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Antimicrobial Susceptibility Profile
Department of Clinical Pathology
Microbiology Division
Wesley Healthcare

For data collected in
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Wesley Medical Center All Sites		GRAM-NEGATIVE AEROBES (percent susceptible)											
	Total Isolates	Ampicillin	Ampicillin/Sulbactam	Piperacillin/Tazobactam	Cefazolin ²	Ceftriaxone	Cefepime ³	Meropenem	Ciprofloxacin ⁴	Gentamicin	Tobramycin	Trimethoprim/ Sulfamethoxazole	Nitrofurantoin ⁵
MIC breakpoint (mg/L) ¹		≤8	≤8	≤16	≤2	≤1	≤2	≤1	≤1	≤4	≤4	≤2/38	≤32
<i>Enterobacter aerogenes</i>	35			71			97	97	100	100	100	100	
<i>Enterobacter cloacae</i>	76			78			95	96	92	95	93	93	
<i>Escherichia coli</i>	652	49	58	95	85	88	90	100	73	91	90	73	96
<i>Klebsiella oxytoca</i>	35		54	80	71	86	91	100	91	100	100	94	91
<i>Klebsiella pneumoniae</i>	195		83	92	92	93	93	99	96	94	94	93	51
<i>Proteus mirabilis</i>	100	56	68	100	57	57	57	100	59	72	73	62	
<i>Pseudomonas aeruginosa</i>	216			91			93	93	83	94	100		
<i>Serratia marcescens</i>	25					96	100	100	96	96	96	96	
<i>Stenotrophomonas maltophilia</i>	21											86	

Note: Gray areas include <30% susceptible, antibiotics that are not tested OR antibiotics that should not be used. Duplicate isolates have been excluded. Vitek II[®] was used for susceptibility testing.

¹Breakpoints based off of 2016 CLSI standards. ²Cefazolin breakpoint is ≤16 for *E. coli*, *K. pneumoniae* or *P. mirabilis* from a urine culture. ³Cefepime breakpoint for *Pseudomonas* is ≤8. ⁴Ciprofloxacin is the preferred fluoroquinolone for gram negative coverage. ⁵Only for use in urinary tract infections.

Wesley Medical Center All Sites		GRAM-POSITIVE AEROBES (percent susceptible)									
	Total Isolates	Oxacillin	Penicillin G	Ampicillin	Vancomycin ²	Clindamycin	Tetracycline ³	Gentamicin (for synergy only)	Trimethoprim/ Sulfamethoxazole	Nitrofurantoin ⁴	
MIC breakpoint (mg/L) ¹		≤2	≤8	≤8	≤4	≤0.5	≤4	≤500	≤2/38	≤32	
Coagulase-negative staphylococcus	112	27			100	49	80		47	100	
<i>Staphylococcus aureus</i>	597	60			99	68	95		97		
Methicillin sensitive <i>S. aureus</i>	358	100			99	76	95		99		
Methicillin resistant <i>S. aureus</i>	296				100	55	94		95		
<i>Enterococcus faecalis</i>	160		97	99	99			71		98	
<i>Enterococcus faecium</i>	32				41			88			

Note: Gray areas include <30% susceptible, antibiotics that are not tested OR antibiotics that should not be used. Duplicate isolates have been excluded. Vitek II[®] was used for susceptibility testing.

¹Breakpoints based off of 2016 CLSI standards. ²Vancomycin breakpoint for *Staphylococcus aureus* is ≤2. ³Organisms susceptible to tetracycline are also considered susceptible to minocycline/doxycycline. ⁴Only for use in urinary tract infections.

Wesley Healthcare Resistance Rates	
<i>Escherichia coli</i>	6% Extended Spectrum Beta-Lactamase Producing (ESBL)
<i>Klebsiella pneumoniae</i>	5% ESBL
<i>Staphylococcus aureus</i>	49% MRSA
<i>Enterococcus species</i>	10.5% VRE

