

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

NICE indicator validity assessment

Indicator IND264

The percentage of patients on the CKD register and with an albumin to creatinine ratio (ACR) of 70 mg/mmol or more, without moderate or severe frailty, in whom the last blood pressure reading (measured in the preceding 12 months) is less than 125/75 mmHg if using ambulatory or home monitoring, or less than 130/80 mmHg if monitored in clinic.

Importance

Considerations	Assessment
<p>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.</p>	<p>The indicator reflects a specific priority area identified by NHS England.</p>
<p>NHS Digital's INLIQ data from 2022 to 2023 shows performance of the indicator CKD002. This measures the percentage of patients on the CKD register who have blood pressure reading of 140/85 mmHg or less. This shows an achievement rate of 69%.</p> <p>There is no data for achievement of the lower blood pressure targets in the population of the proposed indicator, but it could be assumed to be the same or lower achievement rate.</p>	<p>The indicator relates to an area where there is known variation in practice.</p> <p>The indicator addresses under-treatment.</p>
<p>Chronic kidney disease (CKD) is a long-term condition characterised by abnormal function or structure (or both). Optimal blood pressure control can slow progression of CKD and reduce the risk of cardiovascular disease. A focus on people without moderate or severe frailty allows for an individualised management approach that adjusts care according to frailty status. The General Medical Service (GMS) contract requires practices to use an appropriate tool (such as the electronic frailty index) to identify moderate and severe frailty in patients 65 years and over. It also requires secondary validation.</p>	<p>The indicator will lead to a meaningful improvement in patient outcomes.</p>

Evidence base

Considerations	Assessment
<p>Chronic kidney disease: assessment and management. NICE guideline NG203 (2021), recommendation 1.6.2. In adults with CKD and an ACR of 70 mg/mmol or more, aim for a clinic systolic blood pressure below 130 mmHg (target range 120 to 129 mmHg) and a clinic diastolic blood pressure below 80 mmHg.</p> <p>Hypertension in adults: diagnosis and management. NICE guideline NG136 (2019, last updated 2022) recommendations 1.4.10, 1.4.18, and 1.4.20 and 1.4.22.</p> <p>1.4.10 Discuss starting antihypertensive drug treatment, in addition to lifestyle advice, with adults aged under 80 with persistent stage 1 hypertension who have 1 or more of the following:</p> <ul style="list-style-type: none"> • target organ damage • established cardiovascular disease • renal disease • diabetes • an estimated 10-year risk of cardiovascular disease of 10% or more. <p>Use clinical judgement for people with frailty or multimorbidity (see also NICE's guideline on multimorbidity).</p> <p>1.4.18 Consider ABPM or HBPM, in addition to clinic blood pressure measurements, for people with hypertension identified as having a white-coat effect or masked hypertension (in which clinic and non-clinic blood pressure results are conflicting). Be aware that the corresponding measurements for ABPM and HBPM are 5 mmHg lower than for clinic measurements (see recommendation 1.2.8 for diagnostic thresholds).</p> <p>1.4.20 For adults with hypertension aged under 80, reduce clinic blood pressure to below 140/90 mmHg and ensure that it is maintained below that level.</p> <p>1.4.22 When using ABPM or HBPM to monitor the response to treatment in adults with hypertension, use the average blood pressure level taken during the person's usual waking hours (see recommendations 1.2.6 and 1.2.7). Reduce blood pressure and ensure that it is maintained:</p> <ul style="list-style-type: none"> • below 135/85 mmHg for adults aged under 80 • below 145/85 mmHg for adults aged 80 and over. 	<p>The indicator is derived from a high-quality evidence base.</p> <p>The indicator aligns with the evidence base.</p>

Use clinical judgement for people with frailty or multimorbidity (see also NICE's guideline on multimorbidity).

Specification

Considerations	Assessment
<p>Numerator: The number of patients in the denominator in whom the last blood pressure reading (measured in the preceding 12 months) is less than 125/75 mmHg if using ambulatory or home monitoring, or less than 130/80 mmHg if monitored in clinic.</p> <p>Denominator: The number of patients on the CKD register and with an ACR of 70 mg/mmol or more, without moderate or severe frailty.</p> <p>Definitions:</p> <ul style="list-style-type: none"> • 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. <p>Exclusions: None</p> <p>Personalised care adjustments or exception reporting should be considered to account for situations where the patient declines, does not respond to invite or if the blood pressure target is inappropriate.</p>	<p>The indicator has defined components necessary to construct the indicator, including numerator, denominator and exclusions.</p>
<p>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 moderate or severe frailty: <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.</p> <p>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 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.</p>	<p>The indicator does outline minimum numbers of patients needed to be confident in the assessment of variation.</p>

Feasibility

Considerations	Assessment
Data can be collected from GP systems using SNOMED coding.	The indicator is repeatable.
<p>NHS Digital suggested the following clusters could be used for IND235, and there is an assumption that these could be used for this indicator:</p> <p>CKD_COD MODFRAIL_COD SEVFRAIL_COD APCR_COD BP_COD BPEX_COD</p> <p>A similar logic is seen in QOF, INLIQ and CVD Prevent. 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.</p>	<p>The indicator is measuring what it is designed to measure.</p> <p>The indicator uses existing data fields.</p>

Acceptability

Considerations	Assessment
<p>Personalised care adjustments could be used for people with maximally tolerated therapy or if the blood pressure target is not appropriate.</p> <p>Clinical monitoring should take place in an appropriate clinical setting.</p>	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
Stakeholders and feedback from piloting for indicator IND235 showed concern that frailty may not be coded well in primary care and may not reflect clinical status. The indicator advisory committee noted that the General Medical Service Contract requires practices to use an appropriate tool (such as the electronic frailty index) to identify moderate and severe frailty in patients 65 years and over. It also requires secondary validation.	The indicator has an acceptable risk of unintended consequences.

<p>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.</p> <p>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.</p> <p>Low uptake of ACR in practice may impact on this indicator. It assumes that an ACR result is on record for the person included in the denominator. An existing NICE menu indicator ID144 measures the number of people on the CKD register with a record of a urine ACR test in the preceding 12 months, this indicator has 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.</p>	
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NICE indicator advisory committee recommendation

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