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Prevention & Legal Issues in the Medical Coverage of Secondary Schools

Number of Contact Hours: 1 Hour

Description:
Appropriate medical supervision can assist in providing optimal care for public secondary school athletes. This article discusses specific prevention and legal aspects of medical coverage in secondary school.

List of Objectives:

1. Participants will be able to list two governing bodies of secondary school athletic health care programs.
2. Participants will be able to list and describe two significant legal cases that are related to providing Certified Athletic Trainers in secondary schools.
3. Participants will be able to list seven steps for recommended pre-hospital care for lightning-strike victims.
4. Participants will be able to list two differences between the 1986-1988 and 1995-1997 NATA injury surveillance studies.
5. Participants will be able to explain three different ways that HIPAA is affecting the way the NATABOC Certified Athletic Trainers' practice.
6. Participants will be able to explain the recommended cardiac screening items by the American Heart Association.
7. Participants will be able to list and explain the components of a lightning-safety policy.

I. Introduction

This article discusses both prevention and legal issues for the NATABOC Certified Athletic Trainer in the secondary school setting.

II. Prevention of Athletic Injuries in Secondary School

Injury Statistics

1. 1986-1988 NATA Injury Surveillance Study
2. 1995-1997 NATA Injury Surveillance Study

Catastrophic Head Injury
Sudden Cardiac Death
Emergency Plan
Event Coverage

III. Legal Issues In Secondary Schools

Governing Bodies

1. National Athletic Trainers' Association (NATA)
2. American Medical Association (AMA)

Risk Management

1. HIPAA

Legal Cases

1. Duda v. Gaines
2. Welch v. Dunsmuir Join Union School District
3. Mogabgab v. Orelans Parish School Board

Legislation

1. Dellums Bill
2. Public Policy

IV. Summary

prevention is one aspect of a NATABOC Certified Athletic Trainer's responsibilities that can assist in decreasing the number of injury statistics and fatalities in public secondary schools. In addition legislation and governing bodies are both critical components in an attempt for comprehensive health supervision in athletic programs.

Introduction

Appropriate health supervision and the availability of a NATABOC Certified Athletic Trainer can improve the safety and well-being of public secondary school athletes and also decrease the chance of malpractice. There are specific considerations which NATABOC Certified Athletic Trainers must be informed about in order to provide optimal care for the student-athlete while simultaneously following established rules and regulations.

This article will discuss both prevention and legal issues for the NATABOC Certified Athletic Trainer in the secondary school setting. The following will examine and provide recommendations on injury statistics, catastrophic head injuries, sudden cardiac death, the emergency plan, and event coverage for the secondary school NATABOC Certified Athletic Trainer. Also, information on the governing bodies of the Athletic Training profession, risk management, and legal issues will be discussed.

Prevention of Athletic Injuries in Secondary Schools

Injury Statistics

Injuries and the severity of these injuries are important reasons why the number of NATABOC Certified Athletic Trainers continues to increase in all settings, especially secondary schools. During 2000-2001, it was estimated that there were 3,921,069 male participants and 2,784,154 female participants in high school athletics. This participation survey, compiled since 1971 by the National Federation of State High School Associations (NFHS), has shown drastic increases in high school athletic participation over the past 5 years (2001). The NFHS estimates that there are approximately 1,500,000 high school, junior high school, and non-federation school football participants in the United States. With the increase in participation, there has been an increase in the number of injuries (National Federation of State High School Associations, 2001).

According to the National Athletic Trainers' Association, the total injury toll for football each year will amount to over 500,000 when multiple injuries are included in the count. Multiple injuries are more than one injury per athlete. Also, 72% of those injuries will occur during practice sessions (NATA, 2002d). There were seven fatalities directly related to secondary school football during the 2001 football season (NFHS, 2001).

Two studies in recent years have provided injury statistics on secondary school athletes. The first study was conducted from1986-1988 and the second from 1995-1997.

The 1986 to 1988 injury surveillance study examined injuries in football, boys and girls basketball and wrestling in more than 100 schools nationwide. The following is a summary of the results from the study.

Football
Sixty percent of the injuries occurred during practice and forty percent occurred during the games. An average of 331,865 high school football players were sidelined by injury at least once a year and when multiple injuries were included, the average annual injury count in football for each year was 552,229. Hip and thigh injuries were the most prevalent injuries at 17.4% and ankle and foot injuries were the second most prevalent injuries at 16.0%. General trauma was the most common classification of injuries at 28.2% and sprains were the second most common at 28%. Minor injuries, meaning the athlete was sidelined for seven days or less, comprised 72.5% of the injuries. Moderate injuries, meaning the athlete was sidelines for eight to twenty-one days, accounted for 16.7% of all injuries. Finally, 10.8% of the injuries were classified as major, meaning the athlete was sidelined for more than three weeks (NATA, 2002d).

