Indicators for the NICE menu for the QOF

Indicator area: Diabetes mellitus
Indicator: NM96

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The percentage of patients with diabetes, on the register, in whom the last IFCC HbA$_{1c}$ is 64 mmol/mol or less in the preceding 12 months.

Please note: NICE inherited this indicator when it became responsible for managing the process of developing and maintaining QOF indicators in 2009.

Introduction
Diabetes is a chronic disease that occurs when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces.\(^1\) There are 2 major types of diabetes. Type 1 diabetes occurs when the insulin-producing cells in the pancreas are destroyed and usually develops in children and young adults.\(^2\) Type 2 diabetes usually appears in middle-age or in older people, although more frequently it is being diagnosed in younger people who are overweight. Type 2 diabetes occurs when the pancreas does not produce enough insulin, or the insulin produced is not used effectively.\(^2\)

Long-term blood glucose control is measured using a HbA$_{1c}$ (glycated haemoglobin) test, reported using the International Federation of Clinical Chemistry (IFCC) measurement of mmol/mol. Units for reporting HbA$_{1c}$ have changed from % to mmol/mol since the NICE guidelines on type 1 and type 2 diabetes were published.

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\(^2\) Diabetes UK (2014) Diabetes: facts and stats
Rationale
This indicator measures the percentage of people with diabetes who have an HbA$_1c$ measurement of 64 mmol/mol (8.0%) or less. The aim of treatment is to reduce the risk of complications in people with type 1 or type 2 diabetes.

Strong clinical evidence shows that tight blood glucose control is associated with a reduction in diabetes complications. The NICE guideline for type 2 diabetes recommends that people are treated to an HbA$_1c$ target of 6.5% (48 mmol/mol), but less stringent targets may be appropriate for some people. The NICE guideline for type 1 diabetes advises an HbA$_1c$ target of 7.5% (59 mmol/mol) to minimise the risk of microvascular disease and macrovascular disease. The SIGN guideline for diabetes recommends an HbA$_1c$ target of 7.0% (53 mmol/mol) for people with type 2 diabetes, but states that individual targets should be set to balance benefits with harms.

For the purposes of primary care indicators, 3 separate clinical practice targets were adopted: HbA$_1c$ 59, 64 and 75 mmol/mol (NM14, NM96, NM97). These targets are higher than the lower level recommended by the guidance, which may not be achievable or appropriate for all people. To achieve an average practice HbA$_1c$ of 64 mmol/mol (8.0%), a healthcare professional may need to aim for an individual’s HbA$_1c$ below this, in line with NICE guidance. The 3 targets aim to provide incentives for improving blood glucose control across the distribution of HbA$_1c$ values in the population with type 1 and type 2 diabetes.\(^3\)

Source guidance and recommendations
- Type 1 diabetes (2004) NICE guideline CG15
  - Recommendation 1.9.2.1: Adults with type 1 diabetes should be advised that maintaining a DCCT-harmonised HbA$_1c$ below 7.5% is likely to minimise their risk of developing diabetic eye, kidney or nerve damage in the longer term.
  - Recommendation 1.9.2.2: Adults with diabetes who want to achieve an HbA$_1c$ down to, or towards, 7.5% should be given all appropriate support in their efforts to do so.

\(^3\) Updated NICE guidance for type 1 and type 2 diabetes will be published in August 2015.
- **Type 2 diabetes** (2009) NICE guideline CG87
  - Recommendation 1.3.1: When setting a target glycated haemoglobin (HbA\(_1c\)):
    - involve the person in decisions about their individual HbA\(_1c\) target level, which may be above that of 6.5% set for people with type 2 diabetes in general
    - encourage the person to maintain their individual target unless the resulting side effects (including hypoglycaemia) or their efforts to achieve this impair their quality of life
    - offer therapy (lifestyle and medication) to help achieve and maintain the HbA\(_1c\) target level
    - inform a person with a higher HbA\(_1c\) that any reduction in HbA\(_1c\) towards the agreed target is advantageous to future health
    - avoid pursuing highly intensive management to levels of less than 6.5%.

- **Management of diabetes** (2010) SIGN guideline 116
  - An HbA\(_1c\) target of 7.0% (53 mmol/mol) among people with type 2 diabetes is reasonable to reduce risk of microvascular disease and macrovascular disease. A target of 6.5% (48 mmol/mol) may be appropriate at diagnosis. Targets should be set for individuals in order to balance benefits with harms, in particular hypoglycaemia and weight gain.

**Further information**

This is NICE indicator guidance for QOF, which is part of the NICE menu of indicators. This document does not represent formal NICE guidance. The NICE menu of indicators for QOF is available online at: