Being Prepared For a Medical Emergency
緊急醫療應變計劃以防意外

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Abstract

Leisure activities, recreation, exercise, sport and sporting events are a part of life in society today. In a public school setting, it is the responsibility of the school/facility administrator to ensure safety for the participants and spectators or audience. Safe facilities, playing surfaces and equipment are a foundation for providing safety. Also, the administrator should be proactive in having a written emergency action plan for foreseeable situations, specifically, a medical emergency. Having a predetermined plan of action is imperative for the hosting school/facility. Some important aspects for an Emergency Action Plan (EAP) should include all personnel that will be part of the plan, scheduled mock practice sessions, availability of equipment, current certifications, etc. After implementing these aspects it is imperative that all individuals involved understand and know the details of the EAP in order for it to be effective and successful.

摘 要

隨著生活文化的轉變，康體活動已經成為了人們生活的重要部份。可是，當進行這些活動時一旦出現了意外事故，應該如何去處理較為恰當呢？本文試從緊急應變醫療角度分享經驗，給予有系統及效能的建議，以供參考。

It is the fourth quarter of a high school girl's basketball game. The starting point guard drives in for a lay-up and is undercut by an opposing player. She is lying motionless and unconscious. The coach approaches and looks for the athletic trainer. The athletic trainer is following and begins the primary survey, immediately recognizing the need for an ambulance (there is not an ambulance at the game/event). The athletic trainer cannot leave the scene because he/she is stabilizing the athlete's head/neck and the assistant athletic trainer is assessing her airway, breathing, and pulse. Who is sent to call? Do they know the right steps? Does the coach, athletic director, or student manager know the correct protocol for calling an ambulance? Where is the phone that is to be used? The questions of what to do can go on and on, but if a working plan is in place a catastrophic situation can be avoided. Creating a medical emergency action plan (EAP) is a proactive, multifaceted process that every athletic training room/school should have (Walsh, 2001).

Many people are involved in an injury situation. Figure 1 depicts some of the individuals that are usually involved in a medical emergency. The primary director of a medical EAP should be the NATABOC (National Athletic Trainers Association Board of Certification) certified athletic trainer (ATC). He/She should be the one responsible for devising, practicing, implementing, and activating the medical EAP. Knowing the plan, practicing the plan, and making others aware of the plan are the keys to success (Anderson, Courson, Kleiner, & McLoda, 2002; Dolan, 1998; NCAA, 2003). If a NATABOC certified athletic trainer is not employed by the institution then a designated staff/faculty should coordinate the EAP (e.g. school nurse, or other allied health professional).

Figure 1. Sample Emergency Action Plan.

Emergency Phone Numbers:

Ambulance 9-911 Ambulance 9-555-1234

Team Physician:

Dr. Team Physician Field House 555-6789

ADDRESS:

The University: 5555 Any Lane: My Town, USA 55555

DIRECTIONS TO FIELD:

Softball Field: Main Street turn South on to Any School Drive to Memoral Field - See Security at North-East gate (Gate # 2)

* Include gate or door to be utilized and the name of the individual that will meet the paramedics

** Activate EMS (emergency medical system) for all emergencies including:

- ❖ possible back or neck injury
- ❖ possible heat stress
- ❖ open fracture or displaced closed fracture
- ❖ athlete stops breathing or has no pulse
- ❖ if a player loses consciousness

SPECIAL TIPS

A. Have a designated person to call the ambulance and physician
B. Have designated person to call security ext 5678
C. Make sure there will be a phone available and necessary keys to get into an office
D. Have the person calling give a good description of the situation
E. Have the person calling to stay on the phone until EMS hangs up
F. Make sure to have parents home and work numbers
G. Have insurance information on each athlete if parent is unavailable H. Post instructions by the designated phone (Adopted from Lipscomb University. Nashville, TN.)

Several factors must be accounted for when devising a medical EAP. The factors include who will control the scene? Who will call 9-1-1? Where will he/she place the call? Who is called first, security or 9-1-1 (or is there even 9-1-1 service)? What is the back-up if 9-1-1 service is down? What does the person who calls 9-1-1 do once the call has ended? Has the plan been practiced? Has the plan been practiced with the local EMS? Are the athletic training students, coaches, and other personnel included? Have the parents/guardians been notified of the plan so they are aware of it? And what emergency equipment is on the location site (Nowlan, Davis, & McDonald, 1996)?

When devising a medical EAP it is necessary to first designate who will be in control of the scene. The ATC is the most qualified to control the scene unless a physician/EMT is present. If a physician/EMT is present, he/she must be aware of the EAP protocol. The telephone number that will be utilized when calling must be available. Will it be 9-1-1, "0" for operator, campus security, or a direct number to the ambulance station? Knowing the campus protocol is the beginning of the plan. Does the campus require notification of security to make the emergency call? Or does the scene director, call EMS directly? In addition to the primary call number, there should also be a back up number (which is often "0" for operator or a direct number to the ambulance station). The plan should be printed on bright paper that is easily recognized, and posted by any and every phone that could be used in an emergency situation (Nowlan, et. al. 1996). See Figure 1 for a sample EAP.

