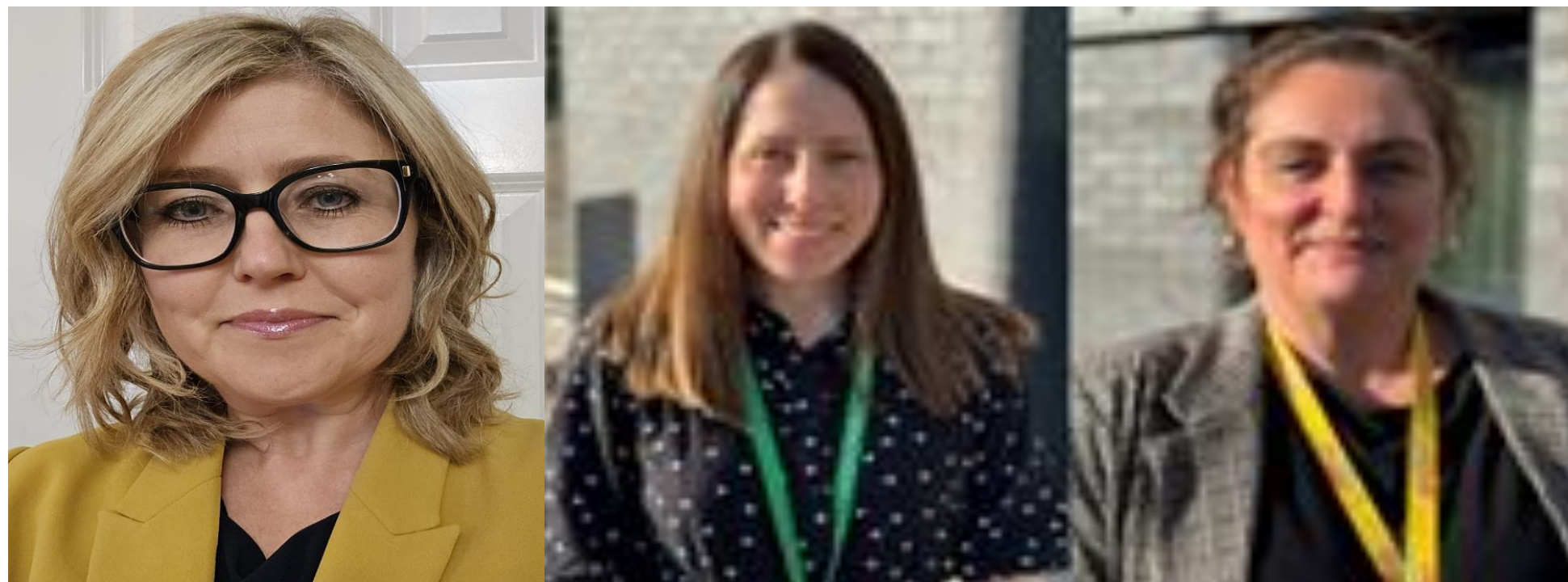


Cardiorenal Optimisation For Patients With Type 2 Diabetes



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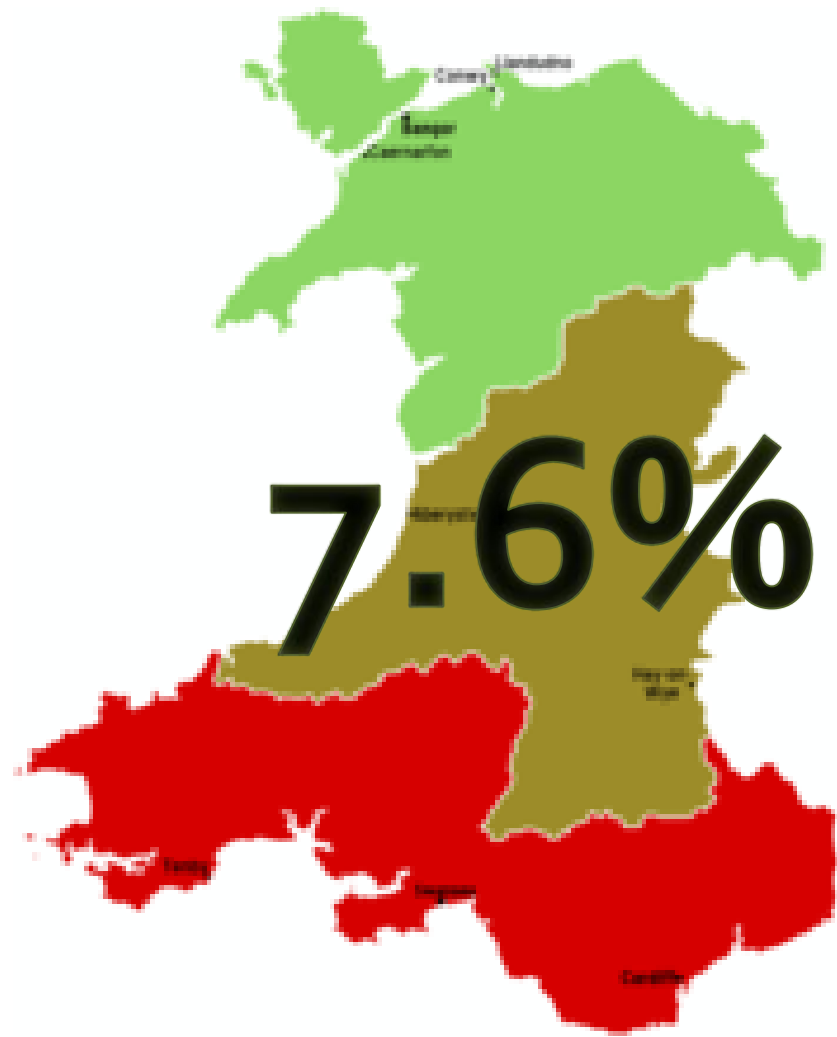
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Elizabeth Jenkins
Lead Pharmacist for Diabetes in Primary Care

