

**TJ Regional Health  
Inpatient and SNU  
Antibiotic Susceptibility  
Report  
July 2019 to June 2020**

**INPATIENT AND SNU  
ANTIBIOTIC SUSCEPTIBILITY REPORT**

**PREVALENT ORGANISMS  
&  
PREVALENCE of ORGANISMS by BODY SITE**

**DATA COLLECTED  
July 2019 to June 2020**

The design of optimal antimicrobial therapy depends upon many clinical considerations: clinical results, in vitro antibiotic susceptibility data, and predicted concentration of the drug at the site of the infection. The information presented here may be helpful in the design of empiric therapy prior to the availability of relevant laboratory data.

To obtain additional information concerning the susceptibility of organisms to antimicrobial agents contact the Microbiology Department. For antibiotic related questions or treatment recommendations, contact the Pharmacy Department.

Data was obtained from Microscan and Senti 7 hospital computer systems.

		Number of Isolates	Ampicillin	Amp/Sulbactam (Unasyn)	Pip/Tazobactam (Zosyn)	Cefazolin Cystitis <sup>^</sup>	Cefazolin Non-Cystitis <sup>^</sup>	Ceftriaxone (Rocephin)	Ceftazidime (Fortaz)	Cefepime (Maxipime)	Gentamicin <sup>‡</sup> (Garamycin)	Tobramycin (Nebcin)	Meropenem (Merrem)	Levofloxacin (Levaquin)	Trimeth/sulfa (Bactrim)	Tetracycline	Nitrofurantoin (urinary only)	Azithromycin (Zithromax)	Vancomycin	Clindamycin (Cleocin)
<b>GRAM NEGATIVES</b>	<i>Escherichia coli</i> (16.7% ESBLs)	96	-	-	83	80	-	80	82	83	84	82	100	-	-	-	97	-	-	-
	<i>Klebsiella pneumoniae</i> (3% ESBLs)	33	-	88	94	88	-	91	97	97	97	97	100	97	88	79	-	-	-	-
	<i>Proteus mirabilis</i> * (4.2% ESBLs)	48	71	79	94	83	-	92	96	92	81	81	100	-	-	-	-	-	-	-
	<i>Klebsiella oxytoca</i> * (6.5% ESBLs)	31	-	-	84	35	-	90	87	87	87	87	100	81	84	77	-	-	-	-
	<i>Pseudomonas aeruginosa</i>	44	-	-	95	-	-	-	91	93	80	95	98	93	-	-	-	-	-	-
<b>GRAM POSITIVES</b>	<i>Staphylococcus aureus</i> MSSA	29	-	100	-	-	97	-	-	-	97	-	-	-	100	100	-	-	100	88
	<i>Staphylococcus aureus</i> MRSA (70.4% MRSA)	69	-	-	-	-	-	-	-	-	84	-	-	-	90	83	100	-	100	-
	<i>Enterococcus faecalis</i> (0% VRE)	38	95	-	-	-	-	-	-	-	-	-	-	-	-	-	95	-	100	-
	<i>Enterococcus faecium</i> * (0% VRE)	3	100	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	100	-
	<i>Staphylococcus epidermidis</i>	31	-	-	-	-	-	-	-	-	81	-	-	-	-	77	-	-	100	-

(-): indicates antibiotic not tested, not reported, presence of intrinsic resistance or <70% susceptibility

<sup>^</sup>: Cystitis: % susceptible using cystitis breakpoint of ≤ 16 mcg/ml. NOTE: utilize for cystitis indications

Non-cystitis: % susceptible using non-cystitis breakpoint of ≤ 2 mcg/ml. NOTE: utilize for non-cystitis indications

<sup>‡</sup>: Gentamicin: for *Enterococcus* spp., susceptibility refers to synergy testing

