



Therapeutic Drugs

Name	Line No.	Specimen 1			Specimen 2			Specimen 3			Specimen 4			Specimen 5			No. of Labs
		Range & Type	Mean	SD	Range & Type	Mean	SD	Range & Type	Mean	SD	Range & Type	Mean	SD	Range & Type	Mean	SD	
Acetaminophen																	
Initial Grouping by Reagent and Instrument																	
Ortho Vitros & Ortho Vitros 3600, 5600	1	59 - 98	P 78.7	0.7	28 - 47	P 37.8	0.4	83 - 139	P 111.1	1.3	17 - 28	P 22.6	0.5	77 - 128	P 102.2	1.0	13
Siemens Dimension Flex & Siemens Dimension EXL	2	54 - 90	P 72.1	1.3	30 - 50	P 39.9	1.0	80 - 133	P 106.1	1.4	22 - 37	P 29.3	1.2	72 - 120	P 95.8	1.3	42
Initial Grouping by Reagent																	
Ortho Vitros	3	59 - 98	P 78.5	0.7	28 - 47	P 37.8	0.4	83 - 139	P 110.9	1.5	17 - 28	P 22.5	0.5	76 - 127	P 101.9	1.1	17
Siemens Dimension Flex	4	54 - 90	P 72.1	1.3	30 - 50	P 39.8	1.1	79 - 132	P 105.9	1.5	22 - 37	P 29.3	1.2	72 - 120	P 95.7	1.4	50
Initial Grouping by Sensitivity or Principle																	
Other spectrophotometric	5	57 - 96	P 76.5	3.9	27 - 45	P 36.2	3.0	83 - 138	P 110.2	2.1	16 - 27	P 21.4	2.1	75 - 126	P 100.6	2.6	22
Enzyme-multiplied IA/EMIT	6	54 - 89	P 71.4	2.8	29 - 49	P 39.2	2.3	79 - 131	P 104.8	4.2	21 - 36	P 28.5	3.0	71 - 118	P 94.6	3.9	55
Total Population																	
Whole Population	7	54 - 91	P 72.5	4.6	28 - 47	P 37.7	3.7	80 - 133	P 106.5	6.3	19 - 32	P 25.7	4.7	72 - 120	P 96.3	5.8	85
Carbamazepine																	
Initial Grouping by Reagent and Instrument																	
Siemens Dimension Flex & Siemens Dimension EXL	1	6.8 - 11.4	P 9.09	0.26	4.1 - 6.9	P 5.53	0.14	9.5 - 15.8	P 12.65	0.25	3.3 - 5.5	P 4.43	0.14	8.8 - 14.7	P 11.73	0.28	15
Initial Grouping by Reagent																	
Siemens Dimension Flex	2	6.8 - 11.4	P 9.12	0.25	4.1 - 6.9	P 5.53	0.14	9.5 - 15.8	P 12.65	0.25	3.3 - 5.5	P 4.43	0.13	8.8 - 14.6	P 11.7	0.27	18
Initial Grouping by Sensitivity or Principle																	
Enzyme-multiplied IA/EMIT	3	6.9 - 11.5	P 9.19	0.49	4.2 - 7.0	P 5.62	0.28	9.6 - 16.0	P 12.79	0.53	3.4 - 5.6	P 4.51	0.25	8.9 - 14.8	P 11.81	0.46	25
Turbidimetric/PETINIA	4	6.7 - 11.1	P 8.89	0.33	4.1 - 6.8	P 5.42	0.34	9.1 - 15.3	P 12.2	0.36	3.2 - 5.3	P 4.24	0.33	8.6 - 14.3	P 11.41	0.36	10
Total Population																	
Whole Population	5	6.6 - 10.9	P 8.75	0.84	4.0 - 6.6	P 5.32	0.64	9.1 - 15.1	P 12.11	1.02	3.2 - 5.3	P 4.25	0.57	8.4 - 14.0	P 11.19	0.99	59
Digoxin																	
