NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

INDICATOR DEVELOPMENT PROGRAMME

Consultation report

Indicator area: Chronic kidney disease (CKD)

Consultation period: 22 March – 21 April 2022

Date of Indicator Advisory Committee meeting: 14 June 2022

Contents

Summary of indicators included in the consultation

ID	Indicator	Evidence source
IND2021-118	The percentage of patients (excluding those on the CKD register) prescribed long-term (chronic) oral non-steroidal anti-inflammatory drugs (NSAIDs) who have had an eGFR measurement in the preceding 12 months.	Chronic kidney disease: assessment and management (2021), NICE guideline NG203 recommendation 1.1.20
IND2021-119	The percentage of patients with a new diagnosis of CKD stage G3a-G5 (on the register, within the preceding 12 months) who had 2 separate eGFR tests undertaken prior to diagnosis being confirmed, with at least 90 days between tests and the second test no later than 90 days before the diagnosis was recorded.	Chronic kidney disease: assessment and management (2021), NICE guideline NG203 terms used in this guideline
IND2021-120	The percentage of patients with a new diagnosis of CKD stage G3a-G5 (on the register, within the preceding 12 months) who had eGFR and ACR (urine albumin to creatinine ratio) measurements recorded 90 days before or after diagnosis	Chronic kidney disease: assessment and management (2021), NICE guideline NG203 recommendation 1.2.1 and terms used in this guideline
IND2021-121	The percentage of patients with CKD on the register and with an ACR of less than 70 mg/mmol, without moderate or severe frailty, in whom the last blood pressure reading (measured in the preceding 12 months) is less than 140/90 mmHg.	Chronic kidney disease: assessment and management (2021), NICE guideline NG203 recommendation 1.6.1 Hypertension in adults: diagnosis and management (2019), NICE guideline NG136 recommendations 1.4.10 and 1.4.20

General comments

The following comments were summitted from stakeholders (summarised):

- Barriers to implementing the care described by these indicators:
  - Potential for small numbers at practice level for some of these indicators.
  - The current challenges of COVID and reduced testing capacity may limit identification of patients in primary care with CKD.
  - ACR testing is not optimal in primary care.
  - Future point of care testing could assist in identification or monitoring of patients.
  - Stakeholders emphasised the importance of combining health checks into the same appointment is an important resource consideration.
- Potential unintended consequences to implementing or using any of these indicators:
  - Consequence on resource and the time to monitor.
  - May incentivise GPs to not code CKD. GPs tend to have a few years of blood tests showing a trend before coding.
  - There may be a burden of increased amount of blood tests for patients.
  - Increased referrals to secondary care.
- Potential for differential impact:
  - Some ethnic groups are less likely to seek help.
  - Some ethnic groups have more severe kidney disease and progress more rapidly than people from Caucasian backgrounds.
  - People from South Asian and Black communities are more likely to live with risk factors associated with CKD and are 3 to 5 times more likely to start renal replacement therapy than people from Caucasian backgrounds.
- How the indicators might be delivered differently to different groups to reduce health inequalities:
  - Programs could be developed to identify all groups, for example, community education programs and identification of patient advocates.
  - The need for accessible appointment letters was noted.
  - The needs of people with a learning disability were highlighted as was the importance of ensuring they are not excluded.
- Other comments:
  - The impact of implementing guidelines on use of SGLT-2 inhibitors in diabetes and patients with CKD should be considered. There is an education gap in primary care that needs to be addressed.
  - Stakeholders noted the recent introduction of the Kidney Failure Risk Equation (KFRE) that will assist in identification of patients at risk of progression.
  - Kidney Disease: Improving Global Outcomes (KDIGO) recommend an individualised management approach for many aspects of renal care. Frailty

status needs to be considered as many patients will not progress to dialysis or transplant.

Considerations for the advisory committee

The committee is asked to consider the potential unintended consequences on workload and resource. Stakeholders noted that patients may have had testing in secondary care that is not recorded in general practice. Addition of results to patient records in general practice would carry administrative burden or may have an unintended consequence of additional blood tests for patients. There was concern about an increase in referrals to secondary care.

IND2021-118: long-term NSAID use

The percentage of patients (excluding those on the CKD register) prescribed long-term (chronic) oral non-steroidal anti-inflammatory drugs (NSAIDs) who have had an eGFR measurement in the preceding 12 months.

Rationale

Non-steroidal anti-inflammatory drugs (NSAIDs) are one of the most commonly prescribed drug groups in the UK and can adversely affect kidney function. Early detection of CKD in patients prescribed these medications long-term can help to prevent or delay progression and complications.

Summary of consultation comments

There was a mixed response to this indicator. Some stakeholders supported the indicator to improve patient care and safe prescribing. Others were less supportive. They wondered if there was sufficient evidence for the introduction of this indicator and noted a lack of randomised controlled trial data on benefits and harms of NSAID avoidance, although they were aware of observational studies showing more rapid decline in eGFR. Stakeholders commented that people issuing prescriptions for NSAIDs should know what the patient's eGFR is. Stakeholders suggested a better indicator would incentivise movement away from long-term NSAIDs.

Stakeholders noted a large workload associated with this indicator and others suggested that a focus on a smaller population may bring more significant safety gains, allowing primary care to focus on those with greatest risk. They suggested people aged over 65.

Specific question/s included at consultation

Is the proposed definition of long-term prescriptions appropriate? If not, how should we define this?

Current definition: Long-term prescription is defined as 12 prescriptions in the preceding 24 months.

There was a mixed response from stakeholders, some comments that the definition seems reasonable but alternative definitions were suggested:

- More than 6 weeks of treatment in 12 months.
- More than 3 prescriptions in any 12-month period.

Stakeholders suggested that the definition should consider intermittent prescribing. They noted lack of clarity on the length of a prescription. They also noted that some NSAID use may be from over-the-counter preparations.

Considerations for the advisory committee

The committee is asked to consider:

- Should the denominator focus on people aged over 65?
- Is the proposed definition of a long-term prescription acceptable?

IND2021-119: eGFR testing at diagnosis

The percentage of patients with a new diagnosis of CKD stage G3a-G5 (on the register, within the preceding 12 months) who had 2 separate eGFR tests undertaken prior to diagnosis being confirmed, with at least 90 days between tests and the second test no later than 90 days before the diagnosis was recorded.

