

STOP **T**RANSMISSION
OF
MRSA **P**ERMANENTLY



September 6th and 7th

TURNER CONCOURSE

SESSION TIMES:

8-10 AM

1-3 PM

5-7 PM

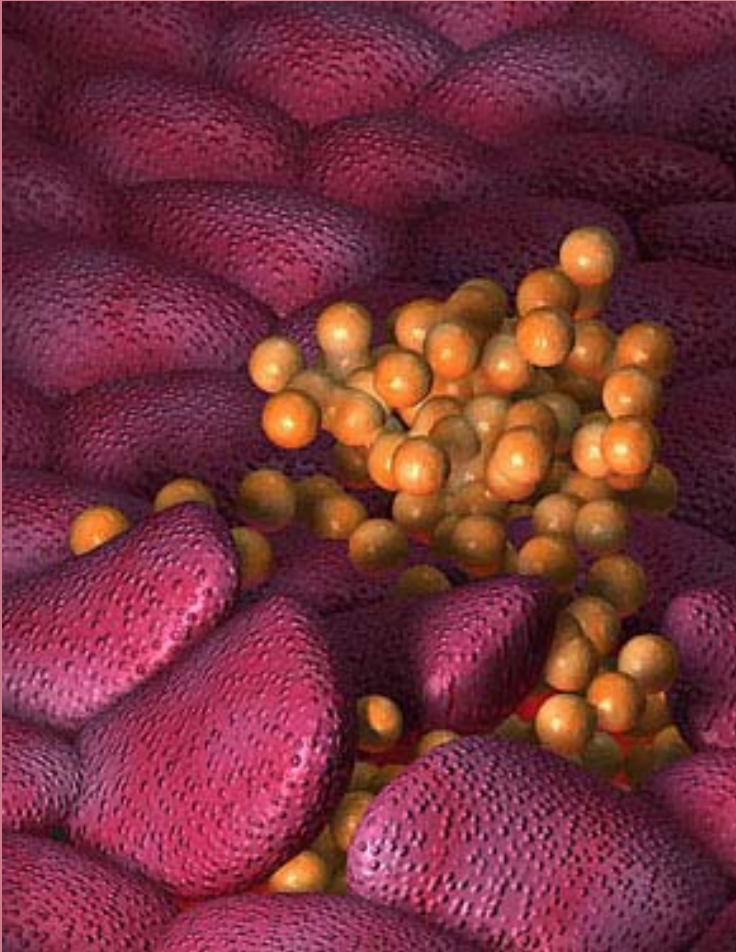
Positive Deviance

- **“Positive Deviants”**
 - People who employ special practices, strategies, or behaviors that allow them to find better solutions to problems than coworkers in the same situation.
- Emphasizes internal successes and builds on them, bringing newer and better systems and ideas to the rest of the hospital.
- Since 2002, hospitals adopting positive deviance have been able to decrease MRSA infection rates by 80%.

Positive Deviance at JHH

- JHH is one of only 6 sites chosen nationwide for experimental positive deviance intervention.
- HEIC will collect data on selected units in the hospital
 - Incidence of new MRSA infections
 - Compliance with isolation precautions
 - Compliance with hand hygiene.

MRSA



Methicillin-Resistant *Staphylococcus aureus*

A bacteria that can colonize healthy peoples' nose, throat, and skin without causing infection.

If the bacteria gets into the body (inhaled into the lungs or under the skin through a cut), it can cause a number of infections, such as pneumonia or boils.

Resistant to common antibiotics:

Penicillin

Methicillin

Oxacillin



How is MRSA spread?

- Because *S. aureus* lives on the skin, it is most commonly spread by direct skin-to-skin contact.
- It can also be spread by the sharing of personal items that come into contact with the skin (towels, razors, bed sheets, etc.).

A microscopic view of numerous red blood cells, appearing as reddish-brown, biconcave discs, filling the top portion of the slide. The cells are densely packed and overlap, creating a textured, cellular background.

How is MRSA spread?

