



Tarrant County Public Health
Division of Epidemiology and Health Information

COUNTY-WIDE ANTIBIOGRAM, 2013

The Tarrant County Public Health AntibioGram which will be released annually is a compilation of antibiograms from 21 health care facilities 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 2013, the following significant trends and patterns were noted:

- 51 cases of carbapenem-resistant *Klebsiella pneumoniae* (CRKP) were identified in eleven different facilities (99% susceptibility); in 2011, one case was identified.
- Carbapenem-resistant *Enterobacteriaceae* (CRE) were detected with the lowest susceptibility reported for *Citrobacter freundii* (89% susceptibility to Imipenem).
- 38 cases of carbapenem-resistant *Escherichia coli* were reported (99% susceptibility).
- Vancomycin-resistant enterococci (VRE) were detected with vancomycin resistance identified in 6% of *E. faecalis* and 58% of *E. faecium* isolates.
- One case of vancomycin-resistant *Staphylococcus aureus* (VRSA) or vancomycin-intermediate *Staphylococcus aureus* (VISA) was reported (99.99% susceptibility).
- *Enterobacter* spp. susceptibility ranged from 76-85% and 83-95% to 3rd generation cephalosporins and fluoroquinolones, respectively.
- Three cases of fluoroquinolone resistant *Streptococcus pneumoniae* were reported (99% susceptibility).
- *Pseudomonas aeruginosa* susceptibility ranged from 64-69% and 81-93% to fluoroquinolones and aminoglycosides, respectively.

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:

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COUNTY-WIDE ANTIBIOGRAM: ADULTS, 2013[†]

Gram Negative Bacteria	Isolates Tested	Aminoglycosides			Carba-penems		Cephalosporins						Fluoro-quinolones		Penicillins				Other		
		Amikacin	Gentamicin	Tobramycin	Imipenem	Meropenem	Cefazolin (1st)	Cefuroxime (2nd)	Cefotaxime (3rd)	Ceftriaxone (3rd)	Ceftazidime (3rd)	Cefepime (4th)	Ciprofloxacin	Levofloxacin	Amoxicillin/Clavulanate	Ampicillin	Ampicillin/Sulbactam	Piperacillin/Tazobactam	Aztreonam	Nitrofurantoin (urine isolates)	TMP-SMX (Bactrim)
<i>Acinetobacter baumannii</i>	504	40	57	73	55	55	0	0	24	11	33	35	35	36	48	0	48	43	4	0	29
<i>Citrobacter freundii</i>	484	100	93	84	89	100	4	71	82	81	84	99	87	87	0	9	13	86	85	86	80
<i>Enterobacter cloacae</i>	1,229	100	94	93	97	99	20	62	76	77	80	95	83	88	0	11	16	82	80	29	85
<i>Enterobacter aerogenes</i>	563	100	98	97	99	99	12	15	82	83	85	99	96	95	0	0	6	83	83	11	96
<i>Escherichia coli</i>	22,261	100	87	88	100	100	82	79	92	92	93	94	67	81	73	41	60	93	92	92	64
<i>Klebsiella pneumoniae</i>	5,294	100	96	95	99	100	88	90	95	94	94	95	94	94	86	0	82	94	94	31	88
<i>Morganella morganii</i>	386	100	74	84	97	99	9	10	80	91	83	99	41	47	14	9	11	95	93	0	52
<i>Proteus mirabilis</i>	3,362	99	90	89	88	100	80	94	98	97	98	98	59	64	98	65	76	99	96	0	65
<i>Pseudomonas aeruginosa</i>	4,178	93	81	89	71	81	0	1	4	7	83	80	69	64	3	24	1	83	65	0	1
<i>Serratia marcescens</i>	384	100	97	89	95	98	0	0	84	95	92	98	93	96	3	2	3	91	89	2	91