Rationale

Chronic kidney disease (CKD) is a long-term condition characterised by abnormal kidney function or structure (or both) present for more than 3 months. Having two eGFR tests 90 days apart helps ensure appropriate advice, treatment and support can be provided and can help to preserve kidney function and reduce the risk of developing comorbidity.

Summary of consultation comments

There was a mixed response to this indicator. Stakeholders welcomed the indicator and noted the alignment with the definition of CKD in NICE's guideline on CKD.

Other stakeholders had some concerns:

- An indicator on people already diagnosed with CKD will not have a significant impact on patient outcomes. They suggested indicators on eGFR and ACR testing, and a focus on early intervention in patients with proteinuria prior to progression to stage G3a would be more useful.
- The 90-day timeframe is "arbitrary" and "unlikely to be appropriate or practical". There may be instances where only one measurement is needed.
- It would be difficult to implement in practice and require significant administrative burden.
- eGFR measurement may be performed in other settings (secondary care) and would require re-coding in primary care for this indicator. This may also lead to extra blood testing needed to ensure coding is complete, unnecessary testing for patients leading to increase in waiting times for community investigations.
- Stakeholders also highlighted the NICE recommendation for a repeat within 2 weeks to exclude acute kidney injury (AKI) when eGFR is less than 60 ml/mi. This would require an additional repeat test at 90 days.

Specific question/s included at consultation

NICE is attempting to quantify the denominator size for this indicator as there should be more than 20 patients per average practice for an indicator to be suitable for use

in the QOF. Are you aware of any data that would assist us in estimating the number of patients at practice level?

Stakeholders suggested a number of sources including national audits and research papers. They suggested that new presentation of CKD is likely to be at least 20 patients per 10,000 practice size, but other stakeholders suggested a small number of new cases.

Considerations for the advisory committee

The committee is asked to consider:

- If the focus on people with CKD stage G3a to G5 will lead to improved outcomes.
- Whether the 90-day timeframe is feasible.
- Would the overlap between primary and secondary care (measurement and recording) have an impact on the indicator?
- Do the implementation issues suggested by stakeholders, including the administrative burden and unnecessary repeat blood draw from patients mean there would be potential unintended consequence associated with this indicator?
- Is this indicator suitable for inclusion in QOF, based on the estimated patient numbers for the denominator? CVD Prevent audit data suggests approximately 18 to 21 patients per practice in 2020 to 2021 (approximately 115,000 new cases in 2020 to 2021). This is based on their dataset showing number of new cases of CKD recorded on GP systems by month and estimated 94% coverage. Actual analytical coverage may be 79%.

IND2021-120: ACR and eGFR testing at diagnosis

The percentage of patients with a new diagnosis of CKD stage G3a-G5 (on the register, within the preceding 12 months) who had eGFR and ACR (urine albumin to creatinine ratio) measurements recorded 90 days before or after diagnosis.

Rationale

Chronic kidney disease (CKD) is a long-term condition characterised by abnormal function or structure (or both). A combination of estimated glomerular filtration rate (eGFR) and urine albumin to creatinine ratio (ACR) measurement can be used to estimate the risk of complications and can guide decisions for treatment. An increased risk of adverse outcomes in CKD is seen in people with decreased eGFR or increased ACR, or both.

Summary of consultation comments

Stakeholders supported this indicator. They noted the importance of ACR testing to support identification of risk of adverse outcomes including cardiovascular risk to allow for risk stratification. They noted the low uptake of ACR testing reported in the national CKD audit (2017) and the national diabetes audit (2020), and the variation between CCGs. However, stakeholders noted that the focus on CKD stage G3a to G5 will miss opportunities for prevention of progression.

They commented on barriers to urine ACR testing including lack of clarity on the need for testing, limited treatment options for albuminuria and patient reluctance to provide urine samples. These could be overcome by education on importance of testing and the potential treatment options available. Other stakeholders commented that people who decline or fail to return a urine test should be excluded from this indicator.

Specific questions included at consultation

We propose a timeframe of measurement 90 days before or after diagnosis. This is to align with other indicators on the NICE menu. Is this an appropriate and feasible timeframe for measurement before or after diagnosis?

There was a mixed response to this question.

- Stakeholders commented that the timeframe is appropriate and achievable, but others commented that 90 days “seems an arbitrary number” and has workload implications.
- Stakeholders commented that the repeat test at 90 days may miss progressive disease. They suggest measurement within 30 days to confirm CKD and allow timely management.

- Three measurements would allow the estimation of slope creatinine and identify those with greater than 3ml/min annual fall in eGFR.

Considerations for the advisory committee

The committee is asked to consider:

- If the indicator should include people with CKD stages 1 and 2.
- Is the timeframe of 90 days before or after diagnosis appropriate and achievable?
- What would be the impact of the highlighted barriers that are associated with urinary ACR testing?
- Is this indicator suitable for inclusion in QOF, based on the estimated patient numbers for the denominator? CVD Prevent audit data suggests approximately 18 to 21 patients per practice in 2020 to 2021 (approximately 115,000 new cases in 2020 to 2021). This is based on their dataset showing number of new cases of CKD recorded on GP systems by month and estimated 94% coverage. Actual analytical coverage may be 79%.

IND2021-121: blood pressure target when ACR is less than 70 mg/mmol

The percentage of patients with CKD on the register and with an ACR of less than 70 mg/mmol, without moderate or severe frailty, in whom the last blood pressure reading (measured in the preceding 12 months) is less than 140/90 mmHg.

Rationale

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.

Summary of consultation comments

Stakeholders queried the blood pressure cut-off used in this indicator.

- They noted the NICE cut-off varies from that used elsewhere.
- Stakeholders also highlighted better outcomes associated with lower blood pressure targets (less than 130/80 mmHg) in people with ACR more than 30 mg/mmol.

Stakeholders queried the ACR cut-off used in this indicator and questioned whether the indicator should instead focus on significant proteinuria greater than 70 mg/mmol.

Specific questions included at consultation

The proposed indicator takes an individualised management approach that adjusts care according to frailty status. This is based on previous work for indicators on diabetes (see NICE menu indicator NM159). Is this approach appropriate in management of CKD?

- Stakeholders supported an individualised approach.

NICE is attempting to quantify the denominator size for this indicator as there should be more than 20 patients per average practice for an indicator to be suitable for use in the QOF. Are you aware of any data that would assist us in estimating the number of patients at practice level?

