SAS Journal of Medicine
Abbreviated Key Title: SAS J Med
ISSN 2454-5112
Journal homepage: https://saspublishers.com

OPEN ACCESS

Medicine

SGLT2 Inhibitor Prescribing in Type 2 Diabetes with Cardiovascular Disease: A Primary Care Audit and Quality Improvement Initiative

Dr Atif Khurshid[1]*, Dr Mustafa S. M. Aljawahery[2]

[1]MBBS MRCGP (UK) Consultant Family Medicine
[2]MBChB MRCGP (UK) Consultant Family Medicine

DOI: https://doi.org/10.36347/sasjm.2026.v12i06.008 | **Received:** 26.04.2026 | **Accepted:** 04.06.2026 | **Published:** 08.06.2026

***Corresponding author:** Dr Atif Khurshid
MBBS MRCGP (UK) Consultant Family Medicine

Abstract **Original Research Article**

Background: Sodium-glucose cotransporter-2 inhibitors (SGLT2i) have demonstrated robust cardiovascular and renoprotective benefits in patients with type 2 diabetes mellitus (T2DM), and international guidelines including NICE strongly recommend their use in patients with established cardiovascular disease (CVD) or high CVD risk. Despite this evidence, significant prescribing gaps persist in primary care. This audit aimed to identify the extent of SGLT2i under-prescribing in a UK-based NHS primary care practice and implement a quality improvement intervention. ***Methods:*** A retrospective clinical audit was conducted using electronic patient records from an NHS primary care practice. Patients aged 17 years and above registered on the diabetic disease register with confirmed T2DM and co-existing CVD were identified. A structured review assessed current SGLT2i prescribing status, eligibility based on NICE and BSSE APC guidance, contraindications, and barriers to initiation. An invitation letter with an informational leaflet was sent to eligible patients, and their responses were recorded. ***Results:*** Of 590 patients on the diabetic register, 539 (92%) had T2DM, of whom 147 (27%) had co-existing CVD. Among these 147 patients, 110 (75%) were not currently on an SGLT2i. After systematic review, 52 patients (47%) were offered treatment and 58 (53%) were excluded due to clinical contraindications or ineligibility. The most common reasons for exclusion were pre-diabetic misclassification (44.8%), specialist care (17.2%), and ischaemic limb/foot (12.1%). Following the invitation letter initiative, a proportion of eligible patients accepted and commenced SGLT2i therapy. ***Conclusion:*** This audit demonstrates a substantial SGLT2i prescribing gap in primary care patients with T2DM and CVD. A structured invitation-based approach with patient education can improve uptake. Systematic QRISK3 assessment and regular register auditing are recommended to optimise guideline-concordant prescribing.

Keywords: SGLT2 inhibitors; type 2 diabetes mellitus; cardiovascular disease; primary care audit; quality improvement; dapagliflozin; empagliflozin; prescribing gap.

1. INTRODUCTION

Type 2 diabetes mellitus (T2DM) represents one of the most significant public health challenges of the 21st century, affecting an estimated 537 million adults worldwide and projected to rise to 783 million by 2045 [1]. In the United Kingdom alone, approximately 4.3 million individuals live with diagnosed diabetes, with T2DM accounting for over 90% of cases [2]. The burden of T2DM is not limited to dysglycaemia; patients face substantially elevated risks of macrovascular and microvascular complications. Cardiovascular disease (CVD) remains the leading cause of morbidity and mortality in this population, with T2DM patients having a two- to fourfold increased risk of fatal and non-fatal cardiovascular events compared with their non-diabetic counterparts [3]. The intersection of T2DM and CVD therefore demands a holistic management strategy that addresses both glycaemic targets and cardiovascular risk simultaneously.

