Proposal for CKD optimisation QIP 2025-26

Background

Chronic Kidney Disease (CKD) affects 7.62% of the Welsh population aged over 16 years (n= 196,815), and prevalence has increased by 33% over the last 12 years.[1] Of the 4 nations, Wales has the second highest prevalence of End stage kidney disease (ESKD) requiring of renal replacement therapy (RRT) per million population[2]. Within Wales, RRT services are commissioned via the Wales Kidney Network (WKN), with an annual budget of £80 million, although the total economic burden of CKD in Wales is estimated to be in excess of £320 million (extrapolated from UK spend of £7 billion per year)[3]. ESKD is associated with markedly increased mortality and poor quality of life, additionally dialysis is an expensive therapy (approx. £30K per annum). In view of this, it is imperative that patients with CKD are identified early and that appropriate steps are taken to mitigate against disease progression.

The commonest cause of CKD and ESKD is diabetes. There are currently over 225,000 patients living with diabetes in Wales[4], the prevalence of which has increased by more than 40% since 2010[5]. 40% of those with T2DM go on to develop Diabetic Kidney disease (DKD), which has been shown to accelerate cardiovascular morbidity and mortality in this already high risk population[6]. Recent data published by Kidney Care UK demonstrates a paucity of knowledge regarding the links between diabetes, CKD and CVD amongst patients and healthcare providers, with numerous opportunities missed to discuss the diagnosis and implications of DKD, and potential lifestyle modifications that can be made to reduce CVD and protect against acute kidney injury (avoidance of NSAIDS, sick day rules etc)[7].

NICE recommendations for gold standard care for patients with CKD include blood pressure and lipid lowering therapy, early use of renin-angiotensin-aldosterone inhibitors (ACE inhibitors and ARBs) and SGLT2 inhibitors[8]. SGLT2 inhibitors have been shown to reduce the risk of kidney disease progression by 37% and the risk of cardiovascular death or hospitalisation for heart failure by 23% in those with CKD, with or without diabetes[9]. Health economic analyses of SGLT2 inhibitors consistently report incremental cost-effective ratios (ICER) well below the NICE £20,000 threshold[3], where the benefits of delaying CKD progression is the main determinant of the cost-effectiveness of these drugs[10].

Despite clear evidence-based guidance for implementation, the uptake of these medications in Wales is low with only 42% of the known high risk proteinuric diabetic cohort currently prescribed SGLT2 inhibitors[4]. This prescribing rate is additionally likely to be an overestimate, given that identification of the true high risk DKD population is hindered by low rates of ACR testing, with only 58.1% of diabetic patients in Wales having an ACR check in the last 15 months[4]. The prescribing rate of SGLT2i for non-diabetic CKD (e.g. secondary to hypertension) in Wales is not known, but is estimated to be significantly lower than this, hampered in part by poor recognition of ESKD risk in this cohort, with only 17% having had an ACR checked in the last 15 months[4].

In recognition of the value-based impact for health across the entire cardiometabolic spectrum, AWPAG have prioritised SGLT2i prescribing in DM, Heart failure and CKD as one of the four confirmed National Prescribing indicators for 2025-2028. In conjunction with this, the Wales Kidney Network have been working with primary care leads to compose the All-Wales CKD Community HealthPathways guidance page. To improve health provider knowledge and confidence in managing CKD, a CPD-approved e-module has been co-produced by Wales Kidney Network and HEIW to accompany this QIP and ensure a legacy from learning across the primary care MDT.

Aims

The **primary aim** of this QI project is to reduce kidney disease progression towards ESKD, and reduce cardiovascular morbidity and mortality in patients with CKD, by adhering to NICE recommended guidelines for the implementation of SGLT2 inhibitors.

The **secondary aims** are to collate accurate CKD registers, improve adherence to urinary ACR screening and promote education and awareness of CKD amongst patients and Healthcare providers (HCPs) inclusive of GPs, DSNs and practice pharmacists.

