Early identification and prompt, effective communication is critical for limiting the spread of MRSA throughout the VTH. All staff should be aware of the status of high-risk patients and potentially contaminated materials or environments. Infected or colonized patients should be isolated and restricted in their movement.

Please contact VTH Infection Control Personnel if you have any questions about these policies and procedures.

Quick Facts
- Refer to MRSA in sections V and VII of the Infection Control and Biosecurity SOP for more comprehensive information.
- Use “Special Attention Required” sticky notes to facilitate effective communication about MRSA cases within the VTH.
- Consider using the “Managing MRSA” client handout to help with nuanced client discussions about this agent.
- MRSA (Methicillin-resistant Staphylococcus aureus) is NOT the same organism as MRSP (Staph pseudintermedius).
- MRSA is zoonotic* and moderately contagious.
- MRSA is a common commensal bacteria and contaminant on skin surfaces.
- As a pathogen, Staph aureus is an opportunistic agent that is a common cause of skin and soft tissue infections in previously injured tissues (e.g. surgical sites and wounds).
- Transmission occurs almost exclusively through direct contact, including contact with colonized or infected individuals, contaminated bodily secretions such as pus, and contaminated objects or surfaces.
- Staph aureus is easily deactivated by soaps and disinfectants, and does not have extreme environmental persistence.

Identification of High-Risk Patients
Studies suggest that up to 30% of humans are colonized with Staph aureus, and an additional 1-3% are colonized with MRSA. Animals may also be colonized with MRSA but tend to decolonize fairly quickly. Infections are most likely to occur in previously colonized individuals and infected patients probably pose a higher transmission risk.

Clinicians should suspect MRSA infection if there is...
- Presence of a wound or infection that does not heal as expected, especially with prior antimicrobial treatment.
- History of MRSA colonization or infection in people or other animals with which the patient has contact.
- Frequent contact with healthcare workers, human patients, or hospital environments.

High-risk patients should not be allowed to remain in waiting rooms, hallways, treatment areas, or common use facilities (water treadmill, stocks, etc.). They should be moved as soon as possible to exam rooms or to isolation facilities where contact and potential contamination can be more easily controlled.

Procedures, Isolation, Barrier Precautions, and Patient Movement
- Hospitalized MRSA patients must be segregated to manage contact transmission. If discharge cannot be contained (i.e., draining wounds cannot be bandaged), patients must be housed in isolation.
- Disposable barrier nursing gowns and gloves are required.*
- Hand washing or use of hand sanitizers must be enforced after any contact with affected patients.
- Contaminated waste (e.g. bandages) should be double bagged and disposed of normally; it is not necessary to use special bags or autoclave these materials.
- Double bag and clearly label all contaminated equipment using “Special Attention Required” sticky notes before leaving at Central Supply for cleaning and disinfection.
- Exam rooms should be labeled “Special Attention Required” using sticky notes and clinicians must notify Animal Care and other cleaning personnel of areas that may be contaminated with MRSA. Appropriate disinfection of all contaminated equipment and surfaces is critical.
- Equine patients should be segregated within the main hospital population. Appropriate signage, barrier nursing precautions, and footbaths are required.

*Immune compromised people should always take greater precautions, as they are susceptible to infections that the general population is not.
Communication Within the VTH

And with Clients

- Whenever patients are identified as being colonized or infected with MRSA, or when they are considered to be high-risk suspects, an email notification must be sent to the “Alert” listserv, VTH-Contagious-Dz-Alert@colostate.edu.

- The veterinarian responsible for the patient’s care should personally communicate the situation to the supervising clinician, supervising nurse, head of Animal Care, and any students contacting the case regarding patient status, special cleaning requirements, and transmission risk.

- Use “Special Attention Required” sticky notes to facilitate effective communication to other VTH personnel.

- VTH policy requires client notification if an infection with zoonotic potential has been identified in their pet.

- Clients should be made aware of appropriate at-home measures to reduce the risk of transmission within their household.

- Consider using the “Managing MRSA” client handout to help ensure that discussions with clients about this agent are thorough and effective.

Culture of Suspected Cases

- Appropriate diagnostic testing is required for all patients that are suspected of being infected with MRSA, including non-healing wounds and surgical site infections. This includes outpatients that may be readmitted for follow-up care.

- Appropriate specimens should be taken from infection sites and the patient should be screened for colonization (swab samples of nares/upper respiratory tract and rectum/perineum).

- Culture to detect colonization in patients with known contact in the home environment may be appropriate.

- Request, “enriched MRSA cultures” on laboratory submission forms.

- Any Staph aureus isolate that is resistant to methicillin, cefoxitin, or ceftiofur should be considered MRSA.

- Other Methicillin-resistant Staph species: Coagulase positive species should be considered to have pathogenic potential. Coagulase negative species are generally not pathogenic in humans, but some can be opportunistic pathogens (e.g. Staph epidermidis).

Methicillin-resistance does not necessarily indicate that the strain is more infectious or pathogenic than other strains of Staph aureus.

Medical Management Of Confirmed MRSA Cases

- Resistance to cefoxitin or cetiofur is a marker for strains carrying genes that make them resistant to ALL beta-lactam antimicrobial drugs including potentiated penicillins, cephalosporins, and imipenem. Many strains of MRSA are also resistant to other drugs commonly used to treat infections, including tetracyclines, gentamicin, and enrofloxacin.

- MRSA should be considered resistant to all beta-lactam drugs regardless of in vitro susceptibility results indicating otherwise.

- Because MRSA is resistant to a broad spectrum of antimicrobial drugs, topical therapies should be employed whenever possible, including topical antiseptic therapies (e.g. chlorhexidine).

- In segregation, animals tend to decolonize MRSA. The VTH does not treat colonized animals with antibiotics to promote decolonization.

Culture of Previously Infected Cases for Colonization

- Two negative cultures, obtained one week apart, are required for all patients with a previous MRSA infection prior to reduction in infection control precautions in the VTH.

- Appropriate samples for colonization screening may be taken from nares/upper respiratory tract and rectum/perineum.

- Request, “enriched MRSA cultures” on laboratory submission forms.