Cardiorenal Optimisation Project

- Project initiated in 2023 with funding from the Value-Based Healthcare (VBHC) team
- Aim: deliver a cardiorenal optimisation service to GP practices.
- Primary focus on optimising use of SGLT2 inhibitors to improve patient outcomes
- Delivered by a multidisciplinary team:
 - Independent prescribing pharmacists
 - Pharmacy technicians
 - Administrative support
- Clinical support from secondary care:
 - Consultant nephrologists and diabetologists.

Cardiorenal Optimisation: Reasons for the project



DIABETES



CKD stage 3-5



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Increasing Stroke and MI



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42% T₂DM → CKD



ESRD



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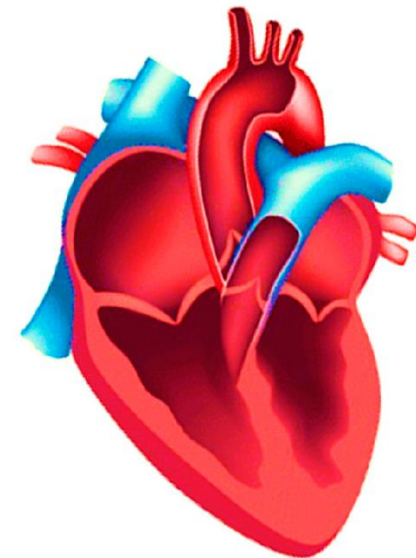
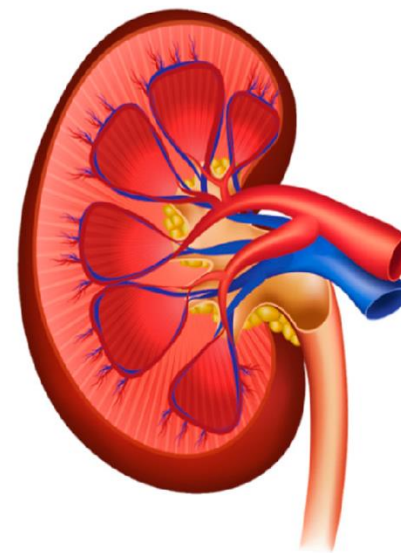
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NICE