Gram Positive Bacteria	Isolates Tested	Cephalo-sporins		Penicillins			Other										
		Cefazolin (1st)	Ceftriaxone (3rd)	Ampicillin	Oxacillin	Penicillin	Clindamycin	Daptomycin	Erythromycin	Gentamicin Synergy Screen	Levofloxacin	Linezolid	Nitrofurantoin (urine isolates)	Streptomycin Synergy Screen	Tetracycline	TMP-SMX (Bactrim)	Vancomycin
<i>Enterococcus faecalis</i>	5,057	0	27	94		99		100	10	67	62	98	96	78	18	0	94
<i>Enterococcus faecium</i>	2,088	9	0	33		11		96	10	91	24	94	48	68	21	1	42
<i>Staphylococcus aureus (ALL)</i>	9,787	68	46	0	72	5	75	99	39	0	56	100	99		93	97	100
Methicillin Susceptible (MSSA)	5,124	99	100	0	92	3	85	99	62	100	87	100	99		94	97	100
Methicillin Resistant (MRSA)	4,861	3	0	0	0	0	66	100	14	100	31	96	98		92	97	100
<i>Staph. coagulase negative (ALL)</i>	1,392	39	93	5	33	55	65	99	37		68	96	100		80	62	100
<i>Staphylococcus epidermidis</i>	1,374	39	68	1	25	38	61	99	39		50	89	95		77	54	100
<i>Streptococcus pneumoniae</i>	349		94			80	83		49		99	100			87	78	100

[†]Note: Numbers indicate percentage susceptibility for isolates from all sources except where otherwise indicated. Blank cells indicate no data collected/drug not indicated. Susceptibility profiles for adults aged 18 years and older only. Data provided by 21 health care facilities in Tarrant County; 21 provided data from 01/01/13-12/31/13.



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COUNTY-WIDE ANTIBIOGRAM: CHILDREN, 2013[†]

Gram Negative Bacteria	Isolates Tested	Aminoglycosides			Carbapenems		Cephalosporins						Fluoroquinolones		Penicillins				Other			
		Amikacin	Gentamicin	Tobramycin	Imipenem	Meropenem	Cefazolin (1st)	Cefotetan (2nd)	Cefuroxime (2nd)	Cefotaxime (3rd)	Ceftriaxone (3rd)	Ceftazidime (3rd)	Cefepime (4th)	Ciprofloxacin	Levofloxacin	Amoxicillin/Clavulanate	Ampicillin	Ampicillin/Sulbactam	Piperacillin/Tazobactam	Aztreonam	Nitrofurantoin (urine isolates)	TMP-SMX (Bactrim)
<i>Acinetobacter baumannii</i>																						
<i>Citrobacter species</i>	28									96	96	100	100									93
<i>Enterobacter species</i>	145	99	85	83		96				76	71	96	99					72				
<i>Enterobacter aerogenes</i>																						
<i>Escherichia coli</i>	1,416	100	92	92		100	86			97	97	97	92	92		43	53	95				63
<i>Klebsiella pneumoniae</i>	164	99	88	92		100				88	88	88	99				73	91				82
<i>Morganella morganii</i>																						
<i>Proteus mirabilis</i>	99	100	90	92		100	98			100	100	100	96									86
<i>Pseudomonas aeruginosa</i>	410	48	50	70		80						82	52	70	48				93	71		
<i>Serratia marcescens</i>	37	95	77	74		100				97	97	100	100					100				95

Gram Positive Bacteria	Isolates Tested	Cephalosporins		Penicillins			Other																
		Cefazolin (1st)	Ceftriaxone (3rd)	Ampicillin	Oxacillin	Penicillin	Clindamycin	Daptomycin	Erythromycin	Gentamicin Synergy Screen	Levofloxacin	Linezolid	Nitrofurantoin (urine isolates)	Streptomycin Synergy Screen	Tetracycline	TMP-SMX (Bactrim)	Vancomycin						
<i>Enterococcus faecalis</i>	287					100										97							100
<i>Enterococcus faecium</i>	8					50																	100
<i>Staphylococcus aureus (ALL)</i>	2,094				51		79		36													98	100
Methicillin Susceptible (MSSA)	1,064				100		79		60													98	100
Methicillin Resistant (MRSA)	1,030				0		80		12													99	100
<i>Staph. coagulase negative (ALL)</i>	152				66		60		43													90	100
<i>Staphylococcus epidermidis</i>	245				41		25		23													73	100
<i>Streptococcus pneumoniae</i>																							

[†]Note: Numbers indicate percentage susceptibility for isolates from all sources except where otherwise indicated. Blank cells indicate no data collected/drug not indicated. Susceptibility profiles for individuals < 18 years of age only. Data provided by 1 Tarrant County hospital, providing data from 01/01/13-12/31/13.