Initial Grouping by Reagent and Instrument																	
Ortho Vitros & Ortho Vitros 3600, 5600	1	1.3 - 2.0	P 1.66	0.13	0.9 - 1.4	P 1.13	0.07	1.7 - 2.6	P 2.17	0.11	0.8 - 1.2	P 1.0	0.09	1.6 - 2.4	P 2.01	0.09	14
Siemens Dimension Flex & Siemens Dimension EXL	2	1.4 - 2.2	P 1.8	0.09	0.9 - 1.4	P 1.16	0.07	2.0 - 3.0	P 2.49	0.09	0.8 - 1.2	C 0.95	0.06	1.8 - 2.8	P 2.3	0.08	41
Initial Grouping by Reagent																	
Beckman Olympus	3	1.5 - 2.2	P 1.84	0.1	0.9 - 1.4	P 1.13	0.11	1.9 - 2.9	P 2.39	0.16	0.7 - 1.1	C 0.94	0.09	1.8 - 2.7	P 2.24	0.11	11
Ortho Vitros	4	1.3 - 2.0	P 1.65	0.12	0.9 - 1.3	P 1.12	0.07	1.7 - 2.6	P 2.17	0.11	0.8 - 1.2	C 0.98	0.1	1.6 - 2.4	P 2.0	0.1	17
Siemens Dimension Flex	5	1.4 - 2.2	P 1.8	0.09	0.9 - 1.4	P 1.15	0.07	2.0 - 3.0	P 2.48	0.09	0.8 - 1.2	C 0.95	0.06	1.8 - 2.8	P 2.3	0.09	52
Initial Grouping by Sensitivity or Principle																	
Other spectrophotometric	6	1.4 - 2.1	P 1.76	0.12	0.9 - 1.4	P 1.14	0.07	1.9 - 2.9	P 2.41	0.16	0.8 - 1.2	C 0.95	0.08	1.8 - 2.7	P 2.22	0.15	76
Luminometric/CLIA	7	1.5 - 2.3	P 1.88	0.1	1.0 - 1.5	P 1.26	0.07	2.0 - 3.0	P 2.5	0.15	0.8 - 1.2	P 1.02	0.09	1.9 - 2.8	P 2.34	0.13	16
Enzyme-multiplied IA/EMIT	8	1.5 - 2.2	P 1.82	0.11	0.9 - 1.3	P 1.12	0.11	1.9 - 2.8	P 2.35	0.2	0.7 - 1.1	C 0.93	0.09	1.8 - 2.6	P 2.2	0.16	12
Turbidimetric/PETINIA	9	1.3 - 2.0	P 1.64	0.1	0.9 - 1.3	P 1.1	0.11	1.8 - 2.6	P 2.2	0.16	0.7 - 1.1	C 0.9	0.11	1.7 - 2.5	P 2.11	0.15	14
Total Population																	
Whole Population	10	1.4 - 2.1	P 1.77	0.13	0.9 - 1.4	P 1.15	0.09	1.9 - 2.9	P 2.39	0.18	0.8 - 1.2	C 0.95	0.09	1.8 - 2.7	P 2.22	0.16	118
Gentamicin																	
Initial Grouping by Reagent and Instrument																	
Siemens Dimension Flex & Siemens Dimension EXL	1	3.8 - 6.3	P 5.04	0.21	1.9 - 3.1	P 2.48	0.17	5.6 - 9.3	P 7.46	0.23	1.3 - 2.1	P 1.67	0.21	5.1 - 8.5	P 6.77	0.24	14
Initial Grouping by Reagent																	
Siemens Dimension Flex	2	3.8 - 6.3	P 5.04	0.2	1.9 - 3.1	P 2.48	0.16	5.6 - 9.3	P 7.47	0.22	1.2 - 2.1	P 1.66	0.19	5.1 - 8.5	P 6.78	0.23	16
Initial Grouping by Sensitivity or Principle																	
Other spectrophotometric	3	4.1 - 6.8	P 5.47	0.56	2.0 - 3.3	P 2.67	0.31	6.1 - 10.1	P 8.08	0.67	1.4 - 2.3	P 1.87	0.21	5.6 - 9.3	P 7.44	0.71	12
Enzyme-multiplied IA/EMIT	4	3.8 - 6.3	P 5.05	0.23	1.9 - 3.1	P 2.5	0.15	5.7 - 9.4	P 7.54	0.3	1.3 - 2.1	P 1.68	0.18	5.1 - 8.5	P 6.83	0.27	20
Total Population																	