National Institute for
Health and Care Excellence

SGLT2i Rx 28%



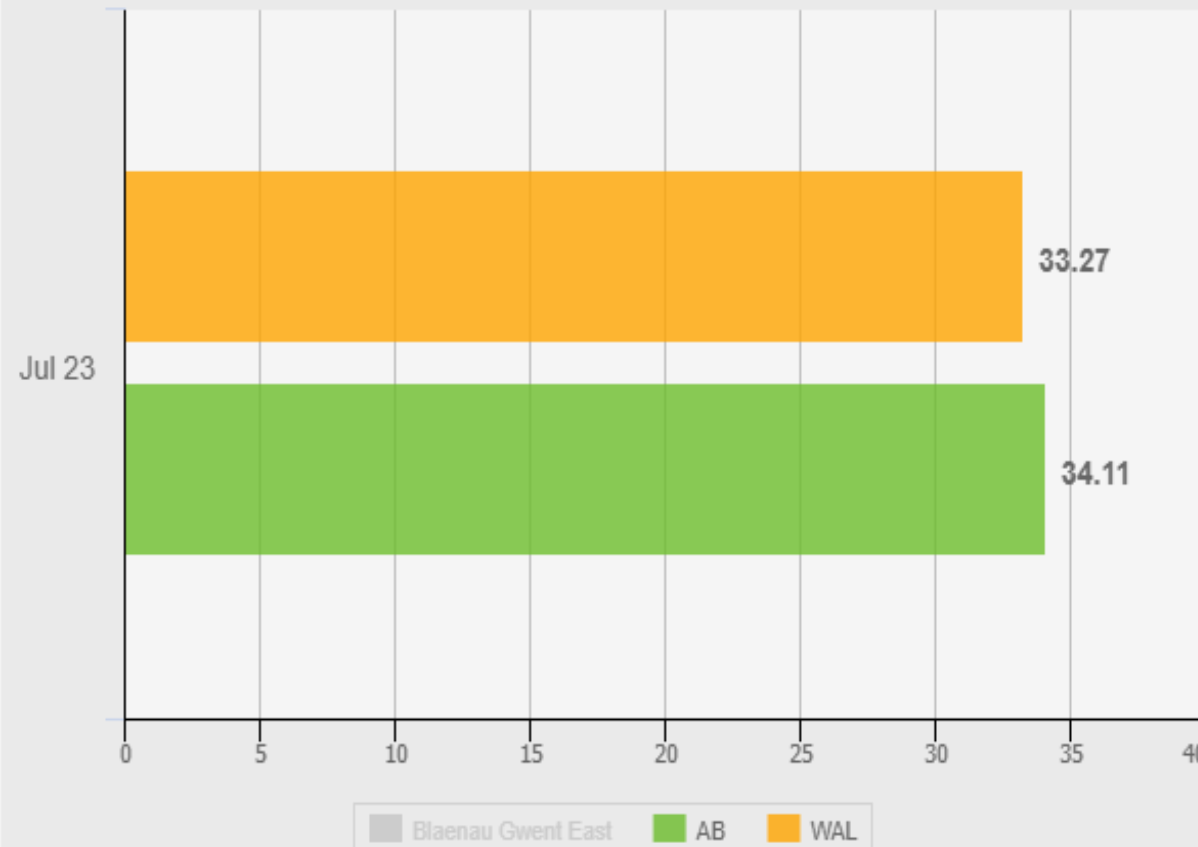
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Baseline SGLT2i prescribing rates (%)

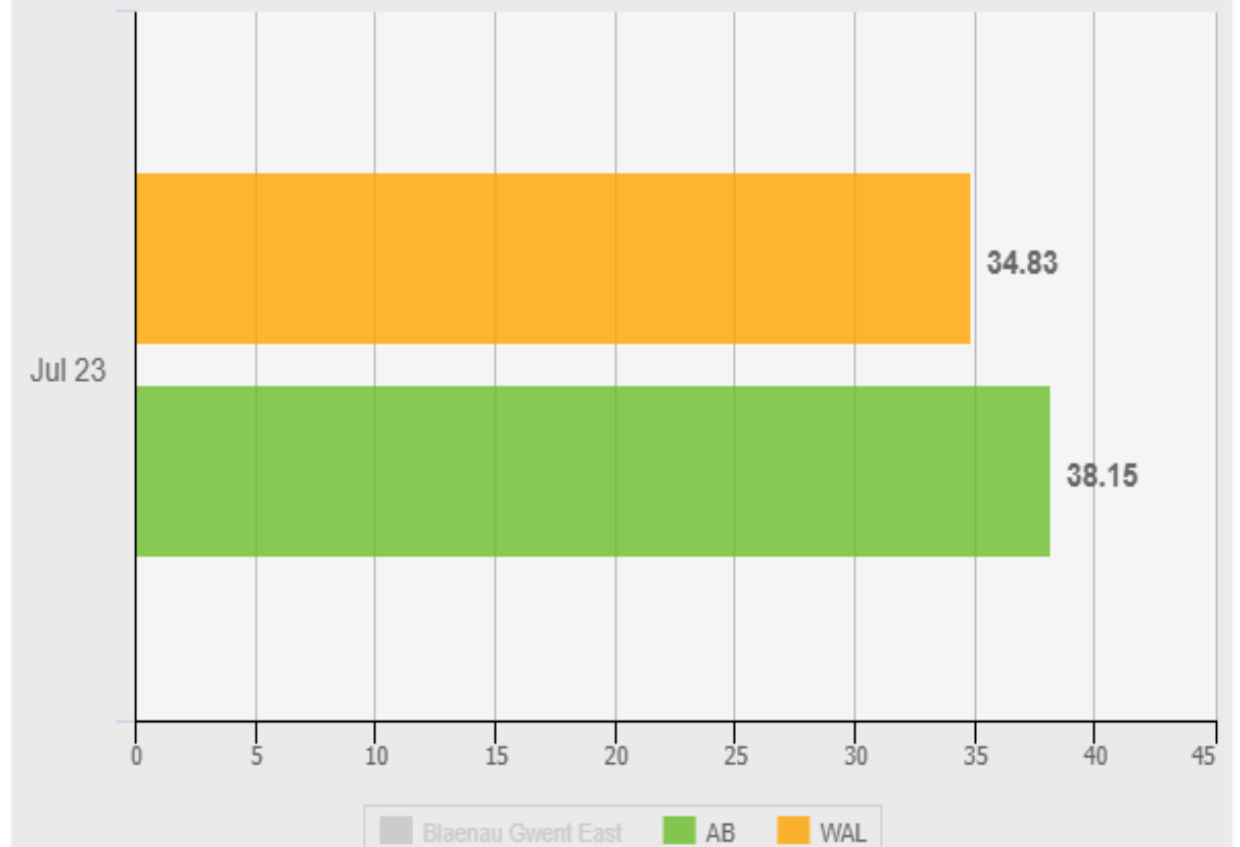
CM21 - Patients with Type 2 and other Diabetes with ACR>3 and <30 in last 15 months prescribed an SGLT2 Inhibitor

