the community;
9. The nature of the harm itself; and
10. The availability of alternate remedies. 30

One New Hampshire case 31 involving scholastic sports injury analyzed these issues; though it is not a concussion case, the Court’s opinion and reasoning illuminate the same thought process which would apply:
Plaintiffs’ daughter was injured in a sixth-grade girls basketball game in which (her parents allege) the referees, coaches, instructors and employees of the school/town “permitted the game to escalate out of control.” The plaintiff parents brought claims for several theories of negligence against a school district and town, claiming defendants failed to exercise reasonable care and supervision, they alleged that the school system and town were vicariously liable for the employees, coaches, instructors and referees, and they alleged the defendants failed to properly train and supervise the employees, coaches, instructors and referees. The defendants moved to dismiss for failure to state a claim upon which relief may be granted, arguing that the doctrines of “discretionary function immunity” and the “assumption of the risk” warranted dismissal. The trial court denied the motion to dismiss; as to immunity, the court concluded the claims referred not to policy decision making by the various agents, but to “ministerial conduct.”

The defendants moved for reconsideration, adding an affirmative defense seeking “volunteers’ immunity” (for the referees and coaches). After the motion for reconsideration was denied, an interlocutory appeal went to the New Hampshire Supreme Court. The court affirmed in part, reversed in part, and remanded.

As to the affirmative defense of “discretionary function immunity,” the court held that the defendants’ decisions regarding training and supervision of coaches and referees should be entitled to immunity, because of “the high degree of discretion and judgment involved in weighing alternatives and making choices with respect to public policy and planning,” (143 NH at 550). The Supreme Court affirmed the trial court, however, in its refusal to grant discretionary function immunity for decisions made by referees and coaches in the course of the game. The court noted that while these decisions “perhaps involved some discretion in judgment, they were not decisions that concerned municipal planning and public policy.” (143 NH at 552.)

Finally, the court addressed plaintiffs’ “respondeat superior” claim, and plaintiff’s effort to attach vicarious liability on the defendant town. The Court agreed that if referees and coaches were immune as volunteers under RSA 508:17, I, such immunity must also be imputed to the school district and town. The appellate court remanded on this issue for more factual development on the issue, however, of whether these agents qualified as volunteers.

d. Defending on the merits in a civil lawsuit

Where a case goes into suit (and a “slam dunk” immunity defense is not available for quick resolution on behalf of a defendant), it is expected that suits would proceed like ordinary negligence cases, and particularly like medical malpractice cases. Under New Hampshire law, a medical malpractice plaintiff must causally connect the complained-of injury to the defendant care provider’s alleged negligence, and this must be supported by competent expert testimony. According to NH RSA 507:7-E:2 (“Burden of Proof”),

I. In any action for medical injury, the plaintiff shall have the burden of proving by affirmative evidence which must include expert testimony of a competent witness or witnesses . . . [and]

... (c) That as a proximate result [of a breach of the standard of care], the injured person suffered injuries which would not otherwise have occurred.

This statutory standard reflects the plaintiff’s burden at common law to produce sufficient evidence that the defendant’s negligence proximately caused the patient’s injury. *Pillsbury-Flood v. Portsmouth Hosp.*, 128 N.H. 299, 304 (1986); see also *Bronson v. The Hitchcock Clinic*, 140 N.H. 798, 801 (1996) (a plaintiff must introduce, by expert testimony, “evidence sufficient to warrant a reasonable juror’s conclusion that the causal link between the negligence and the injury probably existed.”). The expert testimony must constitute “evidence sufficient to warrant a reasonable juror’s conclusion that the causal link between the negligence and the injury probably existed.” *Bronson v. The Hitchcock Clinic*, 140 N.H. 798, 801 (1996).

Consequently, it is expected that both plaintiff and defendant would need to develop supportive expert testimony regarding the standards of care in developing a protocol, following it, testing, treatment recommendations, accommodations at school, and decision-making regarding allowing a return to play. Likewise, some of the alternative theories plaintiffs can consider should be assessed and
addressed as applicable.

e. Medical Malpractice Screening Panels

By statutory definition, an “action for medical injury” means “any action against a medical care provider, whether based in tort, contract or otherwise, to recover damages on account of medical injury.” Further, a “medical care provider” is defined in the statute as “a physician, physician’s assistant, registered or licensed practical nurse, hospital, clinic or other health care agency licensed by the state or otherwise lawfully providing medical care or services, or an officer, employee or agent thereof acting in the course and scope of employment.” According to the statutory definition, “Medical injury” or “injury” means “any adverse, untoward or undesired consequences arising out of or sustained in the course of professional services rendered by a medical care provider, whether resulting from negligence, error, or omission in the performance of such services; from rendition of such services without informed consent or in breach of warranty or in violation of contract; from failure to diagnose; from premature abandonment of a patient or of a course of treatment; from failure properly to maintain equipment or appliances necessary to the rendition of such services; or otherwise arising out of or sustained in the course of such services.”