Whole Population	5	4.0 - 6.6	P 5.3	0.51	1.9 - 3.3	P 2.6	0.24	5.9 - 9.9	P 7.9	0.76	1.3 - 2.2	P 1.76	0.19	5.4 - 9.0	P 7.22	0.75	39
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Lithium

Initial Grouping by Reagent

Siemens Dimension Flex	1	1.1 - 1.7	C 1.42	0.05	0.4 - 1.0	C 0.65	0.06	1.7 - 2.6	P 2.15	0.1	0.1 - 0.7	C 0.39	0.05	1.5 - 2.3	P 1.91	0.07	13
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Initial Grouping by Sensitivity or Principle

Other, not flame equivalent	2	0.9 - 1.5	C 1.2	0.18	0.3 - 0.9	C 0.59	0.11	1.4 - 2.1	P 1.76	0.3	0.1 - 0.7	C 0.36	0.09	1.3 - 2.0	P 1.66	0.22	10
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Flame-equivalent methods	3	1.1 - 1.7	C 1.41	0.06	0.4 - 1.0	C 0.65	0.07	1.7 - 2.5	P 2.12	0.12	0.1 - 0.7	C 0.39	0.06	1.5 - 2.3	P 1.89	0.09	15
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Total Population

Whole Population	4	1.0 - 1.6	C 1.31	0.15	0.3 - 0.9	C 0.61	0.1	1.6 - 2.4	P 1.96	0.26	0.1 - 0.7	C 0.38	0.08	1.4 - 2.1	P 1.79	0.19	29
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Phenobarbital

Initial Grouping by Reagent and Instrument

Siemens Dimension Flex & Siemens Dimension EXL	1	20 - 30	P 25.3	1.7	11 - 16	P 13.3	1.2	30 - 45	P 37.3	2.3	8 - 12	C 9.5	0.8	27 - 41	P 34.0	1.6	12
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Initial Grouping by Reagent

Siemens Dimension Flex	2	20 - 30	P 25.4	1.6	11 - 16	P 13.3	1.2	30 - 45	P 37.4	2.2	8 - 12	C 9.5	0.7	27 - 41	P 33.8	1.6	14
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Initial Grouping by Sensitivity or Principle

Enzyme-multiplied IA/EMIT	3	20 - 30	P 25.3	1.4	11 - 16	P 13.2	1.0	30 - 45	P 37.7	2.1	7 - 11	C 9.3	0.6	27 - 40	P 33.7	1.5	21
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Total Population

Whole Population	4	20 - 30	P 24.9	1.7	10 - 16	P 13.0	1.0	29 - 44	P 36.7	2.5	7 - 11	C 9.2	0.8	26 - 39	P 32.9	2.2	37
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Phenytoin

Initial Grouping by Reagent and Instrument

Ortho Vitros & Ortho Vitros 3600, 5600	1	15 - 25	P 19.6	0.8	9 - 15	P 12.4	0.6	19 - 32	P 25.7	1.1	7 - 12	P 9.9	0.5	18 - 29	P 23.5	0.5	11
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Siemens Dimension Flex & Siemens Dimension EXL	2	14 - 24	P 19.1	1.1	9 - 14	P 11.5	0.8	20 - 34	P 27.2	1.3	7 - 11	P 9.0	0.7	18 - 31	P 24.5	1.2	27
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Initial Grouping by Reagent

Beckman Olympus	3	14 - 23	P 18.1	1.0	9 - 14	P 11.5	0.5	19 - 31	P 24.9	2.2	7 - 12	P 9.4	0.6	17 - 29	P 23.3	1.3	11
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Ortho Vitros	4	15 - 25	P 19.8	1.0	9 - 16	P 12.5	0.8	19 - 32	P 25.8	1.0	8 - 13	P 10.0	0.6	18 - 30	P 23.8	0.8	12
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Siemens Dimension Flex	5	14 - 24	P 19.2	1.1	9 - 15	P 11.6	0.9	20 - 34	P 27.2	1.2	7 - 11	P 9.0	0.8	18 - 31	P 24.5	1.1	33
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Initial Grouping by Sensitivity or Principle

