Greener Practice

CENTRAL LIVERPOOL PRIMARY CARE NETWORK

Optimising deprescribing in SMRs Central Liverpool PCN

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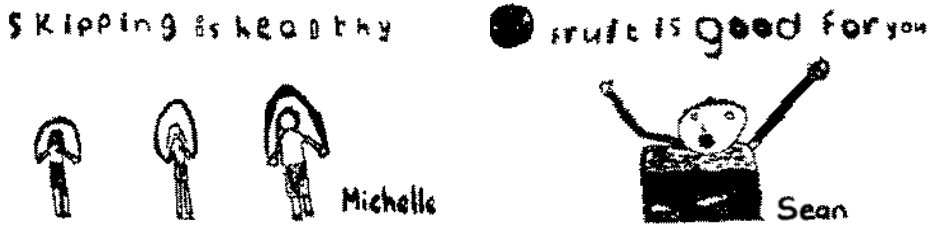
18th June 2025

GREENER BROWNLOW HEALTH
Health in the heart of the city

VAUXHALL PRIMARY HEALTH CARE



Supported by Q network (The Health Foundation)

Overview

What we did

How we did it

What were the challenges / solutions / top tips

What were the outcomes

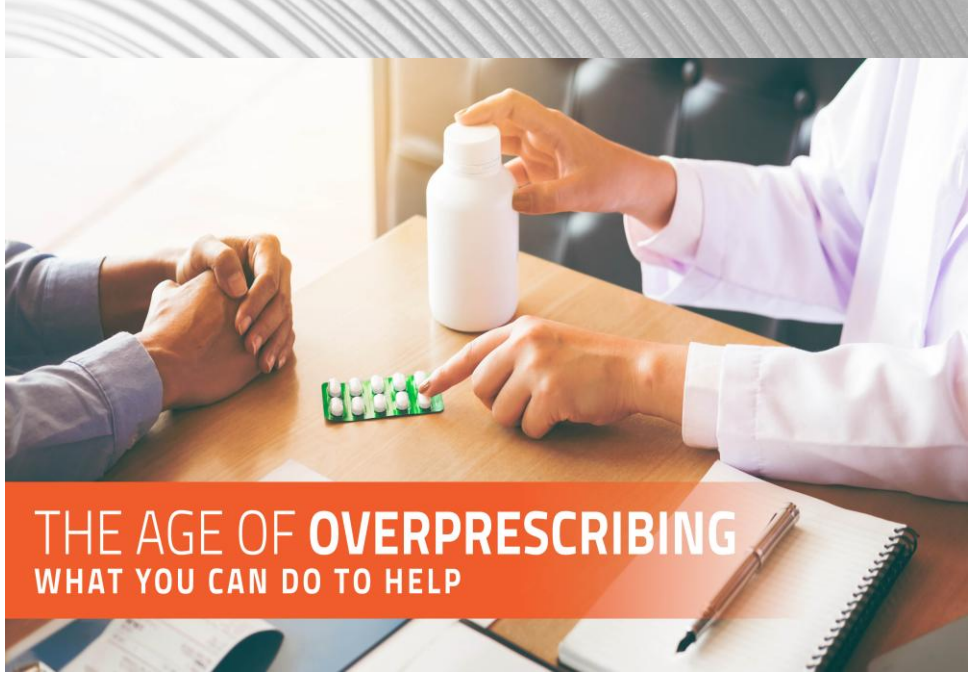
Resources

What next

Why deprescribe?

Why?

- Decrease side effects
- Increase compliance
- Decrease hospital admissions (e.g. falls from hypotension, GI bleeds from NSAIDs…)
- Increase Quality of life
- Decrease waste
- Decrease cost
- Decrease carbon footprint – prescriptions form 60% of the NHS primary care's carbon footprint



Prescriptions form 60% of the NHS primary care's carbon footprint.