The information on the plan is crucial to the success of the plan (Walsh, 2001). The plan should be clearly labeled and have appropriate phone numbers. The numbers should include which numbers to call (including if you must first dial "9" to get an off campus line and a second number in case the primary number does not work). The plan should also include the location and the phone number of the phone to be used. When cell phones are used the plan should be posted at the field/court in dugouts, on the backstop fence, etc. with the cell phone number being used printed on the plan. The team physician should be named on the EAP with his/her contact information (so they can be notified once EMS is in route). The plan should also include have the street address and driving directions to the physical location. Many times the address of the school will not get EMS personnel to the specific field/court. **Having a specific EAP for each location is highly recommended** (Dolan, 1998).

Many other items could be included on the EAP. For numbered gates or multiple entrances, list the gate/entrance to be used (using North, South, etc). A list of instances of when to call EMS personnel also is beneficial (this list should be stressed when practicing) (Dolan, 1998). Another beneficial section in the EAP is a list called "Special Tips". This list should include information such as "Stay on the line until EMS breaks the call," "Stay by the phone in case

EMS calls back," and "Call campus security once EMS breaks the call." Many other statements could be listed under "Special Tips" to serve as a checklist for the person making the call (see Appendix A). This plan should be given to staff, faculty, and each member of the response team as well as visiting teams/schools during athletic/academic events (Nowlan, et. al. 1996; Walsh, 2001).

The most important thing to do once the protocol is written and the EAP is posted is to practice the plan. Practicing the medical EAP must include all parties that are involved. Contacting your 9-1-1 dispatch director and including him/her in the protocol is highly recommended. Also, contacting the local EMS director and having personnel arrive to the scene and walk through situations is a key to making the plan work. Creating a scenario and mock implementation of the EAP is crucial to the plan working in a real situation. It should be practiced 1-2 times a year (preferably at the beginning of the Fall and Spring terms.). Having the mock victim in full athletic gear is also important when practicing the plan for athletics. Set up and treat the mock situation as if it were a real situation. Go through every step and repeat it several times. Have any personnel that may be involved present when practicing.

Always include educating the parent/guardian of the EAP. When a parent/guardian knows there is a plan and who is in charge of the EAP, it is more likely the plan will be accepted by the parent/guardian. Each teacher, staff support, coach, student manager, field personnel, health care provider, etc. should have current Health Care Provider CPR/AED & First Aid training (e.g. through American Heart Association, American Red Cross, etc.)(Anderson, et.al., 2002; NCAA 2003).

The final element of the effective EAP is to ensure the availability of first aid & emergency care equipment/supplies. Have a list of what equipment is available, where it is located, and when it was last serviced/inventoried (Anderson, et. al., 2002; Dolan, 1998; Fincher, 2001; Gershom & Peer, 2003; Walsh, 2001). Someone must also be assigned responsibility maintaining this equipment and supplies? Preferably, this is the athletic trainer or school nurse (or other allied health professional). All personnel responsible for caring for injuries/illnesses must be informed and trained to properly utilize the equipment (e.g. AED) and supplies available. If the equipment/supplies are secured the individual who holds the key(s) must be known and available. With the growing number of schools that have an AED on site, it is also imperative that multiple staff/faculty members are trained in AED use (Dolan, 1998).

The National Athletic Trainers Association (NATA) has released a position statement for emergency planning in athletics (See Figure 2) and the National Collegiate Athletic Association (NCAA) has published criteria for emergency action plans in the NCAA Sports Medicine Handbook (See Figure 3). The administrative responsibility for providing proper medical care for athletes/participants has been recognized at multiple levels and by multiple health care organizations (both for liability and ethical reasons) (Anderson, et. al., 2002; NCAA, 2003). Hopefully, the information provided in this article will provide a structure for those individuals seeking to develop a new EAP or conducting an evaluation of an existing EAP. It is just as important to have a working plan in place, practice that plan, and update that plan yearly (or as often as needed) for every school, field house, field, and other physical locations at our public and private schools. The importance of having a plan for academic events and for guests is as important as having a plan in place for athletic events.

Figure 2. NATA Position Statement for Emergency Planning for Athletes.

Based on an extensive survey of the literature and expert review, the following is the position of the National Athletic Trainers' Association (NATA)

1. Each institution or organization that sponsors athletic activities must have a written emergency plan. The emergency plan should be comprehensive and practical, yet flexible enough to adapt to any emergency situation.

2. Emergency plans must be written documents and should be distributed to certified athletic trainers, tem and attending physicians, athletic training students, institutional and organizational safety personnel, institutional and organizational administrators, and coaches. The emergency plan should be developed in consultation with total emergency medical services personnel.

3. An emergency plan for athletics identifies the personnel involved in carrying out the emergency plan and outlines the qualifications of those executing the plan. Sports medicine professionals, officials, and coaches should be trained in automatic external defibrillation, cardiopulmonary resuscitation, first aid, and prevention of disease transmission.

