

SOUTH BEND MEDICAL FOUNDATION, INC.
SUSCEPTIBILITY PATTERNS OF COMMON ISOLATES
 January to December 2010

(%) Represents the percent susceptible

(-) Test not performed or antibiotic not indicated for organism

MOST COMMON NONURINE ISOLATES

ORGANISMS COUNTED First isolate per patient per year	MRSA ^{1,2}	<i>Staph aureus</i> , ² not MRSA	<i>Staphylococcus</i> coagulase neg	<i>Enterococcus</i> ^{3,4}	<i>Streptococcus</i> <i>pneumoniae</i> ^{5,6}	<i>Pseudomonas</i> <i>aeruginosa</i>	<i>Escherichia</i> <i>coli</i>	<i>Proteus</i> <i>mirabilis</i>	<i>Klebsiella</i> <i>pneumoniae</i>	<i>Enterobacter</i> <i>cloacae</i>	<i>Serratia</i> <i>marcescens</i>
No. of isolates (5733)	(1532)	(1611)	(379)	(570)	(78)	(607)	(598)	(213)	(194)	(171)	(87)
ANTIMICROBIALS	%	%	%	%	%	%	%	%	%	%	%
AMIKACIN	-	-	-	-	-	95	100	100	99	100	100
AMPICILLIN	-	-	-	90	-	-	57	-	91	-	-
AMP/SULBACTAM	-	-	-	-	-	-	69	90	94	-	-
CEFAZOLIN	-	100	40	-	-	-	88	96	94	-	-
CEFOTAXIME	-	-	-	-	100	-	-	-	-	-	-
CEFOTETAN	-	-	-	-	-	-	-	-	-	-	-
CEFOXITIN	-	-	-	-	-	-	-	-	-	-	-
CEFTAZIDIME	-	-	-	-	-	95	97	99	98	91	100
CEFTRIAXONE	-	-	-	-	99	-	97	99	98	91	100
CLINDAMYCIN	73	83	67	-	-	-	-	-	-	-	-
ERYTHROMYCIN	-	66	44	-	80	-	-	-	-	-	-
GENTAMICIN	-	-	-	-	-	90	94	99	95	99	100
LEVOFLOXACIN	58	91	59	-	100	82	81	98	71	99	99
METRONIDAZOLE	-	-	-	-	-	-	-	-	-	-	-
OXACILLIN	-	100	40	-	-	-	-	-	-	-	-
PENICILLIN	-	19	12	90	95	-	-	-	-	-	-
PIP/TAZOBACTAM	-	-	-	-	-	96	97	97	100	92	98
TETRACYCLINE	96	96	82	-	88	-	-	-	-	-	-
TOBRAMYCIN	-	-	-	-	-	97	94	99	96	99	99
TRIMETH/SULFA	98	99	72	-	90	-	84	96	78	95	99
VANCOMYCIN	100	100	100	93	100	-	-	-	-	-	-

**SURVEILLANCE
MONITORS**

<i>Salmonella</i> sp. ⁷	<i>Shigella</i> sp. ⁷	<i>B. fragilis</i> Grp ⁸
		(50)
-	-	%
-	-	-
82	-	-
-	-	85
-	-	-
-	-	38
-	-	71
-	-	-
-	-	-
-	-	35
-	-	-
94	100	-
-	-	100
-	-	-
-	-	-
-	-	35
-	-	-
97	50	-
-	-	-

1. 49% of all *Staphylococcus aureus* are MRSA.
2. 18% of MRSA and 15% of *Staphylococcus aureus* other than MRSA have inducible clindamycin resistance.
3. 7% of *Enterococcus* are VRE; 12% of VRE are ampicillin susceptible.
4. Synergy with penicillin and high levels of gentamicin or streptomycin is likely for 67% and 70% of *Enterococcus* respectively.
5. *Streptococcus pneumoniae* susceptibility data based on sterile body fluid isolates only, primarily of blood origin.
- 6a. Oral penicillin and *Streptococcus pneumoniae*: 60% of all from non-sterile sites are intermediate (39%) or resistant (21%)
- 6b. IV penicillin and *Streptococcus pneumoniae*: 12% of all from non-sterile sites are intermediate (11%) or resistant (1%)
7. *Salmonella* and *Shigella* susceptibility data based on cumulative isolates primarily of fecal origin
8. *Bacteroides fragilis* group susceptibility data based on 50 random patient isolates
9. 63% of Group B Streptococcus from vaginal/rectal sources are susceptible to clindamycin.
10. 33% of all patient isolates of *H. influenzae* are beta-lactamase positive



