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Reducing Medicines Wastage leaving Community Pharmacy – Learning from QI

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Overview

- Provide an overview of the ABUHB OOWYN (only order what you need campaign)
- Discuss a QI project undertaken as part of the Post-Registration Foundation Programme aiming to reduce the amount of medicines waste leaving a community pharmacy.
- Consider how learning has influenced the next phase of the OOWYN campaign.
- Share examples of good practice across Wales and generate ideas and suggestions to help shape future OOWYN and All-Wales medicines waste reduction initiatives.



Tackling medicines wastage across ABUHB – Why was the OOWYN needed?

NHS resources

- Unused prescriptions are estimated to cost around £9.6million in ABUHB.
- Repeat prescribing accounts for 60-70% of prescribing costs.
- Around 10% of prescriptions may be unnecessary

Environmental

- Approximately 25% of NHS carbon emissions are attributable to medicines.
- Waste contributes to avoidable manufacturing, transport and disposal admissions.



Tackling medicines wastage across ABUHB – Why was the OOWYN needed?

Patient Safety

- Stockpiling of medicines
- Confusion following treatment changes
- Inappropriate storage and disposal
- Increased risk of medication errors and medication related harm



What are we seeing?

ABUHB experience of waste.....



This medication had to be cleared from a patient's shed to enable him to be discharged home safely.







Help reduce
medicines waste



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What do you think is the biggest cause of medication waste in your area?

Go to

www.menti.com

Enter the code

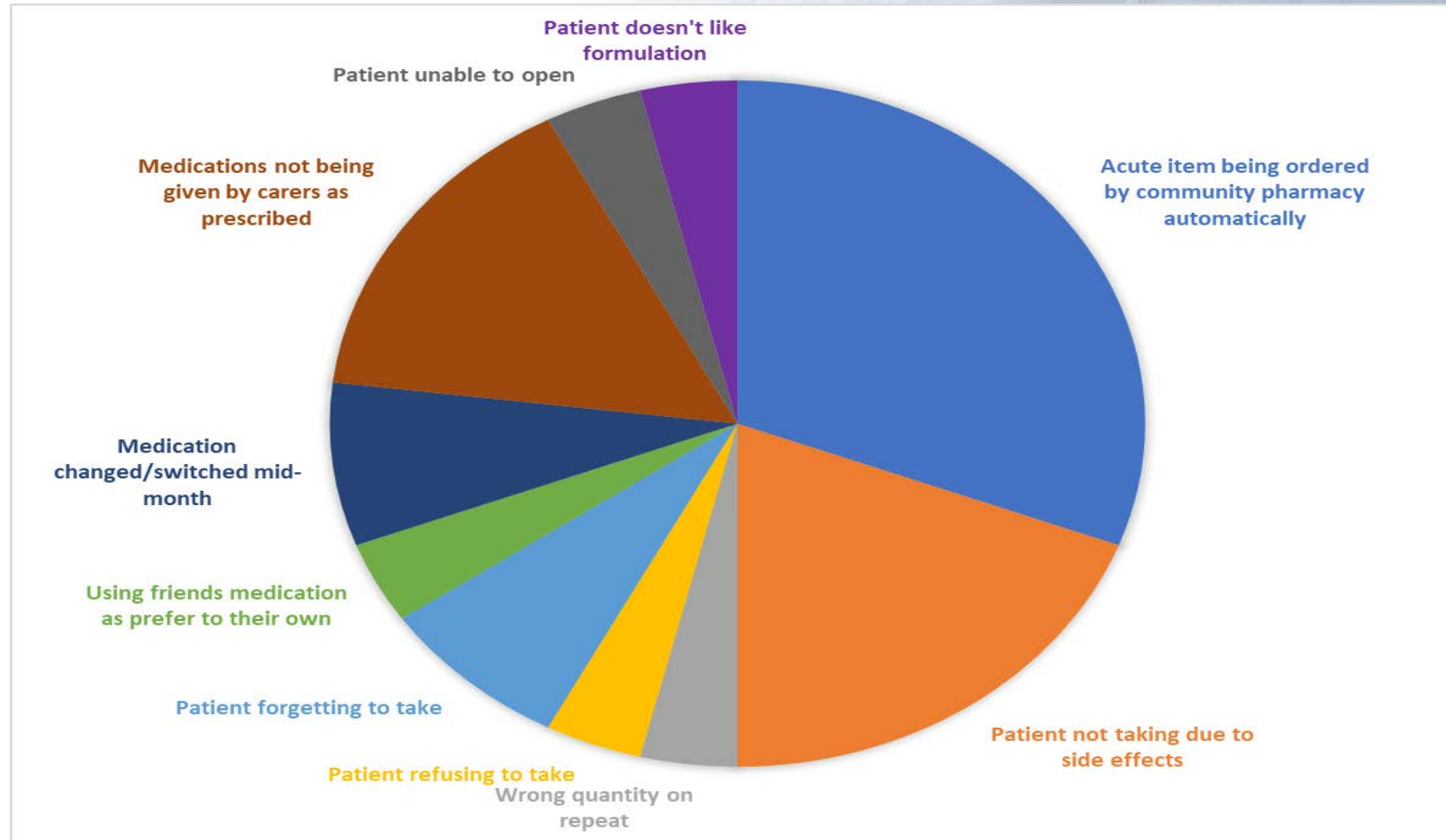
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Or use QR code