Wales - Jul 23



CM22 - Patients with Type 2 and other Diabetes with ACR>=30 in last 15 months prescribed an SGLT2 Inhibitor

Wales - Jul 23



Project Objectives

To identify patients with a diagnosis of T2DM and CKD or at risk of CKD who would benefit from a SGLT2i

**Prevent or delay the progression of CKD
Reduce the number of patients reaching ESKD
Reduce the risk of CV complications**

**Carry out patient centric medication reviews and optimise medication where needed.
Deprescribe medicines with no health-related gains as per NICE guideline NG28**

Pharmacy-led DKD Optimisation Project: Target group

Patients aged 18-80 (80+ if PMH CCF)
T2DM with HbA1c 50-80
and either:
eGFR 25-60 (no ACR requirement)
eGFR 60-90 and ACR >3mmg/mmol or QRISK>10%

Exclusion criteria (MDT compiled checklist) *e.g, not exhaustive*
T1DM/Type 3C/LADA
DKA history
Active diabetic foot disease
Already optimised on a SGLT2i/recorded drug intolerance



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Practice Engagement

- VBHC funding approval secured
- Project presented at NCN cluster meetings
- Attended by GPs, practice managers, and wider HCPs
- Cardiorenal optimisation project introduced
- Clear message: supporting practices without increasing GP workload

Project Set-up and Practice Onboarding

- Project received very positively by practices
- Key enabler: no additional GP workload
 - Patient identification, contact, and appointment booking handled by project team
 - Practices only required to set up clinic sessions on the GP system
- Pharmacy technician followed up with practices to confirm participation
- SOP shared for review and sign-off
- EMIS logins and remote access arranged for project team



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Screening

Eligible patient list derived from audit plus/Emis/vision

Notes review for C/I to SGLT2i

Proposed optimisation plan recorded (escalated to MDT where required)

Agreement of clinic dates with practice

Invitation/explanatory letter sent to patients

Patients contacted and booked for a F2F appointment

F2F appointment

BP, weight, BMI recorded, urine sample collected.

Lifestyle/Diet advice
Smoking Cessation referrals

Inform and educate:
Individualised target HbA1c
CKD stage
CV risk

Medication optimisation and counselling as indicated:

- Add/increase ACEi/ARB
- Add SGLT2i
- titrate insulin/diuretics
- BP meds optimised
- Add statin
- Consider GLP1-RA
- Consider de-prescribing SU/DPP4i/Glitazones

F/U, Recording and Outcomes

Where intervention anticipated to have immediate effect (e.g. Insulin/SU/diuretic titration)
f/up appt booked in 1 week

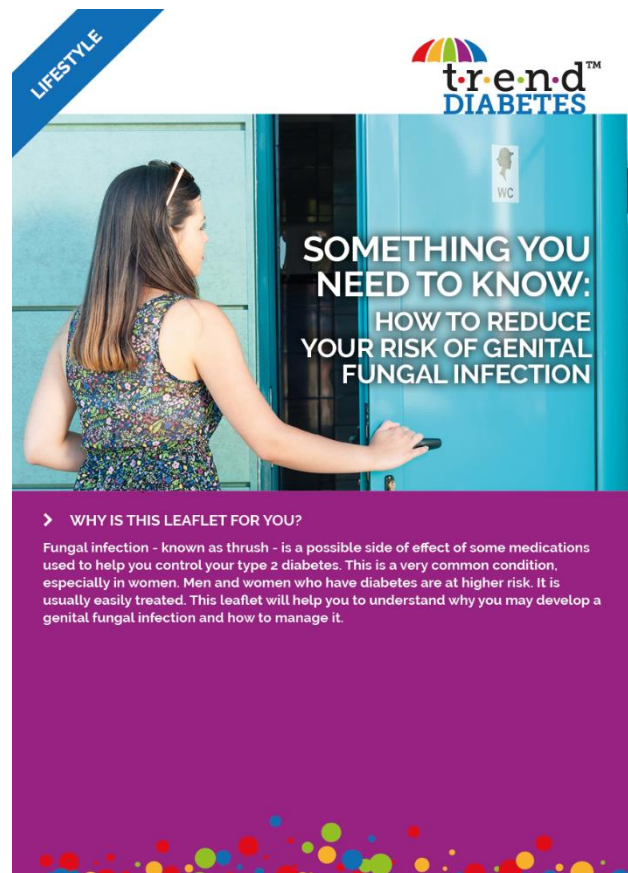
Patient in receipt of sick day rules and medication booklet