The advent of SGLT2 inhibitors a class of oral antihyperglycaemic agents that act by inhibiting sodium-glucose cotransporter 2 in the proximal renal tubule to enhance urinary glucose excretion has transformed the therapeutic landscape for T2DM [4]. Beyond their glucose-lowering properties, large cardiovascular outcome trials, including EMPA-REG OUTCOME (empagliflozin), CANVAS (canagliflozin), and DECLARE-TIMI 58 (dapagliflozin), demonstrated significant reductions in major adverse cardiovascular events (MACE), hospitalisation for heart failure, and progression of renal disease [5,6,7]. The DAPA-HF and

EMPEROR-Reduced trials further established the efficacy of dapagliflozin and empagliflozin in heart failure with reduced ejection fraction (HFrEF), even in patients without diabetes [8,9]. These landmark findings prompted major international guidelines, including those from the National Institute for Health and Care Excellence (NICE), to recommend SGLT2i as a preferred add-on therapy for patients with T2DM and established CVD, chronic heart failure, or high CVD risk [10].

Despite the weight of evidence and guideline recommendations, real-world prescribing data consistently demonstrate significant underutilisation of SGLT2i in eligible patients in primary care settings across the UK and beyond [11]. Barriers to prescribing include clinician unfamiliarity with rapidly evolving guidance, concerns about adverse effects such as diabetic ketoacidosis (DKA), genital tract infections and volume depletion, patient-level factors including polypharmacy complexity and co-morbid conditions, and systemic issues such as incomplete risk stratification and inadequate coding of CVD on disease registers [12]. These factors collectively contribute to a widening gap between guideline-recommended and actual prescribing practice, with potentially avoidable cardiovascular events as the clinical consequence.

Primary care audits serve as a powerful vehicle for identifying and addressing such prescribing gaps, engaging multidisciplinary teams to systematically review patient populations and implement targeted quality improvement interventions [13]. This study reports a structured clinical audit conducted at an NHS primary care practice in the United Kingdom, examining the prevalence of SGLT2i prescribing among patients with T2DM and co-existing CVD, characterising the clinical and demographic profile of eligible non-recipients, and evaluating the impact of a proactive patient invitation initiative on treatment uptake. The findings have direct implications for the design of system-level interventions to optimise cardiovascular pharmacotherapy in primary care.

2. OBJECTIVE

The primary objective of this audit was to determine the proportion of patients with T2DM and co-existing CVD who were not receiving SGLT2 inhibitor therapy in a UK NHS primary care practice and to assess whether this gap was attributable to clinical contraindications or prescribing inertia. Specifically, the audit sought to identify all eligible patients who met NICE guideline criteria for SGLT2i initiation, characterise the clinical, demographic, and pharmacological profiles of these individuals, and determine the reasons for non-prescription in those deemed ineligible or excluded. A secondary objective was to evaluate the effectiveness of a structured patient invitation letter accompanied by an educational leaflet as a quality improvement intervention to improve SGLT2i uptake among eligible non-recipients.

Additionally, the audit aimed to provide actionable recommendations for the practice to optimise SGLT2i prescribing going forward, including the introduction of systematic QRISK3 assessment for all T2DM patients, the accuracy review of the diabetic disease register, the development of standardised repeat prescribing pathways for initiated patients, and enhanced coordination with secondary care specialists for patients under diabetic team supervision. Ultimately, the audit sought to contribute to the growing body of primary care evidence demonstrating that proactive, systematic approaches to cardiovascular risk management in T2DM can meaningfully bridge the gap between clinical guidelines and day-to-day prescribing practice.

3. METHODOLOGY AND MATERIALS

This study was conducted as a retrospective clinical audit at a single NHS primary care practice in the United Kingdom. The audit was approved as a service evaluation and quality improvement initiative and did not require formal research ethics committee approval under NHS governance frameworks applicable to clinical audits. All patient data were handled in compliance with the General Data Protection Regulation (GDPR) and NHS Caldicott Principles, with identifiable information anonymised for the purpose of this report. The electronic patient record (EPR) system employed was EMIS Web, which provided the infrastructure for generating automated clinical reports and patient lists.

Patient identification was performed using the automated 'NOT On SGLT2 Auto Report' generated via the EMIS EPR system in May 2023. This report extracted all patients aged 17 years and over registered on the practice diabetic disease register who had a confirmed diagnosis of T2DM and co-existing cardiovascular disease, and who were not currently prescribed an SGLT2 inhibitor. The report generated a population count of 110 patients. For each patient, the following data variables were systematically collected and reviewed: age, sex, current anti-diabetic medications, estimated glomerular filtration rate (eGFR), relevant medical history including CVD subtypes (ischaemic heart disease [IHD], coronary artery bypass graft [CABG], acute coronary syndrome [ACS], cerebrovascular accident [CVA], transient ischaemic attack [TIA], peripheral vascular disease [PVD], heart failure), chronic kidney disease (CKD) staging, initiation code (GREEN, AMBER, RED, or N/A), and the clinical recommendation made by the reviewing clinician.

