

Cal Ver CXDX_Misc_ACL all sites

Synchron Control Level 1 lot #M701601
 Synchron Control Level 2 lot #M701602
 Synchron Control Level 3 lot #M701603
 Amm/Alc Control Level 1 lot #M712251
 Amm/Alc Control Level 2 lot #M707692
 Amm/Alc Control Level 3 lot #M707693
 Biorad Multiqual Liquid Assayed Level 1 lot#45581
 Biorad Multiqual Liquid Assayed Level 2 lot#45582
 Biorad Multiqual Liquid Assayed Level 3 lot#45583

Vigil Serology Control Level 1 lot#M804251
 Vigil Serology Control Level 2 lot#M804252
 Vigil Serology Control Level 3 lot#M804253
 Vigil Serology Control Level C lot#M703460

Vigil Protein Control Level 1 lot#M710711
 Vigil Protein Control Level 2 lot#M710712
 Vigil Protein Control Level 3 lot#M710713

D1 Control lot#M707701
 D2 Control lot#M709682
 D3 Control lot#M707703

The Pkg Insert Ranges are NOT the parameters used to trigger the "good" or "check" flags. These parameters are derived from a combination of experiential and cognitive element and are almost always quite a bit tighter than Pkg Insert Ranges; they are located for formula in columns that are off view from this pdf. The full spreadsheet with target parameters, background formula calcs., etc. is filed with the laboratory Technical Director/CIO

Ranges were obtained from control package inserts for the Beckman DxC Instruments.

Beckman Synchron Controls

Assay	Site MAE Result	MAW Result	MHC Result	Finley Result	Dyer Result	Pkg Inserts Range: Low - Hi		
Albumin	NA	NA	2.5 good	2.5 good	2.4 good	2.0 2.8		
Albumin	NA	NA	3.9 good	3.9 good	3.8 good	3.4 4.2		
Albumin	NA	NA	5.4 good	5.3 good	5.2 good	4.5 5.7	M rpt 5.4	(adjusted factor to allow slightly more than 0.3 deviation at this level; 20081106)
ALP	NA	NA	40 good	44 good	44 good	33.0 53.0		
ALP	NA	NA	154 good	156 good	156 good	131 181		
ALP	NA	NA	268 good	265 good	264 good	226 306		
ALT	NA	NA	29 good	28 good	27 good	24.0 34.0		CX range 23-33
ALT	NA	NA	168 good	170 good	158 good	144 204	D rpt 161	CX range 135-195
ALT	NA	NA	309 good	304 good	282 good	284 348	D rpt 286	CX range 246-346 (there's some bias between DXC & CX targets here but when offset for the gp bias to pkg insert mean it falls within our tolerances)
Amylase	NA	NA	49 good	49 good	49 good	41.0 61.0		
Amylase	NA	NA	220 good	232 good	224 good	196 256		
Amylase	NA	NA	390 good	403 good	392 good	359 439		
AST	NA	NA	34 good	34 good	31 good	28.0 38.0		CX range 26-36
AST	NA	NA	177 good	180 good	172 good	161 211	D rpt 172	CX range 150-200
AST	NA	NA	317 good	319 good	296 good	288 368	D rpt 300	CX range 268-348 (there's some bias between DXC & CX targets here but when offset for the gp bias to pkg insert mean it falls within our tolerances)
BUN3	7 good	7 good	NA	NA	NA	5.0 9.0		
BUN3	34 good	34 good	NA	NA	NA	30 38		
BUN3	62 good	62 good	NA	NA	NA	54 66		
BUN	NA	NA	8 good	8 good	8 good	6.0 10.0		
BUN	NA	NA	35 good	37 good	36 good	32 40		
BUN	NA	NA	63 good	65 good	64 good	58 70		
Calcium	7.8 good	7.7 good	7.7 good	7.5 good	7.7 good	7.1 8.3		
Calcium	10.7 good	10.5 good	10.6 good	10.1 good	10.6 good	9.8 11.4		
Calcium	13.4 good	13.3 good	13.4 good	12.6 good	13.5 good	12.1 14.5		
Chloride	82 good	82 good	77 good	79 good	79 good	75.0 83.0		
Chloride	100 good	101 good	97 good	99 good	99 good	94 104		
Chloride	120 good	121 good	117 good	118 good	118 good	113 125		
Cholesterol	NA	NA	104 good	103 good	102 good	90 120		
Cholesterol	NA	NA	165 good	163 good	163 good	146 186		
Cholesterol	NA	NA	226 good	223 good	221 good	207 247		cond sum diff F sum diff H sum diff J
CK	NA	NA	53 good	52 good	52 good	47.0 67.0		OK
CK	NA	NA	348 good	352 good	345 good	324 424		OK
CK	NA	NA	623 good	613 good	605 good	571 771		OK
CO2	14 good	14 good	16 good	14 good	14 good	10.0 16.0	M rpt 15	
CO2	24 good	24 good	27 good	25 good	24 good	20 26	F rpt 26/M rpt 25	
CO2	34 good	33 good	37 good	34 good	35 good	28 38	M rpt 37	
CRE3	0.4 good	0.4 good	NA	NA	NA	0.2 0.6		
CRE3	4 good	4 good	NA	NA	NA	3.63 4.43		
CRE3	7.4 good	7.5 good	NA	NA	NA	6.75 8.35		
Creatinine	NA	NA	0.35 good	0.34 good	0.33 good	0.1 0.5		
Creatinine	NA	NA	3.79 good	3.88 good	3.74 good	3.44 4.24		

