

Appendix

Precision of assays:

	Testosterone (Peds/Female)	Estradiol	Hemoglobin A1c	ALT	AST
Assay Type	LC-MS/MS	Immunoassay	HPLC	Spectrophotometric 340/410 nm	Spectrophotometric 340/410 nm
Approved/ Developed	Laboratory Developed Test (LDT)*	FDA-approved	FDA-approved	FDA-approved	FDA-approved
Linearity/ RR	5-2,300 ng/dL	12-15,000 pg/mL	4-18%	7-3,300 U/L	8-6,000 U/L
Precision	L1 - Mean - 12 ng/dL; CV = 6.8% L2 - Mean - 58 ng/dL; CV = 2.7% L3 - Mean - 209 ng/dL; CV = 3.9% L4 - Mean - 1,104 ng/dL; CV = 2.7%	L1 - Mean - 92 pg/mL; CV = 5.1% L2 - Mean - 462 pg/mL; CV = 3.5% L3 - Mean - 1394 pg/mL; CV = 2.7%	L1 - Mean - 5.8%; CV = 2% L2 - Mean - 10.8%; CV = 2.1%	L1 - Mean - 32 U/L; CV = 3.7% L2 - Mean - 191 U/L; CV = 1.3%	L1 - Mean - 43 U/L; CV = 2.8% L2 - Mean - 258 U/L; CV = 1.3%
Accuracy	$y=0.9581X + 9.76^{**}$				

* All LC-MS/MS assays are LDTs

** Data from Comparison with Mayo LC-MS/MS assay