Severn Pathology

North Bristol NHS
NHS Trust

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Core Clinical Services Directorate

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To: All Health Care Professionals using HbA1c to diagnose or monitor Diabetes Mellitus

Dear Colleague

Re: Change in HbA1c Methodology

From December 9th 2013, the HbA1c methodology employed by the Clinical Biochemistry department at North Bristol NHS Trust will change. The new method (boronate affinity HPLC) gives exactly the same results as the previous assay but offers the following major advantages:

- No analytical interference from the presence of haemoglobin (Hb) variants
  (The presence of Hb variants will no longer be detected as a consequence of HbA1c analysis)
- Direct calibration to the IFCC HbA1c standard
- Faster sample throughput

Our previous methodology (ion-exchange HPLC) allowed the detection of most Hb variants but some of these variants caused interference in the assay, meaning that in the past, we have been unable to report an accurate HbA1c result in some patients with Hb variants.

As we will no longer be able to identify the presence of Hb variants, we wanted to take this opportunity to remind clinicians that although HbA1c is an excellent marker of glycaemic control in many patients, it has limitations, especially in the diagnosis of diabetes. In particular all HbA1c methods are inappropriate for diagnosis and the assessment of glycaemic control in patients homozygous for HbS and HbC, individuals with HbSC disease or with any other condition that alters red cell survival. Please see the attached Bristol and Weston Clinical Guideline (previously distributed in 2012) for guidance relating to the appropriate use of HbA1c in the diagnosis of diabetes.

If you have any questions or queries relating to this method change, please contact the Duty Biochemist (via the Pathology Helpdesk ex 38383) to discuss.

Yours sincerely,

Helena Kemp

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