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Iron	NA	NA	NA	58	good	NA	43.0	69.0				
Iron	NA	NA	NA	162	good	NA	146	186				
Iron	NA	NA	NA	271	good	NA	228	300				
GGT	NA	NA	13	good	15	good	17	good	7	19		
GGT	NA	NA	163	good	168	good	169	good	131	191		
GGT	NA	NA	311	good	315	good	308	good	242	362		
Glucose	NA	NA	NA	NA	47	good	37	53				
Glucose	NA	NA	NA	NA	239	good	209	249	D rpt 232	the repeats come down a bit but are still a little + to gp specific "targets"		
Glucose	NA	NA	NA	NA	420	check	368	436	D rpt 411	if this sl bias occurs on next chk, may offset depending on PT history.		
GLUm	44	good	43	good	44	good	43	good	NA	36	52	
GLUm	225	good	217	good	218	good	218	good	NA	209	235	
GLUm	379	good	372	good	382	good	383	good	NA	354	424	
HDLd	NA	NA	26.8	good	27.4	good	25.6	good	21	33		
HDLd	NA	NA	42	good	41.4	good	40.4	good	34	48		
HDLd	NA	NA	58.2	good	58.6	good	57.1	good	46	64		
IBCT	NA	NA	NA	201	good	NA	162	242				
IBCT	NA	NA	NA	323	good	NA	245	365				
IBCT	NA	NA	NA	441	good	NA	339	495				
IgA	NA	NA	NA	112	good	NA	93	133				
IgA	NA	NA	NA	177	good	NA	149	209				
IgA	NA	NA	NA	245	good	NA	198	294				
IgG	NA	NA	NA	510	good	NA	410	610				
IgG	NA	NA	NA	820	good	NA	660	960				
IgG	NA	NA	NA	1115	good	NA	906	1306				
IgM	NA	NA	NA	43	good	NA	35	53				
IgM	NA	NA	NA	67	good	NA	57	81				
IgM	NA	NA	NA	92	good	NA	75	111				
Potassium	2.5	good	2.6	good	2.5	good	2.5	good	2.6	good	2.2	2.8
Potassium	4.9	good	5	good	4.8	good	4.9	good	5	good	4.5	5.3
Potassium	7.2	good	7.5	good	7.2	good	7.3	good	7.4	good	6.7	7.9
LD-L	NA	NA	50	good	52	good	49	good	38.0	68.0		
LD-L	NA	NA	204	good	209	good	209	good	184	264	M rpt 205	
LD-L	NA	NA	344	good	362	good	357	good	325	445	D rpt 359/M rpt 345	
LDLd	NA	NA	42.9	good	40.6	good	40.3	good	36.0	48.0		
LDLd	NA	NA	73.2	good	69.6	good	69.1	good	66	84		
LDLd	NA	NA	104.6	good	101.6	good	102.9	good	91	125		
Lipase	NA	NA	114	good	110	good	NA	38.0	138.0	F rpt 117/MHC rpt 113	the range is ridiculous here; both labs in agreement, use our gp ave.	
Lipase	NA	NA	67	good	66	good	NA	52	84			
Lipase	NA	NA	25	good	23	good	NA	15	35			
Lithium	NA	NA	0.54	good	NA	NA	0.4	0.8				
Lithium	NA	NA	1.43	good	NA	NA	1.2	1.8				
Lithium	NA	NA	2.35	good	NA	NA	1.9	2.9				
Magnesium	NA	NA	1.3	good	1.32	good	1.3	good	0.9	1.7		
Magnesium	NA	NA	2.29	good	2.3	good	2.3	good	2	2.8		
Magnesium	NA	NA	3.28	good	3.25	good	3.3	good	2.8	4		
Salicylate	NA	NA	30.5	good	NA	NA	24.0	38.0				
Salicylate	NA	NA	19.8	good	NA	NA	14	24				
Salicylate	NA	NA	8.2	good	NA	NA	5	11				
Sodium	116	good	117	good	115	good	116	good	117	good	111.0	121.0
Sodium	139	good	139	good	136	good	137	good	139	good	131	143
Sodium	158	good	160	good	157	good	158	good	161	good	150	164
Phosphorus	NA	NA	1.9	good	2	good	2	good	1.6	2.4		
Phosphorus	NA	NA	4.4	good	4.5	good	4.8	good	3.8	5.2		
Phosphorus	NA	NA	6.8	good	6.9	good	7.4	good	5.9	7.9		
Total Bilirubin	NA	NA	0.8	good	0.8	good	0.7	good	0.4	1.4		
Total Bilirubin	NA	NA	4	good	3.9	good	3.7	good	2.9	5.1		
Total Bilirubin	NA	NA	6.9	good	7.1	good	6.5	check	5.3	9.3	D rpt 6.5	
Total Protein	NA	NA	4.1	good	4	good	4	good	3.7	4.5	this is OK but if they run low across all challenges next time, recal and rerun	