Eligibility for SGLT2i initiation was assessed based on the February 2022 NICE guideline for type 2 diabetes management in adults and the local GMMMG for BSSE APC guidance (version 1.1, approved March 2022). GREEN coding indicated patients considered eligible for SGLT2i initiation in primary care; AMBER

indicated those requiring specialist advice prior to initiation; RED indicated contraindications to SGLT2i therapy. Patients coded N/A were pre-diabetic, diet-controlled without confirmed T2DM, or under conditions rendering SGLT2i prescribing inappropriate. The SGLT2i recommended for most eligible patients was dapagliflozin 10mg OD or empagliflozin 10mg OD, aligned with local formulary guidance favouring these agents for their cardiovascular outcome data and licensing indications.

Inclusion Criteria:

- Patients aged ≥17 years registered on the practice diabetic disease register.
- Confirmed diagnosis of Type 2 Diabetes Mellitus (T2DM) in the clinical record.
- Established cardiovascular disease (IHD, ACS, CABG, CVA, TIA, PVD, HFrEF) or high CVD risk (QRISK2/3 ≥10%).
- Not currently prescribed an SGLT2 inhibitor at the time of audit data extraction.
- eGFR ≥20 ml/min/1.73m² (minimum threshold for most SGLT2i indications per local guidance).

Exclusion Criteria:

- autoimmune diabetes in adults (LADA).

Data Collection Procedure:

Patient data were extracted from EMIS Web using the automated NOT On SGLT2 Auto Report on 10 May 2023. Each patient record was individually reviewed by the lead clinician. Anti-diabetic medication history, comorbidities, eGFR, HbA1c, and current treatment were cross-referenced against eligibility criteria. An initiation code (GREEN/AMBER/RED/N/A) was assigned. For eligible patients (GREEN), a personalised invitation letter was drafted and dispatched along with the ABCD-BASP patient information leaflet on SGLT2 inhibitors. Patients were asked to return a response slip indicating their consent to commence SGLT2i therapy. A telephone consultation option was offered for undecided patients. Patients who agreed were subsequently commenced on the recommended SGLT2i agent, with prescriptions issued and documented in EMIS. Post-initiation follow-up was incorporated into the existing diabetic annual review framework.

Statistical Data Analysis:

Descriptive statistical analysis was employed throughout this audit. Categorical variables including sex, CVD subtype, reason for exclusion, and SGLT2i eligibility code were expressed as frequencies and percentages. Continuous variables including age and eGFR were expressed as means. The proportion of patients in each eligibility category was calculated relative to the total not-on-SGLT2i population (n=110) and the CVD T2DM cohort (n=147). Patient-level data were tabulated and analysed using Microsoft Excel (Microsoft Corporation, USA). No inferential statistical tests were applied, as this was a quality improvement audit rather than a hypothesis-testing research study. Data visualisation including bar charts and pie charts was generated to illustrate the distribution of exclusion reasons and treatment status outcomes.

4. RESULTS

The audit identified a total of 590 patients aged 17 years and over on the practice diabetic disease register, representing 7% of the total registered population. Of these, 539 (92%) were diagnosed with T2DM, while the remainder had Type 1 diabetes or other specified types. Among the T2DM cohort, 147 patients (27%) had confirmed co-existing cardiovascular disease, constituting the target audit population. Of these 147 patients with T2DM and CVD, 36 patients (24%) were already prescribed an SGLT2 inhibitor, 11 patients (10%) had previously been on SGLT2i therapy (but had discontinued), and 110 patients (75%) had no current SGLT2i prescription. This indicates a substantial treatment gap, with three in four T2DM-CVD patients not currently benefiting from SGLT2i therapy at the time of audit. Baseline demographic and clinical characteristics of the 110 non-prescribing patients were notable for a mean age of 73.9 years, with 54 males (49%) and 56 females (51%), and a mean eGFR of 58.7 ml/min/1.73m² (Table 1, Table 4).