Figure 2: Sources of carbon emissions by proportion of NHS Carbon Footprint Plus

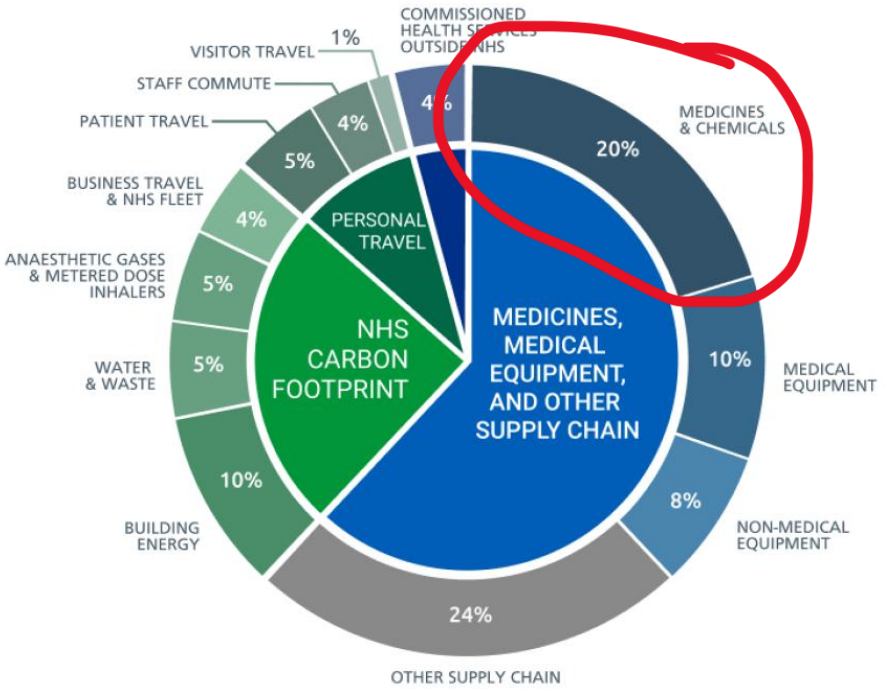
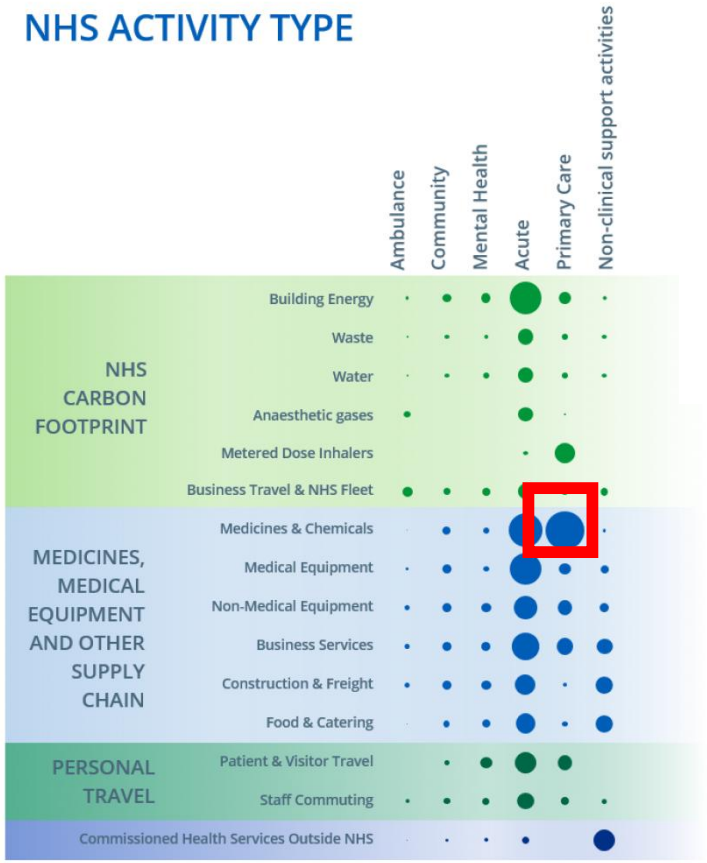


Figure 3: Sources of carbon emissions by activity type and setting of care



Barriers

- Medication is often started but not reviewed for benefit
- Lack of coordination - Multiple specialists can add medication without being fully up to date with current medication and other chronic conditions
- Some clinicians lack the confidence/knowledge to stop medication or how to e.g. benzos
- prn meds “but I might need it – can you leave it on?”
- Patient’s fear - “ The doctor gave it to me”
  Patient pressure e.g antibiotics, painkillers, hypnotics….
- Insufficient resources to deprescribe effectively

How?