Wesley Medical Center Adult ICUs		Total Isolates	Ampicillin	Ampicillin/ Sulbactam	Piperacillin/ Tazobactam	Cefazolin ¹	Ceftriaxone	Cefepime ²	Meropenem	Ciprofloxacin ³	Gentamicin	TMP/SMX	Nitrofurantoin ⁴
GRAM-NEGATIVE AEROBES (percent susceptible)													
MIC breakpoint (mg/L)			≤8	≤8	≤16	≤2	≤1	≤2	≤1	≤1	≤4	≤2/38	≤32
Enterobacter cloacae													
All ICUs		22			77			91	95	91	95	95	
Escherichia coli													
MICU		100	40	57	95	80	86	88	100	64	90	69	92
CCU		55	45	56	95	82	82	87	100	78	91	76	95
SICU		49	59	61	94	90	92	98	100	78	96	80	98
Klebsiella pneumoniae													
MICU		28		79	86	86	86	86	96	89	86	96	43
CCU		30		100	100	100	100	100	100	100	100	100	40
SICU		24		88	96	100	100	100	100	100	100	96	58
Proteus mirabilis													
All ICUs		43	56	63	100	58	58	58	100	53	74	60	
Pseudomonas aeruginosa													
MICU		35			91			100	94	86	97		
CCU		30			92			90	90	77	87		
SICU		21			100			100	100	95	100		

Note: Gray areas include <30% susceptible, antibiotics that are not tested OR antibiotics that should not be used. Duplicate isolates have been excluded. Vitek II® was used for susceptibility testing.
¹Cefazolin breakpoint is ≤16 for *E. coli*, *K. pneumoniae* or *P. mirabilis* from a urine culture. ²Cefepime breakpoint for *Pseudomonas* is ≤8.
³Ciprofloxacin is the preferred fluoroquinolone for gram negative coverage. ⁴Only for use in urinary tract infections.

Wesley Medical Center Adult ICUs		Total Isolates	Oxacillin	Penicillin G	Ampicillin	Vancomycin ¹	Clindamycin	Tetracycline ²	Gentamicin (<i>synJergy only</i>)	TMP/SMX	Nitrofurantoin ³
GRAM-POSITIVE AEROBES (percent susceptible)											
MIC breakpoint (mg/L)			≤2	≤8	≤8	≤4	≤0.5	≤4	≤500	≤2/38	≤32
Coagulase-negative staphylococcus		40	23			100	48	100		50	
Staphylococcus aureus		181	59			98	65	95		98	
Enterococcus faecalis		36		100	100	97			74		97
Enterococcus faecium		17				35			94		

Note: Gray areas include <30% susceptible, antibiotics that are not tested OR antibiotics that should not be used. Duplicate isolates have been excluded. Vitek II® was used for susceptibility testing.
¹Vancomycin breakpoint for *Staphylococcus aureus* is ≤ 2. ²Organisms susceptible to tetracycline are also considered susceptible to minocycline/doxycycline. ³Only for use in urinary tract infections.

Wesley Medical Center Pediatrics		Total Isolates	Oxacillin	Penicillin G	Ampicillin	Vancomycin	Clindamycin	Tetracycline ¹	TMP/SMX
GRAM-POSITIVE AEROBES (percent susceptible)									
MIC breakpoint (mg/L)			≤2	≤8	≤8	≤2	≤0.5	≤2	≤2/38
Staphylococcus aureus		456	53			99	75	97	97
Methicillin sensitive S. aureus (all pts <18 yo)		242	100			99	79	96	97
Methicillin sensitive S. aureus (PICU, Peds tower)		31	100			100	81	100	100
Methicillin resistant S. aureus (all pts <18 yo)		215				100	72	98	98
Methicillin resistant S. aureus (PICU, Peds tower)		13				100	92	100	100

Note: Gray areas include <30% susceptible, antibiotics that are not tested OR antibiotics that should not be used. Duplicate isolates have been excluded. Vitek II® was used for susceptibility testing.
²Organisms susceptible to tetracycline are also considered susceptible to minocycline/doxycycline.

Wesley Woodlawn All Sites		GRAM-NEGATIVE AEROBES (percent susceptible)												
	Total Isolates	Ampicillin	Ampicillin/Sulbactam	Piperacillin/Tazobactam	Cefazolin ²	Ceftriaxone	Cefepime ³	Meropenem	Ciprofloxacin ⁴	Gentamicin	Tobramycin	Trimethoprim/ Sulfamethoxazole	Nitrofurantoin ⁵	
MIC breakpoint (mg/L) ¹		≤8	≤8	≤16	≤2	≤1	≤2	≤1	≤1	≤4	≤4	≤2/38	≤32	
<i>Escherichia coli</i>	236	52	59	96	90	94	94	100	78	89	91	72	94	
<i>Klebsiella pneumoniae</i>	44		84	91	93	95	98	100	86	98	91	89	48	
<i>Proteus mirabilis</i>	27	59	78	100	63	63	63	100	67	85	85	59		
<i>Pseudomonas aeruginosa</i>	38			91			89	84	84	95	100			

Note: Gray areas include <30% susceptible, antibiotics that are not tested OR antibiotics that should not be used. Duplicate isolates have been excluded. Vitek II® was used for susceptibility testing.
¹Breakpoints based off of 2016 CLSI standards. ²Cefazolin breakpoint is ≤16 for *E. coli*, *K. pneumoniae* or *P. mirabilis* from a urine culture.
³Cefepime breakpoint for *Pseudomonas* is ≤8. ⁴Ciprofloxacin is the preferred fluoroquinolone for gram negative coverage. ⁵Only for use in urinary tract infections.

