

Inpatient & Outpatients Jan 2018- Dec 2019 Susceptibilities shown in % susceptible	Class↓	Aminoglycosides (AMG)	Penicillins			Cephalosporins (generation)	Furanes	Glycopeptide	Lincosamide	Oxazolidinone	Fluoroquinolones	Tetracyclines	Sulfonamide
			Number of Organisms	Gentamicin synergy	Ampicillin								
Susceptibility Breakpoints			≤ 8	*	**	≤ 8	≤ 32	***	****	*****	≤ 2	≤ 4	≤ 40
Approx. drug cost/day ‡		§	\$\$\$\$	\$\$\$\$\$	\$\$\$	§	§	§	§	\$\$\$	§	\$\$	§
<i>Enterococcus faecalis</i>	362	74	98	98		98	97			100		28	
<i>Enterococcus faecium</i>	37	72	13	13		25	48			100	19	14	
MRSA	414						100	63				81	92
MSSA	500				100	100			79			93	97
<i>Coag Neg Staphylococcus</i>	397				51	52			99	57		84	79
<i>Streptococcus agalactiae (GBS)</i>	334		100	99		100		100	38		95		
<i>Streptococcus pneumoniae</i>	22!			75					85		100	86	
<i>Streptococcus pyogenes (GAS)</i>	27!		100	100				100	66		96		

Using this Antibiogram: This data represents susceptibility rates in this geographical area. Use this information to choose EMPIRIC therapy that has expected coverage against suspected bacteria.

Legend

SMX/TMP: Trimethoprim/Sulfamethoxazole

PIP/TAZO: Piperacillin/Tazobactam

Black: Antibiotic is NOT expected to cover this bacteria, should NOT be used to treat this bacteria or was NOT tested

!: Interpret with caution due to low organism count

Inpatient & Outpatients Jan 2018- Dec 2019 Susceptibilities shown in % susceptible	Class↓	Aminoglycosides (AMG)			Penicillins			Cephalosporins (generation)				Carbapenems	Furanes	Fluoroquinolones		Sulfonamide
		Number of Organisms	Amikacin	Gentamicin	Tobramycin	Ampicillin	Ampicillin/ Sulbactam	Pip/Tazo	Cefazolin (1st)	Cefoxitin (2nd)	Ceftriaxone (3rd)			Cefepime (4th)	Meropenem	
Susceptibility Breakpoints		≤ 16	≤ 4	≤ 4	≤ 8	≤ 8	*****	≤ 8	≤ 8	≤ 8	≤ 8	≤ 4	≤ 32	≤ 1	≤ 2	≤ 40
Approx. drug cost/day ‡		§	§	§	\$\$\$\$\$	\$\$	\$\$	§	§	§	§	§	§	§	§	§
<i>Acinetobacter baumannii</i>	34		91			91						85		78	82	
<i>Citrobacter koseri</i>	31		100				100					100		100	100	96
<i>Citrobacter freundii</i>	96		93				84					97	86	89	88	84
<i>Enterobacter aerogenes</i>	81		95				87					100	17	97	96	97
<i>Enterobacter cloacae complex</i>	190		95				90					97	31	94	94	86
<i>Escherichia coli</i>	3046	99	94	31	55	63	97	89	89	94		99	95	80	80	80
<i>Klebsiella pneumoniae</i>	612		98			88	97	93	94	* 96		99		95	95	91
<i>Klebsiella oxytoca</i>	141		98			63	98	61	98	99		100	82	97	97	95
<i>Morganella morganii</i>	55		81				90					98		69	70	64
<i>Proteus mirabilis</i>	402	100	92	34	64	75	91	76	79	83		97		60	61	69
<i>Pseudomonas aeruginosa</i>	323		92	80			99				93	96		84	79	
<i>Serratia marcescens</i>	48		95									95		100	97	95
<i>Stenotrophomonas maltophilia</i>	24!													79	70	

154 E.coli and 23 Klebsiella isolates were ESBL+

‡: hospital cost based on severe disease in 70kg patient without renal impairment or monitoring