Consider individual pt's circumstances e.g frailty, EoL

Consider pt's preferences and choices

Check each medication for benefit/risk STOPP/START criteria

Address concordance

Stop one medication at a time – consider offering a trial

Down titration may be necessary with some drugs

Always follow up with the patient if you stop/change something regular

Be realistic about the timeframe

Write a comprehensive plan in the patient's notes for others to follow if you are not available

Try and provide consistency with one practitioner

Acknowledge 'appropriate polypharmacy'

Also mention alternatives (lifestyle, pulm rehab…)

Who?

- Multimorbidity patients (2 or more LTCs)
- Polypharmacy
- Elderly/Frail – risk reduction benefit of additional medication is minimal
- Housebound
- End of Life
- Vulnerable patients
- Reduced renal or hepatic function

STOPPFrail
List of medicines for review includes

- Lipid lowering medicines
- Alpha blockers for hypertension
- Anti-platelets for primary prevention
- Neuroleptics antipsychotics
- Memantine
- PPIs and H2 antagonists
- GI antispasmodics
- Theophylline
- Calcium supplements
- Antiresorptive, SERMs and bone anabolic medicines
- Long-term NSAIDs
- Long-term corticosteroids
- Diabetic oral agents – aim for monotherapy
- ACEIs or ARBs for prevention diabetic nephropathy
- Multivitamins
- Nutritional supplements
- Prophylactic antibiotics

Deprescribing within structured medication reviews in Central Liverpool Primary Care Network. December 2023-August 2024

Kitchen, C; Condemine, C; To, K-B; Mohammad, N; Scott, E; van Ginneken, N.

Objectives

- To conduct structured polypharmacy medication reviews(SMRs), with a strong focus on deprescribing.
- To deprescribe medicines appropriately in patients who are on **10 or more repeat medications**, e.g. medicines that were:
  - Not being used.
  - Not felt to be effective/ of no benefit.
  - Duplicated item.
  - Potentially harmful: anticholinergics, as well as
  - unnecessary medication/ those that should not be prescribed.
  - Causing side effects.

8.6 Priorities and Ambitions

Initiative	Description	Example
Reduce Use of Pressurised Metered Dose Inhalers	Work as a system (primary care, Trusts, and pharmacies) to reduce the use of higher in carbon and more expensive pressurised metered dose inhalers. (pMDIs	Use dry powder inhalers (DPIs) and soft mist inhalers (SMIs) as alternatives where clinically appropriate.
Responsible Inhaler Disposal	Promote greener disposal of inhalers through reviews of Medicines Management and Waste Policies. Educate patients and staff on the impact of certain medicines on the environment.	If every inhaler user in the UK returned all their inhalers for one year this could save 512,330 tCO_2e. Encourage patients to return used inhalers to a pharmacy for safe disposal.
Inhaler Technique.	Proper inhaler technique helps patients manage symptoms better.	Work to improve patient inhaler technique, self-management, and adherence
Prescribing	Where clinically appropriate prioritise evidence-based therapies over pharmaceutical interventions and focus on reduction of carbon emissions by medicines optimisation supported by GP Prescribing Scheme published June 2021	• Cognitive Behavioural Therapy (CBT) • Social prescribing • Mindfulness • Pain clinic • Sleep clinic • Diet and exercise