All vital parameters, patient education and medication changes recorded directly in patient GP record and CKD code accuracy checked

Outstanding further optimisation steps logged in GP records (if relevant)

PREM, GP practice feedback

Provision of Patient Information Leaflets and Sick Day Rule Card



Medications to PAUSE if you are ill
(e.g. vomiting, high temperature, dehydrated)
To keep you and your kidneys safe.

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Metformin (.....)

- Dehydration can lead to excess lactic acid build up in blood.
- **PAUSE** whilst ill or not eating, can restart when eating and drinking normally.

Sulfonylureas (.....)

- Can cause risk of hypoglycaemia (low blood glucose/sugar)
- If your glucose levels are very low, you will need medical assistance, call 999.
- Reduce dose or **PAUSE** whilst ill or not eating, can restart when eating and drinking normally but if your blood glucose/sugar levels are high or normal continue to take.

SGLT2 Inhibitors (.....)

- Dehydration can lead to excess ketones (acid build up) in the blood.
- **PAUSE** whilst ill or not eating, can restart when eating and drinking normally.

MEDICATION

trendTM DIABETES

LOOKING AFTER YOUR HEART, KIDNEYS AND GLUCOSE LEVELS

➤ **WHY IS THIS LEAFLET FOR YOU?**

This leaflet is a simple guide to SGLT2 inhibitors – medicines that help with diabetes, heart and kidney disease:

- What Are SGLT2 Inhibitors?
- Who might be offered these medicines?
- What are the benefits?
- Who shouldn't take them?
- Possible side effects
- What to do when you're ill (Sick day rules)
- Helpful tips including health checks and monitoring

A. MENARINI FARMACEUTICA INTERNAZIONALE SRL

This resource has been supported with a grant from A. Menarini Farmaceutica Internazionale SRL.

YOU AND YOUR BODY

trendTM DIABETES

DIABETES AND YOUR KIDNEYS

➤ **WHY IS THIS LEAFLET FOR YOU?**

This leaflet is about your kidneys and chronic kidney disease (CKD). This is a complication that can occur in some people with diabetes. It explains how you can reduce your risk of developing CKD, or slow its progression if you already have kidney damage. This leaflet contains important information on:

- What is CKD and how is it tested?
- How does diabetes affect your kidneys?
- Looking after your kidneys
- Declining kidney function and your diabetes treatment
- Key points and useful resources

MSD

GB-NON-02245
Date of preparation: August 2020

The leaflet was developed by TREND UK in collaboration with MSD. This leaflet was initiated, funded and distributed by MSD.

Additional Funding and Project Success

- Project continuation supported by successful outcomes and a positive interim Value-Based benefit assessment
- Funding secured from Public Health Wales and the Tackling Diabetes Together scheme to continue delivery in 2024/25
- Additional funding from Boehringer obtained to support further expansion in 2025/26
- Funding enabled recruitment of additional pharmacist, pharmacy technician, and administrative support hours

Additional Funding and Project Success

- Increased capacity allowed the project to progress more efficiently across ABUHB
- Service expanded into additional regions within the health board
- Expansion targeted areas with high T2DM prevalence and low SGLT2i prescribing rates
- Aimed to reduce variation in care, improve access to evidence-based treatment, and enhance patient outcomes



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ABUHB: Cardiorenal Optimisation Project

43/52 practices completed
optimisation plan

83% practice engagement

Patients identified for
optimisation
n= 3,667

Only 26 patients aware of sick day rules!