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Total Protein	NA	NA	8.4	good	8.2	good	8.1	good	7.5	9.3
Triglyceride	NA	NA	81	good	83	good	86	good	67.0	97.0
Triglyceride	NA	NA	125	good	131	good	133	good	106	146
Triglyceride	NA	NA	169	good	178	good	179	good	147	197
Uric Acid	NA	NA	2.4	good	2.5	good	2.6	good	2.1	2.9
Uric Acid	NA	NA	6.8	good	6.8	good	6.8	good	5.9	7.5
Uric Acid	NA	NA	10.8	good	10.8	good	10.5	good	9.6	11.6

Beckman Ammonia/Alcohol Controls

Ammonia Fin	NA	NA	NA	65	good	NA	27	95		
Ammonia Fin	NA	NA	NA	221	good	NA	180	248		
Ammonia Fin	NA	NA	NA	1051	good	NA	996	1149		
Ammonia MHC	NA	NA	68	good	NA	NA	27	95		
Ammonia MHC	NA	NA	231	good	NA	NA	180	248	M rpt 218	
Ammonia MHC	NA	NA	1040	good	NA	NA	996	1149	M rpt 1041	
Alcohol	NA	NA	0.05	good	0.05	good	NA	0.04	0.06	
Alcohol	NA	NA	0.1	good	0.1	good	NA	0.09	0.12	
Alcohol	NA	NA	0.47	good	0.46	good	NA	0.41	0.495	

