MRSA

Brian Labus, MPH
Southern Nevada Health District
November 15, 2007
There is currently an outbreak of MRSA-related media coverage.
What is MRSA?

Methicillin Resistant Staphylococcus Aureus
MRSA Carriage
Skin Infections
Skin Infections
Skin Infections
Skin Infections
Serious Infections
Recent Estimates

Recent Estimates

Nationwide in 2005:
94,360 invasive cases
18,650 deaths
Community vs. Hospital
## A Common Infection

### Countywide Antibiogram: Number of Isolates Tested and Susceptible Percentages of Selected Pathogens

(01JAN2005 to 31DEC2006)

<table>
<thead>
<tr>
<th>Gram Positive Organisms</th>
<th>Total Num. of Isolates</th>
<th>AMPICILLIN</th>
<th>CEPOTAXIME</th>
<th>CETRAXONE</th>
<th>CHLORAMPHENICOL</th>
<th>PROFLOXACIN</th>
<th>CLINDAMYCIN</th>
<th>ERYTHROMYCIN</th>
<th>GENTAMICIN</th>
<th>EVOFLOXACIN</th>
<th>LINEZOLID</th>
<th>NITROFURANTOIN</th>
<th>NORFLOXACIN</th>
<th>OXACILLIN</th>
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<tbody>
<tr>
<td><strong>Enterococcus faecalis</strong></td>
<td>4836</td>
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<td>--</td>
<td>--</td>
<td>98%</td>
<td>900%</td>
<td>900%</td>
<td>900%</td>
<td>86%</td>
<td>55%</td>
<td>900%</td>
<td>12%</td>
<td>900%</td>
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<td>330</td>
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<td>12%</td>
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<td>900%</td>
<td>57%</td>
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<tr>
<td><strong>Enterococcus faecium</strong></td>
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<td>382</td>
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<td>4%</td>
<td>96%</td>
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<tr>
<td><strong>Enterococcus spp.</strong></td>
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<td>4294</td>
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<td>900%</td>
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<td>900%</td>
<td>91%</td>
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<td>900%</td>
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<td>&lt;=10</td>
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<tr>
<td><strong>Staphylococcus aureus</strong></td>
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</tbody>
</table>

28,551 x 58% = 16,560
Tip of the Iceberg

Tested
(i.e. we know about)

Seek care but not tested

Never seek care
Is one case meaningful?

Las Vegas student diagnosed with staph

By ANTONIO PLANAS and ANNETTE WELLS

A Clark County School District student has been diagnosed with a drug resistant staph infection, prompting the district to send letters to parents today informing them of how to prevent the infection while also calming fears about its seriousness, a medical official with the district said Tuesday.

School system officials learned Monday that a student at Stewart School has been diagnosed with the skin infection known as MRSA, said Diana Taylor, director of health services for the district. Taylor did not know the condition or age of the student. Stewart, near Flamingo Road and Eastern Avenue, serves about 200 special education students.

Taylor did not know how, or where, the student became infected. As a preventive measure, custodians on Monday and Tuesday used disinfectants to clean areas of the school where the student had been. Taylor said the school wasn’t shut down and no additional students or staff at the school were infected.

Parents of nearly 300,000 district students will receive letters this afternoon informing them about Methicillin-resistant Staphylococcus aureus, which has been widely reported in recent months as being responsible for the deaths of a few students throughout the nation. It is sometimes referred to as a "superbug" because it is immune to common antibiotics and is being diagnosed in individuals who are considered healthy.

According to the Centers for Disease Control and Prevention, MRSA has been known to occur most frequently among patients who undergo invasive medical procedures or who have weakened immune systems and are being treated in a hospital.

MRSA caused more than 94,000 life-threatening infections and nearly 19,000 deaths in the United States in 2005, most of them connected with health care settings, according to the Oct. 17 edition of the Journal of the American Medical Association.

Taylor doesn’t want Clark County parents to be fearful because one student was diagnosed with the strain. She believes it’s the first time, however, that the district has alerted parents by letter about a case.
Staph infection worries close 21 Virginia schools

WASHINGTON (Reuters) - A county in southern Virginia closed its 21 schools on Wednesday to clean them to prevent the spread of a dangerous bacterial infection that killed a 17-year-old high school student, officials said.

The student died this week from a drug-resistant staph infection known as Methicillin-resistant Staphylococcus aureus, or MRSA, which has become a worrisome public health issue nationwide.

Schools in Bedford County were closed to allow officials to carry out a thorough cleaning in an effort to prevent infections, according to the Department of Education.
Transmission
Prevention
Questions?

"Relax - MRSA will get you before the Asian Flu"