Diet advice n= 1005
Informed of CKD stage n= 1632
CKD code updated n=456

f2f appts booked
n= 2,490

Seen and optimised
n= 2,218

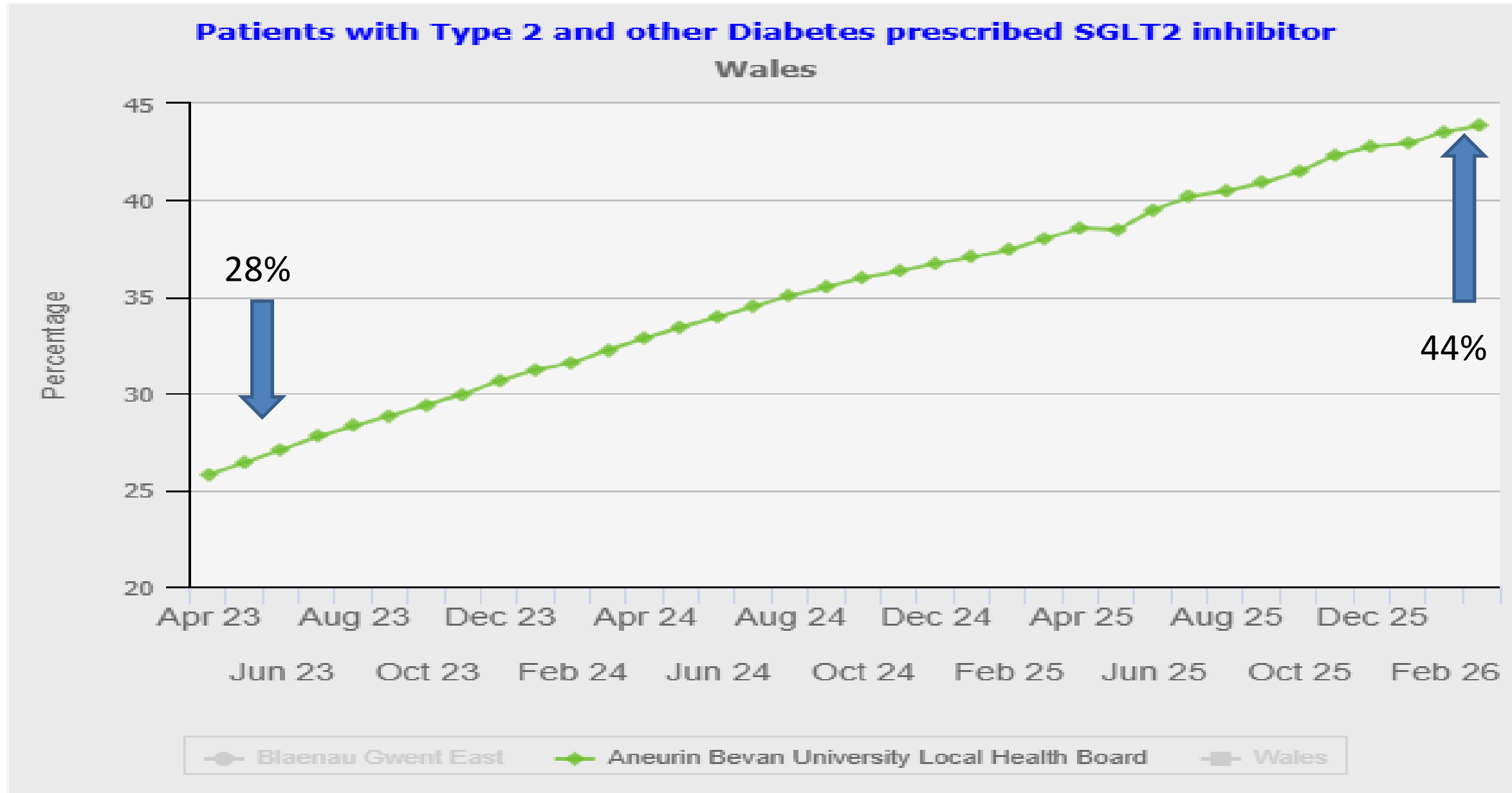
Tel F/up
n= 116

SGLT2i starts n= 1445
ACEi start/increase n= 40
Other BP meds n=15
Statin starts n= 70

