

<b>DATE:</b>	2021 December 21
<b>TO:</b>	All Healthcare Professionals in Edmonton Zone, North Zone and Central Zone
<b>FROM:</b>	Alberta Precision Laboratories (APL), North Sector
<b>RE:</b>	<b>Reporting Changes to 24-hr and Random Urine Metanephrines</b>

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### Key Message

- **Effective immediately**, changes to reference intervals, cutoff comments, and reporting components will be implemented for 24-hr and random urine metanephrines in Edmonton Zone (EZ), North Zone (NZ) and Central Zone (CZ) facilities that refer samples to Edmonton Zone for testing. See Tables 1 and 2 in Appendix.

### Why this is important

- The new reference interval cutoff values standardize reporting practices provincially. The new reference intervals align with published literature using local population to derive new cutoffs (Clinical Biochemistry 2020, Vol 77, 26-31).
- Changes include sex specific reference intervals with new diagnostic cutoffs across several age partitions. All reference interval adjustments will be updated on the APL Test Directory.
- 3-Methoxytyramine and total metanephrines will no longer be automatically charted components of the test panel but remain available upon request.
- Some appended interpretive comments will be adjusted to further standardize reporting provincially.
- The methodology for performing 24-hr and random urine metanephrines remains liquid chromatography tandem mass spectrometry.

### Action Required

- Be aware of changes to 24-hr and random urine metanephrine reference intervals, comments, and reporting components indicated in Table 1 and 2.
- Some patients may reclassify as abnormal depending on their sex and age reference interval partition. It is important to note that mild elevations in any component of the metanephrine panel (less than 2-times the reference interval) should be confirmed by repeat testing after controlling for pre-analytical variables.

### Questions/Concerns

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### This bulletin has been reviewed and approved by

- Dr. Albert Tsui, Clinical Biochemist, North Sector, APL
- Dr. Michael Mengel, North Sector Medical Director, APL



**Appendix**

Table 1. New 24-hr urine metanephrines reference intervals

Age	Normetanephrine (umol/d)			Metanephrine (umol/d)		
	M	F	U/X	M	F	U/X
<3	Not available			Not available		
3 up to 10	<0.9	<0.8	<0.9	<0.5	<0.7	<0.7
10 up to 13	<2.3	<1.5	<2.3	<1.0	<0.6	<1.0
13 up to 18	<2.5	<1.6	<2.5	<1.1	<0.9	<1.1
18 up to 30	<3.3			<1.3	<0.9	<1.3
30 up to 40	<2.7					
40 up to 50	<3.0					
50 up to 60	<4.3					
60 up to 70	<4.2					
>=70	<3.3					

Table 2. New random urine metanephrines reference intervals

Age	Normetanephrine (umol/mmol creatinine)	Metanephrine (umol/mmol creatinine)
<3	<=0.58	<=0.24
3 up to 10	<=0.44	<=0.19
10 up to 13	<=0.26	<=0.12
13 up to 18	<=0.18	<=0.09
>=18	Not accepted	Not accepted