

Methicillin-resistant Staphylococcus aureus (MRSA) PCR Nasal Swab Initiative

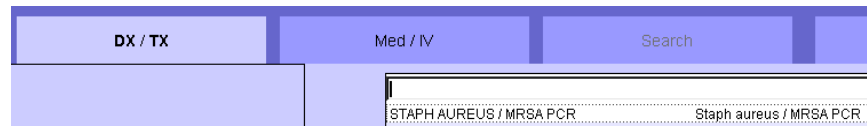
Background:

- Screening tool for colonization with MRSA and Staphylococcus aureus using PCR assay
- Used as a tool to aid physicians in deciding whether to de-escalate broad spectrum antibiotics to eliminate unnecessary MRSA coverage

Goals for usage at UConn Health:

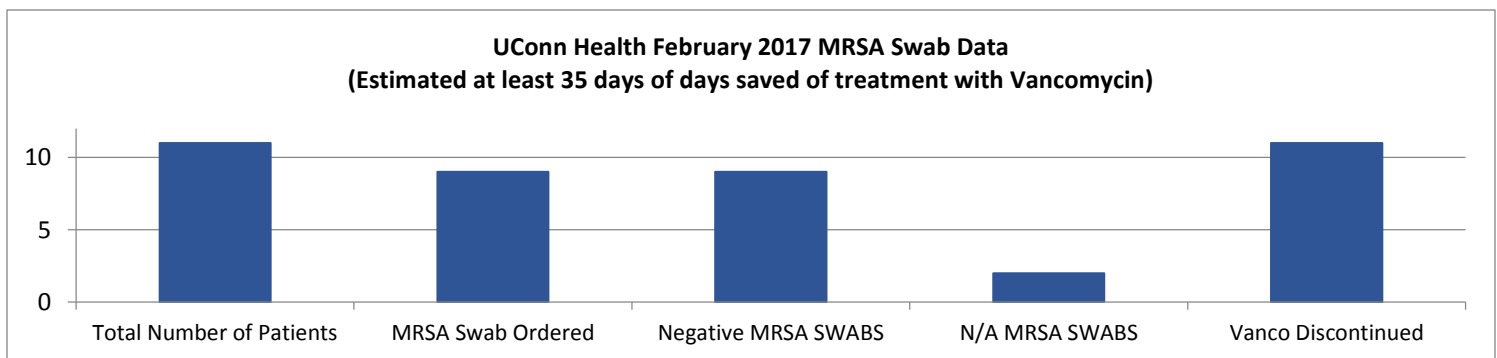
- Antibiotic Stewardship Program (ASP) to assess the Financial and Clinical effects of de-escalation
- Initiate MRSA PCR Nasal Swabs in the ED in patients with suspected MRSA Pneumonia
- Future implementation of MRSA PCR Nasal Swab into EPIC order sets

How the order appears in LCR (ordered as ONCE):



Considerations for MRSA PCR Swab:

- It is important to promptly collect the nasal swab in order to maximize impact on potential antibiotic de-escalation/discontinuation
- Inclusion for patients only with suspected pneumonia infection
- Exclusion for patients with prior history of MRSA colonization or infection
- Blood, excessive nasal secretions/mucus, decongestants and substances used to relieve nasal dryness or irritation may inhibit PCR and give unresolved results
- Negative results may occur from improper specimen collection, handling and storage, or because the number of organisms in the specimen is below the analytical sensitivity of the test.
- Results should be used as an adjunct to nosocomial infection control efforts to identify MRSA nasal carriers. This test is **not** intended to identify patients with staphylococcal infection



References:

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- Giancola, S. E., Nguyen, A. T., Le, B., Ahmed, O., Higgins, C., Sizemore, J. A., & Orwig, K. W. (2016). Clinical utility of a nasal swab methicillin-resistant Staphylococcus aureus polymerase chain reaction test in intensive and intermediate care unit patients with pneumonia. Diagnostic Microbiology and Infectious Disease, 86(3), 307-310.
- Johnson, J. (2015). Nasal Methicillin-Resistant Staphylococcus aureus Polymerase Chain Reaction: A Potential Use in Guiding Antibiotic Therapy for Pneumonia. The Permanente Journal, 34-36.
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- Management of Adults with Hospital-acquired and Ventilator-associated Pneumonia: 2016 Clinical Practice Guidelines by the Infectious Diseases Society of America and the American Thoracic Society.