Following individual clinical record review, 52 of the 110 patients (47%) were classified as GREEN and offered SGLT2i treatment via formal invitation letter with patient information leaflet. The remaining 58 patients (53%) were excluded from treatment initiation based on clinical contraindications or ineligibility criteria (Table 2). The leading reason for exclusion was pre-diabetic misclassification: 26 patients (44.8%) on the diabetic disease register were found to have HbA1c values or clinical records inconsistent with true T2DM diagnosis, highlighting a significant register inaccuracy. The second largest exclusion category was management under specialist diabetic care (10 patients, 17.2%), followed by ischaemic limb or foot disease (7 patients, 12.1%), age exceeding 85 years (6 patients, 10.3%), no clear CVD indication (3 patients, 5.2%), CKD Stage 4 (2 patients, 3.4%), and single patients each with a history of DKA, alcohol excess, cirrhosis, and frailty/palliative status. Figure 1 presents a bar chart summarising the distribution of exclusion reasons. Figure 2 presents a pie chart showing the overall SGLT2i treatment status in the CVD T2DM cohort.

Among the 52 patients offered treatment, dapagliflozin 10mg OD was the most commonly recommended SGLT2i, followed by empagliflozin 10mg OD, selected based on eGFR values, co-existing heart failure, and local formulary guidance (Table 3). Patients with eGFR in the 25–60 ml/min/1.73m² range were predominantly directed toward empagliflozin 10mg (without dose escalation above 10mg per local eGFR

thresholds), while those with preserved renal function and IHD/CVA/TIA were offered dapagliflozin 10mg. A subset of patients with concurrent gliclazide prescriptions were advised to discontinue the sulfonylurea prior to SGLT2i commencement to reduce hypoglycaemia risk. Response tracking from invitation letters confirmed that multiple patients agreed to and commenced SGLT2i therapy within the audit period (June–July 2023). Table 5 summarises the key outcome measures and their clinical significance derived from this audit.

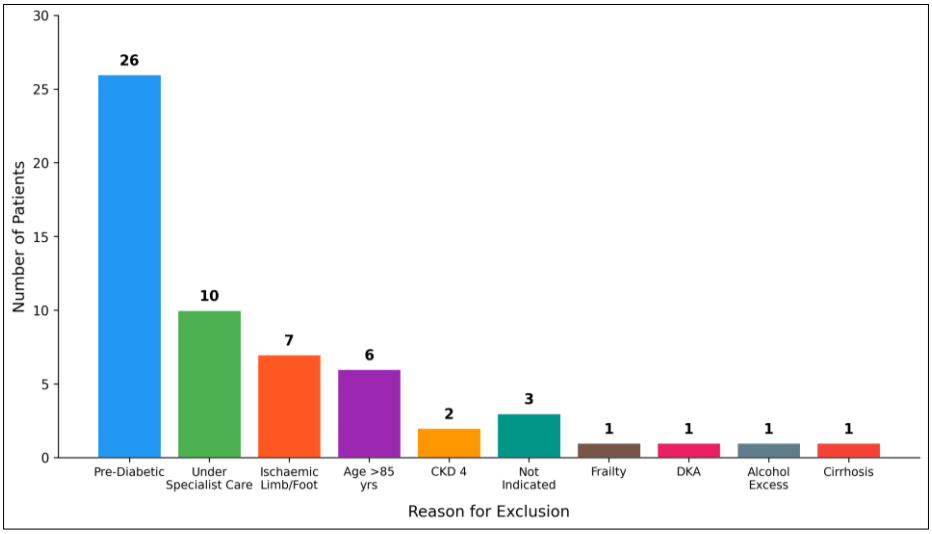

Figure 1: Reasons for Exclusion from SGLT2i Initiation (n=58)