Obviously these definitions of care provider and injury could easily be applied to a school sports injury resulting in a concussion scenario, including follow up assessment and treatment. In the event of an adverse outcome and lawsuit, therefore, New Hampshire’s Medical Malpractice Screening Panel process would be implicated. This process is essentially an overlay on the civil litigation portion of a lawsuit, and it is outlined in detail at RSA 519-B.

The point is that such claims can result in complex litigation (including a screening panel and a civil lawsuit), which can stretch out for a year or two. Such litigation can be costly, distracting, and stressful, even if the defendant organization is vindicated at trial. Therefore, avoidance of perceived liability is undoubtedly the better course!

III. RECOMMENDATIONS

There are no bright lines (yet), because the standards of care for prevention, recognition, and treatment are not settled. Even as they do settle out, these standards will be applied to the complex, unique factual circumstances of each case. When standards are unclear, outcomes of court cases are unpredictable; as more cases, trials, and appellate decisions apply the developing scientific understanding and developing prevention and treatment standards to facts, they will help establish expectations, so that actors can organize around these expectations. Once a bright line develops, actors will be able to make sure they are on the correct side of it. Until then, there is no potential litigation point where one side will argue the standard is thus and so and the other will argue that is not yet the standard or no longer the standard.

But clear trends are emerging, which school systems and local youth sports programs should consider:

a. Guidelines and Protocols

There have been concussion guidelines recommended by the National Federation of High Schools Association (NFHS) as well as the New Hampshire Interscholastic Athletic Association (NHIAA) but these guidelines are not mandatory. Recently, the NHIAA did require that all coaches in the state take the online concussion training course from the NFHS. The significance of guidelines is a perennial issue in litigation: plaintiffs will argue they represent a “published” standard of care and defendants will argue that there are guidelines which are useful as a guide but not authoritative. But no entity wants to litigate these issues: the whole point is to avoid litigating these issues. Thus, having a set of guidelines or protocols that match other conservative and widely adopted guidelines or protocols, and adhering to them, is prudent.

School systems in particular have wider exposure because they have so many different sports, spanning the full school year, with a wide range of athletes. School should assess their current policies, guidelines and capabilities for concussion assessment and management:

• Do they have appropriate staff (athletic trainers, team physicians, school nurses, concussion specialists) to evaluate and manage these injuries?
• Have they informed student athletes and parents about concussion symptoms, treatment, and academic issues?
• Are they set up for computerized neurocognitive testing?
• Do the coaches have the correct training about concussions? Have they taken the online NFHS course?
• Are athletes being taught skills for minimizing concussion risk, such as proper tackling techniques in football?
• Have there been changes to how sports practices are conducted to decrease the frequency of head hits during a season?
• Does the school have a proper return-to-play progression following a concussion?
• Does the school have appropriate equipment to adequately protect athletes against concussions?

b. Equipment

There has been a lot of focus in the general news media and medical literature concerning safe and proper equipment – regarding improved equipment, new information, and new controversies. A recent study from Virginia Tech University published in May 2011 rated football helmets for concussion risk on a 1 to 5-star system. If both 4- and 5-star helmets are deemed adequate, however, a school system elects to choose 4-star helmets because they are substantially cheaper does run some risk of defending a claim that is safer, 5-star helmets, or the reasonable choice. One option in this instance is to explain the process to parents, obtain a written acknowledgement that they understand the differences in the helmets and what the school is providing, and then offer parents the option of upgrading
through a school administered-purchase program. This adds an administrative burden and potentially its own issues of unfairness. Likewise, a school system might consider different helmets for different positions (much like the way facemasks are different for different positions.)

Once the school provides equipment, it then has potential liability for refurbishing used equipment (a common practice). Again, the school system should ensure they follow manufacturer’s guidelines, and should probably explain the risk and get written acknowledgement. Some authorities have recommended helmets for female lacrosse players, and there has been a corresponding concern that allowing girls to wear helmets might lead to more aggressive play, even though these same female student athletes are at higher risk than male lacrosse players for suffering a head injury.

c. Emergency plans

Another area of concussion and safety issues for schools relates to having an “emergency plan” in case of a catastrophic injury in conjunction with a concussion/head injury, such as an intracranial hemorrhage or spinal cord injury. This was the focus of the lawsuit of Benson vs. St. Stephen’s Episcopal School, which led to a $1 million settlement by the defendant in an alleged wrongful death case of a high school quarterback who died in 2002 from a cerebral brain hemorrhage. Will Benson was the 17-year old quarterback of his high school football team. Retrospectively it was hard for observers (including his parents in the stands and his coach) to determine when he was injured during the game, but sometime during the second quarter he came to the sidelines saying he “felt weird” and that his vision was blurry. He was taken to the locker room and elevated by the team physician (an orthopedic surgeon) while he began suffering seizures. An ambulance was called but there was an apparent delay in getting the ambulance to Will; subsequently the care providers decided a helicopter transport would be better, but they allege this led to an hour-and-half delay. When he ultimately arrived at the hospital and was diagnosed with a large blood clot, a neurosurgeon quickly removed it, but his brain swelled, he went into a coma, and two days he was dead.