- Stakeholders suggested small patient numbers for this indicator.

Considerations for the advisory committee

The committee is asked to consider:

- Would there be improved outcomes as a consequence of this indicator or would a focus on patients with an ACR of 70 mg/mmol or more offer better outcomes? Note the presence of current NICE menu indicator NM117 which measures the percentage of patients on the CKD register in whom the last blood pressure reading is 140/90 mmHg or less.
- Are there potential unintended consequences for people who would benefit from tighter blood pressure control? The indicator is based on NICE recommendations.
- Is this indicator suitable for inclusion in QOF? We were unable to find data to estimate patient numbers.

Appendix 1: Consultation comments

Question 1: Do you think there are any barriers to implementing the care described by these indicators?

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
01	1	UK Kidney Association (UKKA)	Barriers to implementing the care described by these indicators? – the main limitation is the identification of patients in primary care with chronic kidney disease, especially with the ongoing challenges presented by the COVID pandemic and reduced testing capability. In addition, ACR checking is currently not optimal in primary care. Future point of care testing may assist this identification and monitoring of patients	Thank you for your comment.

Question 2: Do you think there are potential unintended consequences to implementing/ using any of these indicators?

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
02	2	BMA	Some of the CKD indicators seem to give a perverse incentive not to code the CKD in the first place, in particular requirements to prescribe statin and to repeat blood test within 3 months before coding. GPs tend to have a few years of blood tests before coding and the trend is usually clear, and the burden on patients of getting lots of blood test done should also be considered.	Thank you for your comment. The indicator advisory committee agreed that the indicators would support practice efforts to increase case finding.
03	2	UKKA	It is difficult to detail potential unintended consequences to implementing/using any of these indicators? The main consequence will be the resources available and the time to monitor; treat and implement best practice.	Thank you for your comment. The indicators aim to improve the quality of care and outcomes for people with chronic kidney

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			The other consequence will be the referrals required to secondary care, increasing pressure to see patients earlier. This is particularity relevant given the increasing numbers of CKD patients, the increase in diabetes; the aging population; increase in obesity and hence hypertension and impact of COVID-19 on the kidney. There is also the impact of implementing the recent UKKA guidelines on SGLT2 inhibitors in diabetes, which appears in the NICE recommendations but not yet in those with CKD not due to diabetes. There is a clear education gap in Primary care which needs to be addressed urgently.	disease. A resource impact assessment has been performed. NICE will explore indicators on treatment with SGLT2 inhibitor for people with CKD in the next cycle of the work programme.

Question 3: Do you think there is potential for differential impact (in respect of age, disability, gender and gender reassignment, pregnancy and maternity, race, religion or belief, and sexual orientation)? If so, please state whether this is adverse or positive and for which group.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
04	3	UKKA	There are potential for differential impact (in respect of age, disability, gender and gender reassignment, pregnancy and maternity, race, religion or belief, and sexual orientation)? The main areas are in ethnic groups who in general are less likely to seek help and attend screening programs. Diabetes is also more prevalent in CKD. We know that Asians and Black people have more severe kidney disease and progress more rapidly – Renal Registry data shows that the median age of incident renal	Thank you for your comment. The indicator advisory committee recognise the inequalities associated with chronic kidney disease. These indicators aim to improve quality of care and outcomes for people with chronic kidney disease. The equality impact assessment for

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			replacement therapy (RRT) patients was 64.2 years, but this was dependent on ethnicity (White 66.3 years, Asian 62.3 years and Black 56.3 years). Indeed, diabetes remains the most common identifiable primary renal disease (PRD) for patients starting RRT (30.4%)	these indicators highlights this issue.

Question 4: If you think any of these indicators may have an adverse impact in different groups in the community, can you suggest how the indicator might be delivered differently to different groups to reduce health inequalities?

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
05	4	UKKA	In order to minimise health inequalities, it is critical to develop programs to identify all groups. This should include community education programs and identification of patient advocates.	Thank you for your comment. This was presented to the indicator advisory committee in June 2022 as part of the consultation report for CKD indicators but no indicators on education programmes or patient advocates were progressed.

General comments

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
06	General	AstraZeneca	Ultimately, while measuring testing is important, encouraging appropriate management is likely to have a more significant impact on patient outcomes. We therefore suggest that NICE focuses its efforts on indicators that encourage best practice in management and intervention, in line with guidance set out in NG203 on interventions to address CVD risk and manage CKD (National Institute for Health and Care Excellence, Chronic kidney disease: assessment and management, NICE guideline 203 [NG203], 25 August 2021. Available at: https://www.nice.org.uk/guidance/ng203/resources/chronic-kidney-disease-assessment-and-management-pdf-66143713055173) and NG28 on managing CKD in patients with diabetes (National Institute for Health and Care Excellence, Type 2 diabetes in adults: management, NICE guideline 28 [NG28], 2 December 2015. Available at: https://www.nice.org.uk/guidance/ng28/resources/type-2-diabetes-in-adults-management-pdf-1837338615493).	Thank you for your comment. Indicator NM213 on lipid management in people with CKD was progressed at indicator advisory committee meeting in June 2022. NICE will explore indicators on treatment with ACE inhibitor and SGLT2 inhibitor for people with CKD in the next cycle of the work programme.
07	General	Kidney Research UK	There are significant health inequalities associated with kidney disease. In 2019, Kidney Research UK published a report Kidney Health Inequalities in the UK: reflecting on the past, reducing in the future. The report set out evidence of the impact of CKD on different groups within society. It found that health inequalities existed related to ethnicity, age, gender, socio-economic status and rurality of location. It found that people from ethnic minority groups are more likely to develop CKD and progress faster towards kidney failure than people from Caucasian backgrounds. In particular, people from South Asian and Black communities are more	Thank you for your comment.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			likely to live with the risk factors associated with kidney disease (type-2 diabetes, hypertension and cardio-vascular conditions) and are three to five times more likely to start dialysis than people from Caucasian backgrounds. NICE proposals for general practice level indicators focusing on early identification of CKD in people at risk has the potential to positively impact people from ethnic minority groups. Achieving an earlier diagnosis of CKD will enable treatment to start earlier, thus potentially delaying/preventing progression of the disease and reducing the likelihood of comorbidities. However, additional indicators related to monitoring at-risk groups could further positively impact people from ethnic minority groups (see comment 4 below).	
08	General	Kidney Research UK	While we welcome these indicators, we believe there are further indicators which should be introduced regarding identification of CKD in patients living with known risk factors such as diabetes, hypertension and cardiovascular disease. These are all conditions for which GPs have existing registers and patients on these registers should be monitored for evidence of CKD. This could particularly positively impact people from ethnic minority communities, who are more likely to live with the risk factors associated with CKD (diabetes, hypertension and cardio-vascular disease) and are more likely to go on to develop CKD.	Thank you for your comment. Potential indicators on testing in people with risk factors were discussed at the indicator advisory committee in September 2021. Indicator NM214 on testing in people on long-term NSAIDs was progressed.
09	General	Kidney Research UK	We strongly advocate inclusion of an indicator for annual monitoring for moderately raised albuminuria in all people with diabetes (see NG18 1.2.119 and 1.3.42 for children and young adults; NG 203 1.1.21 for adults). Diabetes is the commonest cause of end-stage kidney failure in the	Thank you for your comment. NICE menu indicators NM59 and CCG70 measures the percentage of patients with diabetes who have a record of