Beckman Vigil Serology Controls

RF	NA	NA	NA	<20	#####	NA	no range			
RF	NA	NA	NA	80.5	good	NA	57.9	117.9		
RF	NA	NA	NA	182.4	good	NA	136	256		
ASO	NA	NA	NA	83.4	good	NA	62.5	96.1		
ASO	NA	NA	NA	167.9	good	NA	140	200		
ASO	NA	NA	NA	285	good	NA	239	329		

Beckman Vigil Serology Controls

CRPH	NA	NA	0.81	check	NA	NA	0.44	0.94	Level C	M rpt 0.9 OK
CRPH	NA	NA	15.85	good	NA	NA	9.21	19.21	Level 1	
CRPH	NA	NA	52.37	good	NA	NA	44.24	64.24	Level 2	
CRP	NA	NA	0.9	good	1.2	good	0.6	1.6		
CRP	NA	NA	4.1	good	4	good	3.9	5.1	F rpt 4.2	M rpt 4.2
CRP	NA	NA	6.1	good	6.5	good	5.8	7.8		M rpt 6.1

Beckman Vigil Protein Controls

HPT	NA	NA	NA	82	good	NA	67.7	97.7		
HPT	NA	NA	NA	147	good	NA	129	165		
HPT	NA	NA	NA	213	good	NA	187	237		

Beckman D1/D2/D3 Bilirubin Controls

Direct Bilirubin	NA	NA	0.9	good	0.8	good	0.8	good	0.4	1.2
Direct Bilirubin	NA	NA	3.7	good	4	good	3.9	good	3.4	4.4
Direct Bilirubin	NA	NA	5.3	check	5.5	good	5.6	good	4.9	6.3

Beckman Synchron Level 1 Control diluted 1:10 w/saline. Run as CSF. Need independent target

MTP	NA	NA	RSL	#####	RSL	#####	NA	#####	#VALUE!	
MTP	NA	NA	99	good	99	good	NA	84	114	
MTP	NA	NA	168	good	170	good	NA	144	194	
MTP	NA	NA	235	good	235	good	NA	200	270	
MTP	NA	NA	RSH	#####	RSH	#####	NA	#####	#VALUE!	

Biorad Multiquel Liquid Assayed Controls w/ Acid Phos slope set to 1.0

Acid Phos	NA	NA	6.7	good	NA	NA	5.5	8.3		
Acid Phos	NA	NA	15.3	good	NA	NA	13.1	19.7		
Acid Phos	NA	NA	36.1	good	NA	NA	26.9	40.3		

Synchron I 1 diluted 1:20 w/ TI H2O: assayed as IIA

97 target

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MA microalb	NA	NA	NA	30.8	good	NA	26.2	32.0	some +bias to calculated targets. Probably due to H2O as diluent. May try saline. OK	
MA microalb	NA	NA	NA	52.6	check	NA	43.7	53.4		
MA microalb	NA	NA	NA	74.3	check	NA	61.1	74.7		
MA microalb	NA	NA	NA	97	good	NA	87.3	106.7		

BNP Calibration Verification kit lot #194415 Fin/MHC
 BNP Calibration Verification kit lot #194415 Dyer
 i-Stat Calibration Verification Material lot #B07339
 MHC i-Stat G3+ cartridge lot #U08075
 Dyer i-Stat G3+ cartridge lot #U07151A
 Dyer BNP cartridge lot #W40507B
 MHC BNP Cartridge lot #W43163B
 Fin BNP Cartridge lot #W43117B

Fin i-Stat Card Marker Cal Ver lot #M080361
 MHC i-Stat1 Troponin lot #T08178C
 Fin i-Stat1 Troponin lot #T08121C
 Beckman D1 Bilirubin Control lot #M609311
 Beckman D2 Bilirubin Control lot #M609312
 Beckman D3 Bilirubin Control lot #M609313
 Beckman D4 Bilirubin Control lot #M605094
 Biorad Liquichek Diabetes Control lot #38340