Reasons for excess medications found in patients houses in Blaenau Gwent?



What do you think patient perceptions are regarding ordering medication?

Go to

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Enter the code

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Or use QR code



What do you think patient perceptions are regarding medicines wastage campaigns?

- Reducing prescribing costs
- Limiting access to medications
- Examples of feedback and perceptions included:
 - "Are they trying to stop me getting my medication?"
 - "Will I have problems ordering my medicines in the future?"
 - "The NHS is trying to save money at patients' expense."
 - Concern that patients might be judged for ordering medicines.
 - Concern that not ordering medicines could lead to difficulties obtaining them later.



Interventions implemented throughout the OOWYN campaign

Public awareness campaign

- Social media posts
- Videos and sustainability messages
- Dedicated campaign webpage and FAQs

Healthcare site promotion

- Posters, banners and promotional material distributed across 125+ sites

Stakeholder engagement

- Community Pharmacies
- GP practices
- Hospital pharmacy teams
- Dispensing doctors
- Dental and optometry services

Pharmacy led conversations

- Encouraging patients to check existing supplies before ordering
- Promoting the return of unwanted medication



QI Project

- Completed in Shackleton's pharmacy, Ebbw Vale from June 2025- October 2025
- Completed as part of my HEIW Post registration foundation programme with Cardiff university

- Problem statement:

Patients often receive all items on their prescription, even though they may not need every item. This results in medication waste and avoidable costs for the NHS

- Project aim:

By October 2025 we aim for 100% of patients collecting their medication to be asked by pharmacy staff whether they need every item in their bag



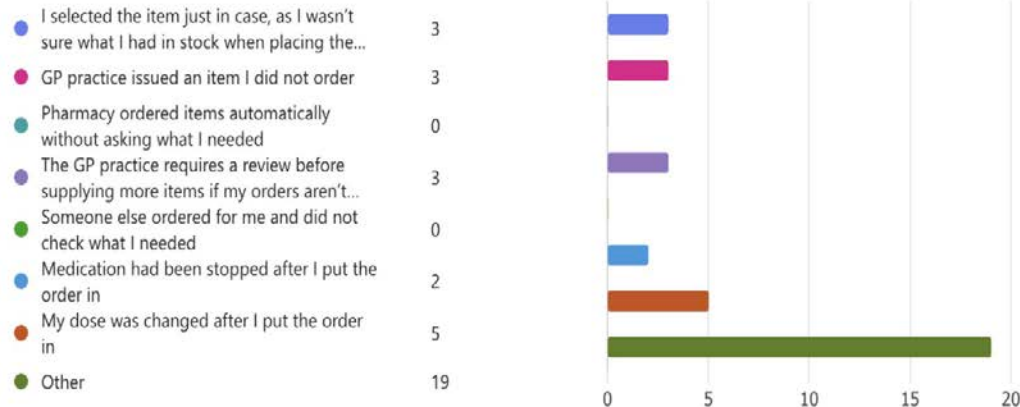
Understanding the problem

Patient experiences

- Questionnaire sent from Glan Rhyd Surgery
- Explored the public's view on why unnecessary items are prescribed and their thoughts on how to reduce wastage
- 142 responses – 7% had received unwanted medication with last dispensed prescription.

8. Why do you think unnecessary items were dispensed?

[More details](#)



Suggestions from patients

11	anonymous	when confirming name and address on collection also state what medications are in the bag, as a prompt for patients to say something isn't required
15	anonymous	Talk to them
29	anonymous	Repeat prescription are checked before dispensing for unwanted items
38	anonymous	Better communication
42	anonymous	Ask if the items are required I see people with over medication



Understanding the problem

Observation in practice

- Most patients were **not** routinely asked whether they needed every item supplied - **89%**
- Prescription bags were frequently accepted without review
- Opportunities to prevent waste were being missed
- WRS endorsements were low – average 0.18 endorsements per day



WRS – Waste reduction scheme

What is the WRS?

