The Game Plan Outside the Game: A Deep Dive Into Emergency Action Plans

Nathan Reddy Allipeta

Abstract

Emergency action plans (EAPs) in sports medicine provide guidelines to prepare athletic trainers to respond to various injuries during sports games. Due to the increase in sports injuries globally, the necessity of EAPs has increased proportionally. Components of EAPs include personnel roles, communication protocols, venue considerations, equipment specifications, and general training. However, in non pro level sports, improper implementation of EAPs caused by a lack of awareness of the specifics of EAPs by school personnel causes the continued injury of many athletes. This paper defines and summarizes EAPs and reviews various articles to develop potential solutions for increasing awareness of these plans, allowing them to be executed to a better standard. This paper reveals that, in non pro sport schools and organizations, unlike other medical emergency plans, EAPs are not required to be held by athletic trainers, which not only decreases the general population's awareness of these plans but also negatively impacts athlete health as there are no precautions. However, evidence suggests that the mandatory use of other medical emergency plans (different from EAPs in that they are used in other fields of medicine rather than in sports) has improved medical care in hospitals, indicating that making EAPs mandatory could have a similar effect in improving athlete safety and addressing these issues. Not only that, just as EAPs are mandatory in pro-sports, making them mandatory in high school levels would prevent the deaths of many athletes.

Keywords

Emergency Action Plans
Communication Protocols
Secondary Schools
Athletic Trainers
Prevention Strategies
Implementation Strategies

Introduction

In High School sports, 39% of boys and 22% of girls faced injuries in their athletic career (Garrick & Requa, 1978). To provide care for athletes, a medical professional must be familiar with many illnesses and procedures to guide the athletes in their path of recovery. For this reason, most high schools have an athletic trainer who can employ prompt and essential critical care. Each athletic trainer must sit with a physician to create a plan, such as an Emergency Action Plan (EAP), specific to each injury, which is legally mandated only in some states (Casa, Guskiewicz, Anderson, Courson, et al., 2012; Hedberg, Messamore, Poppe, et al., 2021). However, the implementation and construction of EAPs raises essential questions on how EAPs are created to address injuries in athletes and what difficulties or concerns arise when putting these plans into practice in sports safety and injury management. Therefore, this paper examines the specific components of EAPs and treatments. It also seeks to understand challenges surrounding the implementation of EAPs, exploring potential solutions. By observing

the mandated use of EAPs in pro sports, it can be said that the same mandating in lower-level sports would result in benefits to athlete health.

This paper covers the relevance of EAPs in modern sports. Subsequent sections will dive into the specific components of EAPs, and the personnel required to maintain and execute them. Then, common injuries will be discussed to illustrate how EAPs work for specific injuries. Lastly, d potential solutions will be presented. This paper analyzes a broad range of research papers to identify gaps in the current knowledge of EAPs and offer recommendations to improve safety protocols and injury management strategies.

Relevance of Emergency Action Plans in Modern-Day Sports

There are a significant number of preventable catastrophic injuries that frequently occur in secondary school athletics (Hedberg, Messamore, Poppe, et al., 2021). Many potential life-threatening or limb-threatening hazards in athletics and sports activities arise without warning. Without treatment, some injuries can lead to sudden death, which occurs in an athlete approximately once every three days in the United States (Andersen, Courson, Keiner & McLoda, 2002; Harmon & Drezner, 2007). Proper management of sudden injuries is critical, and athletes need to be cared for by medically trained professionals to minimize the risk to the injured participant (Murata, Scarneo-Miller, McMahon & Casa, 2020).

Athlete-related deaths during sports competitions occur frequently across America, with cardiac death being the most common. With an incidence of 1 in 40,000 to 1 in 80,000 athletes each year, (Wasfy, Hutter & Weiner, 2016) sudden cardiac death is difficult to predict as it tends to occur due to acute on-field trauma. Since most deaths are preventable through recognition and treatment protocols, those involved with secondary school athletics can benefit from a well-developed EAP (Casa, Almquist, Anderson, et al., 2013).