DPP4i stopped n= 123
cash releasing
(£42'700)
Insulin dose reduced
n= 36

DNA
n= 272
Unable to contact
n=390
Patient Declined
n =129

Percentage of patients prescribed an SGLT2i with T2DM



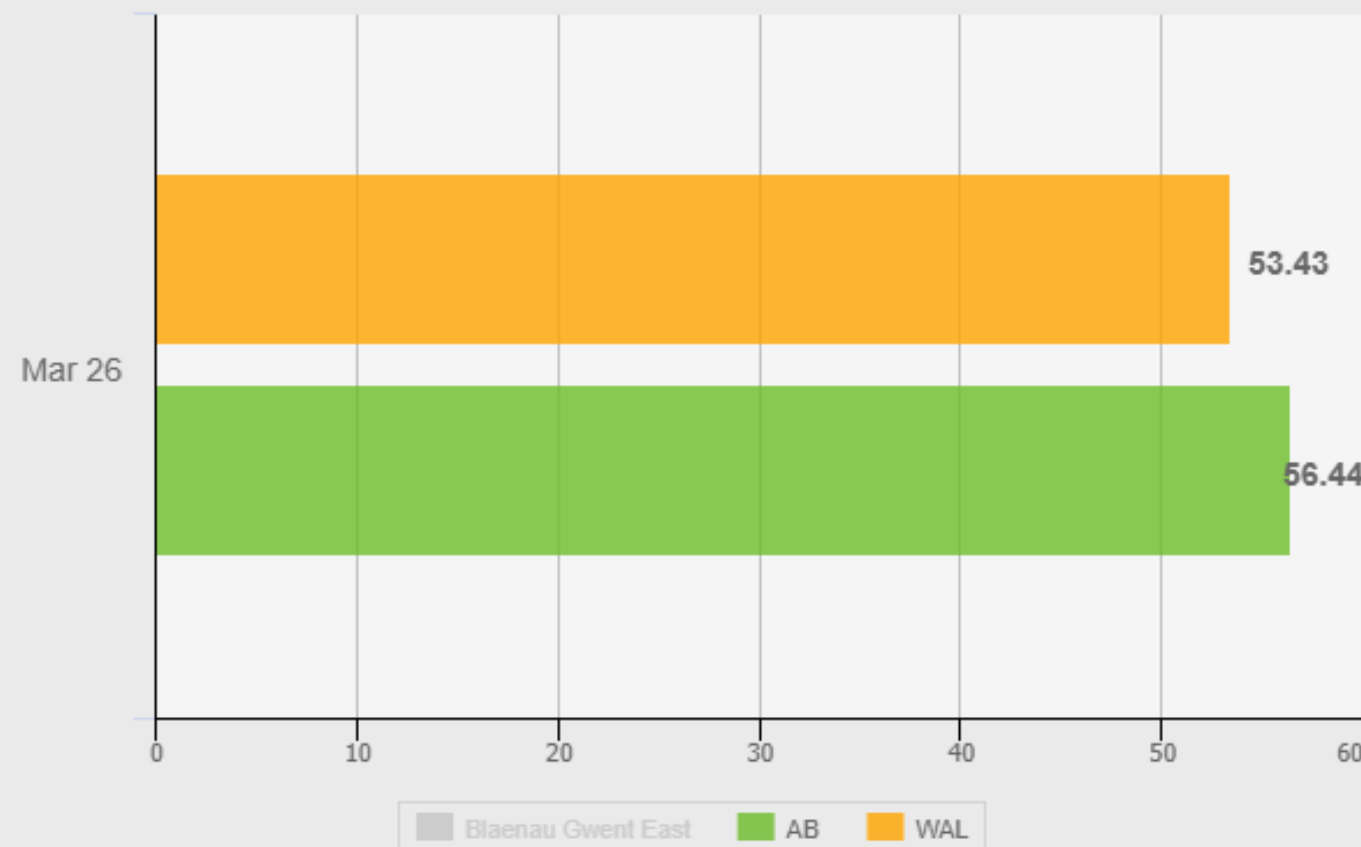
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Increased SGLT2i prescribing in patients with a raised uACR

