

SOUTH BEND MEDICAL FOUNDATION, INC.
SUSCEPTIBILITY PATTERNS OF COMMON ISOLATES
 January to December 2009

(%) 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> ^{5,6} <i>pneumoniae</i>	<i>Pseudomonas</i> <i>aeruginosa</i>	<i>Escherichia</i> <i>coli</i>	<i>Klebsiella</i> <i>pneumoniae</i>	<i>Proteus</i> <i>mirabilis</i>	<i>Enterobacter</i> <i>cloacae</i>	<i>Serratia</i> <i>marcescens</i>
No. of isolates (5733)	(1615)	(1453)	(353)	(527)	(85)	(529)	(520)	(201)	(197)	(162)	(89)
ANTIMICROBIALS	%	%	%	%	%	%	%	%	%	%	
AMIKACIN	-	-	-	-	-	96	100	100	100	100	100
AMPICILLIN	-	-	-	89	-	-	51	-	90	-	-
AMP/SULBACTAM	-	-	-	-	-	-	63	88	95	-	-
CEFAZOLIN	-	100	38	-	-	-	91	95	93	-	-
CEFOTAXIME	-	-	-	-	100	-	-	-	-	-	-
CEFOTETAN	-	-	-	-	-	-	99	100	100	-	100
CEFOXITIN	-	-	-	-	-	-	-	-	-	-	-
CEFTAZIDIME	-	-	-	-	-	93	98	97	97	94	100
CEFTRIAXONE	-	-	-	-	100	-	98	98	96	94	100
CLINDAMYCIN	77	84	64	-	-	-	-	-	-	-	-
ERYTHROMYCIN	-	69	37	-	82	-	-	-	-	-	-
GENTAMICIN	-	-	-	-	-	96	94	100	96	99	100
LEVOFLOXACIN	61	92	61	-	98	88	82	94	75	100	98
METRONIDAZOLE	-	-	-	-	-	-	-	-	-	-	-
OXACILLIN	-	100	38	-	-	-	-	-	-	-	-
PENICILLIN	-	16	12	88	96	-	-	-	-	-	-
PIP/TAZOBACTAM	-	-	-	-	-	98	97	96	100	96	100
TETRACYCLINE	95	97	85	-	90	-	-	-	-	-	-
TOBRAMYCIN	-	-	-	-	-	96	94	99	97	99	99
TRIMETH/SULFA	98	99	72	-	91	-	78	96	86	99	99
VANCOMYCIN	100	100	100	90	100	-	-	-	-	-	-

**SURVEILLANCE
MONITORS**

<i>Salmonella</i> sp. ⁷	<i>Shigella</i> sp. ⁷	<i>B. fragilis</i> Grp ⁸
(43)	(8)	(30)
%	%	%
-	-	-
82	-	-
-	-	100
-	-	-
-	-	-
-	-	81
-	-	97
-	-	-
-	-	-
100	100	-
-	-	100
-	-	-
-	-	-
100	50	-
-	-	-

- 53% of all *Staphylococcus aureus* are MRSA.
- 13% of MRSA and 13% of *Staphylococcus aureus* other than MRSA have inducible clindamycin resistance.
- 10% of *Enterococcus* are VRE; 10% of VRE are ampicillin susceptible.
- Synergy with penicillin and high levels of gentamicin or streptomycin is likely for 87% and 79% of *Enterococcus* respectively.
- Streptococcus pneumoniae* susceptibility data based on sterile body fluid isolates only, primarily of blood origin.
- Oral penicillin and *Streptococcus pneumoniae*: 36% of all from non-sterile sites are intermediate (22%) or resistant (13%) and
- IV penicillin and *Streptococcus pneumoniae*: 10% of all from non-sterile sites are intermediate (9%) or resistant (1%)
- Salmonella* and *Shigella* susceptibility databased on cumulative isolates primarily of fecal origin
- Bacteroides fragilis* group susceptibility data based on 30 random patient isolates
- 65% of Group B Streptococcus from vaginal/rectal sources are susceptible to clindamycin.
- 33% of all patient isolates of *H. influenzae* are beta-lactamase positive



530 North Lafayette Boulevard
 South Bend, IN 46601-1098

(574) 234-4176

Microbiology Department

Susceptibility Patterns
 Of Common Organisms

January-December 2009

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

Form 9720270 (3/10)