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			UK: detection of albuminuria should trigger additional preventive treatment; and repeated audits have shown failure to test for albuminuria in large numbers of people with diabetes in the UK. In 2017 we published a joint statement with Diabetes UK. The statement sets out the close link between diabetes and kidney disease and the life-threatening impact of kidney disease on diabetes patients. We believe much more needs to be done to monitor diabetes patients and prevent them developing renal failure.	urine ACR in the preceding 12 or 15 months.
10	General	NHSEI (learning disability and autism programme)	For people with a learning disability, the importance of understanding the context of their general health, how it is progressing, the importance of a holistic annual health check. In relation to all the indicators (and not just for people with a learning disability): important that the checks are done together rather than in multiple health appointments.	Thank you for your comment.
11	General	NHSEI (learning disability and autism programme)	It might be practically more difficult to ensure that people with a learning disability and autistic people are included and so a risk that they are left out of the denominator: which would in turn create an appearance that care of whole patient group is being given. Very important that all the denominators do not inadvertently exclude people.	Thank you for your comment. No population groups are excluded from the denominator.
12	General	NHSEI (learning disability and autism programme)	Cross reference to NICE guidance on learning disability and autism to make sure the indicator is inclusive. This applies to all of the proposed indicators. There needs to be accessible appointment letters.	Thank you for your comment. The importance of accessibility is highlighted in the equality impact assessment.
13	General	RCGP	Background information • The RCGP is calling for an independent review of contractual requirements, such as the Quality Outcomes	Thank you for your comment. NICE has no role in the negotiations for QOF.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			Framework (QOF). Reforming contractual requirements such as QOF will not only enable high-trust environments that encourage quality improvement processes and professional judgement, rather than top-down edicts which perversely incentivise tick-box approaches to medicine. • A focus on patients, especially those who are more disadvantage, not targets is essential. We need an independent review of how to better ensure vulnerable patients get the care they need without resorting to some of the box ticking exercises in the current Quality Outcomes Framework (QOF). The problems that were identified linked to health inequalities during the COVID19 pandemic suggest to us that a careful review of the model and its impact and value is overdue – as is the fundamental need to prioritise workload over the next couple of years with significant, varied waiting times for care and delays in review. It is important that patients get appointments when they need them or when their GP feels it is clinically appropriate to reach out to them. Unfortunately, the current QOF system incentivises check-ups based on a strict artificial calendar determined nationally, rather than on the needs of individual patients. In Scotland they have managed to maintain high standards of care and put greater faith in patients and clinicians to make judgements. Learning from models across the UK should form part of a review into the ideal model for England. In view of the safety issues surrounding Valproate, we are surprised that there is not a quality indicator being considered for review of females of child bearing age who are prescribed valproate and wonder whether this should	The committee has previously discussed the feasibility of indicators specifically focussed on review of women of child-bearing age who are prescribed valproate. Denominator numbers on average are too small to be suitable for use in the QOF. However, the committee agreed that the NICE team are to explore the value of an indicators for use outside the QOF. The suggestion to develop indicators focused on chronic fatigue syndrome has been shared with NHS England.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			be considered (both for people with epilepsy and those given valproate for another reason). In view of the recent ME CFS guidance and the need for increased capacity of appointments in primary care, we are surprised that this is not considered as one of the indicators for QOF.	
14	General	Renal Service Transformation Programme	Recommend inclusion of ACE/ARB, SGLT2i therapies similar to inclusion of lipid modifying therapies for people with CKD. ACE/ARB and SGLT2i are evidenced based interventions and in line with NICE guidance that attenuate progression of CKD.	Thank you for your comment. NICE will explore indicators on treatment with ACE inhibitor and SGLT2 inhibitor for people with CKD in the next cycle of the work programme.
15	General - diagnosis	UKKA	The KFRE equation recently introduced will assist in the identification of patients at high risk of progression and includes comorbidities and will assist in directing optimal management and targeting risk factors. Many of the renal guidelines, such as KDIGO suggest an individualised management approach for many aspects of renal care. At a primary care level many interventions such as cardiac protection, use of ACEI.ARB optimisation of glycaemic control and use of SGLT2 inhibitors will be generic and should be considered where possible. However, in view of the multi-morbidity of this patient group frailty status needs to be considered as many patients will not progress to dialysis or transplantation as they will not benefit from this therapy.	Thank you for your comment. NICE will explore indicators on treatment with ACE inhibitor and SGLT2 inhibitor for people with CKD in the next cycle of the work programme.

