HbA1c (Glycated Haemoglobin)

A long term indicator of diabetic control
In 2009 the American Diabetes Association, International Diabetes Federation and European Association for the study of Diabetes endorsed HbA1c as a method of diabetes diagnosis. The concentration of HbA1c in the blood of diabetic patients increases with rising blood glucose levels and is representative of the mean blood glucose level over the preceding six to eight weeks.

HbA1c can therefore be described as a long term indicator of diabetic control unlike blood glucose which is only a short term indicator of diabetic control. It is therefore a more reliable indicator of glycaemic control than blood glucose.

Determination of HbA1c is of great importance in the long term care of the diabetic patient and as such it is recommended that HbA1c levels are monitored every three to four months. In patients who have recently changed their therapy or in those who have gestational diabetes it may be beneficial to measure HbA1c levels more frequently, at two to four week intervals.

Why use the Randox HbA1c Kit?

Sample type – Suitable for use with whole blood samples

Imмуnoassay method – Many standard methods for HbA1c determination e.g. HPLC are difficult, laborious and require experienced personnel making them unsuitable for routine use. The Randox assay utilises an immunoassay method making it simple and quick to perform.

Standardisation – The Randox HbA1c calibrator set is referenced to the Drabkin’s method for Total Haemoglobin and an HPLC method for HbA1c.

Excellent correlation to standard methods – A correlation coefficient of 0.98 was obtained with a competitor method.

Liquid ready to use reagents – For ease of use and convenience

Excellent stability – All reagents are stable to expiry date when stored at +2-8°C or 30 days on board the analyser at approximately 10°C.

Combined kit – Intended for the determination of both HbA1c and Total Haemoglobin, the reported HbA1c result is calculated as a percentage of the total haemoglobin concentration.

Haemoglobin denaturant – Supplied with the kit

Wide measuring range – 0.25 g/dl – 2.4 g/dl

Excellent sensitivity – 0.25 g/dl

Excellent precision – The following coefficients of variation were obtained for HbA1c on the RX daytona at 37°C.

Within run precision

<table>
<thead>
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<th>Mean (%)</th>
<th>SD</th>
<th>CV(%)</th>
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Between run precision

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Interference – The following analyte concentrations were not found to affect the assay:

- Bilirubin: 30mg/dl
- Triglycerides: 1600mg/dl
- RF: 2000 IU/ml
- Acetylsalicylic Acid: 60mg/dl
- Sodium Cyanate: 50mg/dl
- Urea: 500mg/dl

Fully automated protocols – Are available for a wide range of clinical chemistry analysers.