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Microbiology Department

Susceptibility Patterns
 Of Common Organisms

January-December 2010

Data primarily from the following counties:
 St. Joseph and Elkhart

Form 9720270 (3/11)

Routine Antimicrobial Reporting
Aerobic Organisms

SOUTH BEND MEDICAL FOUNDATION INC.
SUSCEPTIBILITY PATTERNS OF MOST COMMON URINE ISOLATES
January to December 2010

SUSCEPTIBILITY TESTING BY SOURCE GROUP

(%) Represents the percent susceptible

(-) Test not performed or antibiotic not indicated for organism

PATIENT LOCATION	ORGANISMS COUNTED First isolate per patient per year	<i>E. coli</i>	<i>Enterococcus</i>	<i>Klebsiella pneumoniae</i>	<i>Proteus mirabilis</i>	<i>Pseudomonas aeruginosa</i>	<i>Enterobacter cloacae</i>	<i>Citrobacter freundii</i>	<i>Klebsiella oxytoca</i>	MRSA	<i>Staph aureus</i> not MRSA
OP	No. of isolates	(3055)	(476)	(460)	(361)	(173)	(89)	(80)	(70)	(54)	(52)
OP	ANTIMICROBIALS	%	%	%	%	%	%	%	%	%	%
OP	AMPICILLIN	60	90	-	89	-	-	-	-	-	-
OP	AMP/SULBACTAM	70	-	93	96	-	-	-	77	-	-
OP	CEFAZOLIN	90	-	98	98	-	-	-	59	-	100
OP	LEVOFLOXACIN	85	66	98	69	67	97	95	97	-	67
OP	NITROFURANTOIN	95	91	29	-	-	33	89	71	98	100
OP	PENICILLIN	-	90	-	-	-	-	-	-	-	15
OP	TETRACYCLINE	-	28	-	-	-	-	-	-	87	85
OP	TRIMETH/SULFA	82	-	93	75	-	89	84	99	100	100
NH	No. of isolates	(355)	(124)	(80)	(162)	(60)	(14)	(21)	(8)	(18)	(9)
NH	AMPICILLIN^	40	75	-	78	-	-	-	-	-	-
NH	AMP/SULBACTAM	49	-	90	90	-	-	-	75	-	-
NH	CEFAZOLIN	81	-	96	90	-	-	-	75	-	100
NH	LEVOFLOXACIN	46	30	97	41	68	100	86	100	-	22
NH	NITROFURANTOIN	81	72	39	-	-	29	95	50	94	100
NH	PENICILLIN	-	74	-	-	-	-	-	-	-	22
NH	TETRACYCLINE	-	24	-	-	-	-	-	-	89	44
NH	TRIMETH/SULFA	72	-	94	70	-	100	90	100	100	100
IP	No. of isolates	(3470)	(561)	(531)	(305)	(192)	(107)	(59)	(78)	(59)	(76)
IP	AMPICILLIN	55	90	-	87	-	-	-	-	-	-
IP	AMP/SULBACTAM	67	-	93	95	-	-	-	78	-	-
IP	CEFAZOLIN	90	-	97	96	-	-	-	60	-	100
IP	LEVOFLOXACIN	86	65	98	69	76	99	90	100	-	86
IP	NITROFURANTOIN	94	89	34	-	-	29	86	64	98	99
IP	PENICILLIN	-	89	-	-	-	-	-	-	-	16
IP	TETRACYCLINE	-	24	-	-	-	-	-	-	93	89
IP	TRIMETH/SULFA	80	-	97	79	-	94	81	94	98	100

OP = Outpatients

NH= Nursing Homes

IP = Inpatients

14% of Nursing Home *Enterococcus* are VRE;

3% of all urine *E. coli* and 3% of all urine *K. pneumoniae* are extended beta-lactamase producers (ESBL)