As of 2024, standard EAP recommendations outlined in **Table 1** have been endorsed by the American College of Sports Medicine, American Medical Society for Sports Medicine, American Orthopedic Society for Sports Medicine, American Osteopathic Academy of Sports Medicine, Canadian Athletic Therapists Association, Gatorade Sports Science Institute, Korey Stringer Institute, Matthew A. Gfeller Sport-Related Traumatic Brain Injury Researcher Center, National Center for Catastrophic Sport Injury Research, National Council on Strength and Fitness, National Federation of State High School Associations, National Interscholastic Athletic Administrators Association, and National Strength and Conditioning Association (Casa, Almquist, Anderson, et al., 2013). The importance of EAPs is also further recognized by the National Athletic Trainers' Association (NATA) in its position statement (Hedberg, Messamore, Poppe, et al., 2021). NATA recommends that every institution or organization supporting athletics have a documented EAP. This plan should be thorough and pragmatic, yet sufficiently adaptable to respond to unforeseen emergencies (Hedberg, Messamore, Poppe, et al., 2021).

Additionally, EAPs ensure that injuries can be quickly addressed by athletic trainers to the best of their abilities (McDermott, Tennent & Patzkowski, 2021). EAPs also help to reduce human errors and to support and promote consistent emergency medical care, as backed up by the Fédération Internationale de Football Association (Patterson, Gordon, Boyce, et al., 2022). EAPs make it easier for teams to handle challenging situations during sports emergencies by assigning specific roles for vital medical tasks. FIFA explains that an EAP is focused on preparing ahead of time rather than just reacting when something happens. EAPs allow teams to move from the traditional reactive team dynamics to a more proactive team model. For example, as per an EAP for cardiac arrest, if it takes Emergency Medical Services (EMS) approximately 3 to 5 minutes to arrive after an athlete collapses, an AED (automated external defibrillator) must be nearby and accessible. This plan acts as a backup in case EMS is unavailable, showcasing the uses of a proactive model supported by EAPs (Harmon & Drezner, 2007).

Not only do EAPs promote proactive work, but they also create strong team communication with the personnel listed in the protocol (Patterson, Gordon, Boyce, et al., 2022). A well-coordinated and practiced plan helps teams work smoothly together, avoiding confusion. However, as everyone completes their task, communication becomes critical, and the team leader's oversight becomes crucial. Team communication is vital as members give updates through the leader, who keeps everyone informed and directs the plan (Patterson, Gordon, Boyce, et al., 2022). It is essential to use clear communication where each task is reported to the team leader. During stressful medical emergencies, teamwork and communication can be tested. Everyone should look to the EAP for direction and leadership during medical emergencies, keeping the team organized and focused (Patterson, Gordon, Boyce, et al., 2022).

Components in the Building and Execution of Emergency Action Plans

The National Athletic Trainers' Association has detailed 12 key practice guidelines to follow with the usage of EAPs.

Table 1 National Athletic Trainers' Association Position Statement: Best practice recommendations (Hedberg, Messamore, Poppe, et al., 2021).

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, team 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 local 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 defibrillator, 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.