SOUTH BEND MEDICAL FOUNDATION INC.
SUSCEPTIBILITY PATTERNS OF MOST COMMON URINE ISOLATES
January to December 2009

(%) 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>	<i>Staph aureus not MRSA</i>	MRSA
OP	No. of isolates (5088)	(3183)	(505)	(483)	(348)	(185)	(92)	(83)	(82)	(64)	(63)
OP	ANTIMICROBIALS	%	%	%	%	%	%	%	%	%	%
OP	AMPICILLIN	59	94	-	82	-	-	-	-	-	-
OP	AMP/SULBACTAM	70	-	93	92	-	-	-	80	-	-
OP	CEFAZOLIN	93	-	98	96	-	-	-	71	100	-
OP	LEVOFLOXACIN	86	69	99	69	83	98	93	96	77	-
OP	NITROFURANTOIN	95	92	28	-	-	25	86	77	100	95
OP	PENICILLIN	-	93	-	-	-	-	-	-	31	-
OP	TETRACYCLINE	-	28	-	-	-	-	-	-	92	89
OP	TRIMETH/SULFA	81	-	94	74	-	90	87	95	100	98
NH	No. of isolates (936)	(394)	(182)^	(74)	(150)	(63)	-	-	-	-	-
NH	AMPICILLIN^	43	79	-	84	-	-	-	-	-	-
NH	AMP/SULBACTAM	52	-	92	95	-	-	-	-	-	-
NH	CEFAZOLIN	86	-	95	94	-	-	-	-	-	-
NH	LEVOFLOXACIN	49	30	99	52	74	-	-	-	-	-
NH	NITROFURANTOIN	84	82	37	-	-	-	-	-	-	-
NH	PENICILLIN	-	77	-	-	-	-	-	-	-	-
NH	TETRACYCLINE	-	31	-	-	-	-	-	-	-	-
NH	TRIMETH/SULFA	66	-	86	73	-	-	-	-	-	-
IP	No. of isolates (5460)	(3365)	(636)	(575)	(352)	(191)	(80)	(59)	(81)	(67)	(54)
IP	AMPICILLIN	57	89	-	88	-	-	-	-	-	-
IP	AMP/SULBACTAM	67	-	92	94	-	-	-	83	-	-
IP	CEFAZOLIN	92	-	96	95	-	-	-	65	99	-
IP	LEVOFLOXACIN	87	63	99	72	81	97	93	97	76	-
IP	NITROFURANTOIN	95	89	32	-	-	32	90	62	97	98
IP	PENICILLIN	-	88	-	-	-	-	-	-	18	-
IP	TETRACYCLINE	-	25	-	-	-	-	-	-	93	94
IP	TRIMETH/SULFA	81	-	96	85	-	91	92	100	100	100

OP = Outpatients

NH= Nursing Homes

IP = Inpatients

^ 16% of Nursing Home *Enterococcus* are VRE; 29% of VRE are ampicillin susceptible

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

SUSCEPTIBILITY TESTING BY SOURCE GROUP

Abscess (1127)

MRSA (52%)

Staphylococcus aureus (22%)

Escherichia coli (7%)

Enterococcus sp. (5%)

Blood (963)

Staphylococcus coag neg (17%)

Escherichia coli (16%)

Staphylococcus aureus (11%)

Streptococcus pneumoniae (8%)

Streptococcus viridans group (8%)

MRSA (6%)

Lower Respiratory (1114)

Pseudomonas aeruginosa (23%)

Staphylococcus aureus (15%)

MRSA (12%)

Streptococcus pneumoniae (10%)

Wound/skin (3405)

MRSA (25%)

Staphylococcus aureus (23%)

Enterococcus sp. (12%)

Pseudomonas aeruginosa (6%)

Escherichia coli (6%)

Urine (12279)

Escherichia coli (57%)

Enterococcus sp. (11%)

Klebsiella pneumoniae (9%)

GRAM-NEGATIVE	PRIMARY	SECONDARY (when resistant to primary)	GRAM-POSITIVE	PRIMARY
<i>Enterobacteriaceae</i> (non-urine)	ampicillin amp/sulbactam cefazolin levofloxacin gentamicin pip/tazobactam tobramycin trimeth/sulfa	cefotetan/cefoxitin or ceftazidime	<i>Enterococcus sp.</i>	ampicillin penicillin
	Report amikacin, if tobramycin is resistant. Report imipenem and/or meropenem, if only one primary or secondary drug is susceptible.			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.
<i>Enterobacteriaceae</i> (Urine)	ampicillin amp/sulbactam cefazolin levofloxacin gentamicin nitrofurantoin tobramycin trimeth/sulfa	ceftazidime	<i>Staphylococcus sp.</i>	cefazolin clindamycin^ oxacillin penicillin vancomycin
	Report imipenem and/or meropenem, if only one primary or secondary drug is susceptible.			^Isolates routinely screened for inducible clindamycin resistance. Report tetracycline, trimeth/sulfa if MRSA Report rifampin if MRSA on request only. Report levofloxacin on request only. Test and report daptomycin on request only.
<i>Pseudomonas sp.</i> (All sites)	ceftazidime levofloxacin gentamicin tobramycin pip/tazobactam trimeth/sulfa	amikacin	<i>Streptococcus pneumoniae</i>	Sterile body sites ceftriaxone penicillin
	Report imipenem and/or meropenem, if only one primary or secondary drug is susceptible.			Nonsterile sites ceftriaxone erythromycin penicillin tetracycline trimeth/sulfa
<i>Salmonella sp./ Shigella sp.</i>	ampicillin levofloxacin trimeth/sulfa			Report vancomycin, whenever isolate is resistant to both penicillin and ceftriaxone. Report levofloxacin on request only.
	Report chloramphenicol on request only. MIC information for stool isolates on request only.		<i>Streptococcus sp.</i>	Sterile body sites ceftriaxone chloramphenicol erythromycin penicillin vancomycin
<i>Haemophilus influenzae</i>	Predictably susceptible to : ampicillin (Beta-lactamase negative) cefotaxime ceftriaxone cefuroxime tetracycline			All Beta-hemolytic streptococci predictably susceptible to penicillin. *Susceptibility testing performed on request only.
	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.		Group B <i>Streptococcus</i> (Vagina/rectum)	clindamycin erythromycin penicillin
	Isolates saved for additional susceptibility testing if indicated for the following sources: Blood cultures CSF Nonurine Urine	One month from date of final report One month from date of final report One week from date of final report One week from date of final report		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.