Boys' Basketball
Sixty percent of the injuries occurred during practice and 59% of the game-related injuries occurred during the second half of the game. Of the male basketball players, twenty-two percent had at least a one time-loss injury each year. Almost 42% of the injuries were to the ankle and foot, 11% to the hip and thigh and 9% to the knee. The most common type of injury was sprains at 43%. The second most common type of injury was general trauma at 22% (NATA, 2002d).

Girls' Basketball
Fifty-nine percent of the injuries occurred during practice and 63% of the game-related injuries occurred during the second half of the games. The most common injuries were to the ankle (32%) and the knee (18%). Sprains were the most common type of injury (41%) and general trauma injuries were second most common types at 18% (NATA, 2002d).

Wrestling
Sixty-six percent of the injuries occurred during practice. The most common injuries included shoulder and arm injuries, forearm, wrist, and hand injuries, and trunk injuries. Each of these categories accounted for 16% of the injuries. Sprains were the most common type of injury (30%) and general trauma injuries were second most common at 28% (NATA, 2002d).

The 1995-1997 3-year injury surveillance study by the NATA provided a clear picture of the extent of athletic injuries in the high school population. The study was conducted by John W. Powell, ATC, PhD and focused on characterizing the risk of injury associated with ten popular high school sports. The study compared the relative frequency of injury and selected injury rates among sports in addition to the participation conditions of each sport. The sports studied included baseball, softball, football, field hockey, soccer, basketball, volleyball, and wrestling. The data came from 246 Certified Athletic Trainers who represented schools of varying size from different geographic regions of the country. A total of 23,566 reportable injuries occurred and an average of 6,000 students were injured at least once a year. This study assists in supporting the professional goal of NATABOC Certified Athletic Trainers: to be experts in providing quality healthcare for the prevention, treatment, and rehabilitation of injuries. A summary of the findings of this 3-year study is presented below (Powell, 1999).

Baseball and Softball
The most common injuries in high school baseball were general trauma (36.6%) and strains (32.7%). General trauma included, "abrasions, contusions, lacerations, bursitis, muscle cramps/spasms, etc." and strains included "injuries to the muscles and tendons." (NATA, 2002f) Most injuries occurred to pitchers (21.6%) and most occurred to the forearm, wrist, and hand (24.2%). The most common injuries in high school softball were general trauma (24.5%) and strains (31.3%). Again, most injuries occurred to the pitcher (16.9%) and the largest percentage (25.1%) of the injuries were to the forearm, wrist, and hand (NATA, 2002d).

Basketball
In high school basketball, the most common injuries in males and females were general trauma at 26.5% and 19.6%, respectively. Injuries occurred most often to the ankle and foot for both genders (NATA, 2002d).

Football
The most common injuries for high school football included general trauma (29.3%) followed by strains (21.7%). Most of the injuries (15%) occurred to the forearm, wrist, and hand (NATA, 2002d).

Soccer
The most common injuries in high school soccer were also general trauma injuries for both males and females (30.5% and 29.1%), respectively. The majority of these injuries occur to the ankle and foot with 30.2% of the males and 30.5% of the females reporting injuries of this type (NATA, 2002d).

There were several discoveries based on the results of the study. An average of 55.5% of the reported injuries occurred during practice sessions. Only boys (59.3%) and girls' (57%) soccer showed a larger proportion of reported injuries in games than practices. Football had the highest injury rate of 8.1 per 1,000 athlete exposures. Volleyball reflected the lowest rate of injury with 1.7 injuries per 1,000 athlete exposures. The largest proportion of fractures came from boys' baseball (8.8%), basketball (8.6%), soccer (8.5%) and softball (8.4%). More than 73 percent of injuries restricted players fewer than eight days. The highest frequency of knee injuries appeared in girls' soccer (19.4%) while baseball had the lowest (10.5%) portion of such injuries. The largest proportion of surgeries reported among the ten sports was for girls' basketball at 4.0% and the lowest was field hockey at 1.2%. Out of the total number of injuries requiring surgery, 60.3% were to the knee. Finally, field hockey was the only sport where sprains and strains accounted for less than 50 percent of the total injuries (NATA, 2002d).

Four key points were identified based on the data from this study. First, each sport has an inherent risk based on the nature of the game and activities of the players. Secondly, injury prevention programs should be in place for practice sessions, as well as games. Third, the prevention of re-injury through daily injury management is a critical component of an injury prevention program. Fourth, gender differences in knee surgery patterns are specific to the sport being considered (NATA, 2002d).

Authors of this study concluded, "The best way to minimize the risk of injury in young athletes is to provide participation opportunities that are under the blanket of a well-designed and operational injury prevention program." (NATA, 2002d). As indicated by this study, injuries can be minimized by involving more NATABOC Certified Athletic Trainers in high school sports programs.
These two studies can be compared in several ways. The data from both studies indicated that more than half of the injuries occurred during practices. However, there were fewer practice-related injuries in the 1995-1997 study for football and girls' basketball and no difference for boys' basketball and wrestling. The higher frequency of injury during practices is related to the high number of practice sessions and a large amount of exposure. This implies a strong need for early recognition and management of practice-related injuries. When considering re-injury, boys' basketball showed a decrease in the later study when compared to the earlier study. The other sports did not show a difference in the proportion of re-injury. This demonstrated the positive influence that a Certified Athletic Trainer has on the re-injury pattern (Powell, 1999).

