

Table 1. Summary of cholesterol quality from 5 national PT survey programs

PT Program	Sigma Quality Performance Metrics					
	Labs	Group Mean	NatTestQ	LocMethQ	NatMethQ	Datasheet
AAFP 2004A	296	201.0	2.01	2.54	2.01	1
MLE M2	577	224.4	2.27	2.99	2.38	2
AAB 2nd 2004	1498	223.0	2.37	3.51	2.68	3
API 2nd 2004	2647	221.3	2.28	3.19	2.37	4
CAP LP-01 2004	4240	198.7	3.57	4.19	3.71	5
Weighted average	9258	210.8	2.88	3.67	3.02	
<i>NY Benchmark</i>	371	208.1	4.09	4.83	4.48	6

Datasheet 1. Cholesterol PT results from AAFP survey 2004 Event A

CLIA allowable total error, TEa

10 %

Instrument	Labs	Mean	SD	CV	Sig wo/B	Bias	Sig w/B
All Methods	296	201	10	4.98	2.01	NA	NA
Alfa Wasserman Ace-Alfa w Rgt	28	203	6	2.96	3.38	1.00	3.05
Biochem/ELAN ATAC 8000	34	201	7	3.48	2.87	0.00	2.87
BMC/ Roche Reflotron	22	186	7	3.76	2.66	7.46	0.67
Dade Dimension/AR/ES/RxL/Xpand	12	197	7	3.55	2.81	1.99	2.25
Roche Cobas Mira – DMA Reagent	11	212	18	8.49	1.18	5.47	0.53
Roche Cobas Mira – Roche Reagent	91	205	10	4.88	2.05	1.99	1.64
Roche Mira -Roche Rgt/MASC cal	28	209	8	3.83	2.61	3.98	1.57
Vitros DT/DTII/DT60	21	199	9	4.52	2.21	1.00	1.99
Select Alfa Wasserman Inst.	29	203	6	2.96	3.38	1.00	3.05
Average performance figures				4.27	2.57	2.65	1.96
Weighted average performance figures	276			4.17	2.54	2.24	2.01

Datasheet 2. Cholesterol PT results from MLE 2004 M2 Survey

CLIA allowable Total Error, TEa

10 %

Instrument	Labs	Mean	CV	Sig wo/B	Bias	Sig w/B
All Methods	577	224.4	4.4	2.27	NA	NA
Abaxis Piccolo	6	226.3	1.6	6.25	0.85	5.72
Abbott Aeroset	11	225.5	1.7	5.88	0.49	5.59
Chiron Diag 550 Expres	10	224.6	5.2	1.92	0.09	1.91
Beckman Synchron	45	221.9	2.8	3.57	1.11	3.17
BMC Reflotron/Plus	9	217.1	4	2.50	3.25	1.69
Cholestech LDX	46	222.7	4.7	2.13	0.76	1.97
Dade Analyst	11	231.1	5.2	1.92	2.99	1.35
Dade Dimension/AR/ES/RxL/Xpa	55	215.3	2.3	4.35	4.06	2.58
DCL Roche Cobas Fara/Mira/Bio	8	218.6	4.8	2.08	2.58	1.54
Technicon RA,XT,OPERA	6	229.7	2.6	3.85	2.36	2.94
ATAC 1500, 2000, 6000	13	216.7	5.4	1.85	3.43	1.22
ATAC 8000	53	219.7	4.3	2.33	2.09	1.84
All JAC Diagnostics Instruments	6	229.8	10.1	0.99	2.41	0.75
Olympus AU	6	213.5	1.6	6.25	4.86	3.21
All Pointe Scientific/Landmark insts	15	223.5	5.4	1.85	0.40	1.78
Roche Cobas Fara/Mira/Bio	76	228.8	4.7	2.13	1.96	1.71
Roche Integra	11	220	3.5	2.86	1.96	2.30
Schiap/Alpha Wass. ACE/NexC	58	226.5	2.5	4.00	0.94	3.63
Thermo DNA Roche Cobas Fara/Mira/Bio	9	226.2	6.3	1.59	0.80	1.46
All Thermo DNA Chemistry Instruments	19	229.7	5.4	1.85	2.36	1.41
VITROS 250,400,500,700,750...	54	229.7	3	3.33	2.36	2.55
VITROS DT/DTII/DT60	31	230.1	3.3	3.03	2.54	2.26
Average performance figures			4.11	3.02	2.03	2.39
Weighted average performance figures	558		3.78	2.99	1.98	2.38

