Medical Coverage of Games and Events: What’s in the Bag and on the Sidelines??

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Objectives

At the conclusion of this lecture you will:

• Understand the important parts of covering a sporting event/game
• Know how to complete administrative duties, have medical protocols and provide care at events
• Know equipment needs/lists for event coverage – what’s in the bag.
• Feel better prepared for being on the “front line” of sports medicine!
The life of a Team Doc:
Purpose of Medical Team

- Competitor safety
- Injury prevention (education)
- Injury care and rehabilitation
- Triage/Treatment/Transfer
- Meet with your medical team prior to the season/event to make emergency plans
- Know your medical team/coaches/players
- Can be difficult at mass event since athletes don’t know you
ACSM Consensus Statement on Mass Participation Event Management

- Written in 2004 by panel of Team Docs
- Written describing mass event coverage
- Concepts fit for game coverage too
3 major things the Team Physician needs to consider for covering an event:

- Administrative matters for the event
- Medical protocols for providing care and needed supplies
- Hydration and fluid replacement
Administrative

- Have a well developed medical plan
- Plan the set up
  - Shelter, tables, multiple medical sites
- Help reduce load at local ER for mass events
- Triage of injuries
- Course control at mass events
- Need to know numbers of participants for hydration and medical coverage
Event Administration

• Have an agreement on responsibilities between the medical team and organizing body

• Meet with them to discuss mutual plans for the event
  – Important they understand you have the final say in clearing athletes to participate and have the power to DQ

• Organize your Medical Team
  – Who do you need there?
  – Months in advance
  – Give protocols to your team
  – Assign duties
Event Administration

• Know event layout and plan sites of care
  – In mass events beginning/end and along the way
• Arrange for transport of participants
• Communication means
  – Cell phones
  – Walkie Talkies
• Documentation
• Credentials/Shirts
• Notify Hospitals, Police and Fire Dept of event
Event Administration

• Ideal to plan event for when it’s safest in the area
  – Environmental
  – Start time

• Have a hazardous condition plan
  – Cancel or modify for environmental concerns
  – Be able to monitor conditions

• Announce risks and/or changes to participants prior to event

• Be Professional
The Professional Look
Do as I say, not as I do....
Medical Protocols and Care

- **Essential care at events:**
  - Basic First Aid
  - CPR
  - Event specific medical and musculoskeletal care

- **Desirable**
  - AED (I’d put in essential at most events)
  - ACLS/ATLS
  - IV Fluids
  - Heat/Cold Care
  - Hyponatremia (endurance events)
Hydration and Energy Replacement

- Event/games need to have fluid available for safe participation
- Food possibly for endurance events
- Fluid:
  - Easily accessible
  - Strategically placed
- General rule
  - 6 to 12 oz of fluid every 15 to 20 min of activity per participant
- Carbohydrate fluids for events > 1 hour
- Keep fluids cool (59-72 degrees F)
- Remember to keep medical team and staff hydrated
- Encourage participants to replace fluid/carbs/sodium post event
What supplies do we need at events and games???

- Number of participants, spectators and staff
- Risk of activity/event
- Availability of other medical care/transport
- EMS response time and ER transfer time
- Level of training of medical staff present
- Knowledge of equipment present – don’t have something you don’t know how to use!
Who carries what?

- **Athletic Trainers**
  - Carry many things to prevent and treat injuries and problems in the athlete.
  - Will have some duplication with others.
  - Generally shouldn’t carry and dispense meds.
  - What is present depends on setting and event.
  - At many levels keep track and stock needed supplies.
Who carries what?

- **Paramedics**
  - Emergency supplies for stabilization and transport.
  - Hospital communication.
  - Good capacity to carry equipment with rigs.
  - Are they at your game or do you need to call?
  - What supplies do you need for stabilization if they aren’t present.
  - Know who, where they will be, where they are transporting and how they will be activated.
  - Often take over scene when activated.
  - Conflicts can be avoided by familiarity with each other.
Who carries what?

- Physician
  - Supplies usually carried in the Game Bag
  - Something all Team Docs should have
  - We will discuss contents......
Types of Supplies

- Comfort Care
- Preventative braces
- OTC Meds
- Prescription Meds
- Evaluation tools
- Stabilization equip
- Emergency Supplies
- Documentation

Can have overlap of who is carrying what

Better to be over stocked

Have a plan prior to the event
ABC Emergency Supplies
Airway

- Must be able to access the airway of the helmeted athlete
- Mask Removal – tools
  - Trainers Angel, Anvil Pruners and/or electric screw driver
  - Practice removal!!!
- In most cases leave helmet/pads on
- Assume neck injury in head injured/unconscious athlete (C-spine)
- Remove full mask for access
- Airways
  - Often occurs once EMS arrives
  - NFL requires separate Airway staff
Breathing

- Face Shield
- Pocket Mask
- Ambu Bag
- Oxygen
Circulation/Cardiac Arrest

- Ventricular Fibrillation
- Commotio Cordis
  - Baseball
- Early defibrillation – the key to survival
- More likely a spectator or coach than athlete
  - Elderly at the event greatest risk at times
- AED – Automatic External Defibrillator
  - Know how to use.
  - Know where closest one is at the event.
Defibrillation

- Survival decreases 7-10% for every minute delay
- After as few as 10 minutes few attempts are successful!
- Many success stories with early defibrillation
The Role of AEDs in Athletics
Rothmier and Drezner
Sports Health Jan/Feb 2009