There were similar proportions for minor, moderate, and major injuries for football and boys' and girls' basketball. The data for wrestling reflected a similar proportion of moderate injuries with fewer minor injuries and more major injuries in the 1995-1997 study. A very similar proportion of cases resulted in surgery in the two studies among the four sports. The four sports showed a higher proportion of injuries in the head/neck/spine category in both studies. Also, there was an increase in the proportion of injuries in the neurotrauma category when comparing the two studies. This may be attributed to the heightened awareness of concussion in the sports medicine community (Powell, 1999).

Catastrophic Head Injury

The previous information provided results and recommendations for NATABOC Certified Athletic Trainers from two longitudinal studies on predominantly non-catastrophic injuries. Another growing area of concern in secondary schools is catastrophic head injuries. Head trauma causes more fatalities than any other type of sport injury. Fatal head injuries have occurred in football, soccer, wrestling, track, baseball, and other sports. An average of 250,000 concussions occur each year (Gerberich et al., 1983). Concussions that are repeated and

occur within a short period of time can cause fatalities (Gronwall & Wrightson, 1975). The National Center for Catastrophic Sports Injury Research at The University of North Carolina at Chapel Hill identified 29 incidences of second-impact syndrome in football players between 1980 and 1991 (Mueller & Cantu, 2000).

Second-impact syndrome is a rapid brain swelling and herniation after a second head injury. This syndrome occurs when an athlete sustains a head injury and then sustains a second head injury before the symptoms associated with the first head injury have cleared. The role of NATABOC Certified Athletic Trainers in preventing such injuries is critical as this catastrophic condition has a mortality rate approaching 50% and a morbidity rate of almost 100% (Cantu, 1992).

Catastrophic head injuries will never be completely eliminated from sports, however, there are several prevention measures that will dramatically reduce the incidence of fatalities. Preparticipation medical histories must be mandated for all athletes at all levels of competition. Game rules should be strictly enforced by officials and coaches. Players should also be taught to avoid making initial contact with their head or face. Specifically, the NATABOC Certified Athletic Trainer can take several preventive measures. Athletes who experience or show signs of head trauma should only return to play after being cleared by a physician or a NATABOC Certified Athletic Trainer. These signs include loss of consciousness, visual disturbance, headache, dizziness, obvious disorientation, or memory loss. The NATABOC Certified Athletic Trainer should also assist in educating athletes and parents about the signs and symptoms associated with a head injury, and the dangers associated with recurrent injury and second-impact syndrome.

The NATABOC Certified Athletic Trainer must always be prepared for a possible catastrophic head injury. A written emergency plan should be given to all relevant personnel and each person should know what to do before the injury takes place. A written emergency plan should include an evacuation plan, transportation information, portable and open communication, and game and practice schedule awareness at local hospital emergency departments. More detailed specifics of an emergency plan will be discussed in a later section of this article. Head injuries will continue to occur, however, implementing these preventive measures will facilitate preventing serious injuries from becoming permanent disabilities (Mueller, 2001).

Sudden Cardiac Death

Another area of concern for prevention is preparticipation cardiovascular screening and sudden cardiac death (SAC). Most sudden deaths in athletes are cardiac in nature (Maron et al., 1996). After acquiring a basic understanding of SAC, the NATABOC Certified Athletic Trainer can use this information to develop the cardiovascular portion of the Preparticipation Athletic Evaluation (PAE). SCD is generally defined as a nontraumatic, nonviolent, unexpected death due to cardiac causes within 1 hour of the onset of symptoms. (Koester, 2001) The National Federation of State High School Association estimates that 10 to 25 cases of SCD occur per year in individuals younger than 30 (Van Camp, 1992).

There are more than 20 pathologic entities for SCD. Some of the more common causes include Hypertrophic Cardiomyopathy, Idiopathic Left Ventricular Hypertrophy, Coronary Artery Anomalies, and Myocarditis, Marfan Syndrome, and Electrophysiologic Abnormalities. Other causes include abnormalities of the conduction system or an inherited cardiac disorder (Koester, 2001). Aortic stenosis and mitral valve prolapse are considered as risk factors for SCD.