Wesley Woodlawn All Sites		GRAM-POSITIVE AEROBES (percent susceptible)									
	Total Isolates	Oxacillin	Penicillin G	Ampicillin	Vancomycin ²	Clindamycin	Tetracycline ³	Gentamicin (for synergy only)	Trimethoprim/ Sulfamethoxazole	Nitrofurantoin ⁴	
MIC breakpoint (mg/L) ¹		≤2	≤8	≤8	≤4	≤0.5	≤4	≤500	≤2/38	≤32	
<i>Staphylococcus aureus</i>	133	44			98	71	92		97		
Methicillin sensitive <i>S. aureus</i>	57	100			98	74	91		100		
Methicillin resistant <i>S. aureus</i>	76				97	68	92		95		
<i>Enterococcus faecalis</i>	29		93	93	100			55		100	

Note: Gray areas include <30% susceptible, antibiotics that are not tested OR antibiotics that should not be used. Duplicate isolates have been excluded. Vitek II® was used for susceptibility testing.
¹Breakpoints based off of 2016 CLSI standards. ² Vancomycin breakpoint for *Staphylococcus aureus* is ≤ 2.
³Organisms susceptible to tetracycline are also considered susceptible to minocycline/doxycycline. ⁴Only for use in urinary tract infections.

Wesley Healthcare Resistance Rates	
<i>Escherichia coli</i>	6% Extended Spectrum Beta-Lactamase Producing (ESBL)
<i>Klebsiella pneumoniae</i>	5% ESBL
<i>Staphylococcus aureus</i>	49% MRSA
<i>Enterococcus</i> species	10.5% VRE

Wesley Healthcare Streptococcus pneumoniae (percent susceptible)	Total Isolates	Penicillin G (meningitis)	Penicillin G (non-meningitis) Considered sensitive to PO PCN	Penicillin G (non-meningitis) Considered sensitive to IV PCN / PO Ampicillin	Ceftriaxone (meningitis) ²	Ceftriaxone (non-meningitis)	Vancomycin ²	Erythromycin ³	Trimethoprim/ Sulfamethoxazole	Levofloxacin
MIC breakpoint (mg/L) ¹		≤0.06	≤0.06	≤2	≤0.5	≤1	≤1	≤0.5	≤2/38	≤2
Streptococcus pneumoniae	94	60	60	98	96	100	100	43	78	98

Note: Gray areas include <30% susceptible, antibiotics that are not tested OR antibiotics that should not be used. Duplicate isolates have been excluded. Vitek II® was used for susceptibility testing.
¹Breakpoints based off of 2016 CLSI standards. ²Empiric antibiotics for bacterial meningitis should always include vancomycin.
³Organisms susceptible to erythromycin are also considered susceptible to azithromycin/clarithromycin.

Wesley Healthcare All Sites				
Pseudomonas aeruginosa Respiratory Isolates (percent susceptible)	As Monotherapy	Plus Ciprofloxacin	Plus Gentamicin	Plus Tobramycin
Primary Antibiotic				
Piperacillin/Tazobactam	85	95	100	100
Cefepime	95	98	98	100
Meropenem	97	98	100	100

Wesley Healthcare Beta-Lactamase Production		
	Total Isolates	% Beta-Lactamase Producing
Haemophilus influenzae	108	25
Moraxella catarrhalis	25	88

Wesley Healthcare Candida species	Blood Isolates % of total (n = 38)	Urine Isolates % of Total (n=113)	Preferred Agent
Candida albicans	26	81	Fluconazole
Candida glabrata ¹	29	13	Micafungin
Candida lipolytica	0	0	Micafungin
Candida krusei	0	0	Micafungin
Candida lusitanae	0	1	Fluconazole
Candida parapsilosis ²	42	1	Fluconazole
Candida tropicalis	0	3	Fluconazole
Candida keyfr	3	1	Micafungin
Overall All Sites:		Albicans: 74%	Non- Albicans: 26%

Note: Duplicate isolates not included.
¹Candida glabrata is generally not susceptible to fluconazole.
²Candida parapsilosis usually has higher MIC's to echinocandins like micafungin.