Abscess (868)

MRSA (43%)

Staphylococcus aureus (24%)

Escherichia coli (9%)

Enterococcus sp. (7%)

Blood (986)

Escherichia coli (14%)

Staphylococcus coag neg (13%)

Streptococcus pneumoniae (11%)

Staphylococcus aureus (10%)

Streptococcus viridans group (8%)

MRSA (6%)

Lower Respiratory (1184)

Pseudomonas aeruginosa (22%)

Streptococcus pneumoniae (16%)

MRSA (13%)

Staphylococcus aureus (11%)

Wound/skin (3405)

MRSA (25%)

Staphylococcus aureus (23%)

Enterococcus sp. (12%)

Pseudomonas aeruginosa (6%)

Escherichia coli (6%)

Urine (16299)

Escherichia coli (53%)

Enterococcus sp. (11%)

Klebsiella pneumoniae (9%)

Proteus mirabilis (8%)

Pseudomonas aeruginosa (4%)

GRAM-NEGATIVE	PRIMARY	SECONDARY (when resistant to primary)
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Enterobacteriaceae (non-urine)
ampicillin
amp/sulbactam
cefazolin
levofloxacin
gentamicin
pip/tazobactam
tobramycin
trimeth/sulfa
cefotetan/cefoxitin
or ceftazidime
Report amikacin, if tobramycin is resistant.
Report imipenem and/or meropenem, if only one primary or secondary drug is susceptible.

Enterobacteriaceae (Urine)
ampicillin
amp/sulbactam
cefazolin
levofloxacin
gentamicin
nitrofurantoin
tobramycin
trimeth/sulfa
ceftazidime
Report imipenem and/or meropenem, if only one primary or secondary drug is susceptible.

Pseudomonas sp. (All sites)
ceftazidime
levofloxacin
gentamicin
tobramycin
pip/tazobactam
trimeth/sulfa
amikacin
Report imipenem and/or meropenem, if only one primary or secondary drug is susceptible.

Salmonella sp./ Shigella sp.
ampicillin
levofloxacin
trimeth/sulfa
Report chloramphenicol on request only.
MIC information for stool isolates on request only.

Haemophilus influenzae
Predictably susceptible to :
ampicillin (Beta-lactamase negative)
cefotaxime
ceftriaxone
cefuroxime
tetracycline

MIC information for isolates from normally sterile body sites on request only.
MIC information for Beta-lactamase positive isolates from other sites on request only.

Isolates saved for additional susceptibility testing if indicated for the following sources:

Blood cultures	One month from date of final report
CSF	One month from date of final report
Nonurine	One week from date of final report
Urine	One week from date of final report

GRAM-POSITIVE	PRIMARY
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Enterococcus sp.
ampicillin
penicillin
Report vancomycin on isolates from normally sterile sites and from other sites when ampicillin and penicillin are both resistant.
Report vancomycin whenever vancomycin is resistant.
Report gentamicin and streptomycin synergy results on CSF and blood isolates only.
Report nitrofurantoin and tetracycline on urines.

Staphylococcus sp.
cefazolin
clindamycin^
oxacillin
penicillin
vancomycin
tetracycline
trimeth/sulfa
^Isolates routinely screened for inducible clindamycin resistance.
Report tetracycline and trimeth/sulfa if MRSA
Report rifampin if MRSA on request only.
Report levofloxacin on request only.
Test and report daptomycin on request only.

Streptococcus pneumoniae
Sterile body sites
ceftriaxone
penicillin
Nonsterile sites
ceftriaxone
erythromycin
penicillin
tetracycline
trimeth/sulfa
Report vancomycin, whenever isolate is resistant to both penicillin and ceftriaxone.
Report levofloxacin on request only.

Streptococcus sp.
Sterile body sites
ceftriaxone
erythromycin
penicillin
vancomycin
Nonsterile sites*
All Beta-hemolytic streptococci predictably susceptible to penicillin.
*Susceptibility testing performed on request only.

Group B
Streptococcus (Vagina/rectum)
clindamycin
erythromycin
penicillin
MIC information on request only if patient is both pregnant and allergic to penicillin.
Cefazolin information predictable based on penicillin.
Vancomycin reported on request only.