Datasheet 3. Cholesterol PT results from AAB 2004 2nd survey

CLIA allowable Total Error, TEa

10 %

Instrument	Labs	Mean	SD	CV	Sig wo/B	Bias	Sig w/
B							
All Methods	1498	223	9.40	4.22	2.37	NA	NA
Alfa Wasserman ACE/centr	77	225.2	5.80	2.58	3.88	0.99	3.50
Beckman LX series – beckman ctl	14	217.9	4.40	2.02	4.95	2.29	3.82
Beckman Synchron CX4/CX5 – beckman ctl	53	223.4	4.70	2.10	4.75	0.18	4.67
Beckman Synchron CX3/7/9/L – beckman ctl	113	221.9	6.40	2.88	3.47	0.49	3.30
Beckman Synchron CX4/CX5 – carolina ctl	11	220.9	12.00	5.43	1.84	0.94	1.67
Beckman Synchron CX3/7/9/L – carolina ctl	40	218	5.40	2.48	4.04	2.24	3.13
DCL ctl - Roche Cobas Mira series	16	216.3	9.40	4.35	2.30	3.00	1.61
DMA ctl – Olympus Demand	16	229.4	9.50	4.14	2.41	2.87	1.72
DMA ctl – Roche Cobas Mira series	10	233	7.90	3.39	2.95	4.48	1.63
Elan ctl – Elan ATAC 6000	10	219.9	6.40	2.91	3.44	1.39	2.96
Elan ctl – Elan ATAC 8000	71	220.3	7.40	3.36	2.98	1.21	2.62
JAS ctl – Roche Cobas Mira Series	12	226.4	6.10	2.69	3.71	1.52	3.15
J&J Vitros ctl – Vitros DT series	36	230.7	8.50	3.68	2.71	3.45	1.78
J&J Vitros ctl – Vitros not DT or Eci	173	229.5	5.90	2.57	3.89	2.91	2.76
Pointe Sci ctl – Pointe Sci 180/Sterl 2000	23	224.7	12.10	5.38	1.86	0.76	1.72
Pointe Sci ctl - Roche/Hit. 70x/71x/73x/914	14	241.8	12.10	5.00	2.00	8.43	0.31
Roche ctl – Roche Cobas Integra	44	219.6	5.50	2.50	3.99	1.52	3.38
Roche ctl – Roche Cobas Mira series	85	231.3	10.00	4.32	2.31	6.93	0.71
Roche/Hitachi ctl – Roche/Hitachi 902/911/912	33	224.9	5.80	2.58	3.88	3.98	2.34
Sterling #2145 ctl – spectrophotometers	37	225.6	4.10	1.82	5.50	4.30	3.14
Sterling #2145 ctl – Pointe Sci 180/Sterl 2000	11	221.4	8.10	3.66	2.73	2.36	2.09
Thermo-Trace ctl – Roche Cobas Mira series	11	226.6	7.90	3.49	2.87	4.76	1.50
Average performance figures				3.33	3.29	2.77	2.43
Weighted average performance figures	910			3.05	3.51	2.55	2.68

Datasheet 4. Cholesterol PT results from API 2004 2nd Survey

CLIA allowable Total Error, TEa

10 %

Instrument	Labs	Mean	SD	CV	Sig wo/B	Bias	Sig w/B
All Methods	2647	221.3	9.7	4.38	2.28	NA	NA
Abaxis Piccolo	20	230.8	3.2	1.39	7.21	4.29	4.12
Abbott Aeroset	29	223.8	3.1	1.39	7.22	1.13	6.40
Abbott Spectrum	7	222.7	6.2	2.78	3.59	0.63	3.36
Alfa Wasserman ACE, NEXCT	289	224.8	6.3	2.80	3.57	1.58	3.00
Bayer RA, Opera	7	225.3	11.8	5.24	1.91	1.81	1.56
Bayer-Chiron 550 Express	80	223.5	8.1	3.62	2.76	0.99	2.48
Beckman Synchron CX	277	219.8	6.4	2.91	3.43	0.68	3.20
Beckman Synchron LX	46	219.2	4.6	2.10	4.77	0.95	4.31
Clinical Data ATAC 6000	31	215.7	7.2	3.34	3.00	2.53	2.24
Clinical Data ATAC 8000	264	217.8	9.8	4.50	2.22	2.20	1.73
Dade Dimension	473	211.9	5.6	2.64	3.78	4.85	1.95
Hemagen Analyst	13	226.8	8	3.53	2.84	1.84	2.31
OCD Vitros 250-950	388	228.2	7.3	3.20	3.13	2.47	2.35
OCD Vitros DT 60, 60 II	119	226.8	9.8	4.32	2.31	1.84	1.89
Olympus AU400, 600, 1000, 2700	64	213.8	5.6	2.62	3.82	4.00	2.29
Poly-Chem	22	229.1	8.3	3.62	2.76	2.87	1.97
Roche Accu-Check InstantPlus	15	231.5	9.8	4.23	2.36	3.95	1.43
Roche Cobas Mira +	302	227.9	11.8	5.18	1.93	2.33	1.48
Roche Hitachi	51	224.3	6.5	2.90	3.45	0.72	3.20
Roche Integra	70	218.2	5.7	2.61	3.83	2.02	3.05
Roche Reflotron/Plus	49	215.1	6.3	2.93	3.41	5.16	1.65
Average performance figures				3.23	3.49	2.33	2.67
Weighted average performance figures	2616			3.37	3.19	2.51	2.37

