

Date: September 26, 2011

To: Central Zone – Former David Thompson Health Region: Physicians, Nurses and Laboratories

From: AHS Laboratory Services – Central Zone

Re: HbA1c – On-Site Testing in Red Deer

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Key Message:

HbA1c testing for the former David Thompson Health Region will be repatriated to Red Deer Regional Hospital from the *DynaLIFE_{Dx}* laboratory on September 28, 2011.

Why this is important:

- The Red Deer laboratory has acquired a “Tosoh G8”, a state-of-the-art analytical system for HbA1c. Utilizing the “gold standard” ion exchange high performance liquid chromatography (HPLC), the new system offers improved accuracy relevant to the target values and reduced analytical variability.
Red Deer validation studies have shown a difference of less than or equal to +/- 0.1 % relative to the target HbA1c levels for Tosoh systems. The coefficient of variation (a measure of the analytical variability) was less than or equal to 1.0 %.
- The results of correlation studies (124 patient specimens) between Red Deer (Tosoh G8) and DynaLIFE (Bio-Rad HPLC analyzer) were as follows:
$$\text{Tosoh G8} = (1.024 \times \text{Bio-Rad}) - 0.51 \quad \text{Correlation Coefficient} = 0.9954$$

On average the HbA1c results for the Tosoh G8 were lower by approximately 0.35 % (observed range of differences was +0.1 to -0.7 %). No “outlier” results were observed.
- The Tosoh G8 will allow for the presumptive identification of certain hemoglobin variants.

Action Required:

Laboratory Supervisors: Send specimens to Red Deer after the test code change from HBA1CRO to HBA1C that is scheduled for the afternoon of September 27, 2011.

For additional questions contact:

Dr. James Wesenberg, 403-343-4723 or james.wesenberg@albertahealthservices.ca

This bulletin has been reviewed and approved by:

Dr. James Wesenberg, AHS Medical / Scientific Director, Laboratory Services - Regional Centres and Rural