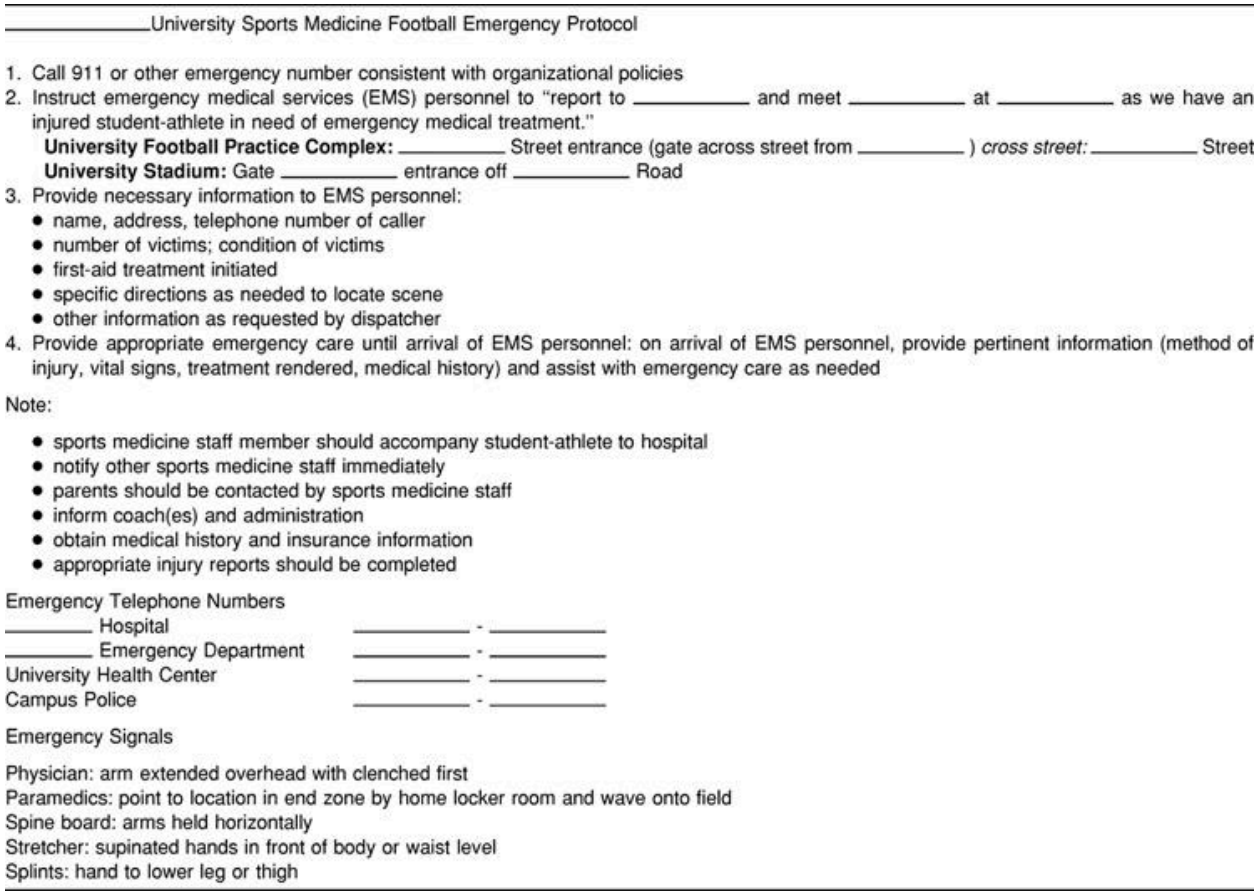
In Table 1, the first general guideline emphasizes that an emergency action plan needs to be “comprehensive and practical, yet flexible enough to adapt to any emergency situation,” because not everyone reacts the same way in a cardiac arrest or requires the same treatment

for an injury (Drezner, Courson, Roberts, et al., 2007). This ensures that the EAP can assess a wide range of reactions to the specific injury it addresses.

In addition, as per **Table 1**, EAPs must be codified as a written document and distributed to certified athletic trainers, physicians, athletic training students, institutional and organizational safety personnel, institutional and organizational administrators, and coaches. The faculty must also agree with local medical emergency services, to ensure that everyone is on the same page and that there is a level of accordance and teamwork to execute the plan properly.

This rule for EAPs also keeps personnel from intervening and conflicting with each other's duties, which could cause a loss of precious time in an emergent situation (Patterson, Gordon, Boyce, et al., 2022; Ho & Leggit, 2019). Clear lines of communication must also be established so that personnel can effectively relay and process crucial information. For example, if an injury occurs, efficient communication with all team members puts everyone on the same wavelength and avoids wasting time. To maintain effective lines of communication, everyone on the medical team must be available via phone. In addition, EAPs must be created to fit the location they are to be used in; if not, precious time could be wasted trying to locate resources (Ho & Leggit, 2019).

According to NATA in **Table 1**, Each EAP must also state its explicit purpose in its documentation for clarity. Having a clearly articulated purpose is vital as the faculty that is part of the EAP needs to understand the importance of their actions, which will help them complete their task successfully. To maintain EAPs' reliability, EAPs must be reviewed annually as new injuries that are not mentioned in any EAPs could occur. NATA's position statement also notes that it is the duty of athletic trainers, coaches, sports medicine doctors, and other personnel to execute EAPs and help athletes. Failure of medical personnel to execute an EAP according to their training could result in legal consequences (Hedberg, Messamore, Poppe, et al., 2021).