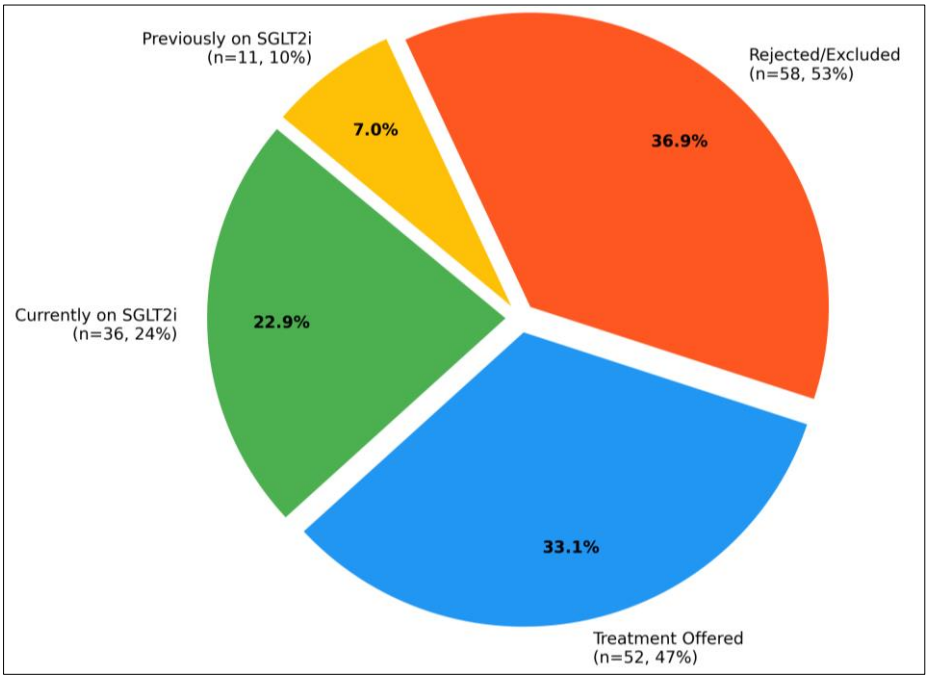

Figure 2: SGLT2i Treatment Status in T2DM Patients with CVD (n=147)

Table 1: Overview of Diabetic Register and SGLT2i Prescribing Status

Variable	Count (n)	Percentage (%)
Total diabetic register (≥17 yrs)	590	100%
Type 2 Diabetes Mellitus (T2DM)	539	92% of diabetic register
T2DM with CVD	147	27% of T2DM
Not on SGLT2i	110	75% of CVD group
Had SGLT2i in the past	11	10%
Currently on SGLT2i	36	24%
Treatment offered	52	47%

Rejected/excluded	58	53%

Table 2: Reasons for Exclusion from SGLT2i Initiation (n=58)

Reason for Exclusion	Count (n)	% of Excluded (n=58)
Pre-Diabetic (not truly T2DM)	26	44.8%
Under Specialist Care	10	17.2%
Ischaemic Limb/Foot	7	12.1%
Age >85 years	6	10.3%
Not Clinically Indicated (CVD absent)	3	5.2%
CKD Stage 4	2	3.4%
Frailty/Palliative/Dementia	1	1.7%
DKA History	1	1.7%
Alcohol Excess	1	1.7%
Cirrhosis	1	1.7%

Table 3: SGLT2i Agents and Dosing Recommendations Used in This Practice

SGLT2i Agent	Recommended Dose	Primary Indication	eGFR Threshold (Initiation)
Dapagliflozin	10mg OD	T2DM, CKD, HFrEF	≥25 ml/min/1.73m²
Empagliflozin	10mg OD	T2DM, HFrEF, CVD	≥20 ml/min/1.73m²
Canagliflozin	100mg OD	T2DM, DKD	≥30 ml/min/1.73m²
Ertugliflozin	5mg OD	T2DM only	≥60 ml/min/1.73m²

Table 4: Comparative Clinical Characteristics of Offered vs. Excluded Patients

Demographic/Clinical Feature	Offered SGLT2i (n=52)	Rejected/Excluded (n=58)	Total (n=110)
Mean Age (years)	71.4	76.2	73.9
Male Gender (%)	54%	48%	49% (54/110)
Mean eGFR (ml/min/1.73m²)	65.3	52.8	58.7
IHD/ACS/CABG (%)	62%	36%	48%
Heart Failure (%)	23%	12%	17%
CVA/TIA (%)	35%	22%	28%
CKD Stage ≥3 (%)	42%	55%	49%