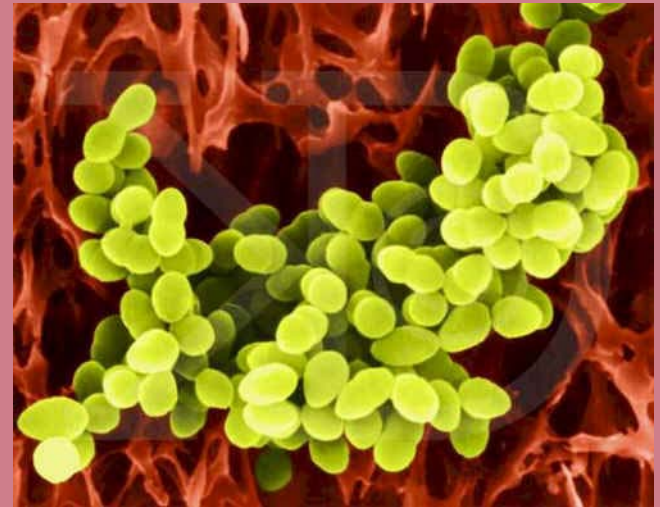
- **Less commonly, MRSA can be spread by touching surfaces (doorknobs, railings, tabletops) that have been contaminated.**

How is MRSA spread?

- Hospital staff who care for patients who are colonized or infected with MRSA can carry MRSA from these patients on their hands, even when wearing gloves, and transmit it to other patients.

Who can get MRSA?

- **Healthcare-associated MRSA**
 - *S. aureus* bacteria acquired from frequent contact with the healthcare system.
- **Community-acquired MRSA**
 - *S. aureus* bacteria acquired from outside of the healthcare system
 - Reported most commonly in persons having frequent skin-to-skin physical contact:
 - Homeless persons
 - Jailed inmates
 - Military recruits
 - Children in daycare
 - Competitive athletes



Who gets MRSA in the hospital?

- **MRSA infections are more common among patients with the following risk factors:**
 - Breaks/wounds in the skin (including surgical incisions)
 - Indwelling catheters
 - Burns
 - Recent antibiotic use
 - Immunocompromise
 - Contact with or being in close proximity to other patients with MRSA colonization or infection.
- **Healthcare workers** caring for these patients should observe contact precautions when coming into contact with patients or their personal items, such as bed sheets or dressings, to prevent themselves from becoming colonized or infected.

What are the symptoms?

- **MRSA most often presents in the form of skin and soft tissue infections, often as:**
 - Abscesses (swollen, red, painful, pus-filled pockets below the skin)
 - Cellulitis (inflammation of the skin)
 - Carbuncles (infection of multiple hair follicles, often resulting in an open sore)
 - Laceration infection (redness and swelling of pre-existing break in skin).
- **MRSA infections in the lungs, while less common, can cause:**
 - Shortness of breath, fever, chills.

What are the symptoms?

- MRSA also can cause blood, bone, or urinary tract infections.
- Patients may mistake early MRSA skin infections for spider bites.

How are MRSA infections diagnosed?

- Cultures from:
 - Area of skin infection/drainage
 - Blood, sputum, urine
- If cultures grow MRSA, they are tested to determine which antibiotics the bacteria can be treated with.
- Cultures from the nares, axilla, and perineum can be obtained to determine if a person is colonized with MRSA.



How is MRSA treated?



- **Initial treatment for skin infection**
 - Incision & drainage, and localized care
- **Antibiotic therapy for mild to moderate skin infections**
 - Trimethoprim/sulfamethoxazole
 - Clindamycin
 - Minocycline
- **Antibiotic therapy for serious infections**
 - Vancomycin
 - Linezolid (not for bacteremia)
 - Daptomycin
- **Therapy for decolonization**
 - Mupirocin ointment for nasal carriage
 - Chlorhexidine washes for skin colonization

How can MRSA transmission be prevented?

- **Hand hygiene:**
 - Alcohol gel
 - Soap and water
- **Contact precautions:**
 - Gown and glove use when treating patients or cleaning wounds
 - Careful disposal of dressings and other materials in direct contact with patient
 - Proper laundering of linens
- **Disinfecting surfaces in patient's room**



How can MRSA transmission be prevented?

- Cohorting/isolation of patients who are colonized or infected with MRSA.
- No sharing of personal items (especially in athletic settings).
- Active surveillance in high-risk populations.

MRSA Viability on Copper Alloys and Stainless Steel at 20°C (68°F)

