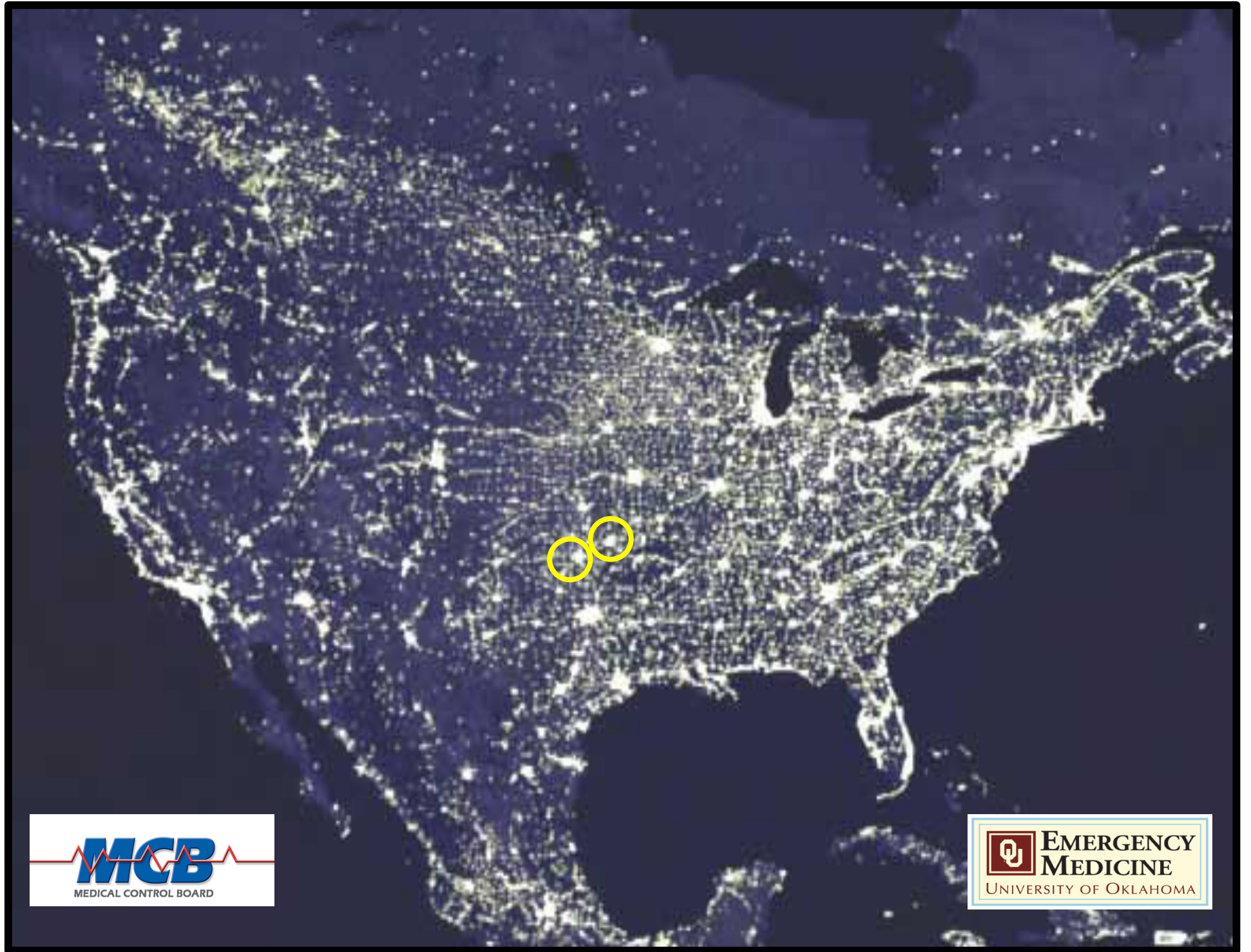


Getting a Head in Cycle Somatic Injuries OK(lahoma) Ways to Remove a Helmet

2010 EMS State of the Science Gathering of Eagles XII

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The Oklahoma City & Tulsa Metropolitan MCB Affiliated EMS System



1,100 square miles

Population

– 1.6 million day

– 1.25 million night

168,432 calls (2009)

124,695 transports (2009)

74% transports





We can do better than this...



EMS Removal of Helmets

“The Consensus”

“Leave in place” unless airway issue.

Let the “experts” in the hospital handle it.

EMS movement will damage the spinal cord.



JEMS July 2009



“Because the EMTs weren’t trained... unaware of dangers of removing a helmet... Fortunately in this case, the athletic trainers...safeguarded against more severe injury to the player.”

Further advice...

- “vital for providers to practice this protocol with a qualified individual, such as an athletic trainer.”



NAEMSP Text 2009



- Routine removal “controversial”
- PHTLS favors complete vs. facemask alone
- NATA guidelines
- No clear evidence for “best practice”
- Helmet/pads one unit
- Local standards

EMS Removal of Helmets

“The Reality Check”

Consensus makes fundamental leap of faith in establishing “expertise.”