A national NHS Wales community pharmacy service that incentivises pharmacy teams to identify medicines that are no longer needed before they are supplied to patients, helping to reduce medicines waste.

How does it work?

- Patients are asked whether all prescribed medicines are still required.
- Unwanted medicines are not supplied and returned to stock and a WRS endorsement is recorded.
- Pharmacies receive **£3.40 per intervention plus 10% of the basic price of the item not supplied.**

ABUHB Impact (2024/25)

- 16,518 WRS interventions
- £278,363 of unwanted medicines prevented from being supplied
- Service delivery cost: £83,336.87
- 230% Return on Investment (£195,026 total cost savings)



PDSA Cycles

Cycle 1:

- Staff meeting- all members of staff must ask the person collecting if every item is needed in the bag.

Cycle 2:

- SOP created that all staff must read and sign. SOP stating the patient or representative must be asked if all items are needed in the bag before leaving the pharmacy.



Measures

Outcome measure:

- Number of patients/ representatives who are not asked if they need every item in their bag when collecting repeat medication

Process measures:

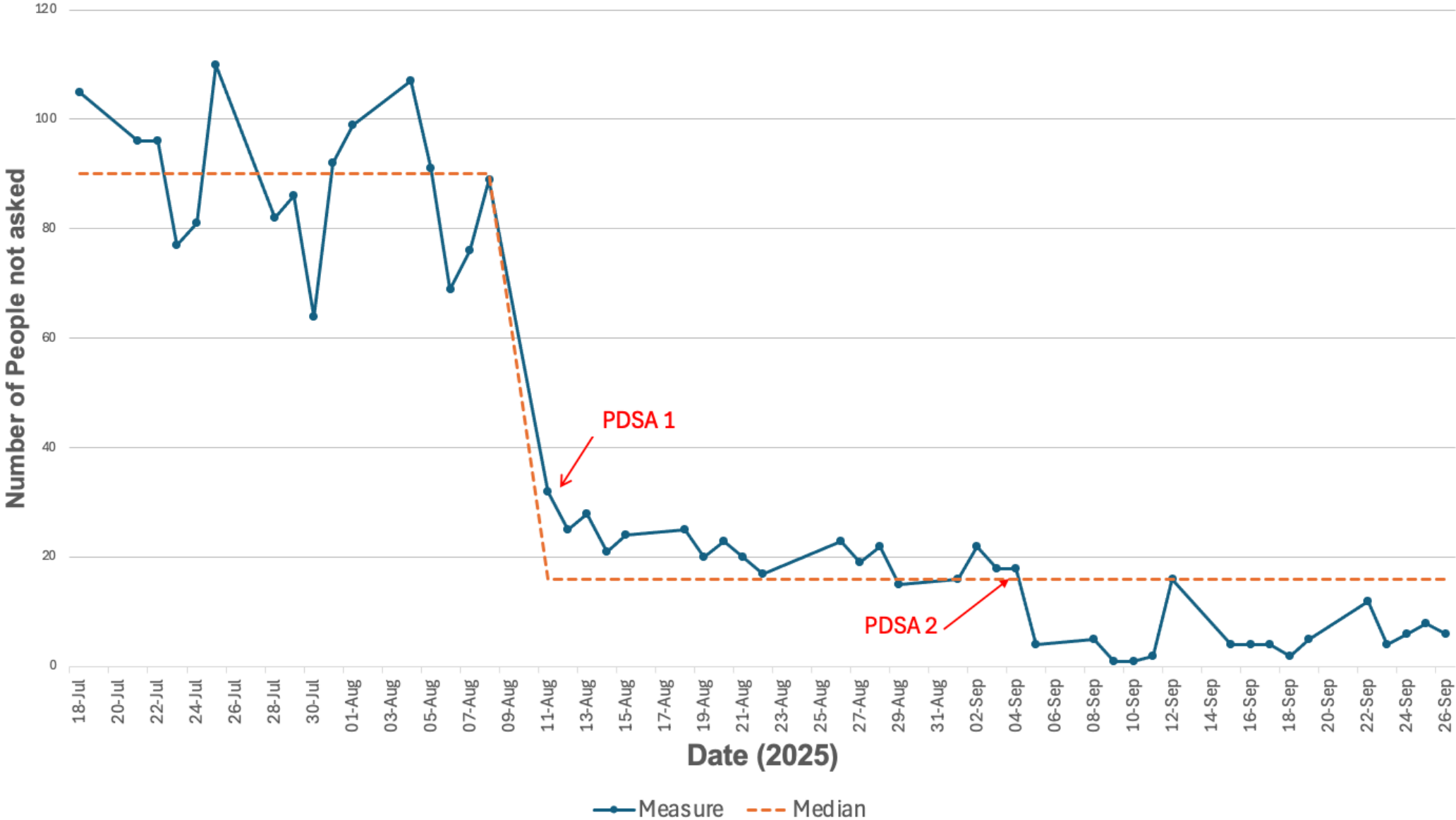
- Daily Waste Reduction Scheme (WRS) endorsements