Diagnostic tools such as ECGs and echocardiography may identify a small number of individuals at risk for SCD, but the emotional and financial costs are high. An estimated 200,000 individuals would need to be screened to locate the single individual who would die suddenly (Ades, 1992). In 1996, the American Heart Association (AHA) developed "recommendations and guidelines for the most prudent, practical, and effective screening procedures and strategies," (M.J. Maron et al., 1996). The panel recommended that all high school athletes undergo a cardiovascular screening evaluation before athletic participation. This screening should be repeated every two years and must be conducted by a healthcare professional with training in the evaluation of cardiovascular disease. Four elements should be included in this evaluation. (See Table 1)

Table 1: American Heart Association Recommended Screening Items

Family History:
Premature death (sudden or otherwise) or significant disability from cardiovascular disease in a close relative younger than 50 years. Specific knowledge of close relatives with certain cardiovascular conditions (eg., hypertrophic cardiomyopathy, dilated cardiomyopathy, long QT syndrome, Marfan syndrome, or clinically important arrhythmias).

Personal History:
Excessive, unexpected, and unexplained fatigue associated with exercise. Excessive, unexpected, and unexplained shortness of breath associated with exercise. Exertional chest pain or discomfort. Exertional syncope or near syncope. Heart murmur. Systemic hypertension.

Physical Examination:
Auscultation of heart in both supine and standing positions. Palpation of femoral pulses. Recognition of physical stigmata of Marfan syndrome. Brachial artery blood pressure measurement.

Parental verification or personal and family history for high school athletes.

(Maron et al., 1996)

Currently, Certified Athletic Trainers continue to face the annual "sports physical" event. Only 17 of 43 state forms evaluated were "adequate" with regard to the AHA recommendations for cardiovascular screening(Glover & Maron, 1998). A study of NATABOC Certified Athletic Trainers across the nation found that only 17% of the returned PAE forms contained all elements recommended in the cardiovascular history (Lombardo et al., 1992). Few athletes have symptoms or physical examination findings prior to SCD. However, minimal changes are needed to improve the ability to detect clinically significant cardiac conditions in young athletes. These changes include use of appropriate forms and properly trained examiners (Koester, 2001).

Diagnostic testing for all secondary school athletes is not currently economically or practically feasible. However, a significant proportion of at-risk athletes can be identified by a thorough history and physical examination. There is not a perfect screening instrument available. NATABOC Certified Athletic trainers have a moral and ethical obligation to assess athletes in the most efficient manner. Therefore, the AHA recommendations should be considered the standard for the cardiovascular screening of high school athletes across the nation. NATABOC Certified Athletic Trainers are often responsible for the organization and administration of the PAE and should work with their team physicians to implement these changes. They should also offer expertise to administrators at high schools without sports medicine services (Koester, 2001) .

Emergency Plan

Preparing for an emergency, as a NATABOC Certified Athletic Trainer requires education and training, maintenance of emergency equipment and supplies, appropriate use of personnel, and the formation and implementation of an emergency plan. Establishing an emergency plan is another method of prevention for a NATABOC Certified Athletic Trainer. An emergency plan must be easily understood and establish accountability for the management of emergencies. A failure to have and implement an emergency plan is considered negligence (Anderson, 2002).

As a NATABOC Certified Athletic Trainer, there is both an organizational and professional responsibility for having an emergency plan. The National Federation of State High School Association has recommended that high schools must provide for access to emergency medical services if an emergency should occur during any aspect of an athletic activity (Shultz, 2001). The athletic trainer must have knowledge of the key components of the emergency action plan, the ability to recognize and appraise emergency plans, and the ability to develop emergency plans. These responsibilities assist in justifying the need for athletic trainers to be involved in the development and application of emergency plans as a professional obligation (NATA, 1995).

The emergency plan consists of several different components. These components include but are not limited to personnel, equipment, communication, transportation, venue location, emergency care facilities, and documentation.

The plan should outline who is responsible for summoning help and clearing the uninjured from the area. In addition, all personnel associated with the sport should have training in automatic external defibrillation, current CPR certification, first aid, and the prevention of disease transmission (Shea, 1995; Brown, 1999). All equipment should be in good working condition and personnel must be trained in advance to use it properly. Recent guidelines by the American Heart Association call for the availability and use of automatic external defibrillators (AHA, 2000). These guidelines also emphasize the use of a bag-valve mask in emergency resuscitation and the use of emergency oxygen and advanced airways in emergency care. Athletic trainers are strongly encouraged to have access to an AED. In addition, in conjunction and coordination with local EMS personnel, athletic trainers should take a primary role in implementing a comprehensive AED program within their work setting (NATA, 2003).

For communication, access to a working telephone should be ensured. A listing of emergency numbers should be posted by the communication system as well as the street address and specific directions. A back-up plan of communication should be in effect in case the primary communication system fails. Before each practice and competition, the communication system should be tested (Anderson, 2002).

Transportation arrangements must also be included in the emergency plan. Emergency medical services response time should also be factored in when determining on-site ambulance coverage. A plan must also be available to ensure that the activity areas are supervised if the emergency care provider leaves the site to transport the athlete (Anderson, 2002).

The emergency plan should be specific to the site or the practice or competition involved. At home sites, the host medical provider should orient the visiting medical personnel regarding the site, emergency personnel, equipment, and procedures associated with the emergency plan. At away sites, the coach or athletic trainer should identify the availability of communication with emergency medical services and should verify service reception (Anderson, 2002).