Method

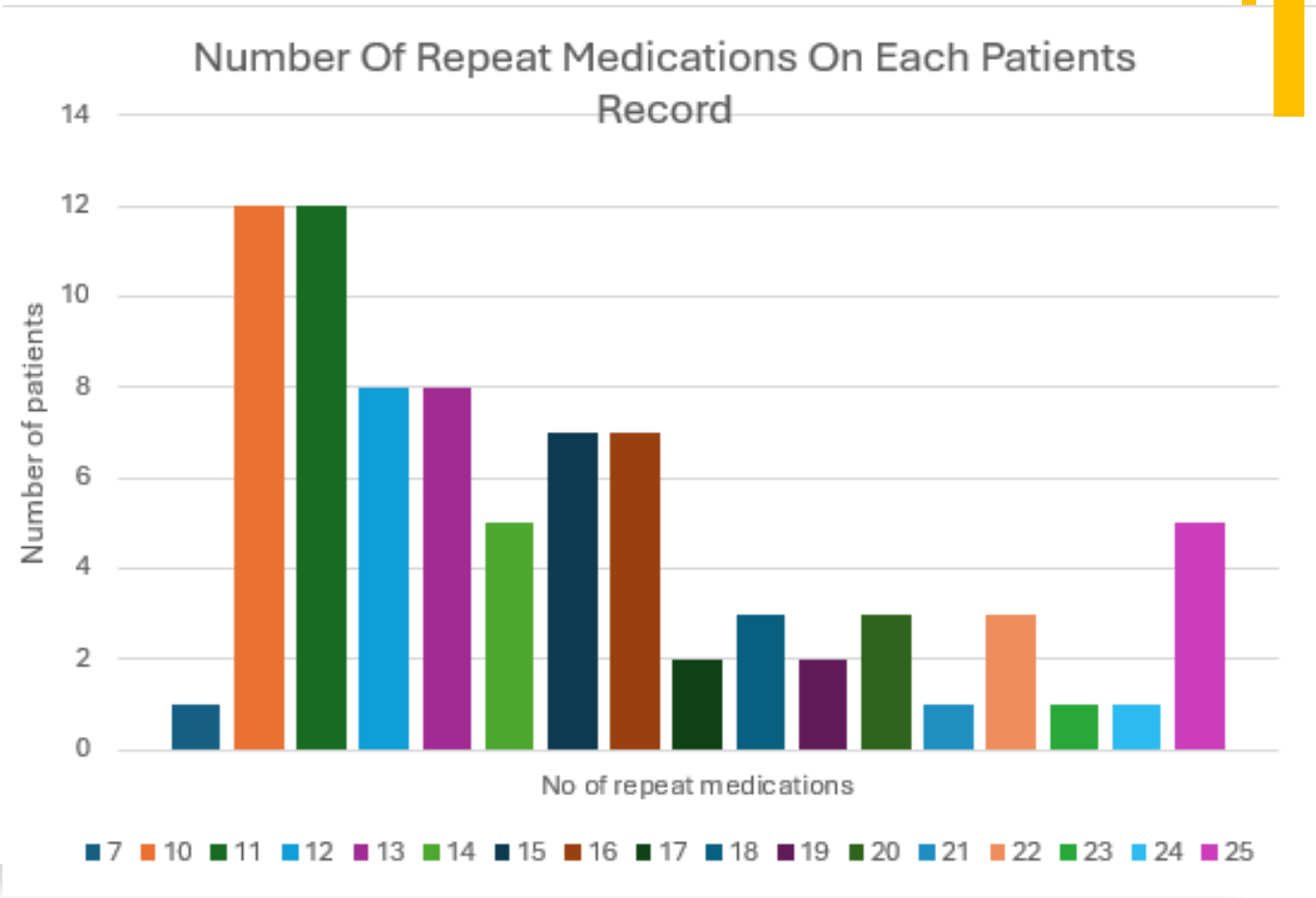
- **Funded** by Q network – The Health Foundation: £1000. We costed this as equivalent to approx 80 SMRs by Band 7 pharmacists
- **Who**
  - 3 pharmacists did the reviews (2 as their CPPE QIP projects)
  - 1 senior pharmacist helped design the project and supervise
  - 2 GPs provided academic supervision
- **What**
  - The 3 pharmacists conducted as per our usual SMR protocol (compliance, side effects, monitoring , pt understanding, pt questions/queries, deprescribing, ACB score) but with a stronger emphasis on deprescribing and time allowed for this.
  - Using the STOPP/START criteria to identify the main drugs worth reducing.
  - We compared their deprescribing rates to 2 other pharmacists from the same team conducting standard SMRs over the same time period.