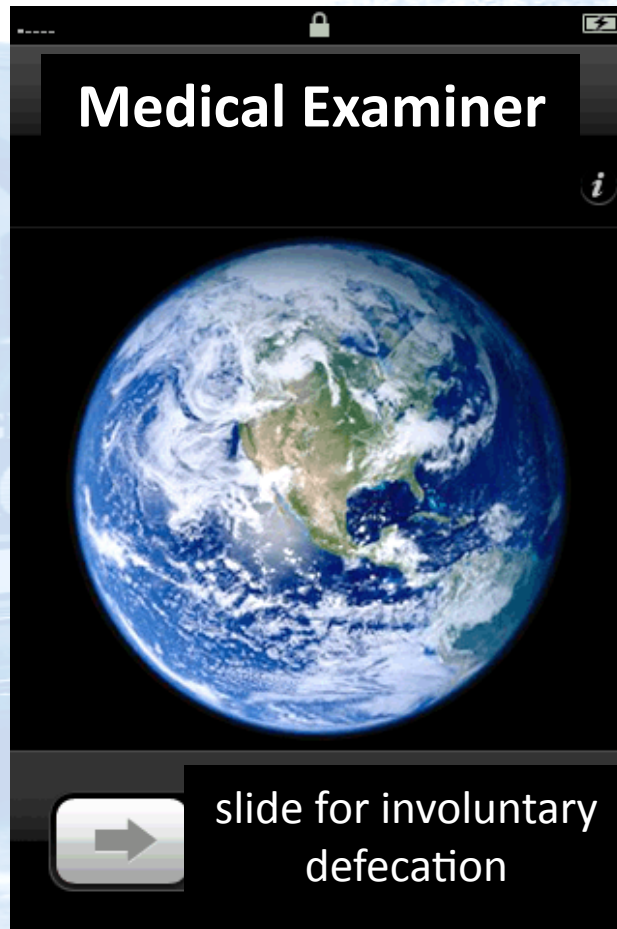
One “consensus” document begets another.

When the basis is wrong, then the consensus must be flawed.

Not a foregone conclusion...



Field removal of helmets will not incur daily calls such as these...



Primum Non Nocere

Sometimes it means doing something
different from the masses.



EMS Removal of Helmets

Oklahoma City & Tulsa Standard of Care

All helmets are removed by EMS on scene.

EBM review of removal tools.

J Athl Train. 2002 Apr-Jun; 37(2): 178-184.

Hands-on training for all EMS personnel.

MOTORCYCLE-STYLE HELMET REMOVAL PROCEDURE

Step 1: Apply manual stabilization by placing hands on each side of the helmet with fingers on the mandible.



Step 2: Second EMT unfastens any straps while stabilization is maintained.



Step 3: Second EMT stabilizes the mandible at the angles with one hand, thumb on one side, fingers on the other side.



Step 4: Second EMT stabilizes the occipital base with the other hand, manually stabilizing the head and neck.



Step 5: First EMT removes helmet, allowing second EMT to readjust hand position under the occipital base to prevent head tilt. During removal:

1. If the helmet provides full facial coverage, glasses must be removed first.
2. Helmets are egg-shaped and must be expanded laterally to clear the ears.
3. If the helmet provides full facial coverage, to clear the nose the helmet must be tilted **BACKWARD**. After nose clearance, tilt the helmet slightly forward, sliding it off.













