

**Audit Template**

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| **Audit Title:**  **HbA1c measurement for diagnosis of Type 2 diabetes**. | |
| **Lead Auditor: Rachel Curd** | **Audit date(s): 3rd June 2014** |
| Please indicate if **Regional**  Please indicate which hospital & location or region  **Regional: Thames Audit Group** | **Report Author:**  Name: Rachel Curd  Email: RCurd@viapath.co.uk |
| **Aims of the Audit:**  In 2011 WHO recommended the use of HbA1c for diagnosis of type 2 diabetes mellitus  The aims of the audit were to review:   * + How has the recommendation has been implemented by laboratories   + Impact of this recommendation on laboratories | |
| **Audit Method and Outcome(s):**  An audit questionnaire was devised by the lead auditor and ratified by the Thames Audit Group (TAG) committee. It was then circulated to all members of the TAG and the responses analysed by the lead auditor. There were 21 responses received. The findings were presented by the lead auditor at the meeting of the TAG on 3rd June 2014. Recommendations were drafted by the lead auditor, discussed and amended by the TAG committee on 3rd June 2014 and then further discussed and amended at the TAG meeting. The recommendations were ratified by the TAG committee at the meeting on 31st July 2015. | |
| **Audit Recommendations / Standards:**   1. Provide local guidelines for the use of HbA1c for the diagnosis of type 2 diabetes mellitus. The guidelines should include when this test must not be used and guidance on how to interpret the results. 2. It is recommended that HbA1c analysis is performed on a laboratory analyser. If a POCT analyser is used for diagnosis ensure that this device meets the same quality standards as the laboratory analyser. 3. Laboratories should have a local policy in place if their analyser is prone to interference from haemoglobin variants. 4. Measurement of fructosamine should not be used to diagnose type 2 diabetes mellitus. 5. It is recommended that all HbA1c results should be reported in mmol/mol only. 6. Provide diagnostic ranges for type 2 diabetes mellitus on HbA1c reports or as a link to local guidelines as appropriate as follows:    1. HbA1c ≥ 48 mmol/mol diagnostic of type 2 diabetes mellitus according to WHO criteria.    2. High risk of developing type 2 diabetes mellitus 42-47 mmol/mol (UK expert group). 7. A single measurement is sufficient for the diagnosis of type 2 diabetes mellitus in patients with slow onset of symptoms (greater than 2 months). 8. In asymptomatic patients with an initial HbA1c ≥ 48 mmol/mol a second HbA1c test should be performed by the same laboratory within 2 weeks. If this result is also ≥ 48 mmol/mol this would confirm the diagnosis. If this result is < 48 mmol/mol the patient should be treated as high risk of diabetes and the HbA1c repeat testing performed in 6 months or sooner if symptoms of diabetes develop. 9. Urgent telephone reporting of a new diagnosis of type 2 diabetes mellitus identified by HbA1c testing is not required. | |
| **Please indicate to whom and when audit presented &/or circulated&/or published:**  The audit findings were presented at the TAG meeting on Tuesday 3rd June at Great Ormond Street Hospital for Children. | |
| **Audit recommendations / standards ratified by … and when:**  Audit standards were ratified by the TAG Committee at the TAG Committee meeting on 22nd October 2014. | |
| **Date of audit report:**  Tuesday 3rd June 2014 | |
| **Audit documents for upload to http://www.acb.org.uk/whatwedo/science/audit.aspx** | |