The case has been cited by some as a watershed in appreciation for the need for a full emergency plan. That particular school decided it was unable to maintain an ambulance at every home game, but did thereafter insure that two EMTs were on the field for every home game. Will’s father, Dick Benson spent five years crusading for legislation, ultimately signed into law in Texas in June of 2007 (“Will’s Bill”), requiring every Texas high school coach and official involved in every sport to be trained in basic safety and emergency procedures.

It represents but a start: ironically the law would not have applied to Will’s old high school, which was a parochial school. Further, requirements for ambulance or on-field special medical care remained constrained by tight fiscal budgets. But while resource requirements are not generally mandated, a school could face liability if it didn’t have a reasonable plan in place for addressing catastrophic injuries.

d. Academic accommodation.

Another issue schools should consider is the academic effects of a concussion. Students often can’t get through a full school day, complete homework assignments on time, or take tests in the same environment as non-concussed students. It is all too common for concussed student athletes to have a decrease in grades, even if they are normally above-average academically. Co-morbid diagnoses such as ADD, ADHD, and learning disabilities can prolong concussion recovery, as can depression, anxiety and migraine headaches that are pre-existing. Guidance counselors, school administration and teachers should all be brought into the loop to be aware of which students may be having academic problems due to concussions. The CDC has created information for school systems, parents and students that can help all involved address these academic concerns appropriately.

CONCLUSION

A sports-related concussion 40 years ago was usually an isolated event, poorly understood, analyzed and addressed in a vacuum; today, a similar concussion event might be rapidly and widely broadcast and subject to immediate second-guessing—but also (hopefully!) to better informed treatment decisions. The biggest “take away” for youth sports programs is awareness: programs should think through the relevant issues, develop a program, complete with protocols for pre-season training and testing, sideline procedures, and return-to-play protections. While many primary care doctors believe they can manage these cases, patients’ parents, and school officials should consider evaluation by a concussion specialist, especially if effects of the concussion persist beyond two weeks. Keeping parents informed and involved can help ensure symptoms are identified, and appropriate options for treatment and temporary accommodation considered.
ENDNOTES

3. For example, the new NFL kickoff rule moved the initial placement of the ball uphill in a move to reduce open field blows; see, e.g., Maski, Mark. “NFL changes kickoff, instant replay rules.” The Washington Post. 22 Mar, 2011. http://www.washingtonpost.com/sports/redskins/nfl-changes-kickoff-instant-replay-rules/2011/03/22/ABIL30DB_story.html
10. See http://www.sportsconcussion.co.za/Pharos/Computerised_Testing.php
19. See generally http://www.nj.com/news/index.ssf/2009/10/montclair_high_school_football.html; at present no disposition of the case has been reported, either as a verdict or settlement.
21. This potential claim will likely might find increased traction as helmet technology and testing to establish effectiveness become more common and prominent.
22. 242 F 3rd, 567 (5th Cir. 2001)
23. See also, Acuna et al. v. Riddell Sports Inc. et al., No. LC090924, complaint filed (Cal. Super Ct., L.A. County Aug. 24, 2010) (Plaintiff brought products claim against helmet manufacturer and also alleged school district negligently failed to implement a “prompt hospital transport” plan, creating a false sense of security by having emergency responders at sporting events who were unable or unauthorized to provide medical assistance or transportation.” As of this time, the case is either still pending or there has been a confidential settlement.)
24. See generally http://www.madisonrecord.com/news/200374-est-high-school-football-player-sues-district-over-stroke-coma (no disposition of the case, either by settlement or verdict, is available.)
28. See, e.g., NH RSA 99-D:1 (official immunity for state officials, employees, agency employees, etc., when acting within the scope of official duty, and “not in a wanton or reckless manner”); and, NH RSA 31:104 (2000)(outlining how certain municipal officials, such as school board members or school superintendents cannot be held liable for certain acts or decisions made “in good faith and within the scope of [their] authority.” Caps are set at NH RSA 507-B:4 (2008), generally limiting liability of a governmental unit for personal injury to $275,000, and preventing punitive damages.
31. See N.H. RSA 507:7- E.
32. For background, see http://www.nssouza.org/pdfs/DeathDeaths_Article_PDF.pdf
34. See http://www.cdc.gov/concussion/headsup/high_school.html

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Recent Lawsuit Examples

1. Michael Pinson v. State of Tenn: (1995 WL 739820 Tenn. Ct.App.): football player for Univ. of Tenn. suffered head injury during practice, which was undertreated due to athletic trainer’s alleged negligence, resulting in delayed diagnosis in chronic subdural hematoma leading to severe and permanent neurological damage; $300k judgment against UT sustained on appeal; $1.5M damages total.


