NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

NICE indicator validity assessment

Indicator IND263

The percentage of patients on the CKD register and with an albumin to creatinine ratio (ACR) of 70 mg/mmol or more, without diabetes, who are currently treated with an ARB or an ACE inhibitor

Importance

Considerations	Assessment
NHS England referred chronic kidney disease (CKD) as a topic for exploring possible indicators. There is a single indicator for CKD in the current 2023/24 QOF. CKD is recognised as a risk factor for other conditions such as cardiovascular disease and identification and management of CKD has been included in data collection for the CVD Prevent audit.	The indicator reflects a specific priority area identified by NHS England.
CVD Prevent reported that 68.84% of CKD patients with hypertension and proteinuria were recorded as treated with RAAS antagonists (to March 2022). Variation was seen by deprivation and age. No information on the definition of proteinuria used in the audit standard or results for patients with CKD alone. People with diabetes have been excluded from the indicator. People with diabetes and with a diagnosis of nephropathy or microalbuminuria are included in NICE menu indicator IND134 on treatment with an ACE inhibitor or ARB.	The indicator relates to an area where there is known variation in practice. The indicator addresses under-treatment.
Treatment with renin-angiotensin system antagonists such as ACE inhibitors and angiotensin II receptor blockers for people with CKD can prevent or delay the progression of CKD, reduce or prevent the development of complications and reduce the risk of cardiovascular disease.	The indicator will lead to a meaningful improvement in patient outcomes.

Evidence base

Considerations	Assessment
Chronic kidney disease: assessment and management. NICE guideline NG203 (2021), recommendation 1.6.9	The indicator is derived from a high-quality evidence base.

1.6.9 For adults with CKD but without diabetes: • refer for nephrology assessment and offer an ARB or an ACE inhibitor (titrated to the highest licensed dose that they can tolerate), if ACR is 70 mg/mmol or more • monitor in line with recommendations 1.3.1 and 1.3.4 if ACR is above 30 but below 70 mg/mmol; consider discussing with a nephrologist if eGFR declines or ACR increases.	The indicator aligns with the evidence base.

Specification

Considerations	Assessment
Numerator: The number of patients in the denominator who are currently treated with an ARB or an ACE inhibitor. Denominator: The number of patients on the CKD register and with an ACR of 70 mg/mmol or more, without diabetes. Definitions: • Current treatment is defined as a prescription in the last 6 months of the reporting period. • The CKD register includes patients aged 18 and over with CKD stages G3a to G5. • The last recorded reading of ACR should be used for inclusion in the denominator. Exclusions: None Personalised care adjustments or exception reporting should be considered to account for situations where the patient declines, does not respond to invite or if treatment is inappropriate.	The indicator has defined components necessary to construct the indicator, including numerator, denominator and exclusions.
CPRD Aurum data (March 2022 release; on file, approved study protocol 23_002668) shows that less than 0.1% of people in England are on the CKD register and with an albumin to creatinine ratio (ACR) of 70 mg/mmol or more, without diabetes: less than 5 patients for an average practice with 10,000 patients. There is no minimum number of patients required for general practice indicators intended for use outside the QOF. However, consideration should be given to whether the majority of results would require suppression because of small numbers. Note on data from CPRD Aurum: This study is based in part on data from the Clinical Practice Research Datalink obtained under licence from the UK Medicines and	The indicator does outline minimum numbers of patients needed to be confident in the assessment of variation.

Healthcare products Regulatory Agency. The data is provided by patients and collected by the NHS as part of their care and support. The interpretation and conclusions contained in this study are those of the author/s alone.	

Feasibility

Considerations	Assessment
Data can be collected from GP systems using SNOMED coding.	The indicator is repeatable.
We assume that pharmacotherapy and CKD stage can be derived from SNOMED coding. CVD Prevent indicator CVDP005CKD measures the percentage of people with CKD, hypertension and proteinuria currently treated with renin-angiotensin system antagonists. CVDPrevent also has an indicator that uses an ACR value (less than 70 mg/mmol) in round 3 (CVDP007CKD) although the business rules and methodology are not yet available. NHS Digital business rules v46.0 for QOF 2021/22 diabetes mellitus shows SNOMED cluster codes for ACE inhibitors (ACE_COD) and ARB (AII_COD) NHS Digital business rules for INLIQ v46.0 include cluster codes for albumin creatinine and protein creatine ratio and this includes urine microalbumin creatinine ratio as an observable entry. NHS England suggested that new logic would be needed to introduce ACR test and value in their feasibility assessment of IND262. Urine ACR is a laboratory test that may be received directly by GP systems.	The indicator is measuring what it is designed to measure. The indicator uses existing data fields.

Acceptability

Considerations	Assessment
Personalised care adjustments could be used to exclude people who are unsuitable for treatment or who decline.	The indicator assesses performance that is attributable to or within the control of the audience
Data can be extracted and used to compare practice within the GP practice or with other GP practices.	The results of the indicator can be used to improve practice

Risk

Considerations	Assessment
There is potential overlap with the population in NICE indicators IND130 and IND134, but the proposed indicator	The indicator has an acceptable risk of unintended consequences.

has potential for additional identification of patients who would benefit from treatment. Stakeholder feedback at consultation highlighted patients should be on the highest dose of ACE I or ARBs that they can tolerate. NICE has heard that this is poorly coded in GP systems. This indicator assumes that maximally tolerated treatment has been given. Stakeholders noted that some practices use protein creatinine measurement rather than ACR. The indicator advisory committee advised that this would likely be a minority of practices. Recommendations in NICE's guideline on CKD use ACR measurement for investigation of proteinuria but also note that PCR measurement can be used as an alternative when ACR is 70 mg/mmol or more. Stakeholders commented on the specification that states the last ACR result be used for inclusion in the denominator. They highlighted the risk of including people with transient rather than persistent proteinuria. Personalised care adjustments could be used in this circumstance. Stakeholders and feedback from piloting of related indicator IND235 noted low uptake of urine ACR measurement. CVD Prevent audit (2022) showed that an annual urine ACR test was recorded in 24.6% of people with CKD. An existing NICE menu indicator IND144 measures the number of people on the CKD register with a record of a urine ACR test in the preceding 12 months, this indicator had data collected as part of the indicators no longer in QOF (INLIQ) dataset (CKD 004) and is suitable for inclusion in QOF. Urine ACR is a laboratory test that may be received directly by GP systems and may not be converted into an extractable format for the purpose of this indicator. This may impact on denominator numbers. Current estimates of the denominator using data from CPRD Aurum suggests low numbers for this indicator and thus risks suppression of reports from individual practices. These denominators may increase if ACR testing or coding increases.	

NICE indicator advisory committee recommendation

The NICE indicator advisory committee approved this indicator for publication on the menu.