



# TECHNICAL NOTICE

## SOUTH BEND MEDICAL FOUNDATION

April 2010

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### Microbiology Annual Antibiogram Summary

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The summary of antimicrobial susceptibility information accumulated the previous year is published annually as an antibiogram summary report. The data used for the antibiogram report is aggregate data that includes isolates from outpatients, inpatients, and nursing homes in St. Joseph County and Elkhart County. Results for the most commonly isolated organisms are expressed as the percent susceptible for the number of patient isolates tested, in order to provide information to help guide empiric therapy choices for **initial** infections.

- Only the first isolate of a given species is counted per patient for the year, irrespective of body site.
- For statistical purposes, the unique medical record number or patient identification number defines a “patient”.
- The summary of susceptibility information on organisms tested for surveillance purposes is separated from the organisms routinely tested and is clearly labeled as such.

#### A. Most Commonly Isolated Organisms in 2009

##### • Non-Urine

MRSA (methicillin resistant *S. aureus*)  
*Staphylococcus aureus*, not MRSA  
*Enterococcus* sp.  
*Pseudomonas aeruginosa*  
*Escherichia coli*  
*Staphylococcus* coagulase negative  
*Proteus mirabilis*  
*Klebsiella pneumoniae*  
*Enterobacter cloacae*  
*Serratia marcescens*  
*Streptococcus pneumoniae*

##### • Urine

*Escherichia coli*  
*Enterococcus* sp.  
*Klebsiella pneumoniae*  
*Proteus mirabilis*  
*Pseudomonas aeruginosa*  
*Enterobacter cloacae*  
*Citrobacter freundii*  
*Klebsiella oxytoca*  
*Staphylococcus aureus*, not MRSA  
MRSA (methicillin resistant *S. aureus*)

#### B. Inducible clindamycin resistance

Due to the nature of this particular resistance mechanism, confirmatory testing is required and is performed simultaneously with the antimicrobial susceptibility test. To ensure a true susceptible result, clindamycin results may be delayed until the recommended incubation time for confirmation is completed. Resistant results do not require extended incubation.

#### C. Surveillance

Susceptibility information for the following significant pathogens is included as part of the annual surveillance, since routine susceptibility testing of patient isolates is usually not indicated:

1. Random isolates of *Bacteroides fragilis* group
2. *Salmonella* and *Shigella* isolates primarily of fecal origin over the past five years
3. Random isolates of Group B streptococcus species from vaginal/rectal sources

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**D. *Streptococcus pneumoniae***

The susceptibility data is based on sterile body sites only, primarily blood cultures. The interpretations of the minimum inhibitory concentration (MIC) for ceftriaxone and cefotaxime reflect the breakpoint for non-meningeal isolates, which are considered more susceptible to lower concentrations of ceftriaxone and cefotaxime.

Extended susceptibility testing is performed on isolates from other sources, when isolates are intermediate or resistant to penicillin by screening methods. The percentage of intermediate and resistant results for both oral and IV penicillin are included this year for *S. pneumoniae* from non-sterile sites.

**E. Methicillin (oxacillin) resistant *Staphylococcus aureus* (MRSA)**

MRSA is reported to the responsible physicians and infection control practitioners by phone, in addition to the written report.

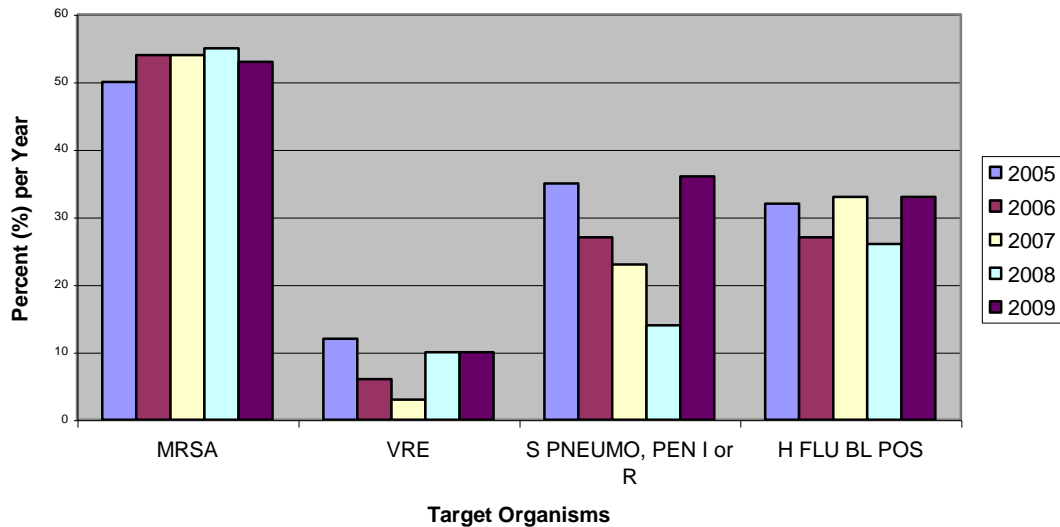
**F. Vancomycin resistant *Enterococcus* (VRE)**

Vancomycin intermediate or resistant *Enterococcus* (VRE) is reported to the responsible physician and infection control practitioner by phone, in addition to the written report. Species determination, e.g., *Enterococcus faecium*, *Enterococcus faecalis*, *Enterococcus not faecium* or *faecalis*, is reported by request only.

**G. Trends**

Cumulative results of the target organisms below do not take into account specific locations or patient groups:

- MRSA (methicillin resistant *S. aureus*)
- VRE (vancomycin intermediate or resistant *Enterococcus*)
- *Streptococcus pneumoniae*, penicillin intermediate or resistant
- *Haemophilus influenzae*, beta-lactamase positive



Additional copies of the pocket reference are available by contacting South Bend Medical Foundation Client Services. For additional information contact C. Kurtis Kim, M.D. (ckkim@sbfm.org), Mary G. Stepney (mstepney@sbfm.org), or Nan Boston (nboston@sbfm.org) at South Bend Medical Foundation, (574) 234-4176 or (800) 544-0925.