Indicator area: Diabetes mellitus
Indicator: NM95

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The percentage of patients with diabetes, on the register, with a diagnosis of nephropathy (clinical proteinuria) or microalbuminuria who are currently treated with an ACE-I (or ARBs).

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.\(^2\)

People with diabetes are at risk of kidney disease (nephropathy). Microalbuminuria is the earliest sign of kidney damage, whereas diabetic nephropathy is a more severe form of kidney disease.\(^2\) Angiotensin-converting enzyme (ACE) inhibitors and angiotensin II receptor antagonists (ARB) are antihypertensive treatments indicated for treating diabetes and kidney disease.

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\(^2\) Diabetes UK (2014) Diabetes: facts and stats
Rationale
This indicator measures the percentage of people with diabetes and kidney disease treated with ACE inhibitors or ARBs. The aim of treatment is to slow the progression of kidney disease in people with type 1 or type 2 diabetes.

There is strong clinical evidence that the progression of kidney disease in people with diabetes is slowed by treatment with ACE inhibitors. Although trial evidence is based largely on ACE inhibitors, it is believed that similar benefits occur with ARB treatment in people who have intolerable side effects with ACE inhibitors. The SIGN guideline for diabetes recommends that all people with diabetes and a diagnosis of microalbuminuria are offered ACE inhibitors or ARB treatment, irrespective of blood pressure. This is in agreement with the NICE guidelines for type 1 diabetes and type 2 diabetes, which recommend ACE inhibitors for people with diabetes who have microalbuminuria or confirmed nephropathy, or ARB treatment if ACE inhibitors are not tolerated.

This indicator aligns with the guidance by providing an incentive for ACE inhibitor or ARB treatment for all people with type 1 or type 2 diabetes who have a diagnosis of microalbuminuria or confirmed nephropathy.

Source guidance and recommendations
- **Type 1 diabetes** (2004) NICE guideline CG15
  - Recommendation 1.11.2.5: ACE inhibitors should be started and, with the usual precautions, titrated to full dose in all adults with confirmed nephropathy (including those with microalbuminuria alone) and type 1 diabetes.
  - Recommendation 1.11.2.6: If ACE inhibitors are not tolerated, angiotensin 2 receptor antagonists should be substituted. Combination therapy is not recommended at present.
- **Type 2 diabetes** (2009) NICE guideline CG87
  - Recommendation 1.12.7: Start ACE inhibitors with the usual precautions and titrate to full dose in all individuals with confirmed raised albumin excretion rate (> 2.5 mg/mmol for men, > 3.5 mg/mmol for women).
- Recommendation 1.12.9: Substitute an angiotensin II-receptor antagonist for an ACE inhibitor for a person with an abnormal albumin:creatinine ratio if an ACE inhibitor is poorly tolerated.

- **Management of diabetes** (2010) SIGN guideline 116
  - People with type 1 diabetes and microalbuminuria should be treated with an ACE inhibitor irrespective of blood pressure.
  - People with type 2 diabetes and microalbuminuria should be treated with an ACE inhibitor or an ARB irrespective of blood pressure.

**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:

http://www.nice.org.uk/standards-and-indicators/qofindicators