

UHL GP NEWS

Fructosamine

Summary

NICE guidance NG28 recommends that in patients where HbA1c monitoring is invalid because of disturbed erythrocyte turnover or abnormal haemoglobin type, trends in blood glucose control should be estimated using one of the following: quality-controlled plasma glucose profiles, total glycated haemoglobin measurement (if abnormal haemoglobins) or fructosamine measurement.

Fructosamine assay is provided by Chemical Pathology and we wish to make you aware of a change in method which will have an impact on patient results. We have moved from a semi-automated colorimetric assay on the Olympus platform, to a fully automated enzymatic assay on the Siemens analysers in our fast-track laboratory. These assays perform differently, with the Siemens method producing higher results compared with the Olympus. It is important to bear this in mind when reviewing patient results.

The laboratory has derived its own reference range for the newer assay: **240-379 $\mu\text{mol/L}$**

We have also compared fructosamine with HbA1c across the diabetic range in order to give an idea of levels seen with the new assay at various degrees of glycaemic control. This is summarised in the table below.

HbA1c and SIEMENS Fructosamine Assay comparison.

HbA1c %	HbA1c mmol/mol	fructosamine $\mu\text{mol/L}$	50% conf.int
4.0	20	206	186-228
4.5	26	243	219-269
5.0	31	272	245-302
5.5	37	306	275-341
6.0	42	333	299-371
6.5	48	364	326-407
7.0	53	390	349-437
7.5	59	420	376-471



8.0	64	445	397-500
8.5	70	475	423-533
9.0	75	499	444-561
10.0	86	551	490-621
11.0	97	602	535-680
12.0	108	653	579-738

When is this changing?

Effective Immediately

Who to contact for more information?

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