_____University Sports Medicine Football Emergency Protocol

1. Call 911 or other emergency number consistent with organizational policies
2. Instruct emergency medical services (EMS) personnel to "report to _____ and meet _____ at _____ as we have an injured student-athlete in need of emergency medical treatment."
   University Football Practice Complex: _____ Street entrance (gate across street from _____) *cross street:* _____ Street
   University Stadium: Gate _____ entrance off _____ Road
3. Provide necessary information to EMS personnel:
   - name, address, telephone number of caller
   - number of victims; condition of victims
   - first-aid treatment initiated
   - specific directions as needed to locate scene
   - other information as requested by dispatcher
4. Provide appropriate emergency care until arrival of EMS personnel: on arrival of EMS personnel, provide pertinent information (method of injury, vital signs, treatment rendered, medical history) and assist with emergency care as needed

Note:

- sports medicine staff member should accompany student-athlete to hospital
- notify other sports medicine staff immediately
- parents should be contacted by sports medicine staff
- inform coach(es) and administration
- obtain medical history and insurance information
- appropriate injury reports should be completed

Emergency Telephone Numbers

_____ Hospital	_____ - _____
_____ Emergency Department	_____ - _____
University Health Center	_____ - _____
Campus Police	_____ - _____

Emergency Signals

Physician: arm extended overhead with clenched first
Paramedics: point to location in end zone by home locker room and wave onto field
Spine board: arms held horizontally
Stretcher: supinated hands in front of body or waist level
Splints: hand to lower leg or thigh

Figure 1 National Athletic Trainers' Association Position Statement: Emergency Planning in Athletics by (Andersen, Courson, Kleiner, & McLoda, 2002)

In the example of an EAP from **Figure 1**, emergency medical services must be first contacted. Then, a specific script states what the caller should say to emergency medical services to convey all relevant information concisely (Hedberg, Messamore, Poppe, et al., 2021). The document also provides specific information on what medical team members, parents, coaches, and administration need to do during and after a medical emergency. The necessary equipment, such as a spine board, stretcher, and splints, are also listed.

As per the EAP in **Figure 1** which follows the guidelines from **Table 1**, Equipment must be easily accessible at designated locations. All items used in the EAP must be kept in good condition and the personnel must be trained to use them. All personnel must be familiar with this equipment as it is their tool to master. For example, new equipment such as automatic external defibrillators, oxygen supplies, and advanced airway devices require users to be trained on proper usage. It is essential to receive proper training on these tools to keep the equipment in good condition and to avoid causing harm to the athlete.

Transportation planning is also vital for EAPs. Emergency preparedness should also include arrangements for transportation for individuals who are injured. The availability of an ambulance

must be ensured at events with a significant risk of medical incidents. The transportation response time must also be considered when building an EAP so that all personnel are aware of how long it could take. It is also essential to consider what is offered within the transportation system, such as essential life support and the training of the staff in the vehicle (Casa, Guskiewicz, Anderson, et al., 2012).

Specific Examples of EAPs

Heat Stroke: A significant cause of morbidity in athletes is heat stroke. In the field, the treatment of heat stroke promotes rapid body cooling. Cold-water immersion (CWI) is considered a great cooling procedure for heat stroke treatment (Monseau, Hurlburt, Balcik, et al., 2021). Well-written emergency action plans may fail if EMS protocols do not allow for CWI in initial management. Despite the medical literature endorsing CWI as the most effective treatment modality in a prehospital setting for exertional heat illness, EMS protocols largely fail to reflect this, which leads to mismanagement and inadequate care of EHS patients. While this is happening, it is essential to call an ambulance as this is a medical emergency (Monseau, Hurlburt, Balcik, et al., 2021). Other forms of therapy include providing intravenous fluids, treating potential hypoglycemia, using intravenous diazepam for seizures or severe cramping or shivering, and requiring hospitalization if the response is slow or atypical. All these pieces of information are listed within an EAP, and in this way, all personnel are aware of their responsibilities. Based on the game's location, what each personnel does depend on where they are, so there is no universal EAP. (Monseau, Hurlburt, Balcik, et al., 2021; Eichner, 1998).

