alone and data from the CKD-PC examining the risk of outcome by GFR stage assessed by eGFRcr compared with eGFRcr-cys. As compared with equations based on creatinine and cystatin C alone, the equation using both creatinine and cystatin C comes closest to mGFR most consistently (Supplementary Table S3[73–96]). The CKD-PC data were an individual-level data analysis of 27,503,140 participants from 114 global cohorts (eGFRcr) and 720,736 participants from 20 cohorts (eGFRcr-cys) and 9,067,753 participants from 114 cohorts (albuminuria) from 1980 to 2021 from around the world conveying a high degree of robustness in the association of CKD stage with a broad range of adverse outcomes. Based on the totality and consistency of the CKD-PC data, the overall certainty of the evidence was rated as moderate.

Values and preferences. This recommendation places a high value on the need for the most accurate assessment of GFR. The Work Group judged that many people at risk for CKD would prefer an accurate measurement when confirming the diagnosis of CKD and its staging. For this reason, the Work Group prioritized eGFRcr-cys over eGFRcr or eGFRcys for the most accurate measurement. The recommendation puts a low value on the availability and cost of an assessment of eGFRcr-cys suggesting that people at risk of CKD would opt for the more accurate assessment.

Resource use and costs. The costs and resource use associated with eGFRcr-cys are currently greater than those of eGFRcr; however, the need for an accurate measurement may offset these expenses. In addition, accurate diagnosis of CKD as early as possible may lead to lower resource utilization and healthcare spending than if diagnosed in later stages of CKD. For more information on the costs associated with cystatin C assessments, please refer to Section 1.2.2.

Considerations for implementation. The biggest consideration for implementation is the availability of cystatin C measurement. For this reason, the recommendation includes the alternative for eGFRcr in such cases taking into consideration the limitations and drawbacks of creatinine-based measurements.

Rationale

The KDIGO CKD staging system based on 2 dimensions, GFR and albuminuria, was created largely to reflect the association of outcomes of people with CKD, relative to the earlier staging systems based solely on GFR stages. Assessment of GFR stage is ideally performed using accurate assessment of GFR and ACR and is used to best capture the prognosis for people with CKD with regard to outcomes such as kidney failure, CVD, and mortality risk. There is now a large evidence base demonstrating that the use of eGFRcr-cys reclassifies a large proportion of the population into different GFR stages and the "new" stages better reflect their risk associations. For that reason, where available, cystatin C should be added to creatinine for the purpose of estimating GFR for CKD diagnosis and staging.

1.1.3 Evaluation of chronicity

Practice Point 1.1.3.1: Proof of chronicity (duration of a minimum of 3 months) can be established by:

- **(i) review of past measurements/estimations of GFR;**
- **(ii) review of past measurements of albuminuria or proteinuria and urine microscopic examinations;**
- **(iii) imaging findings such as reduced kidney size and reduction in cortical thickness;**
- **(iv) kidney pathological findings such as fibrosis and atrophy;**
- **(v) medical history, especially conditions known to cause or contribute to CKD;**
- **(vi) repeat measurements within and beyond the 3-month point.**

Practice Point 1.1.3.2: Do not assume chronicity based upon a single abnormal level for eGFR and ACR, as the finding could be the result of a recent acute kidney injury (AKI) event or acute kidney disease (AKD).

Practice Point 1.1.3.3: Consider initiation of treatments for CKD at first presentation of decreased GFR or elevated ACR if CKD is deemed likely due to presence of other clinical indicators.

Kidney diseases may be acute or chronic.[1,97] We explicitly yet arbitrarily define the duration of a minimum of 3 months (>90 days) as delineating "chronic" kidney disease. The rationale for defining chronicity is to differentiate CKD from AKDs (such as acute glomerulonephritis [GN]), including AKI, which may require different timelines for initiation of treatments, different interventions, and have different etiologies and outcomes. The duration of kidney disease may be documented or inferred based on the clinical context. For example, a person with decreased GFR or kidney damage during an acute illness, without prior documentation of kidney disease, may be inferred to have AKD. Resolution over days to weeks would confirm the diagnosis of AKI from a variety of different causes. A person with similar findings in the absence of an acute illness may be inferred to have CKD, and if followed over time, would be confirmed to have CKD. In both cases, repeat ascertainment of GFR and kidney damage is recommended for accurate diagnosis and staging. The timing of the evaluation depends on clinical judgment, with earlier evaluation for those suspected of having AKI and later evaluation for those suspected of having CKD.

For people with risk factors for CKD, delaying diagnosis for the sake of confirming chronicity can delay care. Many people may not recognize the importance of a repeat visit if treatment had not been initiated. Thus, initiating treatment both allows for earlier intervention and also indicates to people the importance of the disease.