

New Test Method in SCH Lab

Abbott Alinity I replacing the Ortho Vitros 3600 on August 8, 2022

Abbott Alinity I series

Seattle Children's Chemistry Lab is transitioning immunoassay platforms from Ortho Vitros 3600 to the Abbott Alinity i on August 8, 2022. The new instruments are smaller, allowing us to have space for 2 instruments. Redundancy will reduce the risk for down-times and delayed results.

- Orders in EPIC will not change but results from new platform do not necessarily trend with the current method. Patients that are being monitored will need to be rebaselined after the transition.
- This change will Impact the following tests In the tables below.



Email lab directors Jane Dickerson or Lisa Johnson with any questions.

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AFP Reference Range (20% positive bias)			
Orders:	NEW Abbott AFP	Current Vitros AFP	
Age	Range (ng/mL)	Age	Range (ng/mL)
< 2 mo	>200	<14 days	3800 - 100,000 ng/mL
2 - <6 mo	10 - 1359	15 - 30 days	200 - 50,000
6 - <11 mo	<102	1 mo - 2 mo	80.0 - 8000
>11 mo	<35	2 mo - 3 mo	30.0 - 800
		3 mo - 4 mo	9.0 - 250
		4 mo - 5 mo	4.0 - 160
		5 mo - 6 mo	0.0 - 70.0
		> 6 mo	0.0 12.0
Cortisol Reference Range (No significant bias)			
Orders:	NEW Abbott Cortisol	Current Vitros Cortisol	
Age	Range (mcg/dL)	Age	Range (mcg/dL)
All	3.7 - 19.4	All	4.5 - 23

Prolactin Reference Range (10% negative bias)			
Orders:	NEW Abbott Prolactin	Current Vitros Prolactin	
Age	Range (mcg/dL)	Age	Range (mcg/dL)
< 30 d	13 - 213	All	4.5 - 23
30 d- 1 yr	6 - 114	>16 yr	< 29.1
>1 yr	4 - 23.0		
PTH Reference Range (30% positive bias)			
Orders:	NEW Abbott PTH		Current Vitros PTH
Age	Range (pg/mL)	Age	Range (pg/mL)
All	9 - 88.0	All	14 - 75

Ferritin Reference Range (50% positive bias at concentrations >100 ng/mL)			
Orders:	NEW Abbott Ferritin	Current Vitros Ferritin	
Age	Range (ng/mL)	Age	Range (ng/mL)
0-14 d	100-717	0 - 6 wks	<400
15d - <6 mo	14-647	6 wk - 2 yr	10-95
6m - <1yr	8-182	2 - 6 yr	11-85
1-<5 yr	5-100		
5-<14 yr	14-79		
	NEW Abbott Ferritin - Male	Current Vitros Ferritin - Male	
14-<16 yr	13-83	6 - 17 yr	16-107
16-<19 yr	11-172	17 - 38 yr	39 - 439
>19 yrs	22-275	> 38 yr	46 - 715
	NEW Abbott Ferritin - Female	Current Vitros Ferritin - Female	
14-<19 yr	6-67	6- 25 yr	10 - 82
>19 yrs	5-204	25 - 50 yr	7 - 147
		>50 yr	6 - 363

TSH Reference Range (25% negative bias)			
Orders:	New Abbott TSH (mIU/L)	Current Vitros TSH (mIU/L)	
Age	Range	Age	Range
0 - 3 d	0.5 - 18.2 (38.5 Critical)	0-3 days	1.0 - 24 (50 Critical)
4d - <2 mo	0.50 - 6.54 (11.9 Critical up to 1 mo)	3 d - 1 mo	0.6 - 6.8 (16 Critical)
2 mo - <14 yr	0.70 - 4.17	1 mo - adult	0.6 - 5.6
14 - <19 yr	0.47 - 3.41		
>19 yr	0.35 - 4.94		
Free T4 Reference Range (35% negative bias)			
Orders:	NEW Abbott Thyroxine (T4), Free	Current Vitros FT4	
Age	Range (ng/dL)	Age	Range (ng/dL)
0-14 d	1.05 - 3.21	0- 3 d	2.0 - 5.0
15 - <1 mo	0.68- 2.53	4 d - 1 mo	0.9 - 2.2
1 mo - <1yr	0.68 - 1.70	1 mo - 18 yr	0.8 - 2.0
>1 yr	0.70 – 1.48	>18 yr	0.8 - 2.2
Total T3 Reference Range (no significant bias)			
Orders:	NEW Abbott Triiodothyronine (T3) Total	Current Immulite T3 Total	
Age	Range	Age	Range
0 -5 d	0.58 - 2.97	0 -5 d	0.58 - 2.97
6d - <1yr	0.66 - 2.83	6d - 1yr	0.66 - 2.83
1 - <19 yr	0.78 - 2.20	1 - 19 yr	0.78 - 2.20
>19 yr	0.66 - 2.20	>19 yr	0.66 - 2.20