Exertional Sickling: In the past few years, exertional sickling has killed over nine athletes, including five college football players in training (Eichner, 2007). Exercise-physiology research shows how sickle red cells can accumulate in the bloodstream during intense exercise, causing athletes to collapse. Sickling can begin within two to three minutes of all-out exercise and reach dangerous levels, especially if the coach ignores early signs to push the athlete. Heat, dehydration, altitude, and asthma can also cause exertional sickness. In terms of EAPs, this is an immediate medical emergency, so an ambulance is called right away by whoever is responsible for the EAP. In the meantime, athletic trainers and other medical professionals must calm the athlete and keep them alive until EMS arrives. Fortunately, early screening and precautions can help prevent exertional sickling (Eichner, 2007).

Table 2 More Examples of EAPs (Patterson, Gordon, Boyce, et al., 2022)

Role	Skills	MDT member example	Responsibility

Team leader	Team coordination and communication Good understanding of clinical prioritization in emergency care Clear situational awareness	Doctor Senior paramedic Nurse with the resuscitation leader role	If performing the initial assessment, move to 'Hands Off' role when able: Should avoid becoming task-focused and only be involved in practical skills if absolutely required. Responsible for delegating key equipment to other roles (such as AED/medical gases/airway equipment). Responsible for coordinating the team, defining clinical priorities, and maintaining an overview. Responsible for garnering pertinent medical information relating to the patient, from the team medical staff
Head/neck	Recognize potential cervical-spine injury and apply manual in-line stabilization (MILS) techniques Perform airway management (or exchange with more qualified responder) in unconscious patients (including iGel LMA insertion in sudden cardiac arrest).	Doctor Physiotherapist Athletic trainer Paramedic EMT	Primary communicator with patient Cervical-spine MILS Airway management Leading team in log-roll or spine boarding technique.
Chest	Able to perform initial primary clinical assessment (ABCDE) Experienced in recognizing sudden cardiac arrest or signs of significant injury Capable of performing basic airway maneuvers and chest compressions	Doctor Paramedic EMT	Initial assessment (including starting as team leader while team assembles) Ensure safe airway and application of oxygen when required Start CPR Torso control in log-roll

Equipment	Understands the use and deployment of all medical equipment allocated to the team (although does not need to be skilled in its use) Able to carry relatively heavy resources to support the team	Paramedic EMT First Aiders/AHPs	Bring FIFA Bag and AED. Deployment of medical equipment in line with the clinical scenario Liaison with any other venue stretcher team personnel to assist the team leader in coordinating extrication Responsible for the safe clearance and removal of medical equipment from the field of play
Pelvis	Perform basic medical manual handling and assist clinicians in patient care Trained in the application of spinal immobilization and patient movement equipment	EMT First Aiders/AHPs	Pelvic control in log-roll Assists with CPR (if trained) May be designated specific equipment to assist Head & Chest roles (AED/medical gases/airway equipment)
Legs	Perform basic medical manual handling and assist clinicians in patient care Trained in the application of spinal immobilization and patient stabilization equipment (such as spider straps and vacuum splints)	EMT First Aiders AHPs	Leg control in log-roll Assists with CPR (if trained) May be designated specific equipment to assist head/neck and chest roles (AED/medical gases/airway equipment

Note: AED, automated external defibrillator; AHP, allied health professionals; CPR, cardiopulmonary resuscitation; EMT, emergency medical technician; FIFA, Fédération Internationale de Football Association; LMA, laryngeal mask airway; MDT, multidisciplinary team. Adapted from the Set-piece approach for medical teams managing emergencies in sport: introducing the FIFA Poster for Emergency Action Planning (Patterson, Gordon, Boyce, et al., 2022).

Table 2 illustrates additional examples of EAPs that show specific protocols in relation to various types of injuries. For instance, in situations involving head or neck injuries, the EAP mandates the presence of a specialized team consisting of a doctor, physiotherapist, athletic trainer, paramedic, and EMT. Furthermore, these detailed EAPs outline specific symptoms to be vigilant for when managing such injuries, enabling responders to swiftly identify and mitigate risks to prevent loss of life. By providing clear guidelines and delineating roles and responsibilities, these tailored EAPs enhance the preparedness and effectiveness of emergency responses in critical situations.