MHC i-Stat Card Marker Cal Ver #M08183
 Wescor Sweat Controls lot#1504237
 DCA MA/Creat high ctrl lot#0033

BNP	NA	NA	13	good	14.2	good	11.7	good	5	29	No rpt-will need to get another kit if necessary.
BNP	NA	NA	71	check	107	good	94.3	good	63.3	141	close enough for this test
BNP	NA	NA	657	good	766	good	800	good	530	1360	
BNP	NA	NA	2100	good	2720	good	2360	good	1420	4760	
BNP	NA	NA	3180	good	3210	good	4150	good	1930	5000	

pO2	NA	NA	77	check	NA	88	check	57.4	83.4	M rpt 69	Dyer rpt 64
pO2	NA	NA	91	check	NA	91	check	68.5	94.5	M rpt 88	Dyer rpt 81
pO2	NA	NA	111	check	NA	112	check	89	115.6	M rpt 105	Dyer rpt 105
pO2	NA	NA	134	good	NA	136	good	112.5	146.1		
pO2	NA	NA	348	good	NA	332	good	281.9	385.5		

pCO2	NA	NA	90.8	good	NA	84.8	check	84.4	102.74		Dyer rpt 90.9
pCO2	NA	NA	59.9	good	NA	59.1	check	56.62	68.92	M rpt 60.7	Dyer rpt 59.8
pCO2	NA	NA	25.6	good	NA	25.4	good	20.2	30.98		
pCO2	NA	NA	19	good	NA	19.3	good	12.83	23.11		
pCO2	NA	NA	16.5	good	NA	17.2	good	11.32	21.12		

pH	NA	NA	6.823	good	NA	6.829	good	6.774	6.872		
pH	NA	NA	7.169	good	NA	7.166	good	7.122	7.22		
pH	NA	NA	7.448	good	NA	7.449	good	7.4	7.498		
pH	NA	NA	7.692	good	NA	7.692	good	7.643	7.741		
pH	NA	NA	8.148	good	NA	8.144	good	8.108	8.206		

Creatinine	NA	14.7	good	NA	NA	NA	12.34	17.72			
Creatinine	NA	4	check	NA	NA	NA	3.81	4.91	4 of 5 challenges sl low to theorhetical target.		
Creatinine	NA	1.8	good	NA	NA	NA	1.56	2.28			
Creatinine	NA	0.7	good	NA	NA	NA	0.35	1.07			
Creatinine	NA	0.6	good	NA	NA	NA	0.17	0.89			

Advance Bilirubinometer; CX calibrator

total Bilirubin	1.7	check	1.8	check	NA	NA	1	1.8	MAE rpt 1.1	MAW rpt 1.8
total Bilirubin	6.1	good	6.5	check	NA	NA	5.2	6.6		MAW rpt 6.5
total Bilirubin	8.7	good	9.2	check	NA	NA	7.8	9.6		MAW rpt 9.2
total Bilirubin	17.3	good	18.1	good	NA	NA	15.9	19.3		MAW rpt 17.4
direct Bilrubin	0.6	check	0.8	good	NA	NA	0.4	1.2	MAE rpt 0.6	
direct Bilrubin	4.1	good	3.9	good	NA	NA	3.4	4.4		
direct Bilrubin	5.4	good	5.7	good	NA	NA	4.9	6.3		

sweat Chloride	NA	NA	42	good	NA	NA	38	46		
sweat Chloride	NA	NA	72	good	NA	NA	65	79		
sweat Chloride	NA	NA	133	good	NA	NA	121	147		
Troponin iSTAT	NA	NA	0.33	good	NA	NA	0.22	0.4		
Troponin iSTAT	NA	NA	1.46	good	NA	NA	1.02	1.89		
Troponin iSTAT	NA	NA	26.94	good	NA	NA	16.02	42.22		
Troponin iSTAT	NA	NA	NA	0.32	good	NA	0.22	0.42		
Troponin iSTAT	NA	NA	NA	1.79	good	NA	1.16	2.16		
Troponin iSTAT	NA	NA	NA	23.05	good	NA	12.35	32.57		


