

Date: October 5th, 2015
To: All Zones - Physicians, Nursing and Laboratory Staff
From: AHS Laboratory Services
Re: Iron, Total Iron Binding Capacity and Iron Saturation Changes

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Key Messages:

- Provincial standardization of testing and reporting of results for iron studies will be implemented on a zone by zone basis starting in approximately late October.
- All reports (adult and pediatric) will include results with standardized units of measure for Iron ($\mu\text{mol/L}$), Total Iron Binding Capacity (TIBC) ($\mu\text{mol/L}$) and Iron Saturation Index (e.g., 0.25 as opposed to 25%).
- Adult (≥ 18 y) reference intervals will be standardized and a reporting comment will be added to all reports.
 - Iron

Male	8 – 30 $\mu\text{mol/L}$
Female	6 – 28 $\mu\text{mol/L}$
 - Total Iron Binding Capacity (TIBC)

Male and Female	40 – 80 $\mu\text{mol/L}$
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 - Iron Saturation Index

Male and Female	0.15 – 0.50
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 - Comment – *“Iron and TIBC are the preferred screening tests for hemochromatosis / hemosiderosis. Saturation Index >0.60 and an Iron concentration of $> 35 \mu\text{mol/L}$ may be expected in hemochromatosis / hemosiderosis.”*
- Pediatric (0 – 17 y) reference intervals will be unchanged unless noted below.

Site	Pediatric Reference Range Changes		
Lethbridge Red Deer Grande Prairie	Iron	Male and Female	5 – 25 $\mu\text{mol/L}$
	TIBC	Male and Female	50 – 85 $\mu\text{mol/L}$
	Iron Saturation Index	Male and Female	0.15 – 0.50
Medicine Hat Hospital	Iron	Male and Female	5 – 25 $\mu\text{mol/L}$
	Iron Saturation Index	Male and Female	0.15 – 0.50
Medicine Hat Diagnostic Lab	Iron	Male and Female	5 – 25 $\mu\text{mol/L}$
	Iron Saturation Index	Male and Female	0.15 – 0.50
Calgary Lab Services	TIBC	Male and Female	40 – 80 $\mu\text{mol/L}$
	Iron Saturation Index	Male and Female	0.15 – 0.50

Why this is important:

- Standardization of testing methods, units of measure and reference intervals whenever possible is advantageous for patients that may travel from site to site for diagnosis and treatment and for clinical programs that collate provincial data.

Inquiries and feedback may be directed to:

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This bulletin has been reviewed and approved by:

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