§: \$0.01-19.99

\$\$: \$20 - \$49.99 per day

\$\$\$: \$50 - \$74.99 per day

\$\$\$\$: \$75 - \$99.99 per day

\$\$\$\$\$: \$100 - \$250 per day

*: *S. pneumo meningitis*: ≤ 0.0625, *pneumonia*: ≤ 2, Other: ≤ 0.125

** : ≤ 0.25 except *Staph* ≤ 2

***: *S. aureus* ≤ 2, *Strep* ≤ 1, Other ≤ 4

****: *Staph* ≤ 0.5, *Strep* ≤ 0.25

*****: *Staph* ≤ 4, Other ≤ 2

*****: ≤ 16 except *Pseudo* ≤ 64

GENERAL		
PROCEDURE	RECOMMENDED	ALTERNATE IF ALLERGIC
Appendectomy for uncomplicated appendicitis	cefotaxime or cefazolin + metronidazole	clindamycin + AMG or aztreonam or FQ OR metronidazole + AMG or FQ
Biliary tract	cefazolin or cefotaxime or ceftriaxone (if infected)	clindamycin or vancomycin + AMG or aztreonam or FQ OR metronidazole + AMG or FQ
Cardiac device insertion (pacer)	cefazolin	clindamycin or vancomycin
Colorectal	cefazolin + metronidazole OR ceftriaxone + metronidazole	clindamycin + AMG aztreonam or FQ OR metronidazole + AMG or FQ
Gastrointestinal	cefazolin	clindamycin or vancomycin + AMG or aztreonam or FQ
HEAD & NECK		
CLEAN	NONE	NONE
Clean with prosthesis (excludes tympanostomy tubes)	cefazolin or cefotaxime	clindamycin
Clean-contaminated (except tonsillectomy and functional endoscopic sinus procedures)	cefazolin or cefotaxime + metronidazole	clindamycin
Hernia Repair - clean	cefazolin	clindamycin or vancomycin
C-Section	cefazolin	clindamycin + AMG
Hysterectomy (vaginal or abdominal)	cefazolin or cefotaxime	clindamycin + AMG or aztreonam or FQ OR metronidazole + AMG or FQ
Ophthalmic	neomycin/ polymyxin/ B-gramicidin or moxifloxacin or gatifloxacin	
ORTHOPEDIC		
CLEAN W/O IMPLANT	NONE	NONE
Hip fracture, implant of internal fixation device, or total joint replacement	cefazolin	clindamycin or vancomycin
PLASTICS		
CLEAN	NONE	NON
Clean with risk factors or clean-contaminated	cefazolin	clindamycin or vancomycin
SMALL INTESTINES		
Non-obstructed	cefazolin	clindamycin + AMG or aztreonam or FQ
Hip fracture, implant of internal fixation device, or total joint replacement	cefazolin + metronidazole OR cefotaxime	metronidazole + AMG or FQ
UROLOGIC		
Lower tract instrumentation with risk factors (includes transrectal prostate biopsy)	FQ or TMP/SMX or cefazolin	AMG +/- clindamycin
Clean w/o entry into tract	cefazolin	clindamycin or vancomycin
...with implanted prosthesis	cefazolin +/- AMG or aztreonam	clindamycin or vancomycin +/- AMG or aztreonam
Clean w/ entry into tract	cefazolin	FQ OR AMG +/- clindamycin
Clean-contaminated	cefazolin + metronidazole OR cefotaxime	FQ OR AMG + metronidazole or clindamycin
Vascular	cefazolin	clindamycin or vancomycin

Bacterial Endocarditis Prophylaxis

Recent guidelines from the American Heart Association and American College of Cardiology are suggesting antimicrobial prophylaxis only for patients having underlying cardiac conditions associated with the highest risk of adverse outcome from infective endocarditis:

- Prosthetic heart valve
- History of endocarditis

Congenital Heart Disease:

- Un-repaired cyanotic CHD, including palliative shunts or conduits
- Completely repaired congenital heart defect with prosthetic material or device during the first six months after the procedure
- Repaired CHD with residual effects at the site or adjacent to the site of a prosthetic patch or device
- Cardiac transplant recipients with cardiac valvular disease.

Treatment: 30-60 minutes pre-procedure (pediatric doses in parentheses) Dental, Oral, Respiratory Tract or Esophageal procedures**

- Amoxicillin 2 g PO (50mg/kg)
- Ampicillin 2 gram PO/IV (50mg/kg)
- Clindamycin 600 mg PO/IV (20mg/kg)
- Cephalexin 2 g PO (50mg/kg)
- Ceftriaxone 1 gram IV/IM (50mg/kg)
- Cefoxitin 1 gram IV/IM (50mg/kg)
- Azithromycin 500mg PO (15mg/kg)

**Involving incision, biopsy, of respiratory tract or manipulation of gingival tissue, periapical region of teeth or perforation of oral mucosa (Viridans streptococci (alpha-hemolytic streptococci) most prevalent bacteria)

Infected skin, skin structure or musculoskeletal tissue

- Treat with agents active against staphylococci and beta-hemolytic streptococci: antistaphylococcal PCN (oxacilin) or cephalosporin (see above doses).
- If MRSA suspected in wound/skin structure: (or intolerant of betalactam) Vancomycin 15-20mg/kg for adults up to 2g or (15mg/kg to 1g for children)

GI or Genitourinary Tract (prophylaxis solely to prevent endocarditis NOT Recommended)

IF: An enterococcal UTI present, treat before an elective GI procedure or include enterococcal coverage perioperatively for non-elective procedures.

IF: Existing GI or GU infection or receiving perioperative antibiotics to prevent surgical site infection or sepsis, it is reasonable to include an agent with activity against enterococci.



Antibiogram 2020



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References:

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2. Performance Standards for Antimicrobial Susceptibility Testing: Twenty-second informational Supplement. Clinical and Laboratory Standards Institute. 2012 Jan;32(3):29.