Datasheet 5. Cholesterol PT results from CAP 2004 A Survey LP-01

CLIA allowable Total Error, TEa

10 %

Instrument	Labs	Mean	SD	CV	Sig wo/B	Bias	Sig w/B
All Methods ENZYMATIC	4240	198.7	5.6	2.8	3.57		
Abbott Aeroset	87	200.7	3.4	1.7	5.88	1.00	5.30
Bayer Advia 1650	65	198.6	5.7	2.9	3.45	0.05	3.43
Beck Syn CX3-7D,CX9ALX	296	198.1	4.4	2.2	4.55	0.30	4.41
Beck Syn CX4/5CE, 7/RTS	115	197.4	4.5	2.3	4.35	0.66	4.06
Beckman Synchron CX4/6	19	199.0	6.0	3.0	3.33	0.15	3.28
Beckman Synchron LX20	561	197.7	4.4	2.2	4.55	0.51	4.32
Dade Behrg Dim/AR/Mult	1072	195.4	4.7	2.4	4.17	1.69	3.46
OLY 400-640/2700/5400	220	196.5	4.3	2.2	4.55	1.12	4.04
Olympus AU 5200	23	201.0	5.6	2.8	3.57	1.14	3.16
Roche Cobas FARA/MIRA	25	207.7	5.5	2.6	3.85	4.33	2.18
Roche Cobas INTEGRA	293	200.7	6.1	2.6	3.85	1.00	3.46
Roche Modular	169	199.5	4.1	2.0	5.00	0.40	4.80
Roche/Hitachi 717	24	201.6	5.9	2.9	3.45	1.44	2.95
Roche/Hitachi 747	40	198.9	4.4	2.2	4.55	0.10	4.50
Roche/Hitachi 911	52	198.8	5.6	2.8	3.57	0.05	3.55
Roche/Hitachi 912	45	200.0	5.5	2.7	3.70	0.65	3.46
Roche/Hitachi 917	107	198.4	4.8	2.4	4.17	0.15	4.10
Vitros 250 Chem System	393	203.7	6.1	3.0	3.33	2.45	2.52
Vitros 400,700 Chem Sy	43	202.0	6.3	3.1	3.23	1.63	2.70
Vitros 500,650 Chem Sy	13	207.1	7.5	3.6	2.78	4.06	1.65
Vitros 950 Chem System	467	201.7	4.8	2.4	4.17	1.49	3.55
Vitros DT6011 Chem Sys	10	200.0	5.4	2.7	3.70	0.65	3.46
Average performance figures				2.58	3.99	1.14	3.56
Weighted average performance figures	4139			2.42	4.19	1.20	3.71

Datasheet 6. Cholesterol results from NY State Survey

CLIA allowable Total Error, TEa 10 %

Instrument	Labs	Mean	SD	CV	Sig wo/B	Bias	Sig w/B
All Methods	371	208.1	5.09	2.45	4.09	NA	NA
Abbott Aeroset	11	209.2	2.85	1.36	7.34	0.53	6.95
Beckman Coulter CX	46	208.4	3.51	1.68	5.94	0.14	5.85
Beckman Coulter LX-20	32	207.8	5	2.41	4.16	0.14	4.10
Bayer ADVIA 1650	15	207.5	4.84	2.33	4.29	0.29	4.16
Bayer Express	3	212.8	1.54	0.72	13.82	2.26	10.70
Dade Behring Dimension	66	207.6	4.93	2.37	4.21	0.24	4.11
Hitachi 717	7	212.4	5.83	2.74	3.64	2.07	2.89
Hitachi 747	11	206.3	3.9	1.89	5.29	0.86	4.83
Hitachi 911	5	212.6	8.37	3.94	2.54	2.16	1.99
Hitachi 917	8	207.9	8.22	3.95	2.53	0.10	2.50
Hitachi MODULAR	25	210.7	3.83	1.82	5.50	1.25	4.81
Johnson & Johnson Vitros	64	206.9	4.65	2.25	4.45	0.58	4.19
Olympus AU400/600/640/2700/5400	30	204.1	4.69	2.30	4.35	1.92	3.52
Olympus AU5000/5200	6	207.6	3.81	1.84	5.45	0.24	5.32
Roche Cobas INTEGRA	10	206.2	5.71	2.77	3.61	0.91	3.28
Roche Cobas MIRA	10	213.3	4.15	1.95	5.14	2.50	3.86
Alfa Wasserman ACE	4	205.9	1.88	0.91	10.95	1.06	9.79
Average performance figures				2.19	5.48	1.01	4.87
Weighted performance figures	353			2.19	4.83	0.69	4.48