Other spectrophotometric	6	14 - 23	P 18.6	1.5	9 - 15	P 11.7	1.1	18 - 31	P 24.6	1.6	7 - 12	P 9.3	1.0	17 - 28	P 22.6	1.6	29
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Enzyme-multiplied IA/EMIT	7	14 - 24	P 19.0	1.2	9 - 14	P 11.6	0.8	20 - 33	P 26.6	1.8	7 - 11	P 9.1	0.8	18 - 30	P 24.2	1.3	44
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Turbidimetric/PETINIA	8	14 - 23	P 18.6	1.0	8 - 14	P 11.1	0.8	19 - 32	P 25.6	2.2	7 - 11	P 8.9	1.0	18 - 30	P 23.8	1.7	14
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Total Population

Whole Population	9	14 - 23	P 18.7	1.4	9 - 14	P 11.6	0.9	19 - 32	P 25.9	2.2	7 - 11	P 9.1	0.9	18 - 30	P 23.6	1.8	95
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Salicylates - mg/dL

Initial Grouping by Reagent and Instrument

Ortho Vitros & Ortho Vitros 3600, 5600	1	16.0 - 26.7	P 21.33	0.59	10.2 - 16.9	P 13.55	0.4	21.8 - 36.3	P 29.03	0.66	8.2 - 13.6	P 10.88	0.33	19.9 - 33.1	P 26.51	0.53	11
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Siemens Dimension Flex & Siemens Dimension EXL	2	14.2 - 23.6	P 18.88	0.35	8.3 - 13.8	P 11.02	0.26	19.9 - 33.2	P 26.59	0.5	6.3 - 10.5	P 8.44	0.26	18.2 - 30.3	P 24.28	0.45	33
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Initial Grouping by Reagent

Ortho Vitros	3	16.0 - 26.7	P 21.35	0.56	10.2 - 17.0	P 13.62	0.38	21.8 - 36.3	P 29.05	0.58	8.2 - 13.6	P 10.9	0.29	20.0 - 33.3	P 26.61	0.5	14
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Siemens Dimension Flex	4	14.2 - 23.6	P 18.88	0.35	8.2 - 13.8	P 11.0	0.25	20.0 - 33.3	P 26.61	0.49	6.3 - 10.5	P 8.44	0.25	18.2 - 30.4	P 24.29	0.44	38
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Initial Grouping by Sensitivity or Principle

Other spectrophotometric	5	14.6 - 24.4	P 19.49	1.11	8.6 - 14.4	P 11.49	1.16	20.5 - 34.2	P 27.33	1.21	6.7 - 11.1	P 8.87	1.1	18.7 - 31.2	P 24.97	1.16	64
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Total Population

Whole Population	6	14.7 - 24.5	P 19.63	1.19	8.6 - 14.4	P 11.52	1.14	20.7 - 34.4	P 27.55	1.46	6.6 - 11.0	P 8.83	1.09	18.9 - 31.5	P 25.2	1.48	73
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Theophylline

Initial Grouping by Reagent and Instrument

Siemens Dimension Flex & Siemens Dimension EXL	1	18 - 31	P 24.6	1.2	12 - 20	P 15.6	0.5	25 - 42	P 33.8	1.6	9 - 16	P 12.6	0.5	23 - 39	P 31.2	0.7	10
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Initial Grouping by Reagent

Siemens Dimension Flex	2	18 - 31	P 24.5	1.2	12 - 19	P 15.4	0.6	25 - 42	P 33.4	2.0	9 - 16	P 12.6	0.6	23 - 38	P 30.7	1.6	14
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Initial Grouping by Sensitivity or Principle

Enzyme-multiplied IA/EMIT	3	18 - 30	P 23.8	2.1	11 - 19	P 15.3	0.7	24 - 41	P 32.6	2.7	9 - 16	P 12.4	0.7	23 - 38	P 30.5	1.9	17
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Total Population

Whole Population	4	19 - 32	P 25.2	5.3	12 - 20	P 16.0	3.5	26 - 43	P 34.1	5.9	10 - 17	P 13.4	3.5	24 - 39	P 31.5	5.2	35
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Tobramycin

Total Population																	
Whole Population	1	4.5 - 7.6	P 6.04	0.55	2.0 - 3.3	P 2.64	0.26	6.9 - 11.6	P 9.24	0.52	1.2 - 2.0	P 1.62	0.23	6.1 - 10.2	P 8.14	0.72	5