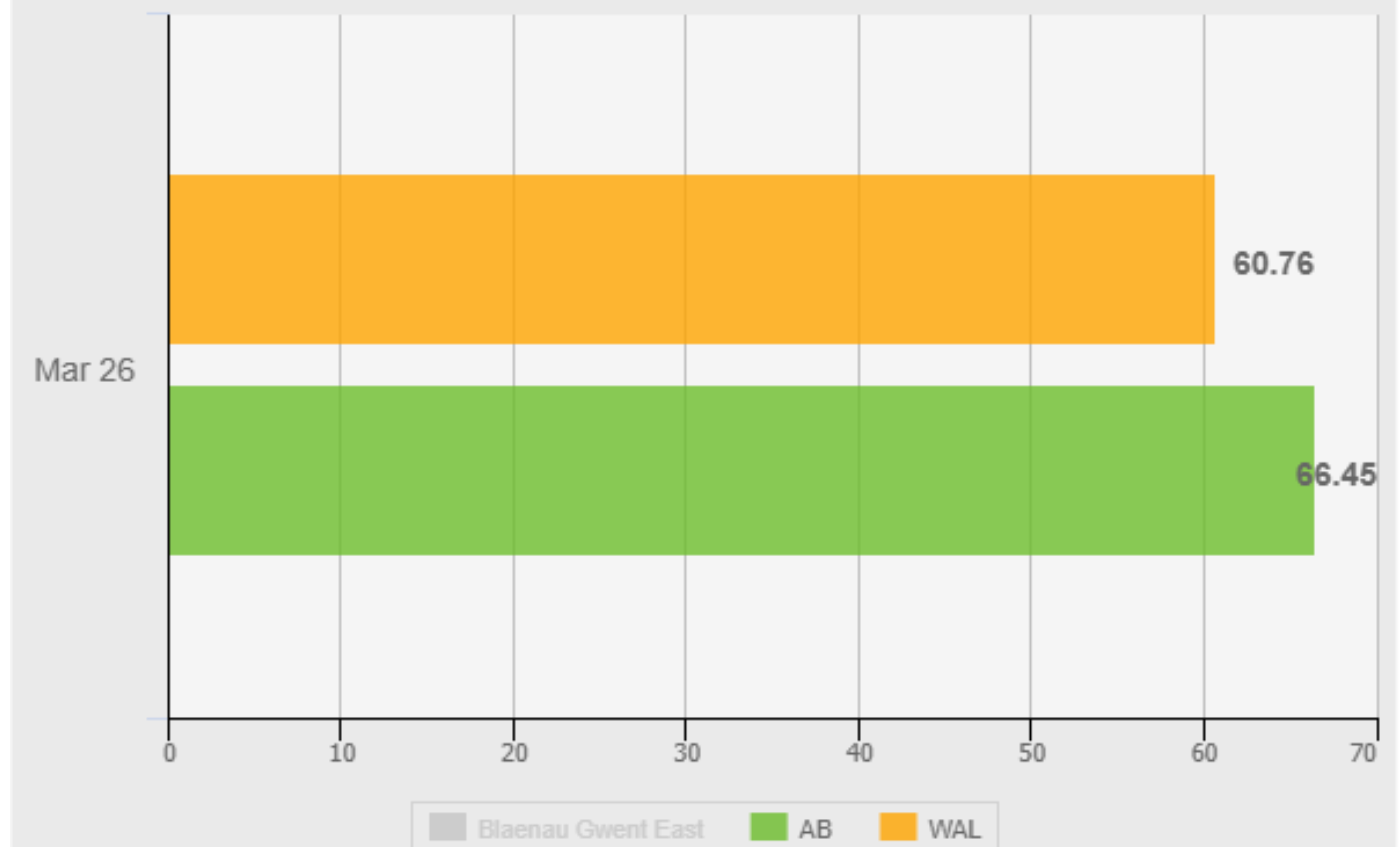
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Wales - Mar 26



CM22 - Patients with Type 2 and other Diabetes with ACR>=30 in last 15 months prescribed an SGLT2 Inhibitor

Wales - Mar 26



Value-Based Benefit Analysis

60

End-stage renal disease
progressions prevented*

111

CV death or Hospital
admissions avoided*

40

Deaths prevented*

£2 million

Estimated 4-year cost
offsets+

Based on NNT data from Dapa-CKD trial¹

*Estimated over a 4-year time horizon based on parametric survival analysis of event rates from Dapa-CKD

+Based on cost savings (UK)² associated with dialysis, transplantation, hospitalisation for heart failure, AKI and adverse events – but excluding cost of SGLT2i

¹Heerspink HJL, et al. *N Engl J Med* 2020;383:1436–1446

2. McEwan P, et al. *Clin J Am Soc Nephrol*. 2022 Dec;17(12):1730-1741.;

Patient testimonials

Stopped furosemide, left the house for the first time in years!

As I am in my 80th year I am pleased to give my thanks and gratitude for all the treatment I have received over many years since my quadruple bypass surgery. My life has been relaxed knowing that my health board is taking care my medical conditions i.e. diabetes, kidney function, blood pressure etc. Because of this my living is more relaxed knowing I am being cared for. Cant offer enough Thanks.

Patient - D. H - Newport.

*"I didn't realise my kidneys were at risk until the clinic. I feel more in control now."
Patient A - Newport*

"I've stopped tablets I didn't need and started one that protects my kidneys. I'm really grateful."

Patient C – Caerphilly

"This was the first time someone looked at my heart and kidneys together. I'm finally getting the right care." Patient B - Monmouth

GP Feedback

Did you find our service useful to your patients and practice?

100% YES

Did accommodating our pharmacist clinic cause any disruption to your practice?

100% NO

If the pharmacological optimisation of DKD was financially remunerated via QIP or QAIF equivalent, how likely would you be to prioritise this work within your practice?

100% VERY LIKELY

Local Pilot to National Adoption

- Project outcomes directly influenced **national policy and investment**
- Evidence underpinned a **£7 million, two-year all-Wales GMS investment** in CKD optimisation
- Represents one of the **largest targeted CKD investments** in Welsh primary care
- Project-developed **SOP recognised as best practice** and adopted nationally
- SOP embedded in **Welsh Government QIP guidance**, ensuring consistent, scalable cardiorenal optimisation across Wales



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Any Questions?



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