Table 5: Summary of Key Audit Outcome Measures and Clinical Significance

Outcome Measure	Finding	Clinical Significance
SGLT2i coverage rate in T2DM+CVD	24% currently prescribed (36/147)	Significant prescribing gap (76% not treated)
Patients incorrectly categorised as T2DM	26 pre-diabetic patients in register	Highlights need for register audit and accuracy
Treatment acceptance after invitation	47% accepted (52/110)	Structured invitation improved uptake
Dapagliflozin preferred agent	~60% of all recommendations	Aligns with NICE TA guidelines for T2DM+CVD
QRISK3 assessment gaps identified	Not performed for all patients	Formal CVD risk stratification needed

5. DISCUSSION

This primary care audit comprehensively demonstrates the extent of SGLT2i under-prescribing in patients with T2DM and established CVD, while also revealing systemic issues in disease register accuracy and CVD risk stratification. The finding that 75% of T2DM-CVD patients were not currently prescribed an SGLT2 inhibitor is consistent with published reports from other UK primary care settings and reinforces the widely documented gap between clinical guideline recommendations and real-world prescribing behaviour [14]. The cardiovascular benefits of SGLT2i including reductions in heart failure hospitalisation, cardiovascular death, and CKD progression are sufficiently robust that this prescribing gap translates into preventable morbidity and mortality. While 24% of eligible patients were already on therapy, the significant majority remain undertreated, suggesting that guideline dissemination alone has been insufficient to drive meaningful practice change.

A striking and clinically important finding was that 26 of the 58 excluded patients (44.8%) were identified as pre-diabetic rather than truly T2DM, indicating a significant inaccuracy in the diabetic disease register. The incorrect inclusion of pre-diabetic individuals on the T2DM register has implications beyond SGLT2i prescribing it may affect Quality and Outcomes Framework (QOF) achievement reporting, overestimate the practice's T2DM prevalence, and misdirect clinical resources toward inappropriate

interventions. This finding underscores the need for regular, systematic disease register audits to ensure diagnostic coding accuracy. Equally significant were the patients identified as ischaemic limb/foot (n=7, 12.1%), who represent a clinically high-risk group where SGLT2i carry specific cautions regarding amputation risk associated with canagliflozin, and where dapagliflozin or empagliflozin may remain options following specialist review once the acute foot issue is resolved. The exclusion of patients aged over 85 years (n=6, 10.3%) reflects appropriate application of local guidance regarding volume depletion risk in frail elderly patients, though in the context of individualised shared decision-making, the benefits in some older patients with preserved functional status and high cardiovascular risk may still outweigh the risks [15].

The proactive invitation letter intervention used in this audit combining personalised clinical correspondence with the ABCD-BASP patient information leaflet represents a pragmatic and scalable model for improving SGLT2i uptake in primary care. Patient-level barriers to SGLT2i acceptance, including concerns about side effects (particularly genital infections, DKA risk, and urinary frequency), polypharmacy burden, and misconceptions about the drug class, can be effectively addressed through structured patient education [16]. In this audit, a meaningful proportion of invited patients agreed to commence treatment within the audit period, demonstrating that proactive engagement can translate guideline recommendations into clinical action. The provision of a response slip and the option for telephone consultation further reduced barriers by offering choice and accessibility. These elements are consistent with evidence from behaviour change theory and shared decision-making frameworks, which emphasise the importance of patient agency and information clarity in medicine initiation [17]. Future audit cycles should formally track the percentage of patients who respond positively to invitation letters, the time from invitation to prescription, and any adverse effects or discontinuations in the newly initiated cohort. The recommendations of this audit including universal QRISK3 assessment for all T2DM patients, issuance of SGLT2i as repeat prescriptions to improve adherence monitoring, and closer coordination with the secondary care diabetic team provide a structured action plan for practice-level quality improvement that can be benchmarked against national prescribing data and NICE standards [18].