HbA1c TOSOH	NA	5.9	good	NA	NA	NA	5.4	6.3	no ranges		
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HbA1c TOSOH	NA		14.4	good	NA		NA		NA		12.8	15	MAW rpt 14.6	the TOSOH has a much narrower "range". The two methods match well though.		
HbA1c CX5	NA		NA		NA		NA		6.2	good	4.77	7.16				
HbA1c CX5	NA		NA		NA		NA		9.1	good	6.95	10.4				
HbA1c CX5	NA		NA		NA		NA		13.2	good	10.4	15.6				
Microalb DCA	257	good	259	check	NA		NA		NA		201	283	target 242			
Microalb DCA	207	good	194	good	NA		NA		NA		164	230	calc target 197			
Microalb DCA	142	good	128	good	NA		NA		NA		112	158	calc target	OK; 1 trial each only sl out of range. No action		
Microalb DCA	76.2	good	69.1	good	NA		NA		NA		61	85	calc target 73			
Microalb DCA	11.8	check	11.1	good	NA		NA		NA		9	13	calc target 10.8			
Creatinine DCA	460	good	462	good	NA		NA		NA		369	521	target 445			
Creatinine DCA	371	good	346	good	NA		NA		NA		291	411	calc target 351			
Creatinine DCA	249	good	236	good	NA		NA		NA		199	281	calc target 240			
Creatinine DCA	137	good	123	good	NA		NA		NA		108	152	calc target 130			
Creatinine DCA	20.4	good	17.8	check	NA		NA		NA		16	22	calc target	No action; 0.1 out on low end. Other 4 challenges well w/in		

Hemosil Assayed Low Abnormal Control lot #N1074992
 Hemosil Assayed Normal Control lot #N0386069
 Hemosil Assayed High Abnormal Control lot #N0185522
 Hemosil Assayed Low Fibrinogen Control lot #N0285822 Fin

MHC D-Dimer Low Control lot #B70585
 MHC D-Dimer High Control lot #B70585
 Finley D-Dimer Low Control lot #B70585
 Finley D-Dimer High Control lot #B70585
 Dyers D-Dimer Low Control lot #B70678
 Dyers D-Dimer High Control lot #B70678

Prottime	20.2	good	19.7	good	20.8	good	20.4	good	20	good	18.9	25.5	low abn	MHC rpt 20.3	Since all sites are running the same,	
Prottime	10.7	good	10.8	good	10.7	good	10.7	good	10.7	good	9.2	12.2	normal	MHC rpt 11.1 NC; very good	did not repeat at all sites.	
Prottime	29.1	good	28.4	good	30.6	good	30	good	29.7	good	28	37.8	hi abn	MHC rpt 29.9	No peer data available yet for these lots.	
Fibrinogen	NA		NA		211	good	198	good	NA		150	210	low abn	MHC new probe/recal rpt 202		
Fibrinogen	NA		NA		386	good	332	good	NA		269	369	normal	MHC new probe/recal rpt 377	both systems match very well internally; essentially NC w/probe	
Fibrinogen	NA		NA		146	good	146	good	NA		82	162	low fib	MHC ne probe/recal rpt 145		
Thrombin	NA		NA		19.3	good	NA		NA		17.2	23.2	low abn			
Thrombin	NA		NA		14.3	good	NA		NA		13.9	17.9	normal	MHC rpt 14.3 NC; very good		
D-dimer	NA		NA		354	good	391	good	NA		263	439	low ctrl			
D-dimer	NA		NA		518	good	532	good	NA		416	592	1:1 dil			
D-dimer	NA		NA		693	good	705	good	NA		558	756	high ctrl			
D-dimer	NA		NA	NA		NA		NA	354	good	258	418	low ctrl			
D-dimer	NA		NA	NA		NA		NA	485	good	432	592	1:1 dil			
D-dimer	NA		NA	NA		NA		NA	661	good	577	797	high ctrl			


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