The emergency plan should also include access to the emergency medical facility. Consideration should be given to the location with respect to the location of the athletic venue. This designated emergency facility and emergency medical services should be notified in advance of athletic events. The emergency plan should be written and approved by sports medicine team members and institutions and organizations involved. Additional documentation should include the following:

Table 2: Items For Complete Documentation

1. Delineation of the person and/or group responsible for documenting the events of the emergency situation.
2. Follow-up documentation on evaluation of response to emergency situation.
3. Documentation of regular rehearsal of the emergency plan.
4. Documentation of personnel training.
5. Documentation of emergency equipment maintenance.

(Rankin & Ingersoll, 1995; Herbert, 1990).

Implementation of the emergency action plan includes three steps. First, the plan must be committed to writing to provide a clear response mechanism and to allow for continuity among team members (Appenzeller, 1993). Secondly, all members of the emergency team must be informed and educated regarding the emergency plan. Finally, the emergency plan must be rehearsed. This allows maintenance of the emergency skills at a high level of competency and emergency medical procedures and personnel may change (Anderson, 2002). The emergency plan should be formally reviewed at least annually. Also, it is necessary to invest organizational and institutional ownership in the emergency plan by involving administrators, sport coaches, and sports medicine personnel in the planning and documentation process (Anderson, 2002).

Event Coverage

A NATABOC Certified Athletic Trainer assists with the planning and implementation of event coverage. Guidelines regarding inclement weather, including lightening storms and extreme heat, should be established well in advance of the athletic season. All athletic participants and spectators should follow these guidelines. There should also be a mechanism in place to ensure facilities and fields are properly cared for, inspected on a regular schedule, and repaired in a timely manner (NATA, 2002c)

The NATA recommends a proactive approach to lightening safety. This approach includes the implementation of a lightening-safety policy that identifies safe locations for shelter from the lightning hazard. There are five mechanisms of lightening injury. These include a direct strike that most commonly occurs to the head. A contact injury occurs when the victim is touching an object that is in the pathway of a lightening current. A side flash occurs when lightening strikes an object near the victim and then jumps from that object to the victim. The fourth mechanism, or a step voltage or ground current, occurs when the lightening current flowing in the ground radiates outward in waves from the strike point. Finally, blunt injury occurs when lightening current causes violent muscular contractions that throw the victim meters away from the strike point (Walsh et al., 2000).

NATABOC Certified Athletic Trainers may be asked to assist in the development of a lightening safety plan. There are six components in a lightening-safety policy or emergency action plan. First, a specific chain of command that identifies a person who has the authority to remove participants from athletic activities should be established. The second component is to identify a weather watcher who continuously watches for signs of developing local thunderstorms, including high winds, darkening clouds, and any lightening or thunder. The third element is a stipulation for monitoring local weather forecasts. One way to monitor local weather is to use weather radios that broadcast information on daily forecasts and approaching storm systems. The fourth element includes defining and listing safe structures or locations for evacuation in the event of lightening. The primary choice for a safe structure is any fully enclosed, substantial building. The building should have plumbing, electric wiring, and telephone service. If a building is not available, then a fully enclosed vehicle with a metal roof and the windows completely closed is an alternative (Walsh et al., 2000; Bennett, 1997; Bennett et al., 1997-1998).

The fifth component of a lightening-safety policy is to clearly describe criteria for both the suspension and resumption of athletic or recreational activities. The NATA promotes the flash-to-bang standard to warn people of imminent lightning danger. It is the easiest method to determine the distance to a lightning flash and it can be used to decide when to suspend or postpone activities. This method is based on the fact that light travels faster than sound. To use the flash-to-bang method, begin counting on the lightning flash and stop counting when the associated clap of thunder is heard. Then, divide the time to thunder (in seconds) by 5 to determine the distance (in miles) to the lightning flash. Finally, the 30-30 rule is part of a lightning-safety policy. This rule assists with resumption of activities following postponement of a game, practice, or activity due to lightening (Bennett, 1997; Walsh et al., 2000). The 30-30 rule is explained in Table 3.

Table 3: The 30-30 Rule
Criteria for suspension of activities - By the time the flash-to-bang count approaches 30 seconds, all individuals should already be inside a safe shelter.

Criteria for resumption of activities - Wait at least 30 minutes after the last sound (thunder) or observation of lightning before leaving the safe shelter to resume activities.

NATABOC Certified Athletic Trainers must know how to properly care for lightning-strike victims. The following list is the recommended prehospital care for treating lightning strike victims (Cooper, 1995).

Perform the following steps in order:
1. Survey the scene for safety.
2. Activate the local emergency management system.
3. Carefully move the victim to a safe area, if needed.
4. Evaluate and treat for apnea and asystole.
5. Evaluate and treat for hypothermia and shock.
6. Evaluate and treat for fractures.
7. Evaluate and treat for burns.

