

Methodist Hospital 2019 Guide to Antimicrobial Therapy



Gram Positives										Gram Negatives										
<i>Staphylococcus aureus</i> (780)	<i>Staphylococcus aureus</i> MSSA (506)	<i>Staphylococcus aureus</i> MRSA (274)	coag negative <i>Staphylococcus</i> species (2-46)	<i>Enterococcus</i> sp. (609)	<i>Streptococcus viridans</i> (30)	<i>Streptococcus anginosus</i> (46)	<i>Acinetobacter pneumoniae</i> (49)	<i>Citrobacter baumannii</i> complex (***)	<i>Citrobacter freundii</i> (83)	<i>Citrobacter koseri</i> (82)	<i>Enterobacter cloacae</i> (161)	<i>Escherichia coli</i> (4546)	<i>Haemophilus influenzae</i> (38)	<i>Klebsiella (Enterobacter) aerogenes</i> (112)	<i>Klebsiella oxytoca</i> (150)	<i>Klebsiella pneumoniae</i> (769)	<i>Proteus mirabilis</i> (383)	<i>Pseudomonas aeruginosa</i> (346)	<i>Serratia marcescens</i> (53)	<i>Stenotrophomonas maltophilia</i> (***)

Antimicrobial agent	Percent Susceptible																				
BETA-LACTAMS																					
Penicillins																					
ampicillin					95							61	74						90		
ampicillin/sulbactam									93		64				37	87	95				
oxacillin (nafcillin) ^a	65	100	0	44																	
penicillin G			0			80	96	97													
penicillin G (meningitis)								88													
piperacillin/tazobactam									89	100	87	98		84	95	97	100	88	98		
Cephalosporins																					
cefazolin										94		90			60	95	81				
cefotaxime										96		95			95	95	98				
ceftriaxone [†]					100	100	100		84	100	81	96	100	85	95	97	98			98	
ceftriaxone (meningitis) [†]								100													
cefepime								88	100	100	96	97		96	96	98	99	91	100		
ceftazidime								79											92		
Carbapenems																					
meropenem									94	100	100	100	100	100	100	100	100		89	100	
[†] Ceftriaxone also predicts the sensitivity to cefotaxime																					
AMINOGLYCOSIDES																					
amikacin										100		100	100		100	100	100	100	100		
gentamicin								79	96	100	98	94		99	98	98	93	97	100		
gentamicin high level					85																
tobramycin								94	99		98	94		99	98	98	92	99			
QUINOLONES																					
levofloxacin	67	84	35	64	**71	100	100	100	82	99	96	94	88		99	99	99	81	79	100	76
MISCELLANEOUS																					
clindamycin	75	76	71	48			83	80													
erythromycin	50	69	15	34																51	
trimeth/sulfa	96	97	95						92	98	96	80	57	99	95	93	87			100	
vancomycin	100	100	100	100	96	100	100	100													
nitrofurantoin**	100	100	100	99					91	47	23	98		17	88	38					
tetracycline	94	96	92	84	28			86													

**Denotes urinary isolates only

Empty box means agent not tested

^aOxacillin resistance may be overcalled in some CoNS other than *S. epidermidis*

¥¥ Indicates organism groups with <30 isolates tested in 2018. Data is a composite of multiple years.

MD Care Sets in Cerner

- Cellulitis
- *Clostridium difficile* infection
- OB- Group B strep prophylaxis
- Pneumonia, community acquired
- Pneumonia, hospital acquired
- Severe sepsis/Septic shock bundle

Restricted Antimicrobials

- Ceftaroline (Teflaro) ID
- Daptomycin (Cubicin) ID
- Ertapenem (Invez) ID/Pulm/Intensivists/Colorectal Surgery Prophylaxis
- Fidaxomicin (Dificid) ID/GI
- Linezolid (Zyvox) ID/HCAP
- Micafungin (Mycamine) ID
- Meropenem (Merrem) ID/Pulm/Intensivists
- Quinupristin/Dalfopristin (Synercid) ID
- Valganciclovir (Valcyte) ID

NMH Preferred Antimicrobial Therapy for Specific Pathogens

Gram Positive Organisms				Gram Negative Organisms			
Organism	Syndrome	Preferred	Alternative	Organism	Syndrome	Preferred	Alternative
<i>Staphylococcus aureus</i> , methicillin susceptible (MSSA)	Skin infection	Dicloxacillin PO	Cefadroxil PO, or Cephalexin PO, or Amox-clavulanate PO	<i>Escherichia coli</i>	UTI (Cystitis)	Levofloxacin PO or TMP-SMX PO	Nitrofurantoin PO (if CrCl \geq 30mL/min)
	Serious infection*	Nafcillin IV	Cefazolin IV Clindamycin IV		Serious infection*	Ceftriaxone IV	Cefazolin IV or Cefoxitin IV or Levofloxacin or Piperacillin / tazobactam IV
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA)	Skin infection	Vancomycin IV	Doxycycline PO or TMP-SMX PO	<i>Klebsiella pneumoniae</i>	UTI (Cystitis)	TMP-SMX PO	Levofloxacin
	Serious infection*	Vancomycin IV	*Consider IDConsult		Serious infection*	Ceftriaxone IV or Levofloxacin	Cefazolin IV
Coagulase negative staphylococcus	Serious infection*	Vancomycin IV	*Consider IDConsult	<i>Proteus mirabilis</i>	UTI (Cystitis)	Amoxicillin PO	TMP-SMX PO or Levofloxacin PO
<i>Streptococcus pyogenes</i> (Group A beta hemolytic strep)	Pharyngitis	Penicillin V PO	Amoxicillin PO or Azithromycin PO or Clindamycin PO	<i>Serratia marcescens</i> or <i>Enterobacter</i> sp. or <i>Citrobacter freundii</i>	UTI (Cystitis)	TMP-SMX PO or Levofloxacin	Ceftriaxone IV
	Serious infection*	Penicillin G IV	Cefazolin IV or Clindamycin IV		Serious infection*	Ceftriaxone IV or Meropenem IV	Levofloxacin
<i>Streptococcus agalactiae</i> (Group B beta hemolytic strep)	Serious infection*	Penicillin G IV or Ampicillin IV	Cefazolin IV or Clindamycin IV	<i>Pseudomonas aeruginosa</i>	UTI (Cystitis)	Levofloxacin PO	*Consider ID Consult
					Serious infection*	Piperacillin / tazobactam IV	Meropenem IV or Levofloxacin IV or cefepime
OB/GYN: See Group B set in Cerner				<i>Acinetobacter baumannii</i> complex	*Consider ID Consult	Meropenem IV	*Consider ID Consult
<i>Streptococcus pneumoniae</i>	Serious infection*	Ceftriaxone IV or Vancomycin IV	Levofloxacin IV or Clindamycin IV	*Serious infection = e.g. bacteremia, pneumonia, meningitis. Consider ID consult for serious infection.			
<i>Enterococcus</i> species	Urinary tract (cystitis)	Amoxicillin PO	Nitrofurantoin PO (if CrCl \geq 30mL/min)				
	Endocarditis*	Ampicillin IV + Gentamicin IV	*Consider IDConsult				

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