Issues With the Implementation of Emergency Action Plans and Potential Solutions

The first significant issue with the implementation of EAPs is that not all schools have proper awareness of the need for EAPs. To begin, school nurses play an essential role in EAPs, but studies show that many nurses need to be aware of EAPs. In a recent study, out of 1228 nurses, 61 nurses were utterly unaware of EAPs in their school, so if an injury occurred, they could do nothing to help. When nurses reported perceiving more barriers to adopting an EAP, their schools were less likely to adopt one. There is a need to improve nurses' knowledge and perceptions so that they not only help practice EAPs but also teach others what EAPs are, so that the cycle of awareness continues (Murata, Scarneo-Miller, McMahon, & Casa, 2020).

Additionally, a large proportion of schools still lack a professional athletic trainers. In a recent study, out of 108 survey respondents in Oregon High Schools, only half reported having an athletic trainer in their school. This is a major issue, as with an athletic trainer, there is someone to help develop and execute an EAP. 27% of the schools had not implemented recommendations from the National Athletic Trainers' Association, as those are only recommendations and not mandatory rules. Schools with athletic trainers were likely to include EAPs in their athletics programs, showcasing the importance of professional medical care (Johnson, Norcross, Bovbjerg, et al., 2017).

Even in states where EAPs are commonly found, many still do not have athletic trainers. For example, 29% of schools in Arizona were deemed not to have athletic trainers, so EAPs were not frequently developed or executed. While most individuals were aware of some emergency plans, only 43% of schools took environmental measures to ensure their athletes were safe, which would be higher if all schools had athletic trainers who could enforce EAPs. Schools with an athletic trainer were more likely to have venue-specific EAPs, physician-approved EAPs, AEDs, and other environmental measures (McLeod & Cardenas, 2019).

Even in professional athletic tournaments such as the Champions League, a proper following of EAPs needed to be evident. For example, 30% of teams with AEDs needed formal training in some lower divisions of professional sports. Hence, they were more likely to follow EAPs differently than professionally trained personnel. 17% of clubs reported needing an EAP ready to go, which is extremely high for such teams of high caliber. Even in terms of transportation, only 75% of clubs in the Champions League and 66% in League 2 had an ambulance prepared to respond, showing that the transportation requirements of EAPs were often ignored (Malhotra, Dhutia, Gati, et al., 2017).

Solutions: A simple but effective way to solve these problems is for coaches and athletes to listen more often to sports medicine scientists whose findings can be supported by sports medicine physicians and athletic trainers. Through this method, coaches and athletes can understand the importance and relevance of EAPs, raising awareness. The EAP will have

essential yet concise wording so that coaches, nurses, and athletes can soak in the useful information. This can be done by translating all the technical terms so everything can be easily read or by conveying other ideas through not just documents but videos and in-person presentations. Overall, the transfer of knowledge is vital to spreading awareness to all the sports communities in the world. Now, mainly due to the power of social media, medical providers have a more direct way to reach out to the public through various application software and technologies. These evolving tools should focus on sports medicine individuals and athletes being more proactive and educating others on what needs to be done rather than being reactive and doing something after everything has gone wrong. The idea of EAPs and being proactive should become second nature in sports (Pujalte & Maynard, 2020).

Additionally, another way to raise awareness is by making training mandatory for all personnel. This method has worked in other fields of medicine, such as general hospital emergencies (Pujalte & Maynard, 2020). For example, training sessions are required to enable staff to rehearse for emergencies and are recommended by several reports and guidelines. Training is meant to teach and provides opportunities for discussion, rehearsals, and team bonding (Merriel, Ficquet, Barnard, et al., 2019). To add on, EAPs are also mandatory in pro level sports, highlighting the point that they can make a difference in athlete health during sports games, hence should be mandatory in lower-level sports as well. Improvements in knowledge, communication, procedural skills, trained paramedical staff, necessary equipment, and medications are vital to providing excellent care that can save many lives. Emergency care is the responsibility of primary doctors as they should be knowledgeable about organizing their practices, which can provide effective management whenever the need arises (Ramanayake, Ranasingha, & Lakmini, 2014). If it is mandatory to have emergency plans and personnel in hospitals, and it is proven to work, then having the same sort in an athletic setting for sports medicine could also work just as well.

