

DATE:	2022 March 21
TO:	Medicine Hat and Area Physicians, Nursing Staff and Laboratory Staff
FROM:	Clinical Biochemistry, South Sector, Alberta Precision Laboratories (APL)
RE:	Change in Chemistry Analyzers at Medicine Hat Regional Hospital (MHRH) and Change to Reference Intervals

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Key Message

- Effective **March 29, 2022**, the newest generation of Roche Chemistry analyzers (Cobas® Pro) will be implemented in the MHRH laboratory to replace the aging Roche Cobas® 6000 chemistry analyzers.
- The new Chemistry analyzers allow adoption of provincially harmonized reference intervals. The table below indicates those that will change effective March 29, 2022.
- Retention of samples will also change from 7 days to 5 days.

Analyte	Age	Reference Interval	Units	Gender	Critical Value
Alanine Aminotransferase (ALT)	<18 Years	<40	U/L	M,F,&U	N/A
	>=18 Years	<70	U/L	M & U	N/A
	>=18 Years	<50	U/L	F	N/A
Aspartate Aminotransferase (AST)	<30 Days	<115	U/L	M,F,&U	N/A
	30 days to 364 days	<80	U/L	M,F,&U	N/A
	1 Year to <7 Years	<60	U/L	M,F,&U	N/A
	7 Years to <18 Years	<45	U/L	M,F,&U	N/A
	>=18 Years	<55	U/L	M & U	N/A
	>=18 Years	<45	U/L	F	N/A
Creatine Kinase (CK)	All ages	30-350	U/L	M & U	N/A
	All ages	30-200	U/L	F	N/A
Cortisol, AM	All ages	170-500	nmol/L	M,F,&U	N/A
Cortisol, PM	All ages	75-285	nmol/L	M,F,&U	N/A

Why this is Important

- Implementation of new chemistry equipment at MHRH will affect some reference intervals and reportable ranges.
- Alanine aminotransferase (ALT) and aspartate aminotransferase (AST) patient test results are expected to increase by ~15-20% due to a manufacturer reagent reformulation. The impact of this reformulation is reflected in the new provincial harmonized reference intervals above. Patients being monitored long term will require re-baselining for long term follow up.
- This change is in part due to the provincial standardization of general chemistry platforms in hospital laboratories, and is made with the intent to ease transition to Connect Care in the near future by harmonizing reference intervals and testing methodologies prior to Connect Care go-live.



Action Required

- Please be aware of these changes with implementation of the new chemistry analyzers.
- It is recommended to establish a new baseline for AST and ALT

Questions/Concerns

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This bulletin has been reviewed and approved by

- Dr. Spencer Paulson, Regional Laboratory Medicine Site Chief, Medicine Hat Regional Hospital
- Dr. Hossein Sadrzadeh, Section Chief, Clinical Biochemistry, South Sector
- Dr. Paul Klonowski, Associate Medical Director, South Sector