Total T4 Reference Range (20% negative bias)			
Orders:	NEW Abbott Total Thyroxine (T4)	Current Vitros Total T4	
Age	Range (mcg/dL)	Age	Range (mcg/dL)
<1 mo	4.2 - 14.9	0 - 3 d	8.0 - 20.0
1 mo - <1 yr	5.9 - 13.7	4d - 1 mo	5.0 - 15.0
1 - <9yr	6.2 - 10.3	1 - 12 mo	6.0 - 14.0
9 - <12yr	5.5 - 9.3	1 - 5 yr	4.5 - 11.0
12 - <14 yr	5.1 - 8.3	6 - 18 yr	4.5 - 10.0
14 - <19 yr	5.5 - 13.0	>18 yr	5.5 - 10.9
>19 yr	4.9 - 11.7		
Free T3 Reference Range (40% negative bias)			
Orders:	NEW Abbott Free Triiodothyronine (FT3)	Current Vitros FT3	
Age	Range (pg/mL)	Age	Range (pg/mL)
0 - 3d	3.51 - 6.49	0-24 hr	7.76 - 9.71
4d-<1yr	2.32 - 4.87	2 d	10.2 - 10.7
1 - <12 yr	2.79 - 4.42	3 d	5.95-7.22
12-<15 yr	2.50 - 3.95	4 - 30 d	3.76 - 5.74
15-<19 yr	2.31 - 3.71	1 mo - 18 yr	3.65 - 6.85
>19 yr	1.58 - 3.91	>18 yr	2.77 - 5.27

FSH Reference Range (14% positive bias)			
Orders:	NEW Abbott FSH - MALE	Current Vitros FSH - MALE	
Age	Range (mIU/mL)	Age	Range (mIU/mL)
<1 yr	0.1 - 2.4	<1 yr	NA
1 - < 5 yr	< 0.9	1 - 9 yr	0 - 5
5 - < 10 yr	< 1.6	9 - 11 yr	0 - 6
10 - <13 yr	0.4 - 3.9	11 - 13 yr	0 - 8
13 - <19 yr	0.8 - 5.1	13 - 18 yr	0 - 10
>19 yr	0.95 - 11.95	>18 yr	2 - 20.0
Orders:	NEW Abbott FSH - FEMALE	Current Vitros FSH - FEMALE	
Age	Range (mIU/mL)	Age	Range (mIU/mL)
<1 yr	0.4 - 10.4	<1 yr	NA
1 - < 9 yr	0.4 - 5.5	1 - 2 yr	0 - 8
9 - <11 yr	0.4 - 4.2	2 - 8 yr	0 - 5
11 - <19 yr	0.3 - 7.8	8 - 11 yr	0 - 10
>19 yr	1.38 - 16.7	11 - 18 yr	0 - 15
		>18 yr	2 - 25.0

LH Reference Range (25% negative bias)			
Orders:	NEW Abbott LH - MALE	Current Vitros LH - MALE	
Age	Range (mIU/mL)	Age	Range (mIU/mL)
0 - 3 mo	<3.8	0 - 6 mo	< 8.2
3 – <1 yr	<2.9	6 mo - 11 yr	< 0.3
1 - <10 yr	<0.3	11 - 13 yr	< 2.7
10 - <15 yr	<4.3	13 - 16 yr	0.3 - 5.8
15 - <17 yr	<4.8	> 16 yr	0.7 - 7.2
17 - <19 yr	0.9 - 7.1		
>19 yr	0.6 - 12.1		
Orders:	NEW Abbott LH - FEMALE	Current Vitros LH - FEMALE	
Age	Range (mIU/mL)	Age	Range (mIU/mL)
0 - 3 mo	< 2.4	0 - 6 mo	< 8.2
3 – <1 yr	< 2.9	6 mo - 11 yr	< 0.3
1 - <10 yr	<0.3	11 - 13 yr	< 6.5
10 - <13 yr	<4.3	13 - 16 yr	0.3 - 14.3
13 - <15 yr	0.4 - 6.5	>16 yr	< 29.1
15 - <17 yr	< 13.1		
17 - <19 yr	<8.4		
>19 yr	0.6 – 9.0		