

Tarrant County Public Health Division of Epidemiology and Health Information

COUNTY-WIDE ANTIBIOGRAM, 2010

The Tarrant County Public Health Antibiogram which will be released annually is a compilation of antibiograms from 14 hospitals located within Tarrant County. This antibiogram serves two main purposes:

- 1) to aid medical professionals in administering empirical treatment prior to identification of patient isolate specific susceptibility patterns, and;
- 2) to allow for the identification and comparison of antibiotic susceptibility patterns and trends by region and time period.

When interpreting susceptibility patterns provided by this antibiogram, please be aware of the following:

- Susceptibility percentages reported are from all sources and there is no distinction between community acquired and hospital acquired infections.
- Only antibiotics and bacteria reported by a majority of hospitals have been included in this report.
- Only facilities that indicated the use of the Clinical and Laboratory Standards Institute guidance for analysis and presentation of susceptibility data (CLSI M-39) have been included in this report.

SUMMARY OF FINDINGS

In 2010, the following significant trends and patterns were noted:

- Three cases of carbapenem-resistant Klebsiella pneumoniae (CRKP) were identified and confirmed by the Centers for Disease Control and Prevention.
- Carbapenem-resistant Enterobacteriaceae (CRE) were detected with the lowest susceptibility reported for Proteus mirabilis (86% susceptibility to Imipenem).
- No cases of carbapenem-resistant Escherichia coli were reported.
- Vancomycin-resistant enterococci (VRE) were detected with vancomycin resistance identified in 4% of *E. faecalis* and 79% of *E. faecium* isolates.
- No cases of vancomycin-resistant Staphylococcus aureus (VRSA) or vacomycin-intermediate Staphylococcus aureus (VISA) were reported.
- Acineobacter baumanii exhibits a low percentage of susceptibility to most antibiotics with the exception of the aminoglycoside, amikacin.
- No cases of fluoroquinolone resistant Streptococcus pneumoniae were reported although some lack of susceptibility to the macrolide erythromycin was reported.

If you have any questions regarding the generation of this antibiogram or if your facility would like to contribute to the report in the future, please contact:

Diana Cervantes, MS, MPH Epidemiologist (817) 321-5376 dcervantes@tarrantcounty.com Anita Kurian, MBBS, DrPH
Division Manager & Chief Epidemiologist
(817) 321-5377
akkurian@tarrantcounty.com



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Gram Negative Bacteria	Isolates Tested	Aminoglycosides			Carba- penems		Cephalosporins							Fluoro- quinolones		Penicillins				Other		
		Amikacin	Gentamicin	Tobramycin	Imipenem	Meropenem	Cefazolin (1st)	Cefotetan (2nd)	Cefuroxime (2nd)	Cefotaxime (3rd)	Ceftriaxone (3rd)	Ceftazidime (3rd)	Cefepime (4th)	Ciprofloxacin	Levofloxacin	Amoxicillin/ Clavutanate	Ampicillin	Ampicillin/ Sulbactam	Piperacillin/ Tazobactam	Aztreonam	Nitrofurantoin (Urine Samples)	TMP-SMX (Bactrim)
Acinetobacter baumanii	102	89	47	51	38	40	0			25	8	27	26	33	31	0	0	43	28	0	0	33
Citrobacter freundii	113	100	89	93	99	100	0	0		100	79	81	99	88	87	0	0	0	81	79	96	73
Enterobacter cloacae	650	100	94	95	99	97	3	35	40	76	82	82	96	91	91	5	6	9	84	80	33	89
Enterobacter aerogenes	238	99	98	97	100	100	1	50	74	89	86	86	100	94	92	0	4	15	87	91	17	97
Escherichia coli	10,508	99	88	86	100	100	84	97	87	94	93	93	94	70	65	76	42	53	95	94	95	66
Klebsiella pneumoniae	2,655	100	97	97	99	100	92	100	85	95	95	96	96	95	94	93	0	86	95	96	45	90
Morganella morganii	97	100	77	85	93	100	9	91		100	100	85	98	54	61	4	8	2	87	97	0	59
Proteus mirabilis	1,704	98	88	88	86	100	77	100	96	99	94	98	95	70	72	94	68	81	99	87	0	70
Pseudomonas aeruginosa	2,307	93	77	89	83	77	3	5		4	11	87	81	72	65	0	3	0	88	65	1	2
Serratia marcescens	160	100	99	87	100	100	0	100	0	100	98	99	99	95	97	0	2	1	98	100	0	97

	Isolates Tested	Cephalo- sporins		Penicillins			Other										
Gram Positive Bacteria		Cefazolin (1st)	Ceftriaxone (3rd)	Ampicillin	Oxacillin	Penicillin	Clindamycin	Daptomycin	Erythromycin	Gentamicin Synergy Screen	Levofloxacin	Linezolid	Nitrofurantoin (Urine Samples)	Streptomycin Synergy Screen	Tetracycline	TMP-SMX (Bactrim)	Vancomycin
Enterococcus faecalis	2,991			98	93	98		100	16	61	62	95	99	74	18	89	96
Enterococcus faecium	717			14	4	10		76	5	76	9	92	27	26	31		31
Staphylococcus aureus (ALL)	6,589	71	39	0	61	6	74	100	38		63	100	98		93	99	100
Methicillin Susceptible (MSSA)	2,031	99	97		100	12	86	100	64		85	100	99		93	99	100
Methicillin Resistant (MRSA)	2,597	0	0	-	0		63	100	8		31	100	98		93	98	100
Staph. coagulase negative (ALL)	2,678	40	29	2	34	6	53	99	29		36	80	99		81	58	100
Staphylococcus epidermidis	1,598	28	25	0	27	7	51	100	26		30	100	99		80	55	100
Streptococcus pneumoniae	372		94	5		72	83		62		100	100			83	72	100

[†]Note: Numbers indicate percentage susceptibility. Blank cells indicate no data collected/drug not indicated. Susceptibility profiles for adults aged 18 years and older only. Data provided by 14 Tarrant County hospitals; 12 provided data from 01/01/10-12/31/10; 1 provided data from 10/01/09-09/30/10; 1 provided data from 07/01/10-12/31/10.