Objectives

In addition to the principal objective of improving SGLT2i prescribing rates in CKD, practices should select priority areas from the following options to build a Quality improvement project that best reflects the needs of their practice population. The outcomes of the QIP will be demonstrable improvements in the following parameters:

- **Principal objective: Develop, agree and implement a strategy to increase prescribing of SGLT2 inhibitors to those on maximum dose ACE/ARB (where tolerated and indicated):**
    - to patients with eGFR 20-45ml/min, unless contraindicated
    - to patients with eGFR 45-60ml/min and either T2DM or ACR >22.6mg/mmol, unless contraindicated
- Develop, agree and implement a strategy to Improve coding accuracy of CKD
- Develop, agree and implement a strategy to increase annual UACR and eGFR screening in high risk groups, especially:
    - in patients with Diabetes
    - in patients with HTN
- Develop, agree and implement a strategy to improve prescribing rates of statin therapy (Atorvastatin 20mg first line) for all patients with CKD (eGFR < 60ml/min), unless contraindicated
- Develop, agree and implement a strategy to achieve BP targets:
    - < 140/90 for patients with CKD and ACR <70mg/mmol
    - < 130/80 for patients with CKD and ACR >70mg/mmol
- Develop, agree and implement a strategy to prescribe maximum tolerated dose of ACEi or ARB therapy:
    - to patients with T2DM, CKD and ACR > 3mg/mmol
    - to patients with non-diabetic CKD with ACR >70mg/mmol
    - to patients with non-diabetic CKD, HTN and ACR >30mg/mmol
- Improve Community Health care practitioner awareness and education of CKD via completion of CPD-approved online training module (to be co-hosted on CKD HealthPathways page, HEIW and primary care one QIP page). Intended audience: GP's, Pharmacists, DSNs, practice nurses.

(NB Flozin targets above are based on NICE TA 942 for Empagliflozin, with expectation that NICE TA 775 for Dapagliflozin will be updated to mirror the former, change expected Summer 2025. The NICE 2021 CKD guidance, "recommending" use in DKD where ACR> 30 and "suggesting" use in DKD ACR 3-30, ***is out of date*** *and not in keeping with individual SGLT2i TAs, nor the UKKA or KDIGO guidelines).*

Requirements of the project

Practice Level

• Practices will have a named QI Project lead clinician.

• Practices will perform initial searches of CKD coding accuracy to ensure the "true" CKD population is captured in the QIP.

• Pre-authored searches will be made available via DHCW to enable practices to identify the target population using automated tools embedded within primary care IT systems (e.g. EMIS, Primary Care Information Portal).

• Improvements in SGLT2i prescribing rates, as supporting by the National prescribing indicators for Wales 2025-2028, should be a primary focus. An example of a pharmacy-led model of SGLT2i initiation is detailed below. Beyond this, practices should assess their specific population needs and priority areas against the suggested objectives listed above. Having identified a target area (e.g. urinary ACR testing) the practice should design a quality improvement project that aims to address the identified need and improve adherence to national standards of screening and/or management of CKD. Practices are encouraged to devise their own strategies to deliver improvement which may include, but are not limited to:

- **Screening/Coding focus:** Identify high risk groups (as listed in NG203 and All Wales Community HealthPathway CKD page), not currently recorded as having CKD, using available automated IT tools. Implement a screening pathway for these patients to undergo eGFR and ACR testing, with confirmatory testing as per NG203. Once diagnosis confirmed, ensure CKD coding completed and enrol in CKD monitoring and/or refer to secondary care if meets criteria as per NG203/CKD HealthPathways.

- **Optimisation focus**: Implement medicines optimisation reviews of patients with CKD, with equal focus on strategies to retard CKD progression and to prevent associated CV disease. This should incorporate patient education on healthy lifestyle changes, appropriate signposting to additional local services (e.g. smoking cessation) and information surrounding sick day rules with medications. Reviews could be led by GP or ANP/Pharmacist with appropriate training (see example case below)

- **Diabetes focus:** Where practices identify low rates of compliance with annual diabetic review, and particularly the ACR/eGFR core processes within this, review options to better integrate CKD screening and management with all diabetes-focused patient interactions e.g. DSN review, foot check, medication review. Diabetes-affiliated MDT members to complete education modules to raise awareness of the link between DM, CKD and CVD and hence maximise the outcomes of patient interaction in taking every opportunity to ensure uACR test is completed, for example.