IND2021-118 General comments

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
16	IND2021-118	BMA	Large workload associated with this as this would require manual searches as there is no register. Would it not be better to incentivise movement away from using long term NSAIDs?	Thank you for your comment. NICE explored the impact on workload and the indicator advisory committee noted that this would be manageable. The committee noted that this indicator would help initiate important conversations about the use of NSAIDs.
17	IND2021-118	RCGP	We fully support this indicator to improve patient care and safe prescribing. We note that the list of drugs is not included in the explanation for this indicator and would expect all of the indicators to be consistently defined, therefore removing the list of drug names from the CVD indicators as indicated above. Q1. This is a positive indicator and would build on the safe prescribing work that primary care has begun in this area. We see no barriers to implementation. Q2. None identified. Q3. The greatest risk for bleeding is for those over the age of 65 and so focussing on a smaller population may bring more significant safety gains, allowing primary care to focus on those at greatest risk, rather than all ages as the current indicator suggests. Q4 none identified	Thank you for your comment. The report for contextual data in support of piloted indicators includes the specification of oral NSAIDs using BNF classification. The indicator advisory committee discussed potentially focusing on people over the age of 65 but felt that the workload associated with the indicator as worded was manageable.
18	IND2021-118	UKKA	The current guidelines recommend monitoring of patients on NSAIDS. The proposed definition of long-term	Thank you for your comment. The indicator is based on an

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			prescriptions needs to consider the use in people which is more intermittent than 12 prescriptions in 2 years. First it is not clear how long a "prescription" is: ? one week, one month or longer. More clarity is required but it would seem sensible to suggest chronic use defined as exposure to more than 6 weeks of treatment annually. I'm not aware that this strategy has been assessed in the context of a randomised controlled trial. There are observational studies suggesting that patients taking NSAIDs show more rapid declines in eGFR, but I am not aware of a large RCT that has fully assessed the true benefits/harms of NSAID avoidance. Some patients may choose to be in less pain but accept a faster decline in kidney function, particularly if they are unlikely to require renal replacement therapy during their lifetime. Long-term NSAID prescription of 12 prescriptions in the previous 24 months is an arbitrary time frame. This may be better phrased as any individual with more than three prescriptions in any 12-month period. Presumably this group of patients may also be buying NSAIDs over the counter? Arguably if you are issuing repeat prescriptions for NSAIDs, you should know what the eGFR is. As many patients who are on the register are not having their eGFR test done within the last 12 months, as shown by the national CKD audit, and some patients who fulfil criteria for CKD will not be on the practice CKD register then the exclusion criteria of CKD shown should be dropped.	evidence-based recommendation in NICE's guideline on chronic kidney disease. The NCCID explored the current definition of long-term use using NHSBSA data and this included determining average prescription length and prescribing patterns. There are no SNOMED codes for over the counter NSAID and so these could not be included in the indicator.

Question 9: Is the proposed definition of long-term prescriptions appropriate? If not, how should we define this?

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
19	9	Primary Care Cardiovascular Society	This definition of long-term use seems reasonable.	Thank you for your comment.
20	9	RCGP	Q9: 12 scripts in the previous 24 months is an acceptable way of defining chronic prescribing of NSAIDs	Thank you for your comment.

IND2021-119 General comments

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
21	IND2021-119	AstraZeneca	The proposed indicator encapsulates the spirit of NICE Guideline 203 (NG203) on the assessment and management of CKD. However, we have concerns that creating an indicator focused on tracking estimated Glomerular Filtration Rate (eGFR) testing among patients that have already been newly diagnosed at stage G3a to G5 is unlikely to have a significant impact on patient outcomes. We believe that an indicator, and related incentive, relating to encouraging annual eGFR and ACR testing for patients with an existing CKD diagnosis would be more clinically meaningful and would be more useful in supporting intervention to improve patient outcomes. We therefore believe that IND2021-119 should be deprioritised in favour of IND2021-120 and an additional indicator relating to annual testing. In terms of data that may assist in estimating the number of patients at practice level to quantify a denominator size, NICE may wish to refer to the 2017 National CKD Audit	Thank you for your comment. Existing NICE menu indicator NM109 measures the percentage of patients with an annual ACR test.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			Report (Part 1). The audit estimated a total prevalence of stage 3-5 CKD of between 5.5%-5.8% across the adult population. Nitsch D, Caplin B, Hull S and Wheeler DC on behalf of the National CKD Audit and Quality Improvement Programme in Primary Care, First National CKD Audit Report, January 2017. Available at: https://www.lshtm.ac.uk/files/ckd_audit_report.pdf	
22	IND2021-119	BMA	90 days seems an arbitrary number and is unlikely to be appropriate or practical. Having two separate readings is reasonable, but there may be instances where only one is needed.	Thank you for your comment. The need for 2 readings and the 90 day timeframe are based on NICE's guideline on chronic kidney disease.
23	IND2021-119	Kidney Research UK	We welcome this indicator and agree that having two eGFR tests could help ensure appropriate advice, treatment and support can be provided to kidney patients and can help to preserve kidney function and reduce the risk of developing comorbidity.	Thank you for your comment.
24	IND2021-119	RCGP	We do not support the introduction of this indicator Q1. • It will be extremely complicated to fulfil in practice and would require either a significant administrative burden to "chase" results" from outside of primary care e.g. in outpatient or inpatient facilities where eGFRs are recorded and recode them in the primary care record to achieve the indicator aims, or will mean patients who have a diagnosis, but the blood tests did not originate in primary care are subjected to additional blood tests to ensure coding is completed within primary care. At a time of significant backlog in the post pandemic phase of recovery, this would	Thank you for your comment. The indicator advisory committee noted that results from acute episodes in secondary care would not be used to identify chronic kidney disease.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			potentially add to the burden of investigation waiting lists and we would strongly recommend against its use. Q2. Unintended consequences may mean additional unnecessary tests for patients and an increase in the waiting list for community investigations Q3 none detected Q4 none detected	
25	IND2021-119	Renal Service Transformation Programme	The indicator focuses on a new diagnosis of CKD stage G3a – G5 with no mention of albuminuria stage and misses out on the opportunity to identify CKD stage G1 and G2 which would be enable early intervention and help to preserve kidney function and reduce the risk of developing co-morbidity. The progression to CKD stage 3a – 5 already reflects significant progression and lost opportunity to intervene early. Evidence and NICE NG 203 supports earlier intervention in patients with proteinuria prior to progression to G3a.	Thank you for your comment. The proposed indicator NM216 measures eGFR and ACR testing in people with a new diagnosis of CKD stage G3a to G5. The Quality and Outcomes Framework guidance for 2021/22 notes that people with GFR less than 60 ml/min/1.73m2 are more likely to have hypertension, diabetes and CVD compared to people with GFR more than 60 ml/min/1.73m2. The indicator advisory committee noted that ACR would be measured in people with stage G1 and G2 CKD with evidence of structural damage only, and that measurement in people with CKD stage G1 and G2 would represent a large workload.
26	IND2021-119	UKKA	I am not aware on the numbers of patients at practice level but based at a population level one would anticipate that	Thank you for your comment. Indicators are reviewed when