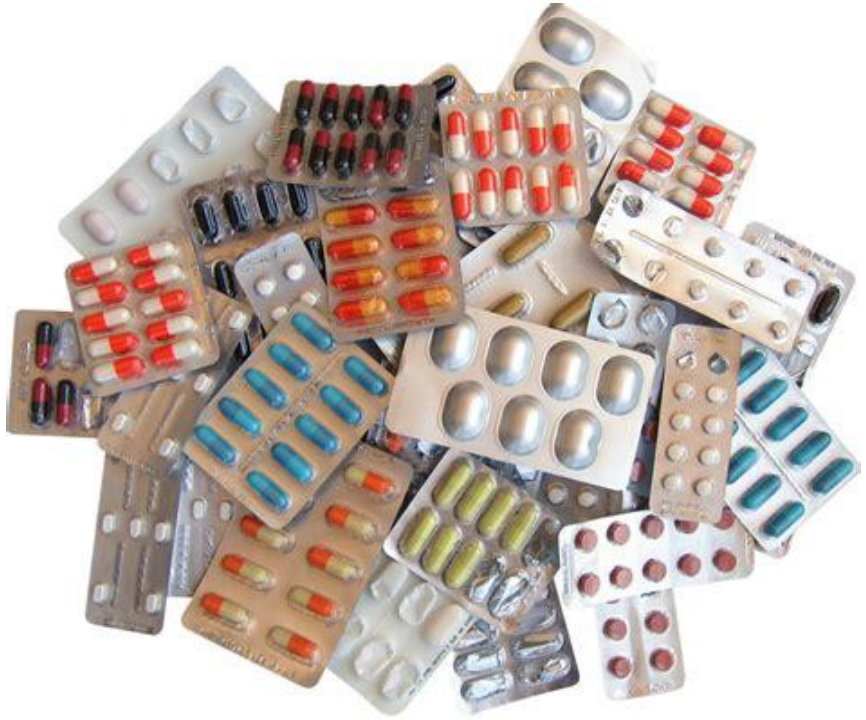
Results

- We reviewed 81 patients from 5 practices in CL PCN:
  - St James Health Centre: 17 reviews
  - Brownlow Group Practice: 28 reviews
  - Kensington Park: 9 reviews
  - Princes Park: 16 reviews
  - Abercromby Health Centre: 11 reviews
  - Total: 81 reviews
- Patient characteristics
  - 48 (59%) patients were female. Ave age was 65 yrs (range: 41-93)
  - CLPCN has 120,000 pts, 4878 (4%) pts are on =/> 10 medications.

Results – number of prescribed items per patient

- Patients included were on between 10 and 25 items (average 14.7 items per script, 36% of these were variable repeats).
- Across the 81 patients we reviewed 1191 items.



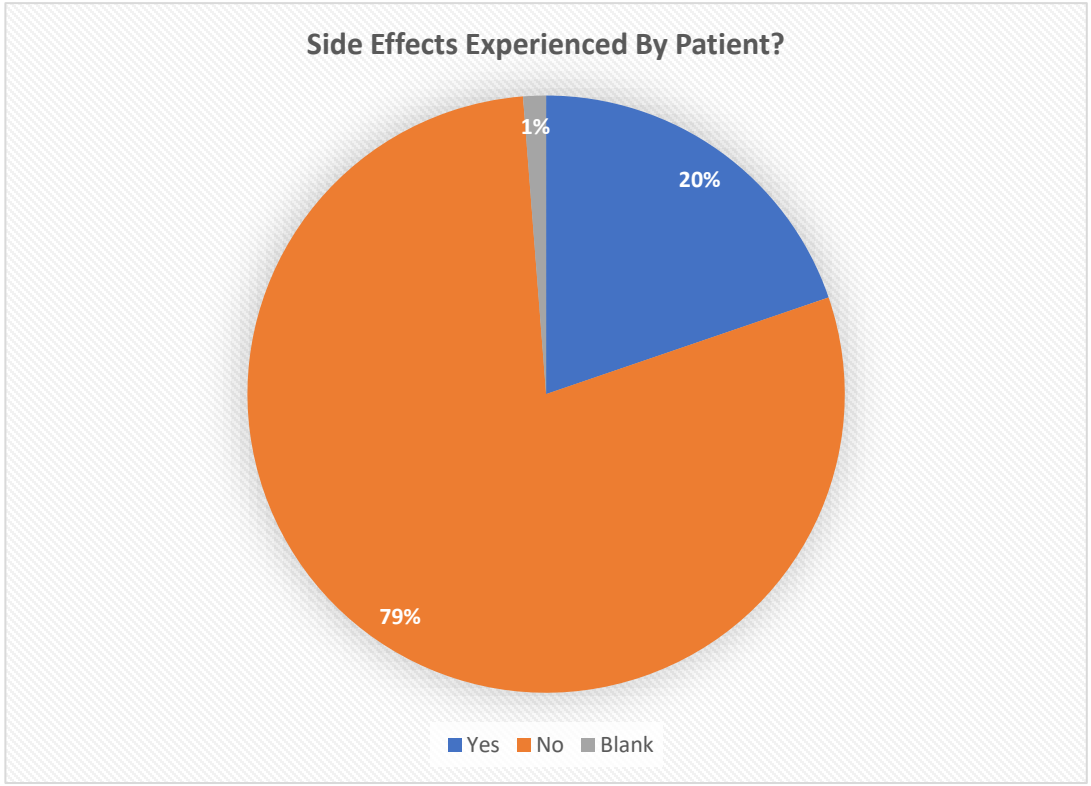


	Deprescribing trained group (N=81 patients)	**Control group** (N=81 patients)
Items stopped	**37** (3.1% of all items)	16
Items reduced	**32** (2.7% of all items)	8

Deprescribing achieved

(also 4 medications started: metformin, statin, carbocisteine, sertraline)

Adverse effects experienced and reduced



- **16 patients report side effects (20%)**
- **Average ACB score 3.7 (range 1-11)**
- **Reduced anticholinergic burden score achieved** in 3/81 patients.