- **Education focus:** Demonstrate uptake and completion of CPD-approved CKD education modules for HCP in the practice inclusive of Pharmacists, Doctors, ANPs, PA's, DSNs etc.

• Practices will discuss their learning with their GMS collaborative. Minutes of this meeting should be submitted to health boards as confirmation that this discussion has taken place.

• Practices will complete a nationally agreed QI Poster for sharing at the final collaborative meeting before 31/3/2026 confirming conclusion of the project and highlighting outcomes achieved.

Example QIP- Pharmacy-led optimisation of CKD

- Since July 2023, a Value-based Healthcare funded initiative has been operating in Aneurin Bevan Health board, utilising independent prescribing pharmacists to screen GP practices for patients with diabetes and CKD, eligible for face-to-face holistic lifestyle and medication reviews to optimise overall cardiometabolic health. In this model, the pharmacist(s) works autonomously within the practice, selecting patients using pre-specified searches within IT systems embedded in primary care, followed by more in-depth electronic notes review to apply strict inclusion and exclusion criteria, according to checklist. All recorded vital parameters, advice, medication and CKD code changes are inputted by the pharmacist directly into the GP records. (see Appendix A- Standard operating Procedure, for more detail). To date, this model has been applied to 19 GP practices across ABUHB with 100% positive feedback from participating GP practices and ≈90% positive feedback from patients, with a total of 763 patients reviewed. Furthermore, this model of pharmacy-led optimisation of DKD has potential application to other chronic disease conditions in primary care.

GMS Collaborative Level

• Practices to share aggregate practice-level data on the number of CKD patients treated to target.

• Practices to discuss accuracy of data and process for refinement.

• Discuss, share best practice, and consider adaptation of QI processes if applicable across collaborative

DHCW Level

•A definitive data specification has been provided to DHCW to enable them to support this QIP and create a minimum data set. Given the extension of audit plus for a further year, this is likely to reside in the Primary Care Information portal under the chronic disease modules (CKD audit). Downloadable, importable searches for EMIS may also be provided. This information will be updated on the GMS Quality Improvement page within Primary Care One, as available.

Health Board Level

• Health Boards to ensure practice completion is verified against agreed indicators/contractual agreement via completion of a nationally agreed Poster shared at the collaborative meeting

• Health Boards will collate the posters to allow thematic review at national level- this will additionally support the reporting of the national prescribing indicators for 2025, which will include SGLT2i prescribing on CKD.

Verification and achievement

• Practices will need to prepare the nationally agreed QI Poster for sharing and discussion with the collaborative, and the LHB. Minutes of the collaborative meeting should also be shared as evidence of the discussion.

• A poster template and further guidance for completion will be circulated to practices by end of October 2025.

References

1. Health Economics and Outcome research Ltd report on behalf of Wales Kidney Network- (unpublished data) May 2024
2. UK Renal Registry (2023) UK Renal Registry 25th Annual Report – data to 31/12/2021, Bristol, UK. Available from https://ukkidney.org/audit-research/annual-report
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4. Primary care Information Portal, Wales. Data as of 28/05/2024
5. Primary care diabetes disease register Wales, Public Health Wales OCAT & CDSC
6. Go AS, Chertow GM, Fan D, et al. Chronic kidney disease and the risks of death, cardiovascular events, and hospitalization. N Engl J Med 2004.351:1296-305.
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9. Nuffield Department of Population Health Renal Studies Group; Lancet. 2022 Nov 19;400(10365):1788-1801.
10. McEwan P et al. Estimating the value of sodium-glucose cotransporter-2 inhibitors within the context of contemporary guidelines and the totality of evidence. Diabetes Obes Metab. 2023 Jul;25(7):1830-1838.