4. The emergency plan should specify the equipment needed to carry out the tasks required in the event of an emergency. In addition, the emergency plan should outline the location

of the emergency equipment. Further, the equipment available should be appropriate to the level of training of the personnel involved.

5. Establishment of a clear mechanism for communication to appropriate emergency care service providers and identification of the mode of transportation for the injured participant are critical elements of an emergency plan.

6. The emergency plan should be specific to the activity venue. That is, each activity site should have a defined emergency plan that is derived from the overall institutional or organizational policies on emergency planning.

7. Emergency plans should incorporate the emergency care facilities to which the injured individual will be taken. Emergency receiving facilities should be notified in advance of scheduled events and contests. Personnel from the emergency receiving facilities should be included in the development of the emergency plan for the institution or organization.

8. The emergency plan specifies the necessary documentation supporting the implementation and evaluation of the emergency plan. This documentation should identify responsibility for documenting actions taken during the emergency, evaluation of the emergency response, and institutional personnel training.

9. The emergency plan should be reviewed and rehearsed annually, although more frequent review and rehearsal may be necessary. The results of these reviews and rehearsals should be documented and should indicate whether the emergency plan was modified, with further documentation reflecting how the plan was changed.

10. All personnel involved with the organization and sponsorship of athletic activities share a professional responsibility to provide for the emergency care of an injured person, including the development and implementation of an emergency plan.

11. All personnel involved with the organization and sponsorship of athletic activities share a legal duty to develop implement, and evaluate an emergency plan for all sponsored athletic activities.

12. The emergency plan should be reviewed by the administration and legal counsel of the sponsoring organization or institution.

Figure 3. NCAA Emergency Care & Coverage Guidelines.

Reasonable attention to all possible preventive measures will not eliminate sports injuries. Each scheduled practice or contest of an institution-sponsored intercollegiate athletics event, as well as all out-of-season practices and skills sessions, should include an emergency plan. Like student-athlete welfare in general, a plan is a shared responsibility of the athletics department, administrators, coaches and medical personnel should all play a role in the establishment of the plan, procurement of resources and understanding of appropriate emergency response procedures by all parties. Components of such a plan should include:

1. The presence of a person qualified and delegated to render emergency care to a stricken participant;

2. The presence or planned access to a physician for prompt medical evaluation of the situation, when warranted;

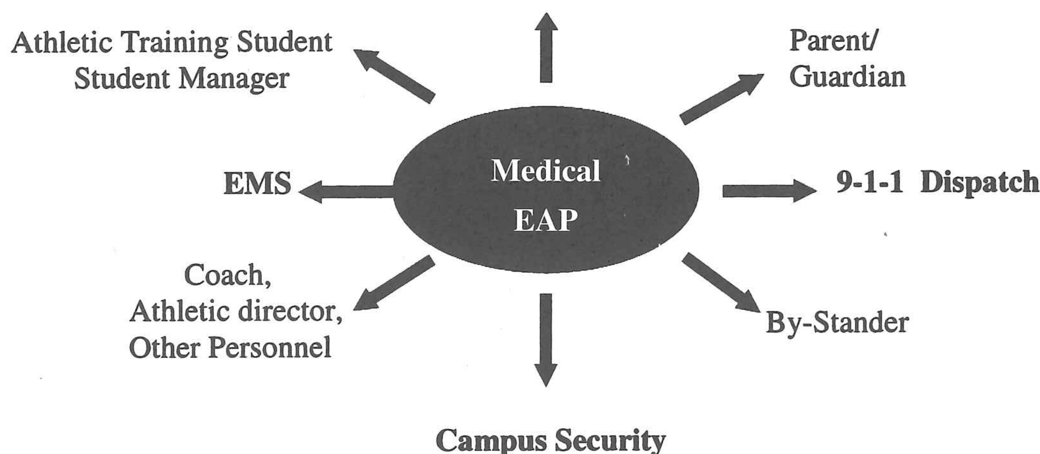
3. Planned access to a medical facility, including a plan for communication and transportation between the athletics site and the medical facility for prompt medical services, when warranted. Access to a working telephone or other telecommunications device, whether fixed or mobile, should be assured.

4. All necessary emergency equipment should be at the site or quickly accessible. Equipment should be in good operating condition, and personnel must be trained in advance to use it properly. Additionally, emergency information about the student-athlete should be available both at home and on the road for use by medical personnel.

5. An inclement weather policy that includes provisions for decision-making and evacuation plans (See Guideline 1d).

6. A thorough understanding by all parties, including the leadership of visiting teams, of the personnel and procedures associated with the emergency-care plan; and

7. Certification in cardiopulmonary resuscitation techniques (CPR), first aid, and prevention of disease transmission (as outlined by OSHA guidelines) should be required for all athletics personnel associated with practices, competitions, skills instruction, and strength and conditioning. New staff engaged in these rules within six months of employment.



(Adapted from Gershom & Peer, 2003)

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