Carbon footprint reduced

MCF rating	g C02e per dose	number of stopped items
Low - Green	0-10g	6 (16%)
Medium – Amber	10g-100g	9 (24%)
High – red	100g-1000g	7 (19%)
Very High -	>/= 1000g	0 (0%)
No rating		15 (40%)
Total		**37 (100%)**

- - Used the MCF classifier (https://www.yewmaker.com/mcf-classifier) which categorises medications by categories of carbon footprint[1].
- Only 22/37 (60%) items stopped had a carbon rating available from their pharmaceutical company.
- Of the 22 items with ratings, **72% were medium to high carbon footprint.**

COST SAVINGS

Additional time and costs:

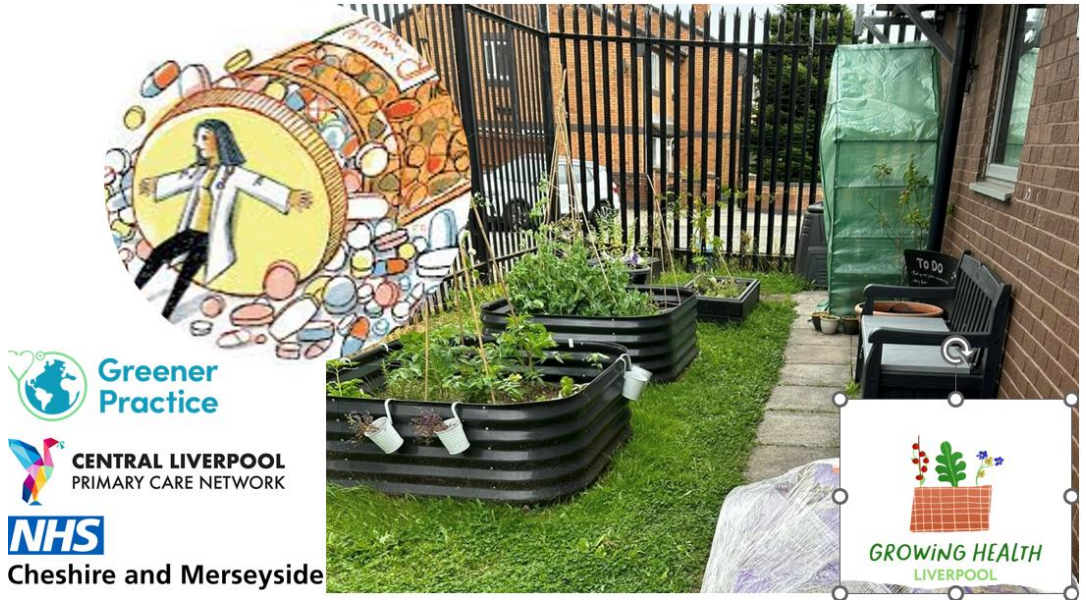
- £1000 Q Network funding : cost of conducting 80 SMRs. + time in kind agreed by pharmacist leads to fill in audit forms and to attend meetings (avg 10mins/patient+3h of meetings).
- 7 mins longer (range 20-101mins) to do the deprescribing-focused reviews than the 20 mins currently allocated. i.e. cost equivalent is an extra £304 (9h30 for 81 reviews. £32/h pharmacist x 9.5 =304)

Cost savings:

- The deprescribing-focused SMRs **saved £914.47** more than standard SMRs for 81 patients (-£1855.83 vs -£941.36)
  - If taking into account extra 7 min / review (pharmacist £32/h i.e. £304 /81 patients), then total cost saving £610.47.
- If deprescribing-focused SMRs were the norm for all 4878 patients on >=10 meds in the Central Liverpool PCN, this would equate to an additional **£36,736 to £55,071.42** saved per annum.