Conclusion

In conclusion, since the creation of sports, the care of athletes has been a huge priority. Due to the high number of unexpected injuries, many athletic trainers have developed EAPs to help assess these injuries. EAPs not only provide suitable treatments, but they also do it effectively, saving time. EAPs are proactive rather than reactive, meaning they help athletic trainers prepare for the worst situation rather than just trying to figure out something while the athlete's life is in danger. At time of publication, EAPs have been endorsed by many professional organizations, including the National Athletic Trainers' Association, showing their broad importance in contemporary sports. Within EAPs, each plan must be flexible yet effective. There needs to be a written document that identifies all the personnel necessary in the plan, what to do, and how to communicate with each other. These plans must also accommodate the fact that games may be played in different locations, so transportation to locations must also be considered. To maintain effectiveness, EAPs must be reviewed annually by the athletic trainers and legal counselors, as this could be a life-or-death matter. However, studies have shown that many nurses do not know what EAPs there are, many teams do not have athletic trainers, let alone EAPs, and many do

not have access to proper medical transportation. The leading solution for this is that information on sports medicine must reach coaches, athletes, and nurses easily through social media and other software applications. Also, since it has worked for general hospital emergencies, having an EAP and having personnel trained should become mandatory as it could help save lives. Progress has been made towards improving EAPs and raising awareness, but there is still much ground to cover to optimize EAPs for the well-being of athletes and those who play sports. Through commitment and collective action, we can ensure EAPs fulfill their vital role in saving the lives of many athletes.

Funding: This study received no specific financial support
Conflict of Interests: The author declares that they have no competing interests
Transparency: This study has followed all writing ethics

References

Andersen J, Courson RW, Kleiner DM, McLoda TA. (2002). National Athletic Trainers' Association Position Statement: Emergency Planning in Athletics. Journal of Athletic Training, 37(1), 99-104. https://pubmed.ncbi.nlm.nih.gov/12937447/

Casa, D. J., Almquist, J., Anderson, S. A., Baker, L., Bergeron, M. F., Biagioli, B., Boden, B., Brenner, J. S., Carroll, M., Colgate, B., Cooper, L., Courson, R., Csillan, D., DeMartini, J. K., Drezner, J. A., Erickson, T., Ferrara, M. S., Fleck, S. J., Franks, R., & Guskiewicz, K. M. (2013). The Inter-Association Task Force for Preventing Sudden Death in Secondary School Athletics Programs: Best-Practices Recommendations. Journal of Athletic Training, 48(4), 546-553. https://doi.org/10.4085/1062-6050-48.4.12

Casa, D. J., Guskiewicz, K. M., Anderson, S. A., Courson, R. W., Heck, J. F., Jimenez, C. C., McDermott, B. P., Miller, M. G., Stearns, R. L., Swartz, E. E., & Walsh, K. M. (2012). National Athletic Trainers' Association Position Statement: Preventing Sudden Death in Sports. Journal of Athletic Training, 47(1), 96-118. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3418121/

Drezner JA, Courson RW, Roberts WO, Mosesso VN, Link MS, Maron BJ. (2007). Inter Association Task Force Recommendations on Emergency Preparedness and Management of Sudden Cardiac Arrest in High School and College Athletic Programs: A Consensus Statement. Prehospital Emergency Care, 11(3), 253-271. https://doi.org/10.1080/10903120701204839

Eichner, E. (1998). Treatment of Suspected Heat Illness. International Journal of Sports Medicine, 19(S 2), S150-S153. https://doi.org/10.1055/s-2007-971983

Eichner, E. R. (2007). Sickle Cell Trait. Journal of Sport Rehabilitation, 16(3), 197-203. https://doi.org/10.1123/jsr.16.3.197

Garrick, J. G., & Requa, R. K. (1978). Injuries in High School Sports. PEDIATRICS, 61(3), 465-469. https://doi.org/10.1542/peds.61.3.465

Harmon, K. G., & Drezner, J. A. (2007). Update on sideline and event preparation for management of sudden cardiac arrest in athletes. Current Sports Medicine Reports, 6(3), 170-176. https://pubmed.ncbi.nlm.nih.gov/19202663/