3. Hoge v. Dr. Munsell (2000): early NFL concussion lawsuit by Bears running back Merrill Hoge against the team physician; after a $1.55M jury verdict the case settled.

4. Rodriguez v. Ridell, Inc. 242 F3d 567 (5th Cir.2001): high school football player's lawsuit against helmet manufacturer claiming strict liability for unreasonably safe design of helmet; Texas jury’s $11M verdict reversed on appeal and remanded for new trial.

5. Preston Pleuretes v. La Salle Univ. (Philadelphia, PA 2005): sophomore football player was knocked unconscious on the field but awoke and was combative for 3-5 minutes before lapsing into a coma. It was concluded he had Second Impact Syndrome; plaintiff’s claim hinged on establishing an earlier concussion made him vulnerable; he has recovered very little speech and communicates mostly through a keyboard; he needs assistance to walk and suffer short term memory loss; $7.5M settlement with Univ.; other defendants were dropped.

6. Estate of Webster v. Pete Rozelle, NFL Disability Plan: 209 Fed. Appx. 305 (4th Cir. 2006); Hall of Fame (Steelers’ center's suit for increased benefits to address his permanent mental disability due to head injuries sustained during his years in the NFL; disability award increase affirmed.

7. Gilpin v. Coach Stinson (KY, 2008): Heatstroke case, rather than concussion, but due to the death of the player the coach faced criminal charges for reckless homicide and wanton endangerment; coach acquitted at criminal trial and companion civil suit was settled; $1.75M settlement.

8. Jennifer Gill v. Tamalpais Union High School Dist.: (CA, 2008); Marin County case on appeal to 1st App. Dist. Div. 2 female high school basketball player ran head first into unpadded basketball stanchion during a layup drill at practice; plaintiff's claim was based on premises liability, because the school maintained an unsafe basketball court; $477K jury award upheld on appeal.

9. Ryan Dougherty v. Montclair HS, Dr. Nitti (NJ, 2008): JV football player died after concussion was not cleared properly; upon premature return to play he sustained Second Impact Syndrome; case pending unless confidential settlement has not been reported.


11. Hunt v. Coach Sunkett, et al. (II, 2009): student sued football coach and district claiming sustained permanent brain injuries during game after his complaints of headache and signs of a concussion were ignored; suit alleges a “win at all cost mentality” by the coach recklessly endangered the players and created an atmosphere where injuries were underreported; parents were not informed when the children were injured; suit also alleges a defective football helmet was supplied; case still pending unless confidential settlement has been reached.

12. Adrienne Gault vs. Sequim School District: Plaintiff alleges school district failed to follow RTP protocols and used an unqualified chiropractor to clear Adrienne to return to play. (WA); outcome of suit still pending unless settled confidentially.

13. Zacharey Alt vs. Highlands School District: (PA) — Federal lawsuit; suing head coach, school district, principle and assistant principle and athletic trainer for “deliberate disregard for his welfare” in allowing him to be injured repeatedly; alleges the district “manufactured his grades” so he would pass and graduate without educating him; outcome of suit still pending unless settled confidentially.


15. Edward Acuna v. Riddell, Inc.; (Aug, 2010) Plaintiff brought products liability claim alleging known problems with the functioning of his helmet which were not fixed by a known low cost alternative design; plaintiff alleges injuries left him partially paralyzed and reducing future earning capacity; plaintiff seeks punitive damages. Additionally, plaintiff claims that the school district negligently failed to implement a plan to promptly transport injured athletes to the hospital “to deceit the public with a false sense of security by having him emergency responders at sporting events who were unable or unauthorized to provide medical assistance or transportation”; this case pending unless there has been a confidential settlement.

16. Easterling, AI vs. National Football League: (NFL veteran’s Class Action Lawsuit filed in Pennsylvania August 2011, alleges NFL ignored mounting medical evidence of concussion effects on brain function; helmet manufacturer Riddell named as co-defendant; pending)

17. Clay Rush v. Dr. Mangali; (Arena football league kickers sued team physician for undertreating a series of hits to the head Rush sustained which were treated as mere headaches; pending in Colo.)

18. Vernon Maxwell vs. National Football League/Riddell; (CA, July 2011; allegations of negligence and fraud pending)

19. Adam Melka v. Orthopedic Associates, (WI Cir Court, Waukesha County, 2006); high school linebacker cleared to play by a trainer after an initial concussion was reinjured two weeks later; claim is that he should not have been cleared; defendant’s verdict after 3 ½ week trial.