Nasal MRSA PCR Protocol

I. RELATED DOCUMENTS:
   A. PCM: MRSA nasal screening culture collection
   B. Medication Monitoring: Pharmacist-Managed Intravenous (IV) Vancomycin Protocol

II. BACKGROUND/PURPOSE
   Purpose: To allow pharmacist ordering of nasal MRSA PCR in order to facilitate de-escalation of empiric antibiotic coverage of MRSA pneumonia.

   Treatment of pneumonia often lacks microbiological data to streamline empiric antibiotics. Lower respiratory tract cultures, while preferred, are often difficult to obtain. Additionally, poor-quality samples may not accurately reflect the primary pathogen. Data from both critically and non-critically ill patients show that nasal MRSA screening can be effective to guide de-escalation of vancomycin and linezolid.1-3 A negative nasal MRSA PCR result has a negative predictive value of >98% for MRSA pneumonia.3-7

III. POLICY
   SHC will utilize nasal MRSA PCR screening to guide de-escalation of unnecessary empiric coverage of MRSA pneumonia. Pharmacists will:
   1. Order nasal MRSA PCR for vancomycin or linezolid initiated empirically for suspected MRSA pneumonia
      A. Exclusions
         i. Existing nasal MRSA PCR test performed within last 7 days
            a. Confirmed MRSA in respiratory culture or nasal culture in the last 14 days (If nasal MRSA screen by culture is pending or negative, pharmacist should still order a nasal PCR. See FAQ on ASP intranet page)
            ii. CF patients and lung transplant post-op prophylaxis (due to service line preference)

IV. PROCEDURES
   A. Pharmacist Responsibility
      1. Order nasal MRSA screen by PCR for new Vancomycin-Per-Pharmacy or linezolid orders with indication stated as “pulmonary” (e.g. pneumonia)
         a. See above for exclusions (Part III.1.A)
         b. Orders will be entered using the “Per Protocol without cosign” mode
   B. Provider Responsibility
      1. Follow up on nasal MRSA PCR and de-escalate vancomycin or linezolid if negative and clinically appropriate
V. REFERENCES


VI. DOCUMENT INFORMATION:

A. Original Author/Date
   Lina Meng, Pharm.D., BCPS, BCCCP, 10/20/2017
   Samaneh Pourali, Pharm.D., BCPS, 10/20/2017
   Matt Hitchcock, MD 10/20/2017

B. Gatekeeper
   Pharmacy Department

C. Distribution
   This procedure is kept in the Pharmacy Policies and Procedure Manual

D. Review/Revision History:
   Janjri Desai, Pharm.D., BCPS 11/2017

E. Approvals
   Antibiotic Subcommittee: 11/16/2017, 7/25/2018
   Pharmacy and Therapeutics Committee: 12/2017

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