Valproic Acid																	
Initial Grouping by Reagent and Instrument																	
Ortho Vitros & Ortho Vitros 3600, 5600	1	50 - 83	P 66.4	4.2	33 - 55	P 44.2	3.6	65 - 108	P 86.2	6.0	29 - 48	P 38.0	3.5	61 - 102	P 81.5	6.1	12
Siemens Dimension Flex & Siemens Dimension EXL	2	49 - 82	P 65.4	2.1	34 - 57	P 45.8	2.2	64 - 106	P 84.9	3.2	30 - 49	P 39.6	1.8	60 - 100	P 80.3	2.7	19
Initial Grouping by Reagent																	
Ortho Vitros	3	50 - 83	P 66.4	4.2	33 - 55	P 44.2	3.6	65 - 108	P 86.2	6.0	29 - 48	P 38.0	3.5	61 - 102	P 81.5	6.1	12
Siemens Dimension Flex	4	49 - 82	P 65.4	2.0	34 - 57	P 45.8	2.1	64 - 106	P 85.0	3.1	30 - 49	P 39.5	1.6	60 - 100	P 80.3	2.5	22
Initial Grouping by Sensitivity or Principle																	
Other spectrophotometric	5	50 - 83	P 66.4	4.4	34 - 57	P 45.8	3.4	66 - 110	P 88.2	5.1	29 - 49	P 39.1	3.4	62 - 104	P 83.0	5.2	27
Enzyme-multiplied IA/EMIT	6	50 - 84	P 67.0	3.9	35 - 58	P 46.7	2.8	65 - 109	P 87.2	5.5	30 - 50	P 40.2	2.5	61 - 102	P 81.8	4.7	31
Turbidimetric/PETINIA	7	52 - 87	P 69.5	4.0	36 - 60	P 48.3	3.3	66 - 111	P 88.6	4.3	31 - 52	P 41.5	2.5	63 - 105	P 83.7	4.2	10
Total Population																	
Whole Population	8	50 - 84	P 67.3	4.2	35 - 58	P 46.8	3.3	66 - 110	P 87.9	5.1	30 - 50	P 40.1	3.0	62 - 103	P 82.8	4.8	74

Vancomycin																	
Initial Grouping by Reagent and Instrument																	
Ortho Vitros & Ortho Vitros 3600, 5600	1	18 - 30	P 24.2	0.9	8 - 14	P 10.9	0.5	28 - 47	P 37.4	1.4	5 - 8	P 6.3	0.5	26 - 43	P 34.0	1.1	12
Siemens Dimension Flex & Siemens Dimension EXL	2	21 - 34	P 27.4	1.2	9 - 15	P 12.2	0.6	32 - 53	P 42.3	1.7	5 - 9	P 6.9	0.4	29 - 47	P 38.0	1.5	38
Initial Grouping by Reagent																	
Ortho Vitros	3	18 - 30	P 24.1	0.9	8 - 14	P 10.9	0.6	28 - 47	P 37.3	1.4	5 - 8	P 6.3	0.6	25 - 42	P 33.9	1.0	14
Siemens Dimension Flex	4	21 - 34	P 27.4	1.2	9 - 15	P 12.2	0.6	32 - 53	P 42.2	1.7	5 - 9	P 6.9	0.4	28 - 47	P 37.9	1.5	44
Initial Grouping by Sensitivity or Principle																	
Other spectrophotometric	5	20 - 34	P 27.0	3.3	9 - 15	P 11.9	1.3	32 - 53	P 42.1	5.7	5 - 9	P 6.9	0.9	28 - 47	P 37.7	4.4	29
Enzyme-multiplied IA/EMIT	6	20 - 33	P 26.7	2.1	9 - 15	P 11.9	0.9	31 - 51	P 41.0	3.2	5 - 8	P 6.8	0.5	28 - 46	P 37.0	2.7	52
Turbidimetric/PETINIA	7	21 - 35	P 27.7	1.7	9 - 15	P 11.7	1.4	32 - 53	P 42.5	5.8	5 - 9	P 6.8	0.6	29 - 48	P 38.2	4.1	13
Total Population																	
Whole Population	8	20 - 34	P 26.9	2.7	9 - 15	P 11.8	1.3	31 - 52	P 41.6	4.8	5 - 9	P 6.8	0.7	28 - 47	P 37.4	3.6	97