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			up to 1 in 10 patients in the geographic region will have evidence of chronic kidney disease based on the current criteria. In addition, it might be possible to interrogate the Diabetes and heart failure GP databases as both these populations will have CKD. The UK renal Registry offers a wealth of data – the CKD prevalence was 1,301 per million population (pmp) overall but ranged from 149 to 2,793 pmp between kidney centres. It is also important to recognise that there are substantial differences in the ages and distribution of disease stages between centres. Reasonable. This is an indicator of good practice and appropriate follow-up. The KDIGO guidelines on the classification and treatment of chronic kidney disease are currently being updated. There is a possibility that definitions will be changed. Patients not previously tested and with an eGFR <60 ml/min require a repeat test within 2 weeks (to exclude an acute kidney injury episode) as recommended in the CKD guideline then a third test at 90 days+. New presentation of CKD based on a prevalence of 750 per 10000 practice and new presentation of CKD clustering into older individuals is likely to be at least 20/year per 10,000 practice. This could be calculated based on the prevalence and survival - there is information on this in the public domain, e.g., Public Health England have prevalence data and the CKD prognosis consortium have published on mortality.	source guidance is updated to ensure they remain evidence based.

Question 10: NICE is attempting to quantify the denominator size for this indicator as there should be more than 20 patients per average practice for an indicator to be suitable for use in the QOF. Are you aware of any data that would assist us in estimating the number of patients at practice level?

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
27	10	RCGP	Q10. We would expect the number of new cases, especially in well run practices to be extremely small. The OxRENS study might help provide an estimate of new cases per year.	Thank you for your comment.

IND2021-120 General comments

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
28	IND2021-120	AstraZeneca	We are supportive of efforts to improve diagnosis of CKD and associated CVD risk and recognise the importance of diagnosing both as early as possible. We note that the requirement for both ACR and eGFR testing within IND2021-120 would help to improve earlier diagnosis and we believe this indicator would be more clinically relevant than IND2021-119, given the use of ACR, which can support improved identification of CVD risk. However, as with IND2021-119, we believe that it is important for all patients with CKD to receive annual testing to support appropriate management of their conditions. Therefore, we propose that NICE consider developing an additional indicator that includes the existing patient population, measuring annual rates of ACR and eGFR	Thank you for your comment. This was presented to the indicator advisory committee in June 2022 as part of the consultation report for CKD indicators but no indicator on this was progressed.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			testing for all CKD patients on the register – this would complement the existing NM109 indicator, which currently solely focuses on ACR. (National Institute for Health and Care Excellence, NICE indicator NM109 guidance, August 2021. Available at: https://www.nice.org.uk/standards-and-indicators/qofindicators/the-percentage-of-patients-on-the-ckd-register-whose-notes-have-a-record-of-a-urine-albumin-creatinine-ratio-or-protein-creatinine-ratio-test-in-the-preceding-12-months-nm109) In terms of data that may assist in estimating the number of patients at practice level to quantify a denominator size, NICE may wish to refer to the 2017 National CKD Audit Report (Part 1). The audit estimated a total prevalence of stage 3-5 CKD of between 5.5%-5.8% across the adult population. National Institute for Health and Care Excellence, Chronic kidney disease: assessment and management, NICE guideline 203 [NG203], 25 August 2021. Available at: https://www.nice.org.uk/guidance/ng203/resources/chronic-kidney-disease-assessment-and-management-pdf-66143713055173	
29	IND2021-120	BMA	As above - 90 days seems an arbitrary number, and this would also mean unquantified extra workload.	Thank you for your comment. The timeframe of 90 days is used in the indicator for measurement purposes
30	IND2021-120	Kidney Research UK	We welcome this indicator. A combination of estimated glomerular filtration rate (eGFR) and urine albumin to creatinine ratio (ACR) measurement is a useful tool for	Thank you for your comment.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			estimating the risk of complications and can guide decisions for treatment.	
31	IND2021-120	RCGP	Q1 none identified Q2 none identified Q3 none identified Q4 None identified Exclusions. Should include those who dissent and decline investigation or fail to return their requested urine test.	Thank you for your comment. Personalised care adjustments may be used if these indicators are introduced into QOF.
32	IND2021-120	Renal Service Transformation Programme	The focus on CKD Stage G3a – G5 will miss out on opportunities for prevention of progression. NICE TAs for dapagliflozin and NICE CKD guidance 2022 recommend initiation of treatment at earlier G stages. Recommend including patients with G1 – G5.	Thank you for your comment. The proposed indicators focus on patients on the CKD register. The indicator advisory committee considered including stages G1 and G2 where relevant but noted that coding is uncertain and commented on the potential for large workload. NICE will explore development of an indicator on SLGT2 inhibitors in CKD in the next cycle of the work programme.
33	IND2021-120	UKKA	The repeat test at 90 days should be re-evaluated as this may miss progressive disease. We would suggest measurement within 30 days to confirm CKD, to allow timely management of CKD and initiation of therapies that can delay progression. This would allow 3 measurements to be taken and allow the estimation of slope creatinine and identify those patients with rapid progression with a greater than 3 ml/min annual fall in eGFR.	Thank you for your comment. The indicator is based NICE's guideline for chronic kidney disease.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			In 2018 the National Kidney Foundation, United States Food and Drug Administration, and European Medicines Agency evaluated the evidence for rate of change in GFR (i.e., GFR slope) as an alternative endpoint for kidney disease progression and several recent studies and a meta-analysis have assessed CKD disease risk using kidney function loss reflected by the rate of decline of eGFR (slope eGFR). These studies have confirmed the potential changes in eGFR slope as a surrogate means of assessing the potential kidney protection by medications. Inker et al using a Bayesian individual patient meta-analysis of 47 studies including 60,620 participants found that treatment effects on GFR slope from baseline to end strongly predicted benefits on clinical outcomes. Levy AS, Gansevoort RT, Coresh J, Inker LA, Heerspink HL, Grams ME, et al: Change in albuminuria and GFR as end points for clinical trials in early stages of CKD: A scientific workshop sponsored by the National Kidney Foundation in collaboration with the US Food and Drug Administration and European Medicines Agency. Am J Kidney Dis 75: 84–104, 2020. Inker LA, Heerspink HJL, Tighioart H, Levey AS, Coresh J, Gansevoort RT et al. GFR Slop as a surrogate end point for kidney disease progression inn clinical trials: A meta-analysis of treatment effects of Randomised controlled trials. J Am Soc Nephrol 2019: 30, 1735-1745 Greene T, Ying Y, Vanesh EF, Tighioart H, Levey AS, Coresh J et al. Performance of eGFR slope as a surrogate endpoint for kidney disease progression in a clinical trial: A	

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			statistical simulation. J Am Soc Nephrol 2019: 30, 1756-1769. Important and reflects the previous QOF requirement. I would strongly endorse this indicator. The timeframe is appropriate. As ACR testing will be done on all patients with a new diagnosis the answer to this question is the same as that for eGFR.	