Overall, NATABOC Certified Athletic Trainers can help reduce the number of lightning casualties if they formalize and implement a lightening-safety policy; understand the qualifications of safe structures or locations; understand and follow the 30-30 rule as a minimal determinant of when to suspend activities; practice and follow the published lightning-safety guidelines and strategies; and maintain CPR and standard first-aid certification (Walsh et.al, 2000).

Legal

Governing Bodies

Several governing bodies provide recommendations and guidelines for the health supervision of secondary school athletes. These include the National Athletic Trainers' Association (NATA) and the American Medical Association (AMA).

National Athletic Trainers' Association

The National Athletic Trainers' Association, as a leader in health care for the physically active, believes that the prevention and treatment of injuries to student-athletes are a priority. In June 1995, the NATA positioned that all secondary schools should provide the services of a full-time, on-site, NATABOC Certified Athletic Trainer (ATC) to student-athletes (NATA, 2002c).

Also, the NATA, the American Academy of Orthopaedic Surgeons, and the American Academy of Pediatrics are three of the 17 participants in the development of the "Appropriate Medical Care for Secondary School Age Athletes" Consensus Statement. The mission statement of this task force was to "establish recommendations for the prevention, care and appropriate management of athletic related injury and illness specific to the secondary school-aged individual." (NATA, 2002a) The statement also covers recommendations for appropriate medical care, education, and definitions of the terms NATABOC Certified Athletic Trainer and Team Physician (NATA, 2002a)

Recommendations for appropriate medical care include:
Determine the individual's readiness to participate; promote safe and appropriate practice, competition and treatment facilities; advise on the selection, fit, function and maintenance of athletic equipment; develop and implement a comprehensive emergency action plan; establish protocols regarding environmental conditions; develop injury and illness prevention strategies; provide for on-site recognition, evaluation and immediate treatment of injury and illness, with appropriate referrals; facilitate rehabilitation and reconditioning; provide for psychosocial consultation and referral; provide scientifically sound nutritional counseling and education; and participate in the development and implementation of a comprehensive athletic health care administrative system (e.g., personal health information, policies and procedures, insurance, referrals) (NATA, 2002a)

The recommendations for education include that the designated health care providers shall maintain expertise through continuing education and professional development (NATA, 2002a)

American Medical Association

The American Medical Association (AMA) developed a policy in 1998. This policy stated that the AMA encourages high school administrators and athletic directors to ensure that all coaches are appropriately trained in emergency first aid and basic life support. This was the result of AMA recognition that not all high schools have the resources for the services of a NATABOC Certified Athletic Trainer and they also recognize that athletic trainers cannot be present at all practices and competitions. THE AMA also recommends that an athletic medicine unit be developed in every school and preferably include a NATABOC Certified Athletic Trainer (AMA, 1998).

Risk Management

Risk management is defined as "a plan that the clinical owner can take in order to minimize potential loss". (Konin, p.60) The employment of NATABOC Certified Athletic Trainers in secondary schools is necessary to manage risks and is important for the prevention, treatment, and rehabilitation of athletic injuries. However, it is also pertinent to help prevent malpractice suits and other liability issues. NATABOC Certified Athletic Trainers can take several actions to reduce the probability of malpractice suits and liability claims. First, establish a good rapport with the student-athlete, the parents, and other health care professionals. These health care professionals also include the team physician. Second, have a written contract between the NATABOC Certified Athletic Trainer and the school for which he/she is working. Next, parental consent is important. A minor (student-athlete under the age of 17) requires parental consent. A pre-participation physical is also important. This physical identifies any pre-existing conditions and provides a written record of the student-athlete's health (Graham, 1985).

HIPAA

Another dimension of risk management is covered under the Health Insurance Portability and Accountability Act (HIPAA). HIPAA will affect the way that athletic trainers communicate and handle medical records/information of our patient population. HIPAA is administered by the US Health and Human Services Department and can be broken down into three rules. First, the Transaction Rule is intended to standardize procedure codes and electronic billing format. The Security Rule is designed to secure personally identifiable healthcare information being transmitted electronically. The third rule is the Privacy Rule. This rule will have the greatest impact on how athletic trainers communicate and share medical information of patients (NATA, 2003).

There are seven main categories that pertain to HIPAA that will have the greatest potential on NATABOC Certified Athletic Trainers. First, the consent for treatment category requires that direct health care providers make a "good faith effort" to obtain a written acknowledgement of receipt of the provider's Notice of Privacy Practices. Secondly, the authorization to release information requires an authorization for non-routine uses and disclosures of personal health information. The minimum necessary rule limits the use or disclosure of personal health information to the minimum necessary to accomplish the intended purpose. The incidental uses and disclosures category permits certain incidental uses and disclosures that occur as a byproduct of a use or disclosure otherwise permitted by the Privacy Rule. The parents and minors category provides parents with new rights to control the health information about a minor child. However, athletic trainers should be familiar with state laws concerning minors. The uses and disclosures for research category allows authorizations for research to be combined with an informed consent to participate in research studies. Finally, the last category is the business associate agreement which requires a contract with the business associate containing specific safeguards about disclosure of personal health information (NATA, 2003). Thus, with the development of HIPAA, the Department of Health and Human Services is impacting the way that athletic training is practiced.

