MRSA & Hepatitis

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MRSA

• Methicillin-Resistant Staphlococcus Aureus (MRSA)
  – Type of bacteria resistant to certain antibiotics including methicillin, oxacillin, penicillin, and amoxicillin
  – MRSA infections in otherwise healthy people known as community associated (CA)-MRSA
    • Usually skin infections such as abscesses, boils, and other pus-filled lesions
Staphylococcus aureus (Staph)

- Bacteria commonly carried on the skin or in the nose of healthy people
- Approximately 25%-30% of the population is colonized
  - Bacteria present but not causing infection
- Sometimes staph can cause skin infections
- Most are minor and can be treated with antibiotics
- MRSA is a staph bacteria resistant to antibiotics
What MRSA looks like

• Most of the time looks like a pimple or boil
• More serious infections may cause pneumonia or bloodstream infections
Risk Factors

- Athletes, military recruits, prisoners
- Close skin to skin contact
- Openings on the skin such as cuts or abrasions
  - Areas of friction, chafing
- Contaminated items or surfaces
- Crowded living conditions
- Poor hygiene
• 5 C’s from the CDC
  – Crowding
  – Contact
  – Compromised skin
  – Contaminated items
  – Cleanliness
Prevention

- Practice good hygene
  - Keep hands clean; wash thoroughly with soap and water or alcohol based hand sanitizer
  - Keep cuts and scrapes clean and covered with a bandage until healed
  - Avoid contact with other people’s wound or bandages
  - Avoid sharing personal items such as towels or razors
- Shower with hot water after practice, games, workouts
- Cover all open or draining wounds
Prevention (cont)

• Be smart with antibiotics
  – Antibiotics can help treat bacterial infections but they can not help viral infections
  – Always ask your doctor if antibiotics are the best course of treatment and do not pressure your doctor into prescribing antibiotics if they will not help
  – Always take all of your antibiotic medication
    • Taking only part can cause antibiotic resistant bacteria to develop
  – Do not save or share antibiotics
When to see your doctor

- If your infection does not go away after a few days
- If it begins spreading
- If you develop symptoms such as pain, fever, or chills
MRSA and football

• Study by AAOS with USC football
• Concluded that athletes in contact sports are susceptible due to turf burns, abrasions, shaving, and chafing
• Infections spiked in 2003 (17 of 107 players)- 6 required hospitalization
• Dramatic decrease in 2004 following implementation of infection control protocol
  – Only 1 infection in 2004
• Study from The Physician and Sports Medicine
  – In 2004 reported an expected increase in the number of MRSA infections
  – In 2003, NCAA and National Federation of State High School Associations issued alerts to their members urging vigilance about MRSA infections

• Rule of thumb
  – Remember what your kindergarten teacher taught; wash your hands, don’t pick your nose, and don’t pick your skin
• **Point of emphasis: FR 9**
  
  – Football players are susceptible to MRSA
  
  – **Recommendations**
    
    • Proper equipment
    • Clean hands
    • Immediate showering
    • Avoid whirlpool or common tubs
    • Proper washing of gear
    • Refer active lesions to trainer
    • Cover all skin lesions appropriately
Hepatitis B (HBV)

• Blood-borne pathogen
  – Disease-causing microorganism that can potentially be transmitted through blood contact
  – Include HBV and HIV

• Potentially catastrophic health consequences

• Prevention strategies are essential
HBV (cont)

- Blood-borne pathogen that can cause infection of the liver
- 5%-10% become chronically infection with the virus
- Incidence in student-athletes is low, but sports with higher potential for blood exposure and sustained body contact increases risk
Signs and Symptoms

- Symptoms usually begin 60-90 days after the virus enters the body
- Jaundice
- Light colored stool
- Unexplained fatigue that lasts for weeks or months
- Flu like symptoms such as fever, loss of appetite, nausea, and vomiting
- Abdominal pain
How to avoid becoming infected

• Get vaccinated
• Cover all open cuts and wounds
• Do not share razors, toothbrushes, or manicuring tools with anyone
• Clean areas saturated in blood with one part household bleach, 10 parts water
Hepatitis and Football

- Article from *Archives of Internal Medicine* cited a case from the University of Oklahoma
  - Identified 11 cases of HBV in 19 month period
  - Most likely spread through contact between players with exposed wounds
  - Virus was transmitted by a single player who was a HBV carrier
Prevention in sports

• Proper care of wounds pre-event
  – Should be covered with an occlusive dressing that will withstand the demands of competition

• When a student-athlete is bleeding, the bleeding must be stopped and the wound covered
  – NCAA policy mandates removal until wound is cared for
  – Any participant whose uniform is saturated with blood must have uniform inspected by medical personal prior to returning
Prevention (cont)

• 3-3-5a: may not return without approval of medical personel
  – Timeout is not enough
• Early recognition of uncontrolled bleeding is the responsibility of officials, student-athlete, coach, and medical personel
• All personnel involved should be trained in basic first aid and infection control