Question 11: We propose a timeframe of measurement 90 days before or after diagnosis. This is to align with other indicators on the NICE menu. Is this an appropriate and feasible timeframe for measurement before or after diagnosis?

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
34	11	RCGP	Q11. In view of the delay to achieving blood tests that are none urgent, the longer the period to process non urgent investigations the better it is at the current time. 90 days we feel is achievable	Thank you for your comment.

Question 12: NICE is attempting to quantify the denominator size for this indicator as there should be more than 20 patients per average practice for an indicator to be suitable for use in the QOF. Are you aware of any data that would assist us in estimating the number of patients at practice level?

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
35	12	RCGP	Q12. We would expect the number of new cases, especially in well run practices to be extremely small. The	Thank you for your comment.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			OxRENS study might help provide an estimate of new cases per year.	

IND2021-121 General comments

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
36	IND2021-121	BMA	We are unclear why the BP target is only for those with ACR<70. What happens if ACR goes above 70 – it says to offer ACEI, but there is no suggested indicator for this.	Thank you for your comment. NICE will explore development of indicators on treatment with ACE inhibitor for people with CKD and blood pressure management in people with CKD and ACR of 70 mg/mmol or more in the next cycle of the work programme.
37	IND2021-121	Primary Care Cardiovascular Society	Agree that this concurs with NICE, but should a lower target be looked at is significant proteinuria eve if not > 70 mg/mmol?	Thank you for your comment. NICE will explore development of an indicator on blood pressure management in people with CKD and ACR of 70 mg/mmol or more in the next cycle of the work programme.
38	IND2021-121	RCGP	Q1 None identified . Q2 none identified Q3 None identified Q4 None identified	Thank you for your comment.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
39	IND2021-121	Renal Service Transformation programme	This is outside internationally recommended guidelines. A more effective indicator for CKD maybe to incorporate NICE CKD guidance with ACR > 70mg/mmol as these are the patients at highest risk of progression and CV events NICE NG203: 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. [2021]	Thank you for your comment. NICE will explore development of an indicator on blood pressure management in people with CKD and ACR of 70 mg/mmol or more in the next cycle of the work programme.
40	IND2021-121	UKKA	Reasonable assuming the blood pressure reading is random and not standardised. KDIGO is now recommending standardised blood pressure readings for CKD patients, although this may be impractical in most NHS settings. The NICE albuminuria “cut-off” of 70 mg/mmol is at variance with KDIGO and many other countries. Lower blood pressure targets of <130/80 (rather than <140/90) broadly speaking align to better outcomes in individuals with an ACR>30 mg/mmol (500 mg proteinuria over 24 hours). The challenge with this indicator is that in the attempt to protect individuals at risk of falls it may lead to a 30-year-old with an ACR of 30-69 and at very high long-term risk not being quality assured within an appropriate BP target. Should this read ACR <70 mg/mmol.	Thank you for your comment. The indicator is based on recommendations in NICE’s guideline on CKD. NICE’s guideline on hypertension in adults has recommendations on standardising blood pressure measurement. NICE will explore development of an indicator on blood pressure management in people with CKD and ACR of 70 mg/mmol or more in the next cycle of the work programme.

Question 13: The proposed indicator takes an individualised management approach that adjusts care according to frailty status. This is based on previous work for indicators on diabetes (see NICE menu indicator NM159). Is this approach appropriate in management of CKD?

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
41	13	RCGP	Q13. Yes, the RCGP strongly supports individualised and personalised care approaches to care and agree that this is an appropriate approach.	Thank you for your comment.

Question 14: NICE is attempting to quantify the denominator size for this indicator as there should be more than 20 patients per average practice for an indicator to be suitable for use in the QOF. Are you aware of any data that would assist us in estimating the number of patients at practice level?

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
42	14	RCGP	Q14.We expect the denominator to be small and do not have any data that could assist with defining the population size.	Thank you for your comment.

Appendix 2: Consultation comments from respondents with links to the tobacco industry

Bayer declared that:

- Bayer does not have direct or indirect links with, or funding from, manufacturers, distributors or sellers of smoking products but Bayer provides pesticides for crops, which would therefore include tobacco crops.
- Bayer is a member of the Cooperation Centre for Scientific Research Relative to Tobacco (CORESTA) (http://www.coresta.org/) within the scope of recommendations of pesticides used for protection of tobacco plants.
- It is also a member of country and EU business federations such as the Confederation of British Industry (CBI) and 'Business Europe', which include tobacco companies.
- In 2006, Bayer and its subsidiary Icon Genetics piloted a new process for producing biotech drugs in tobacco plants. Icon Genetics was acquired by Nomad Bioscience GmbH from Bayer in 2012.

General comments

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
01	General	Bayer PLC	Whilst not included within this consultation, there are further indicators which could be proposed regarding identification of CKD in patients with risk factors, for example diabetes, hypertension and cardiovascular disease, all conditions for which GPs would have existing registers. Testing for CKD in such patients and others at risk of CKD is recommended in NG203, section 1.1.21 by measuring eGFR and UACR. Taking hypertension as an example, according to the National CKD audit (1) using a low threshold of tests every	Thank you for your comment. Potential indicators on testing in people with risk factors were discussed at the indicator advisory committee in September 2021. Indicator NM214 on testing in people on long-term NSAIDs was progressed.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			five years – GPs measure eGFR with a median testing rate of 95.1%, but ACR testing over the five-year period remains very low at 27.7%. Therefore, the large proportion of the population with hypertension could benefit from improved proteinuria and eGFR testing. This is supported by Quality statement 1 of the Quality standard for chronic kidney disease in adults: 'Routine monitoring of key markers of kidney function for adults with, or at risk of, CKD will enable earlier diagnosis and early action to reduce the risks of CKD progression, such as cardiovascular disease, end-stage kidney disease and mortality' (2). (1) Nitsch D, Caplin B, Hull S and Wheeler DC on behalf of the National CKD Audit and Quality Improvement Programme in Primary Care, First National CKD Audit Report 2017. NICE. Quality standard [QS5] chronic kidney disease in adults. Last update July 2017.	