Legal Cases

Several legal cases have lead to more advanced legislation in the field of athletic training. Three specific legal cases involving athletic training include Duda v. Gaines, Welch v. Dunsmuir Join Union School District, and Mogabgab v. Orleans Parish School Board.

In the case of Duda v.Gaines a coach was found negligent for not having sought immediate medical attention for an injured athlete. A football player had dislocated his shoulder and the coach, lacking medical expertise in the area, reduced the dislocated shoulder and failed to refer the athlete to a physician. Three days later the shoulder dislocated again and the athlete suffered additional damage. It was the judgement of the court that the coach was negligent for not immediately referring the athlete the first time the injury occurred (Weidner, 1989).

In Welch v. Dunsmuir Join Union School District, a judgement of $118,192 against the school district resulted from negligence on the part of a coach (Hurt, 1976). A player was injured during a football game. The coach, suspecting a neck injury, had the athlete move his hands and arms and grip his hand. As the athlete was able to do this, the coach removed him from the field with the assistance of eight boys. Upon reaching the sidelines, the injured athlete could not move his hands or arms. The court determined that moving the athlete in such a way resulted in the permanent quadriplegia that the athlete suffered and the coach was found negligent.

In Mogabgab v. Orleans Parish School Board, a jury found the coach negligent for not seeking immediate medical attention for an athlete suffering from heat exhaustion (Bjorklun, 1989). A football player became nauseous, vomited, and was unable to walk without assistance. The athlete was helped inside and his shirt removed. Medical attention, however, was not sought until over an hour later, after the athlete's condition had progressively deteriorated. The coaching staff notified the boy's parents, who in turn notified their family physician. The family physician was the boy at the school and had him rushed to the hospital. Despite hospitalization, the boy died seven hours later of heat exhaustion.

Legislation

Legislation in Athletic Training has also assisted in demonstrating the importance and necessity of medical coverage in secondary school athletes. Two specific pieces of legislation include the Dellums Bill and the adoption of public policy.

Dellums Bill

The Dellums Bill helps demonstrate how legislation has evolved in Athletic Training. The Dellums Bill is a proposed initiative that is currently being revisited. First introduced in 1973, and then re-introduced in 1975, the Dellums Bill required that NATABOC Certified Athletic Trainers be employed at all schools in the nation that conduct interscholastic athletic programs. The bill was initially opposed due to financial restraints and the lack of NATABOC Certified Athletic Trainers available to fill these new positions (NATA, 2002b).

The primary purpose of this initiative was to ensure adequate care of athletes in secondary schools. Additionally, the Dellums Bill facilitated the opening of more NATABOC Certified Athletic Training positions. Thus, this bill will positively impact the job market for individuals interested in the secondary school setting. Approximately 15,000 new NATABOC Certified Athletic Training jobs would be created as a result of this bill (NATA, 2002b).

Public Policy--Hawaii

Secondly, the adoption of a public policy that requires NATABOC Certified Athletic Trainers for interscholastic athletic programs is modeled by the state of Hawaii. The states of Delaware and Virginia have the highest percentages of high school NATABOC Certified Athletic Trainers. Hawaii remains the only state requiring full-time Certified Athletic Trainers in all of its public secondary high schools (Buxton et al., 1995).

The main factor in developing and enforcing a public policy concerning NATABOC Certified Athletic Trainers in the state of Hawaii is the high number of sports-related injuries in scholastic programs. Seven thousand seven hundred eighty-one students participated in athletics at 21 Oahu public schools during the 1998-1999 school year. Among these student-athletes, 6,633 injuries were reported. These statistics reconfirmed that not enough was being done to reduce the risk of injury. The Hawaii study of the frequency of injuries formed the baseline of what is now the state public policy for NATABOC Certified Athletic Trainers. The purpose of this act was to reduce the

risk of injury to public high school athletes by two methods. First, preventative training and appropriate injury care are targeted by supplying appropriate funds for athletic training equipment and supplies. Also, it is required that funding of athletic programs, including athletic trainers, coaches, equipment and supplies, and transportation of teams be considered standard workload increase items in the planning and budgeting of new public secondary school (Buxton et al., 1995).

Summary

Injury and fatality statistics suggest a strong need for NATABOC Certified Athletic Trainers to provide the optimal health-care of student-athletes. Prevention is one aspect of a NATABOC Certified Athletic Trainer's responsibilities that can assist in decreasing the number of injuries and fatalities in secondary schools. In addition, legislation and governing bodies are both critical components in an attempt for comprehensive health supervision in athletic programs.