\*: indicates 2 years' worth of data

ESBLs: Extended-spectrum β-lactamase producing Enterobacteriaceae

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	Cost per Day	Collateral Damage^	Narrower Spectrum
<b>Penicillins</b>			
Penicillin G	\$\$		X
Ampicillin	\$		X
Nafcillin	\$\$\$		X
Amp/Sulbactam	\$		X
Pip/Tazobactam	\$\$		
<b>1<sup>st</sup> Gen. Ceph</b>			
Cefazolin	\$		X
<b>2<sup>nd</sup> Gen. Ceph</b>			
Cefuroxime	\$ (PO)	X	
Cefprozil	\$ (PO)	X	
<b>3<sup>rd</sup> Gen. Ceph</b>			
Ceftazidime	\$\$	X	
Ceftriaxone	\$	X	
<b>4<sup>th</sup> Gen. Ceph</b>			
Cefepime	\$\$		
<b>Misc. β-Lactams</b>			
Aztreonam*	\$\$\$		
Meropenem*	\$		
<b>Aminoglycosides</b>			
Gentamicin	\$		
Tobramycin	\$ (IV) \$\$\$ (INH)		
<b>Quinolones</b>			
Levofloxacin	\$	X	
<b>Macrolides</b>			
Azithromycin	\$		X
<b>Others</b>			
Clindamycin	\$\$	X	
Daptomycin*	\$\$\$		
Doxycycline	\$		
Fosfomycin	\$\$\$		
Linezolid*	\$\$\$		
Metronidazole	\$		X
Nitrofurantoin	\$		X
Trim/sulfa	\$\$\$ (IV) \$ (PO))		X
Vancomycin	\$ (IV) \$\$\$ (PO)		X
* Must meet criteria for use (aka a protected antibiotic) ^ Collateral damage = utilization results in selection and colonization/infection with multidrug-resistant organisms \$: Facility cost < \$25, \$\$: \$25-50, \$\$\$: > \$50			

TJRH Report of Prevalent Pathogens by Body Site (% Incidence)			
Inpatients Only			
<b>Urogenital</b>	<b>13 isolates</b>	<b>Eye</b>	<b>6 isolates</b>
E. coli	23%	Staph epidermidis	40%
Strep agalactiae	23%	MRSA	20%
Diphtheroids	23%	H.influenzae	20%
Lactobacillus sps.	8%	Strep pyogenes	20%
Candida albicans	8%		
Other	15%		
<b>Lower Respiratory</b>	<b>319 isolates</b>		
			Candida albicans 51%
			Pseudo aeruginosa 11%
			MRSA 8%
			E. coli 6%
			Kleb pneumoniae 6%
			Other 18%
<b>Stool</b>	<b>28 isolates</b>	<b>Ear</b>	<b>2 isolates</b>
Candida albicans	43%	Pseudo aeruginosa	50%
MRSA	14%	Strep pneumoniae	50%
Pseudo aeruginosa	14%		
Salmonella sps.	11%		
Other	18%		
<b>Blood</b>	<b>316 isolates</b>		
			Staph epidermidis 18%
			E coli 17%
			MRSA 16%
			Staph aureus 16%
			Enter faecalis 7%
			Strep pneumoniae 7%
			Strep agalactiae 5%
			Other 14%
<b>Wound/Abscess</b>	<b>254 isolates</b>	<b>Urine</b>	<b>497 isolates</b>
MRSA	26%	E. coli	44%
Staph aureus	16%	Kleb pneumoniae	12%
E. coli	11%	Yeast	12%
Diphtheroids	11%	Proteus mirabilis	11%
Enter faecalis	9%	Enter faecalis	8%
Strep agalactiae	6%	Other	13%
Other	21%		
<b>Upper Respiratory (Nasal/Throat)</b>	<b>2 isolates</b>		
			MRSA 50%
			Candida albicans 50%

TJRH Empiric Therapy for Pneumonia (Inpatient)	
<b>Community Acquired</b>	<b>Hospital Acquired/Ventilator Associated</b>
<b>Medical Floor</b> Ceftriaxone + (Azith or Doxy) Levofloxacin	(Cefepime or Pip/Tazo) + (Azith or Doxy) ± Vancomycin ± Tobramycin Aztreonam + Levofloxacin ± Vancomycin ± Tobramycin Aztreonam + Tobramycin + Vancomycin
<b>ICU</b> Amp/Sulbactam + (Azith or Doxy) ± Vancomycin Ceftriaxone + (Azith or Doxy) ± Vancomycin Levofloxacin + Vancomycin	<b>Aspiration Community Acquired</b> Amp/Sulbactam ± Vancomycin Ceftriaxone + Metronidazole ± Vancomycin Clindamycin ± Vancomycin
<b>Drug Resistant or Pseudomonas Risk</b> (Cefepime or Pip/Tazo) + (Azith or Doxy) ± Vancomycin ± Tobramycin Aztreonam + Levofloxacin ± Vancomycin ± Tobramycin	<b>Aspiration Hospital Acquired</b> Pip/Tazo ± Vancomycin Cefepime + Metronidazole ± Vancomycin Aztreonam + Metronidazole ± Vancomycin