Achievements of this project so far

- Sustainability award
- Speaking to chief pharmacist at ICB and getting this model discussed within the prescribing pathways team.
- Presentations at different primary care fora (GP practices, PCN, Greener Practice, Place pharmacists, ICB level chief pharmacist)



Top tips

Top tips within your practice

- Don’t be afraid to represcribe
- Involve pharmacists and GPs, prescribing teams, receptionists
- Promote all wins (including cost and environmental)
- Useful to do as part of a primary care diploma QIP.

Challenges

- Time taken to do the auditing
- Maintenance of this practice during SMRs long term
- Getting more time to do SMRs.

Summary

- This study has demonstrated the multiple positive impacts from having an emphasis of deprescribing within structured medication reviews, for patients, for medication budgets and the environment.
- The study was too short to measure reduction in side effects however we know from previous studies that deprescribing has an impact on improving patient's quality of life.
- A limitation of the study was that it did not allow time to record any follow up appointments
- Investing resources in medication review to ensure patients are taking only the medication which is necessary for them with the minimal amount of side effects is a good use of healthcare funding.
- This refocusing of SMR was at minimal added cost to the PCN and resulted in large cost and carbon savings.

Next steps

work on incorporating into deprescribing strategy.

Plan to role out across PCN team and beyond

(June 2025)

DEPRESCRIBING RESOURCES

Deprescribing guidelines

- Deprescribing in frailty (attached)
- SPS deprescribing https://www.sps.nhs.uk/articles/understanding-polypharmacy-overprescribing-and-deprescribing/
- Prescqipp https://www.prescqipp.info/our-resources/
- Prescribing and deprescribing – Greener Practice
- National overprescribing review report - GOV.UK
- Medicines optimisation | Medicines guidance | BNF | NICE
- Good for you, good for us, good for everybody: a plan to reduce overprescribing to make patient care better and safer, support the NHS, and reduce carbon emissions
- toolkit-general-practice-frailty-1.pdf

Deprescribing tools

- IMPACT tool: 268. https://www.prescqipp.info/media/t1qd4ao2/268-impact-4-1.pdf
- STOPP Criteria
- ACB calculator https://www.acbcalc.com/
- Medichec- AEC (anticholinergic effect on cognition and other s/) http://www.medichec.com/assessment

Webinars/ online learning

- Polypharmacy and deprescribing Course (3hours)
- Polypharmacy and end of life https://vimeo.com/1035240746 (1hr)
- Problematic polypharmacy v useful case studies https://medicalcare.rcp.ac.uk/content-items/video/webinar-problematic-polypharmacy/

Patient resources

- Only order what you need Reducing medicines waste - only order what you need - NHS Cheshire and Merseyside
- Shared decision making | NICE guidelines | NICE guidance | Our programmes | What we do | About | NICE

Cheshire and Merseyside

What else are we doing?