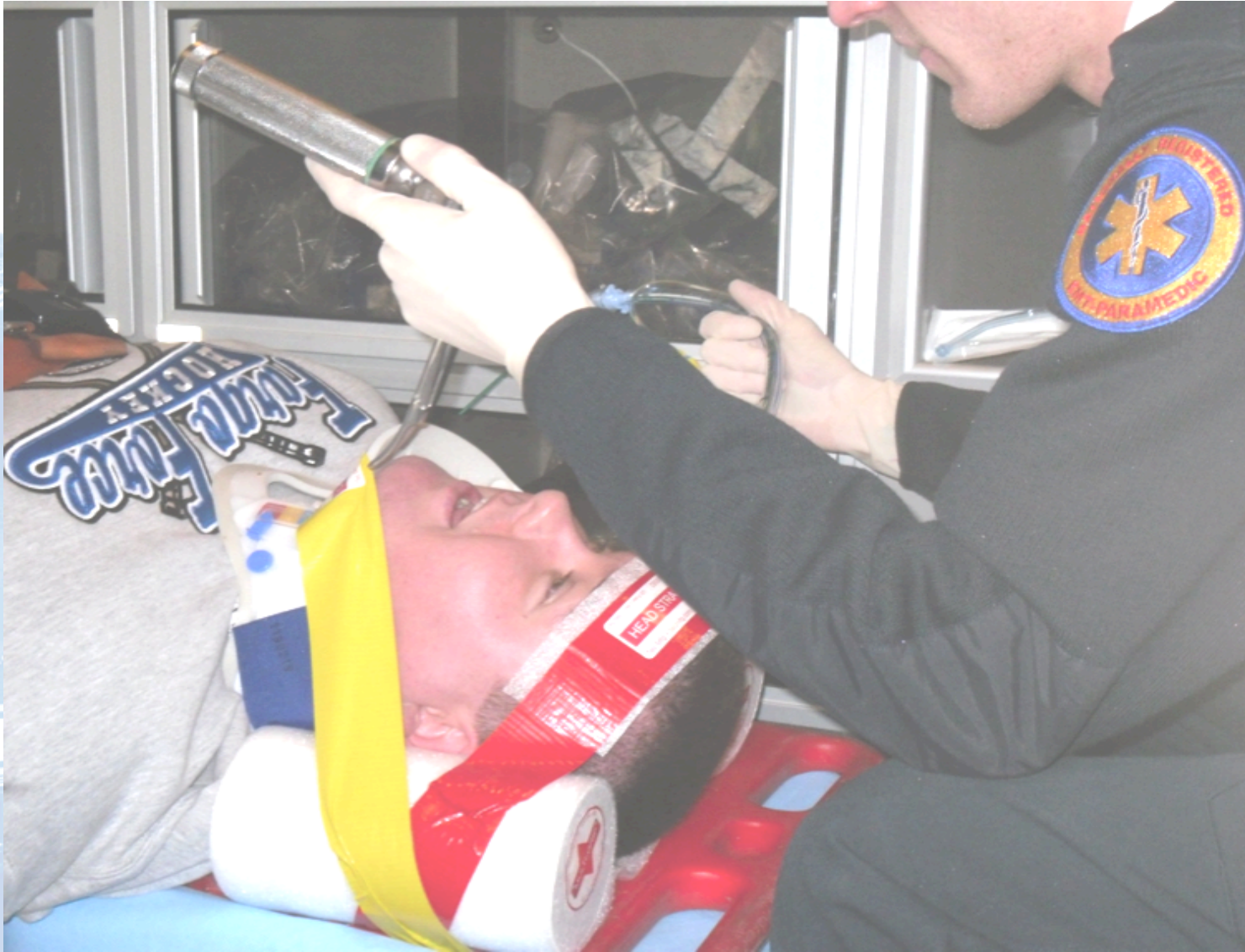


















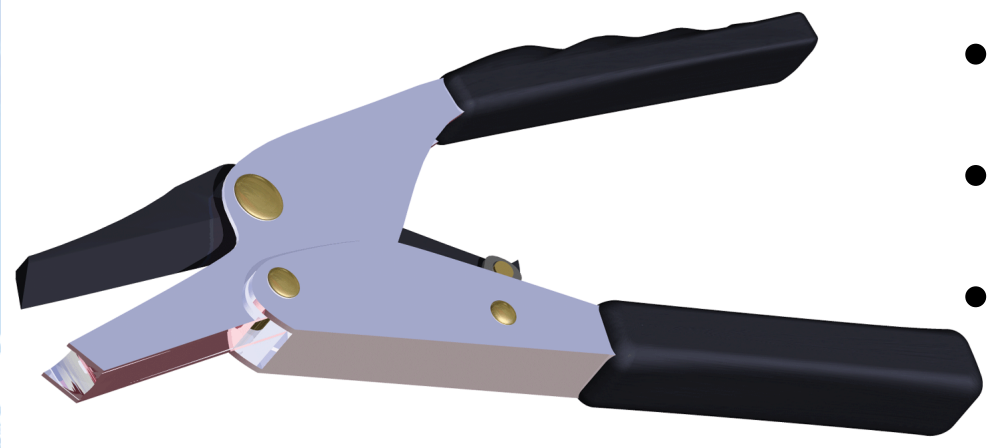






FM Extractor

- Fastest removal
 - 1 cut per fastener
- Preferred in studies
- Less movement
- May be necessary for pro helmets (Riddell)
- \$274 as of 2/23/10



Trainer's Angel



- Specifically for side fasteners
- 1-2 cuts per fastener
- Least preferred
- \$42.50

Anvil Pruners



- Close in efficiency to FM extractors for most helmets
- 1-2 cuts per fastener
- \$12-60

Trauma shears in helmet removal...

(but can be useful in pad removal)



Cordless Screwdrivers?









Don't forget about ear pads, filler pads, and air bladders.





Support in AP plane until pads are off!

















2010 EMS Safe Helmet Removal Summary

- EMTs are the immobilization experts
- Hands-on training (& retraining) is required
 - Use the actual equipment encountered
 - Use the right tools
 - Football – everyone should cut fasteners
- Clear protocol needed (pictorial heavy helps)
- Better spinal care and better patient access



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