## Swab Collection Standardization for Patient Screening of Methicillin Resistant Staphylococcus aureus (MRSA) on Nasal Specimens

Effective February 1st, all MRSA testing offered at UnityPoint Health – Des Moines Laboratories will be collected using the Copan ESwab. Previously, MRSA PCR testing was

Welcome to *In the Loop*, the
newsletter from
UnityPoint Health –
Des Moines
Laboratories.

The purpose of this newsletter is to distribute valuable information to our service area, including new test availability, test updates regarding methodology, specimen collection, and normal values.

We may also include feature topics related to laboratory diagnostics and test utilization.

If you have suggestions for topics you would like to read about in the newsletter, please email <a href="Miniperly.VonAhsen@unitypoint.org">Kimberly.VonAhsen@unitypoint.org</a>

required to use a specialized swab. By validating the ESwab, it allows the laboratory to still perform either of the MRSA screening tests we offer. Previously, if the swab collected didn't match the test ordered the patient had to be recollected.



## Why is this change so important?

*S. aureus* is the major bacterial cause of skin, soft tissue and bone infections, and one of the most common causes of healthcare-associated infections. Hospital-associated methicillin-resistant *S. aureus* (MRSA) is associated with an increased risk of infection, morbidity and mortality. Screening of high-risk patients at the time of hospital admission and decolonization has proved to be an important factor in an effort to reduce nosocomial transmission. Per the CDC, studies show that about one in three (33%) people carry staph in their nose, usually without any illness. Two in 100 people carry MRSA.

Currently we offer the following tests for the screening of patients for MRSA.

MRSA by PCR [LAB2202]: Provides a qualitative result that MRSA was Detected or Not Detected within 1-2 hours of receipt in the laboratory.

**Culture, MRSA [LAB234]:** Provides a result of no growth or that there was growth of the MRSA bacteria within 24-48 hours of receipt in the laboratory. If MRSA bacteria is present, these bacteria colonies can be used to determine susceptibility to antibiotics.

In conjunction with this swab collection change, the screening of Intensive Care (ICU) patients will change from the MRSA Culture to MRSA by PCR [Policy: UPHDM126]. The PCR test is very accurate with a >90% sensitivity and specificity along with a decrease in time to result – available within 2 hours versus 2 days.

This change to PCR testing will allow:

- Providers to make more timely decisions about antibiotics
- Improve antibiotic stewardship and specifically reduce vancomycin use
- Decreased vancomycin toxicity and reduced treatments for associated complications, including acute kidney injury
- · Decreased cost of vancomycin monitoring and dosing

Changing the collection swab ensures that the laboratory can assist the Critical Care nursing staff with getting the Right Test done for the Patient Every Time.

## 2017 Year In Review

2010 2011 2012 2013

## Mislabeled and Unlabeled Laboratory Specimens





In the Loop (January 2018)