Hedberg, R., Messamore, W., Poppe, T., Tarakemeh, A., Burkholder, R., Carter, T., Vopat, B., & Darche, J. (2021). Emergency Action Planning in School-Based Athletics: A Systematic Review. Kansas Journal of Medicine, 14, 282-286. https://doi.org/10.17161/kjm.vol14.15299

Ho, G. W. K., & Leggit, J. C. (2019). Sports Medicine: Sports Event Care and Return to Play. FP Essentials, 482, 11-14. https://pubmed.ncbi.nlm.nih.gov/31259506/

Johnson, S. T., Norcross, M. F., Bovbjerg, V. E., Hoffman, M. A., Chang, E., & Koester, M. C. (2017). Sports-Related Emergency Preparedness in Oregon High Schools. Sports Health: A Multidisciplinary Approach, 9(2), 181-184. https://doi.org/10.1177/1941738116686782

Malhotra, A., Dhutia, H., Gati, S., Yeo, T.-J., Finnochiaro, G., Keteepe-Arachi, T., Richards, T., Walker, M., Birt, R., Stuckey, D., Robinson, L., Tome, M., Beasley, I., Papadakis, M., & Sharma, S. (2017). Emergency response facilities including primary and secondary prevention strategies across 79 professional football clubs in England. British Journal of Sports Medicine, 53(13), 813-817. https://doi.org/10.1136/bjsports-2016-097440

McDermott, E. R., Tennent, D. J., & Patzkowski, J. C. (2021). On-field Emergencies and Emergency Action Plans. Sports Medicine and Arthroscopy Review, 29(4), e51-e56. https://doi.org/10.1097/jsa.0000000000000319

McLeod, T. C. V., & Cardenas, J. F. (2019). Emergency Preparedness of Secondary School Athletic Programs in Arizona. Journal of Athletic Training, 54(2), 133-141. https://doi.org/10.4085/1062-6050-35-18

Merriel, A., Ficquet, J., Barnard, K., Kunutsor, S. K., Soar, J., Lenguerrand, E., Caldwell, D. M., Burden, C., Winter, C., Draycott, T., & Siassakos, D. (2019). The effects of interactive training of healthcare providers on the management of life-threatening emergencies in hospital. Cochrane Database of Systematic Reviews. https://doi.org/10.1002/14651858.cd012177.pub2

Monseau, A. J., Hurlburt, G. A., Balcik, B. J., Oppenlander, K. E., Chill, N. M., & Martin, P. S. (2021). Status of US Emergency Medical Service Protocols Regarding Pre-Transfer Cooling for Exertional Heat Stroke. Cureus. https://doi.org/10.7759/cureus.19505

Murata, Y., Scarneo-Miller, S. E., McMahon, L. J., & Casa, D. J. (2020). Adoption of Emergency Action Plans in Secondary Schools: A Study of School Nurses' Knowledge and Behavior. Journal of School Health, 90(9), 694-702. https://doi.org/10.1111/josh.12930

Patterson, M., Gordon, J., Boyce, S. H., Lindsay, S., Seow, D., Serner, A., Thomson, K., Jones, G., & Massey, A. (2022). Set-piece approach for medical teams managing emergencies in sport: introducing the FIFA Poster for Emergency Action Planning (PEAP). British Journal of Sports Medicine, bjsports-2021-105126. https://doi.org/10.1136/bjsports-2021-105126

Pujalte, G. G. A., & Maynard, J. R. (2020). The increasing importance of sports science and medicine. Journal of International Medical Research, 48(1), 030006051982769. https://doi.org/10.1177/0300060519827694

Ramanayake, R. P. J. C., Ranasingha, S., & Lakmini, S. (2014). Management of emergencies in general practice: Role of general practitioners. Journal of Family Medicine and Primary Care, 3(4), 305. https://doi.org/10.4103/2249-4863.148089

Wasfy, M. M., Hutter, A. M., & Weiner, R. B. (2016). Sudden Cardiac Death in Athletes. Methodist DeBakey Cardiovascular Journal, 12(2), 76-80. https://doi.org/10.14797/mdcj-12-2-76