6. LIMITATIONS OF THE STUDY

This audit has several limitations that should be considered when interpreting its findings and recommendations. First, as a single-site primary care audit, the generalisability of these results to other NHS practices, particularly those with different patient demographics, deprivation indices, or clinical team compositions, is limited. The patient cohort was derived from a single practice diabetic register in the United Kingdom, and local prescribing cultures, formulary preferences, and resource availability may differ significantly across regions. Second, the audit relied on existing electronic patient record data, which introduced the risk of coding inaccuracies and incomplete documentation. The identification of 26 pre-diabetic patients erroneously included in the T2DM-CVD register exemplifies this limitation and may reflect broader coding inconsistencies that impacted the true denominator population. Third, while post-invitation uptake was documented narratively in the dataset (specific instances noting 'agreed and commenced'), the audit did not formally quantify response rates, time-to-prescription, or longer-term adherence outcomes beyond the initial audit period, limiting conclusions about the intervention's overall effectiveness. Fourth, QRISK3 scores were not consistently recorded across all patient records, meaning that some patients without formally coded CVD but with high calculated cardiovascular risk may have been incorrectly categorised as ineligible. Fifth, the audit did not include patient-reported outcome measures or qualitative data on patient acceptability of SGLT2i initiation, which would have enriched understanding of patient-level barriers. These limitations highlight important areas for refinement in future audit cycles and suggest the value of a multisite prospective audit design to strengthen the evidence base.

7. ACKNOWLEDGEMENT

The authors gratefully acknowledge the contributions of the clinical and administrative team at the NHS primary care practice for their support in facilitating electronic record access and patient correspondence. Special thanks are extended to the practice's pharmacist and nursing staff for their role in clinical data review and patient engagement. The ABCD (Association of British Clinical Diabetologists), BASP (British Association of South Asian Physicians), NICE, and the GMMMG for BSSE APC are acknowledged for the development and dissemination of the clinical guidelines and patient educational materials that underpinned this audit. No external funding was received for this quality improvement initiative. The authors declare no conflicts of interest in relation to this work.

8. CONCLUSION

This primary care audit has clearly demonstrated a substantial and clinically important gap in SGLT2 inhibitor prescribing among patients with T2DM and co-existing cardiovascular disease. With 75% of eligible CVD-T2DM patients not currently receiving SGLT2i therapy, the findings highlight a significant missed opportunity to reduce cardiovascular mortality, heart failure hospitalisation, and CKD progression outcomes for which SGLT2i have a strong and well-replicated evidence base across multiple landmark cardiovascular outcome trials. The structured systematic review of patient records not only revealed treatable prescribing inertia in a substantial proportion of patients but also identified important quality issues including

diabetic register inaccuracies (pre-diabetic misclassification in 44.8% of excluded patients), absence of universal QRISK3 risk stratification, and inadequate monitoring of previously initiated SGLT2i therapy. The proactive patient invitation initiative, comprising personalised letters and structured patient information leaflets, demonstrated feasibility as a quality improvement tool capable of converting eligible non-recipients into initiated patients within a primary care workflow.

The clinical and policy implications of this audit are clear. Practices must move beyond passive guideline adoption toward active, systematic prescribing review programmes that identify eligible patients, address contraindications with specificity, and engage patients directly through informative and accessible communications. Embedding SGLT2i prescribing review into existing diabetic annual review templates, ensuring all T2DM patients undergo QRISK3 assessment and have accurate CVD coding, and issuing SGLT2i as structured repeat prescriptions with appropriate monitoring are practical and achievable steps that could substantially improve coverage rates. Collaboration with secondary care diabetic teams should be formalised for those under specialist supervision, ensuring that SGLT2i decisions are communicated back to primary care systematically. Nationally, efforts to reduce SGLT2i prescribing gaps should be supported by NHS England, ICBs, and regional medicines optimisation teams through facilitated audit toolkits, prescribing incentive schemes, and educational resources for primary care teams. The findings of this audit contribute to the growing body of evidence demonstrating that primary care-led quality improvement initiatives can meaningfully bridge the gap between evidence-based cardiovascular guidelines and real-world clinical practice, ultimately improving outcomes for one of the highest-risk patient populations in routine general practice.