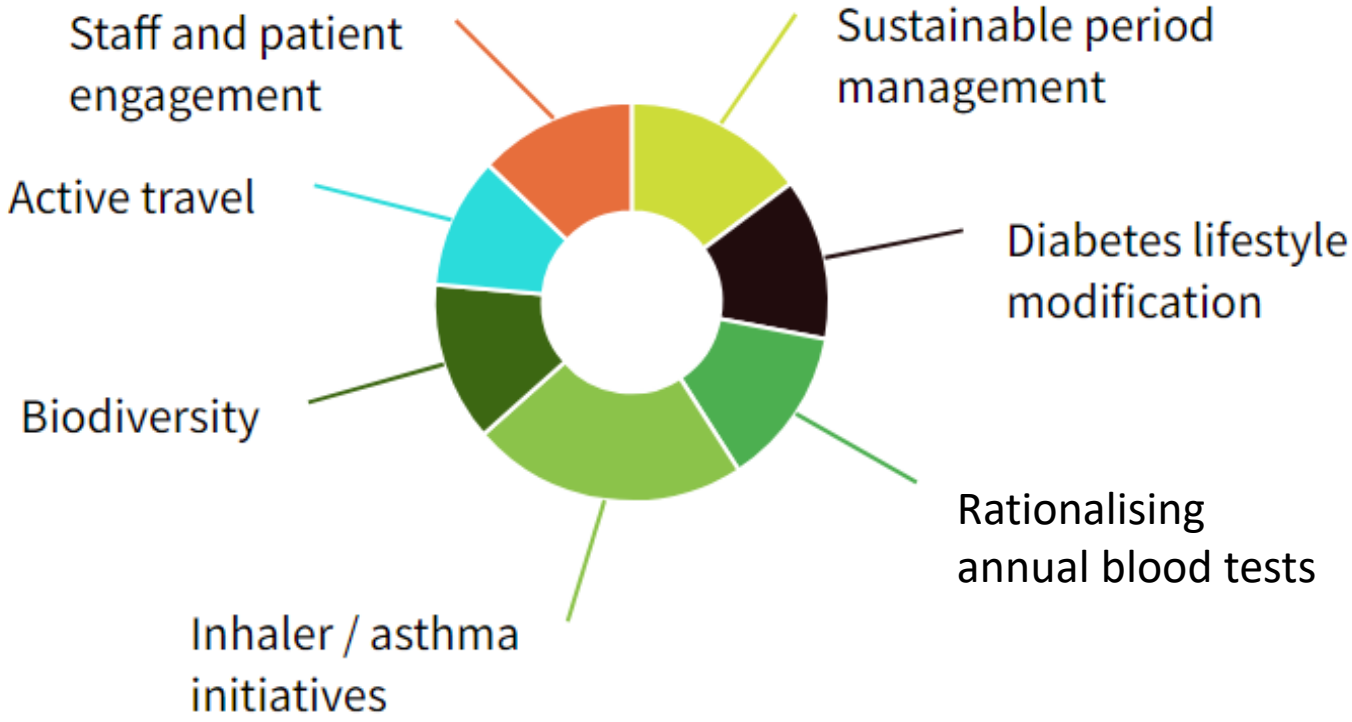
10-Point Green Plan for Primary Care

- 10 key actions to kick-start the sustainability journey
- Plan co-produced
- Refreshed for 2025-2028
- Aligned with the ICS Green Plan
- Promoted via the Primary Care Bulletin and with Greener Practice

ICB Collaboration with C&M Greener Practice (2024-2025)

NHS Cheshire and Merseyside

PRIMARY CARE PROJECTS



Other initiatives in primary care

ICB:

- **Social prescribing directory** of activities (multiagency work)
- **Anchor and social value**. CORE20PLUS5
  - 1st Anchor GP practice: Eric Moore Partnership (Warrington)
  - 1st Anchor PCN: Picton Primary Care Network
- **Greener Breaths**: asthma education and patient engagement
- **Medicines waste campaign** for Cheshire & Merseyside.

Cheshire:

- **Cheshire Greener Primary Care group**.
- **PCN work** (CHAW – Chelford, Handforth, Alderley Edge, Wilmslow)
- **Individual active practices**: eg Weaver Vale (Winsford), Kenmore (Wilmslow), Merepark (Alsager)

CENTRAL LIVERPOOL
PRIMARY CARE NETWORK

Sustainability leadership role 2024-25

Green banking

Green Impact for Health toolkit

Medical student teaching

Air quality

Deprescribing (£1,000)

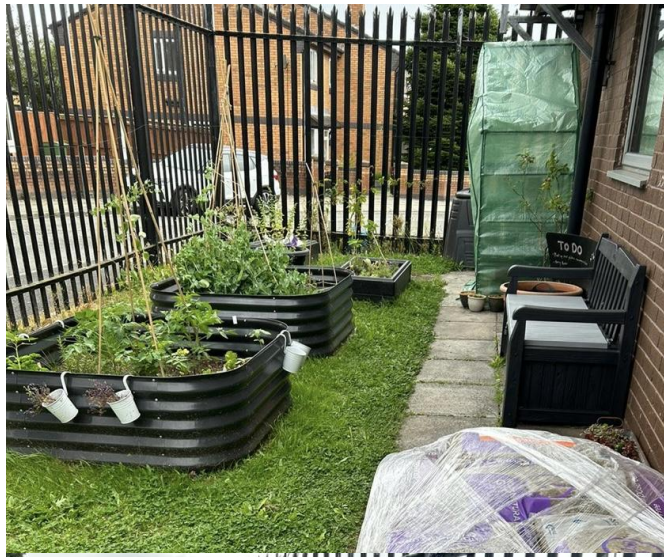
Greener spaces (£14,000)

Greener breaths / asthma

Prevention Pledge

Anchor framework

GROWING HEALTH
LIVERPOOL



Questions and discussion

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