Take the Quiz Below.

CEU Quiz for NATA Certified Athletic Trainers

Press Ctrl+p to Print This Quiz

Prevention and Legal Issues in the Medical Coverage of Secondary Schools

The National Athletic Trainer's Association Board of Certification accepts this continuing education for 1.0 hours from MEDCO SUPPLY COMPANY (Provider # @2504) provided this quiz is completed as designed. A passing score is 70% for CEU credit. A certificate of completion will be forwarded for all completed quizzes with a passing grade. It is the individual's responsibility to properly report this and all CEU information to the Board of Certification at the end of each CEU cycle. Participation is confidential.

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Please rate each item on the scale of 1 to 5. (5 is the highest)

1. Content pertinent to Athletic Training? 1 2 3 4 5
2. Content presented at appropriate level? 1 2 3 4 5
3. Organization of materials? 1 2 3 4 5
4. Quiz emphasis on pertinent material? 1 2 3 4 5

Record answers below. Clearly circle ONE answer per line.

1. A B C D E
2. A B C D E
3. A B C D E
4. A B C D E
5. A B C D E
6. A B C D E
7. A B C D E
8. A B C D E
9. A B C D E
10. A B C D E
11. A B C D E
12. A B
13. A B
14. A B
15. A B
16. A B
17. A B

Mark Answers Above.

Prevention and Legal Issues in the Medical Coverage of Secondary Schools

1. The "Appropriate Medical Care for Secondary School-Age Athletes" Consensus Statement includes information on:

A. Recommendations for appropriate medical care
B. The Athletic Health Care Team
C. Education
D. Definitions of team physician and NATABOC Certified Athletic Trainers
E. All of the above

2. What was the primary purpose of the Dellums Bill initiative?

A. Adequate care of collegiate-athletes
B. Mandation that all secondary school coaches are CPR certified
C. Adequate supervision of NATABOC Certified Athletic Trainers by team physician
D. Adequate care of athletes in secondary schools
E. None of the above

3. What state is the only state that requires full-time Certified Athletic Trainers in all public secondary school high schools?

A. Delaware
B. Hawaii
C. Virginia
D. North Carolina
E. Indiana

4. Which of the following organizations developed a policy in 1998 that encouraged high school administrators and athletic directors to ensure that all coaches are appropriately trained in emergency first aid and basic life support?

A. National Athletic Trainers Association
B. American Academy of Pediatrics
C. American Medical Association
D. American Heart Association
E. None of the Above

5. Which of the following legal cases involved a coach not seeking medical attention for an athlete suffering from heat exhaustion?

A. Duda v. Gaines
B. Welch v. Dunsmuir Join Union School District
C. Mogabgab v. Orleans Parish School Board
D. Welch v. Gaines
E. None of the above

6. When evaluating a head injury, signs of head trauma include:

A. Visual disturbance
B. Dizziness
C. Memory loss
D. Obvious disorientation
E. All of the above

7. What are the three steps of implementing an emergency plan:

A. Commited to writing, education, rehearsal
N. Evaluation, education, review
C. Education, rehearsal, transportation
D. Evaluation, transportation, implementation
E. None of the above

8. All of the following are components of a lightning-safety policy except:

A. Specific chain of command
B. Criteria for suspension and resumption of athletic activities
C. Monitoring local weather forecasts
D. 30-30 Rule
E. None of the above

9. When caring for a lightning-strike victim, a NATABOC Certified Athletic Trainer should not evaluate for:

A. Fractures
B. Burns
C. Apnea and systole
D. Hyperthermia
E. Shock

10. Which of the following rules of HIPAA will have the greatest impact on how NATABOC Certified Athletic Trainers communicate and share medical information:

A. Transaction Rule
B. Privacy Rule
C. Security Rule
D. None of the Above
E. All of the above

11. Which of the following assists with resumption of activities following postponement of a game, practice, or activity due to lightning:

A. 30-30 Rule
B. Flash-to-bang method
C. Lightening Rule
D. 60-30 Rule
E. None of the above

12. Second-impact syndrome occurs when an athlete sustains a head injury and then sustains a second head injury before the symptoms of the first head injury have cleared.

A. True
B. False

13. Aortic stenosis and mitral valve prolapse are not considered risk factors for Sudden Cardiac Death.

A. True
B. False

14. The recommended cardiac screening guidelines by the American Heart Association should be repeated annually by a healthcare professional with training in the evaluation of cardiovascular disease.

A. True
B. False

15. The National Athletic Trainers Association stated that guidelines regarding inclement weather, including lightening storms and extreme heat, should be established well in advance of the athletic season.

A. True
B. False

16. When implementing the HIPAA guidelines into practice, state laws do not vary concerning providing health care to minors.

A. True
B. False

17. Sudden cardiac death is usually defined as a nontraumatic, nonviolent, unexpected death due to cardiac causes within 1 day of death.

A. True
B. False

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