Have MRSA on Me: 
The Growing Challenge of Resistant Bugs in Public Safety

S. Marshal Isaacs, MD, FACEP
Medical Director
Dallas Fire-Rescue Department

Professor of Surgery
UTSW
MRSA: Methicillin Resistant Staph Aureus

- A strain of staph that is resistant to the standard antibiotics used to treat this bacteria.
Is this an Impending Calamity?

In 2006, a pandemic AVIAN FLU was going to kill us all!!!

In 2007, it was MRSA!!!!
2007 Media Panic

MRSA is at epidemic proportions and turns healthy folks into zombies immediately upon infection!!!!!
How Will I Recognize MRSA???

By it’s appearance…..

Once you’ve seen MRSA, it’s easy to recognize…..
Which of our patients have MRSA??

Best to assume: all of them.
MRSA EPIDEMIC AT PHHS

* Surgical Intensive Care Unit
† SpecialCare Nursery
○ Chart review of all patients with MRSA + cultures. Patients counted only if MRSA acquired at PMH.
‡ This graph includes only hospital associated cases
<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th># + (%)</th>
<th>Epidemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-82</td>
<td>447</td>
<td>23 (5.1%)</td>
<td>SICU</td>
</tr>
<tr>
<td>1985</td>
<td>34</td>
<td>7 (20.6%)</td>
<td>Ped. Wards</td>
</tr>
<tr>
<td>1988-89</td>
<td>620</td>
<td>20 (3.2%)</td>
<td>SCN</td>
</tr>
<tr>
<td>1996</td>
<td>222</td>
<td>5 (2.3%)</td>
<td>BICU</td>
</tr>
<tr>
<td>Total</td>
<td>1323</td>
<td>55 (4.2%)</td>
<td></td>
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While there are no studies, does anyone think it doesn’t live here?
What is the Target Population of Those at risk of Acquiring MRSA?

- Kids
- Athletes
- Immunocompromised
- Diabetics
- Hospitalized patients
- Healthcare workers
- IVDU
- Paramedics, EMT’s and firefighters
- Those living together in close quarters
- Those attending EAGLES X
MRSA in Athletes

• Wrestling, rugby (forwards)
• Football risk factors (CID 2004; Vol. 39)
  – Player position (cornerbacks and wide receivers)
  – Turf burns
  – Body shaving
  – Sharing the whirlpool. Sharing unwashed bath towels, balms and lubricants.
• Bringing the epidemic to a close
  – Covering infected sites. Disinfecting the whirlpool. Use of dispensers of liquid soap with antibacterial properties.
MRSA In Professional Football Players (NEJM Vol. 352:468)

- 2003 St. Louis Rams. Eight MRSA infections among 5 of the 58 players
- Associated with turf-abrasion sites, lineman or linebacker positions and higher BMIs
- MSSA recovered from 35/84 nasal swabs, whirlpools and taping gel
- MRSA strains from the epidemic had typical antibiotic resistance patterns, carried the PVL and SCC mec type IVa genes and by PFGE typing belonged to clone USA300-0114
MRSA Decolonization

• Feasibility. Is it worthwhile to attempt?
• Five day regimen
  – Sulfadimethoxime 1 ds tab BID
  – Rifampin 300 mg BID
  – Mupirocin ointment daily to the anterior nasal vestibule
  – Daily baths with chlorhexidine
• Test 3 or more days after completion of regimen by culture of the anterior nasal vestibule
How do you treat MRSA in the Hospital?

Get rid of the offensive area???
In the Prehospital Setting

- Treat patients exactly as you treat them now!
- Always use universal precautions.
- Wash your hands or use sanitizing agent before AND after EACH & EVERY Patient.
- Treat all wounds as if they are infected with MRSA.
Something smells not right!

- What about the fire/EMS station???
- Is there MRSA in these stations???
- What habits/traditions should we change in the living quarters of these stations?
- How do we eliminate MRSA from these stations if an outbreak of MRSA were to occur?
Where Do We Go From Here?

- Don’t panic!
- Increase infection control efforts.
- Be vigilant about hand washing.
- Change some casual habits in the fire/EMS stations.
- Visit the Myclens booth
• Train, train, train…
• Studies have shown that the more we remind folks of the need for universal precautions and hand washing, the better our compliance will be.
The Safety Net for the US Healthcare System

In order to maintain the integrity of the safety net, we have to protect ourselves!
Just A Thought…

We work in an inherently dangerous environment!

Some risks are obvious.

Some are not!

Protect your patients, your staff and YOURSELF!!!

Thank you for your attention!