• Context
  – Sudden Cardiac Arrest
    • Leading cause of death in young athletes

• Review article to summarize AED use in athletic event planning
Evidence Acquisition

• Studies reviewed in this article
  - AED use
  - Early Defibrillation
  - Public access difib programs
  - Also reviewed consensus guidelines and position statements
Etiology

- SCD in athletes
  - Underlying structural cardiac abnormalities
    - HCM
    - Coronary artery anomalies
    - Commotio Cordis
    - ARVD
    - Valvular disease
    - Myocarditis
    - Arrhythmias
Results

- Early defibrillation programs and access to AED’s
  - Demonstrate a survival benefit for SCA in public and athletic settings
- Survival still poor
  - Key is time from collapse to AED
  - 7-10% decrease in survival per minute
- US Commotio Cordis Registry
  - 16% survival rate
- Drezner
  - 486 cases reviewed in youth sports
  - 11% survival rate
Conclusion

• Schools and Events
  – Should implement use of AEDs and emergency action plans
  – In collapsed and unresponsive athletes cardiac arrest should be suspected and AEDs applied ASAP
Pocket Supplies

• Things to have handy
  – Gloves
  – Pocket mask/Pen light
  – Gauze/bandages
  – Scissors
  – Multi-tool
  – Mask removal
  – Aspirin
  – Oral glucose
  – Albuterol MDI
Medical Bags

• Local/Online
• Soft sided
• Tackle box
  - Tackle trays
• Wheeled
• Back Pack/Fanny Packs
• Pockets
Types of Game Bag Supplies

• Wound Care
  – bandages/gauze/ointment

• Preventative
  – braces/tape

• Evaluation tools
  – scopes/pen light/bp cuff/thermometer

• Medications
  – OTC/Prescription meds/Prescription pad

• Orthopedic
  – braces/injection/crutches

• Emergency (on site at least)
  – airway/AED/meds/transport
Wounds

- Bandages/Gauze/dressings
- Wraps
- Suture kit
  - Anesthetic
  - Suture
- Other
  - Staples
  - Dermabond
  - Monsel’s
  - Antibiotic ointment
Orthopedic Issues

• Contusions
  – Ice/bags
  – Plastic wrap
  – ACE bandages
  – Instant cold packs
Orthopedic

- Splints
  - Cardboard/wood
  - SAM
  - Air
  - Vacuum
  - Fiberglass
  - Pre-made/Custom
  - Slings

- Difficult to pack vs cost

FIGURE 6. A splint bag may not be needed on the sidelines, but it can be kept in a nearby vehicle or coach’s office.
Orthopedic

- Slings
- Cervical Collar
- Backboard – school/EMS
- Crutches
- Specific Braces

- Potential for overlap of emergency supplies with EMS
Optho

• Eye tray
  - Flourescein
  - Cobalt blue light
  - Anesthetic drops
  - Antibiotic drops
  - Eye pads
  - Opthalmascope
Ear

- Ear tray
  - Otoscope, Speculum, Insufflator
  - Drops (anesthetic, debrox), Irrigation

FIGURE 4. An eye kit (A) and an ear kit (B) for assessing injury and removing foreign bodies.
Dental

- Dental tray
  - Extra mouth-guards
  - Saline Containers
  - Hemostat/pliers
  - Laceration repair equipment
  - Antibiotics
  - Pain Medication
Special Needs

- Depends on type and length of event
- May need more if you are on the road and covering the travel party
  - Foreign travel
  - OTC meds
  - Antibiotics
Special Needs

- Other Instruments (depends on event)
  - Scissors
  - Hemostats
  - Scalpels
  - Nasal packing/rockets
  - Different suture materials
  - IV equipment - important
  - O2 Sat monitor
  - Glucometer
Medications

- Lots of controversy!!
  - Dispensing laws
  - Dispensing to minors, even if OTCs
  - Record keeping
  - Expired meds
  - Cost
  - Travel medications – Medication team box
  - Huge issues have come up with traveling with meds in NFL this season!
Medications

- Over the counter meds for:
  - Pain/Fever
  - Diarrhea
  - Constipation
  - Asthma – inhalers (player and medical provider)
  - Allergy – histamine blockers/epi-pen
  - Aspirin
Medications

- Pain
  - NSAIDS
  - ASA
  - Acetaminophen
  - Narcotics
  - Oral and/or injection
Medications

- International travel
  - Anti-diarrhea
  - Infectious disease – antibiotics
  - Immunizations – prior
  - Be ready with enough equipment for your trip!
  - Understand rules for transporting meds via plane to other countries.
Medications

- Cardiac
  - Should strongly consider ACLS training!
  - MI meds
    - ASA
    - Nitro
    - O2
    - Pain meds
  - ACLS meds – EMS
Documentation

- Very important
- Some Type of Simple “SOAP” Form
- Dictation
- Pharmacy dispensing records
Dress Code at Events

- You are a professional!
- Lots slacks and polo combos
- Think of weather conditions
- Identify as medical team at mass events
Conclusion

- Prepare for administrative matters, medical protocols, provision of care and fluid issues prior to the event you’re covering.
- Know what/where things are in your bag.
- Different events and team coverage requires different supplies.
- Create an inventory of your medical supplies – keep up to date.
- Being ready makes the game/event more fun!!
- Great list of supplies on the ACSM consensus statement for mass participation event coverage.
Thank You!!
Bibliography

• Rothmier, Drezner: The Role of AEDs in Athletics. Sports Health Jan/Feb 2009