IND2021-119 General comments

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
02	IND2021-119	Bayer PLC	Bayer welcome the proposal for this indicator: The percentage of patients with a new diagnosis of CKD stage G3a-G5 (on the register, within the preceding 12 months) who had 2 separate eGFR tests undertaken prior	Thank you for your comment.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			to diagnosis being confirmed, with at least 90 days between tests and the second test no later than 90 days before the diagnosis was recorded. According to the recent NICE guideline (NG203) (1): CKD is defined as “abnormalities of kidney function or structure present for more than 3 months, with implications for health. This includes all people with markers of kidney damage and those with a glomerular filtration rate (GFR) of less than 60ml/min/1.73m2 on at least 2 occasions separated by a period of at least 90 days (with or without markers of kidney damage)”. As such, Bayer agrees that the proposed indicator will help ensure appropriate diagnosis of CKD which can guide ongoing advice, treatment and support with the aim of preservation of kidney function and reduction in the risk of comorbidities. (1) NICE. Chronic kidney disease: assessment and management. NICE guideline (NG203). August 2021.	

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
03	IND2021-120	Bayer PLC	Bayer welcome the proposal for this indicator: The percentage of patients with a new diagnosis of CKD stage G3a-G5 (on the register, within the preceding 12	Thank you for your comment.

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			months) who had eGFR and ACR (urine albumin to creatinine ratio) measurements recorded 90 days before or after diagnosis. Whilst assessment of eGFR aids in the prognosis of CKD and risk of adverse outcomes (IND2021-119), CKD should also be classified based on ACR category (1). Albuminuria is a strong predictor of the risk of adverse outcomes in CKD (2), and the use of ACR and GFR in combination will allow better risk stratification, in line with NG203 (1). Whilst eGFR is more commonly tested and recorded, there has historically been a relatively low uptake of ACR testing: • The National Chronic Kidney Disease Audit - National Report (Part 1) January 2017 (3), reported that: whilst over 80% of those with CKD had had an eGFR test in the previous year, only 31% had a repeat ACR test. • The National Diabetes Audit 2019-20. Report 1: Care Processes and Treatment Targets. England and Wales (4), reports on the uptake of NICE recommended care processes and found that in 2019/20, for those with type 2 diabetes in England, 92.3% of patients had an annual check of serum creatinine, but only 68.6% had an annual check of urine albumin/creatine ratio (UACR). The values for Wales were similar for serum creatinine, but the testing of UACR was even lower at 55%. In addition, the marked variation in UACR measurement between CCGs was highlighted as a key finding of the report. Barriers to UACR testing may historically include a lack of clarity on the need for testing, the limited treatment options	

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			should albuminuria be identified, as well as patient reluctance to provide urine samples. These barriers may be overcome by both primary care clinician and patient education on the importance of UACR testing as well as the potential treatment options now available. Regarding the consultation question about differential impact, chronic kidney disease may disproportionately affect patients from lower socio-economic groups and those from Black, Asian and minority Ethnic populations. A report by Kidney Research UK (5) reported that people from lower socio-economic groups are more likely to: o Have risk factors associated with CKD such as diabetes and hypertension o Develop CKD o Progress faster towards kidney failure o Die earlier with CKD o Be diagnosed at a later stage of the disease o Have poorer survival rates on dialysis In addition, people from lower socio-economic groups are less likely to: o Be offered peritoneal dialysis (potentially related to the home environment) o Have a transplant Further, that People from Black, Asian and Minority Ethnic populations: o Have a greater burden of risk factors for kidney disease such as diabetes and hypertension	

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			o Are more likely to progress faster towards kidney failure o Are less likely to receive a kidney transplant o Have a different pattern of uptake of home dialysis therapies The report states that people from South Asian and Black backgrounds are 3-5 times more likely to start dialysis than people from Caucasian backgrounds. Those of South Asian, Black African and Black Caribbean descent are therefore over-represented on dialysis programmes, making up 22.7% of people in the UK receiving renal replacement therapy. In some London boroughs, this rises to over 60% of people. The report also states that “improving prevention and early detection and ensuring that everyone in the UK has access to the right treatment for them, is key to improving kidney health for the whole UK population.” Further “Reducing health inequalities, particularly preventing the development and progression of kidney disease in all UK populations may help alleviate the burden of kidney care to the NHS.” Regarding the specific question for consultation question about potential data sources to inform the denominator for indicators IND2021-119 and IND2021-120, a very brief search of the literature has found two sources that may be useful in estimating incidence of CKD:	

ID	Proforma question no.	Stakeholder organisation	Comment	NICE response
			Klebe B et al. The cost of implementing UK guidelines for the management of chronic kidney disease. Nephrol Dial Transplant (2007) 22: 2504–2512 Garcia Sanchez JJ. Inside CKD: Projecting the future burden of chronic kidney disease in Europe using microsimulation modelling. POS-323. Kidney International Reports (2021) 6, S1–S362. (1) NICE. Chronic kidney disease: assessment and management. NICE guideline (NG203) August 2021. (2) Levey A S et al. Change in Albuminuria and GFR as End Points for Clinical Trials in Early Stages of CKD: A Scientific Workshop Sponsored by the National Kidney Foundation in Collaboration with the US Food and Drug Administration and European Medicines Agency. American Journal of Kidney Diseases. Volume 75, Issue 1, January 2020, pages 84-104. (3) Nitsch D, Caplin B, Hull S and Wheeler DC on behalf of the National CKD Audit and Quality Improvement Programme in Primary Care, First National CKD Audit Report 2017. (4) NHS Digital. National Diabetes Audit, 2019-20. Report 1: Care Processes and Treatment Targets. England and Wales. August 2021 (5) Kidney Research UK. Kidney Health. Inequalities in the UK. An agenda for change 2019	