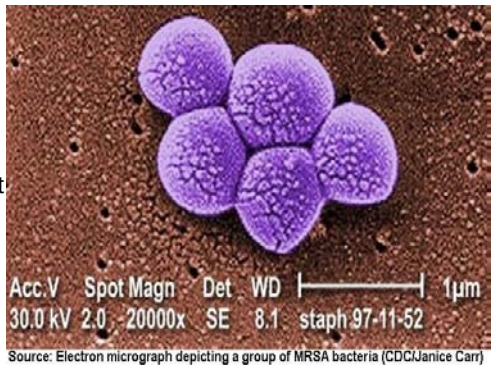
Dental Infection Control Update and MRSA (12/07)

The goals of the USAF Dental Service Infection-Control Program are to protect the health of all patients and dental health-care personnel (DHCP) and to comply with applicable federal, state, and local regulations governing infection control, job safety, and management of regulated medical waste. Although the dental infection control officer and/or dental noncommissioned officer are responsible for the overall management of the program, creating and maintaining a safe work environment ultimately requires the commitment and accountability of all DHCP.



Source: Electron micrograph depicting a group of MRSA bacteria (CDC/Janice Carr)

Occasionally, certain conditions receive media attention. Such is the case currently with methicillin-resistant *Staphylococcus aureus* (MRSA) which has been featured in the news and on television programs. MRSA is a type of bacteria that is resistant to certain antibiotics. This type of bacteria causes "staph" infections that are resistant to treatment with usual antibiotics.

MRSA occurs most frequently among patients who undergo invasive medical procedures or who have weakened immune systems and are being treated in hospitals and healthcare facilities such as nursing homes and dialysis centers. MRSA in health-care settings commonly causes serious and potentially life threatening infections, such as bloodstream infections, surgical site infections, or pneumonia. In addition to health-care associated infections, MRSA can also infect people in the community. Known as community-acquired MRSA these skin infections often occur in otherwise healthy people. These infections may look like pimples, boils, or spider bites and can be swollen, painful and have draining pus.

MRSA skin infections can occur anywhere in the community. Some settings, however, have factors that make it easier for MRSA to be transmitted. The Centers for Disease Control and Prevention (CDC) refers to these factors as the **5 C's**; **C**rowding, frequent skin-to-skin **C**ontact, **C**ompromised skin (i.e., cuts or abrasions), **C**ontaminated items and surfaces, and lack of **C**leanliness. Locations where the 5 C's are common include schools, dormitories, military barracks, households, correctional facilities, and daycare centers.

There have been no documented transmissions of MRSA in ambulatory health-care settings, including military facilities.[1] The main mode of transmission of MRSA in hospitals is via hands, especially health-care workers' hands. Therefore, as always, handwashing remains the single most important factor in preventing the spread of infection. Standard Precautions should control the spread of MRSA in most instances, including ambulatory care facilities.[1,2] In addition, the CDC recommends contact precautions when the facility (based on national or local regulations) deems the multidrug-resistant microorganism to be of special clinical and epidemiologic significance. [1,2]

Additional information on MRSA is available by visiting the CDC Web site http://www.cdc.gov/mrsa/index.html.

The area of dental infection control is constantly changing, and it is important that all DHCP have the most up-to-date information on policies and procedures to prevent work-related injuries and illnesses in health-care personnel as well as health-care-associated infections in patients. Dental infection-control programs should embody the principles of infection control and occupational health, reflect current science and adhere to relevant federal, state, and local regulations and statutes. Recent surveys of infection control practices in USAF dental clinics, including the 2007 survey, confirm that USAF dental clinics are following current infection-control policies, procedures, and practices.

References

1. Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. Guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings, 2007:1–219.
2. Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. Management of multidrug resistant organisms in healthcare settings, 2006:1–73.