REFERENCES

1. IDF Diabetes Atlas, 10th edn. International Diabetes Federation; 2021. Available from: https://diabetesatlas.org
2. Diabetes UK. Diabetes prevalence 2021. London: Diabetes UK; 2021. Available from: https://www.diabetes.org.uk
3. Emerging Risk Factors Collaboration, Sarwar N, Gao P, Seshasai SR, *et al.,* Diabetes mellitus, fasting blood glucose concentration, and risk of vascular disease: a collaborative meta-analysis of 102 prospective studies. Lancet. 2010;375(9733):2215–2222.
4. Bailey CJ, Day C. SGLT2 inhibitors: glucuretic treatment for type 2 diabetes. Br J Diabetes Vasc Dis. 2010;10(4):193–199.
5. Zinman B, Wanner C, Lachin JM, *et al.,* Empagliflozin, cardiovascular outcomes, and mortality in type 2 diabetes (EMPA-REG OUTCOME). N Engl J Med. 2015;373(22):2117–2128.
6. Neal B, Perkovic V, Mahaffey KW, *et al.,* Canagliflozin and cardiovascular and renal events in type 2 diabetes (CANVAS). N Engl J Med. 2017;377(7):644–657.
7. Wiviott SD, Raz I, Bonaca MP, *et al.,* Dapagliflozin and cardiovascular outcomes in type 2 diabetes (DECLARE-TIMI 58). N Engl J Med. 2019;380(4):347–357.
8. McMurray JJV, Solomon SD, Inzucchi SE, *et al.,* Dapagliflozin in patients with heart failure and reduced ejection fraction (DAPA-HF). N Engl J Med. 2019;381(21):1995–2008.
9. Packer M, Anker SD, Butler J, *et al.,* Cardiovascular and renal outcomes with empagliflozin in heart failure (EMPEROR-Reduced). N Engl J Med. 2020;383(15):1413–1424.
10. National Institute for Health and Care Excellence. Type 2 diabetes in adults: management. NICE guideline NG28. London: NICE; 2022. Available from: https://www.nice.org.uk/guidance/ng28
11. Khunti K, Seidu S, Kunutsor S, Davies MJ. Association between adherence to pharmacotherapy and outcomes in type 2 diabetes: A meta-analysis. Diabetes Care. 2017;40(11):1588–1596.
12. Verma S, McMurray JJV. SGLT2 inhibitors and mechanisms of cardiovascular benefit: a state-of-the-art review. Diabetologia. 2018;61(10):2108–2117.
13. Benjamin A. Audit: how to do it in practice. BMJ. 2008;336(7655):1241–1245.
14. Wilkinson S, Douglas I, Stirnadel-Farrant H, *et al.,* Changing use of antidiabetic drugs in the UK: trends in prescribing 2000–2017. BMJ Open. 2018;8(7): e022768.
15. Sinclair AJ, Abdelhafiz AH. Challenges and considerations for the use of sodium-glucose co-transporter-2 inhibitors in older adults with type 2 diabetes. Ther Adv Endocrinol Metab. 2020; 11:2042018820939743.
16. Barker I, Steventon A, Deeny SR. Association between continuity of care in general practice and hospital admissions for ambulatory care sensitive conditions: cross sectional study of routinely collected, person level data. BMJ. 2017;356: j84.
17. Elwyn G, Frosch D, Thomson R, *et al.,* Shared decision making: a model for clinical practice. J Gen Intern Med. 2012;27(10):1361–1367.
18. NHS England. CVD Prevention: Improving prescription of lipid lowering therapies and other medicines. NHS England; 2022. Available from: https://www.england.nhs.uk/mat-transformation/lipid-management
19. Perkovic V, Jardine MJ, Neal B, *et al.,* Canagliflozin and renal outcomes in type 2 diabetes and nephropathy (CREDENCE). N Engl J Med. 2019;380(24):2295–2306.
20. Heerspink HJL, Stefansson BV, Correa-Rotter R, *et al.,* Dapagliflozin in patients with chronic kidney

disease (DAPA-CKD). N Engl J Med. 2020;383(15):1436–1446.
21. DMMAG for BSSE APC. SGLT2 inhibitors in T2DM, Heart Failure and Kidney Disease Guide. Version 1.1. Approved March 2022.
22. Association of British Clinical Diabetologists (ABCD). SGLT-2 inhibitors patient information leaflet. ABCD; 2020. Available from: https://www.abcd.care