Data was gathered on a Microsoft Excel spreadsheet

Staff had to tally each interaction and log any WRS endorsements/ items returned



Reducing the Number of Patients Not Asked If They Need Every Item



Results

- Average number of patients not asked reduced from 89/day to 6 per day
- Number of average daily WRS endorsements increased from 0.18/ day to 1.41 per day
- Total saved £459.50 in 34 working days!

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	PDSA CYCLE 1							PDSA Cycle 2					
2	Item name	Pack size	amount of items	cost per item (£)	Total cost			Item name	Pack size	Amount of items	Cost per item	Total cost	
3	Aciclovir 400mg/5ml oral susp	100ml	1	31	31			Fortisip compact strawberry	500ml	7000ml	6.4	89.6	
4	Bendroflumethiazide 2.5mg tablets	28	1	0.67	0.67			Laxido powder for oral solution orang	30	5	5.97	29.85	
5	Senna 7.5mg tabs	60	1	1.66	1.66			Mometasone 50mcg nasal spray	140	1	5.59	5.59	
6	Propranolol 10mg tablets	28	3	0.7	2.1			Pregabalin 25mg capsules	56	1	1.19	1.19	
7	Citalopram 20mg tablets	28	2	0.69	1.38			Oramorph 10mg/5ml oral solution	300	1	5.45	5.45	
8	Erythromycin 250mg/5ml oral susp	100ml	1	13.96	13.96			Alendronic acid 70mg	4	1	1.28	1.28	
9	Tolterodine 2mg tablets	56	1	2.02	2.02			Propranolol 160mg MR capsules	28	1	4.88	4.88	
10	Simvastatin 40mg tablets	28	1	0.95	0.95			Atorvastatin 20mg tablets	28	2	0.62	1.24	
11	Am triptylene 50mg tablets	28	1	0.77	0.77			GTN pump spray 400mcg	180	1	5.38	5.38	
12	Am triptylene 10mg tablets	28	1	0.59	0.59			Trelegy elipta 92/55/22mcg dry pow	30	1	44.5	44.5	
13	Symbicort 200/6 turbobaler	120 dose	1	28	28			Aspirin 75mg dispersible tablets	28	1	0.79	0.79	
14	Doxazosin 2mg tablets	28	3	0.65	1.95			Azithromycin 500mg tablets	3	4	0.88	3.52	
15	Metformin 500mg tablets	28	3	0.58	1.74			Ferrous fumarate 210mg tablets	84	1	3.99	3.99	
16	Gaviscon infant oral powder sachets	30	1	7.64	7.64			Mirtazapine 30mg tablets	28	1	1.07	1.07	
17	Fulium d3 800IU capsules	30	2	3.6	7.2			Furosemide 20mg tablets	28	2	1.14	1.14	
18	Gliclazide 40mg tablets	28	1	0.82	0.82			Ibuprofen 600mg tablets	84	1	3	3	
19	Fluoxetine 20mg capsules	30	1	0.8	0.8			salamol 100mcg	200	1	6.3	6.3	
20	Ichthopaste bandage 7.5cm x6m	1	12	4.03	48.36			Propranolol 10mg	28	4	0.28	1.12	
21	Fudrocortisone 50mcg	30	01-Jan	13.6	13.6			Gaviscon advance peppermint	250	2	3.79	7.58	
22	Ferrous sulfate 200mg	28	1	0.97	0.97			Methotrexate 2.5mg tablets	24	1	1.47	1.47	
23	Total				166.18			Fulium d3 800IU tablets	30	4	3.6	14.4	
24								Adapatene 0.1% cream	45	2	16.43	32.86	
25								Estradiol 0.06% gel	80	2	9.15	18.3	
26								Levothyroxine 50mcg	28	2	0.61	1.22	
27								Atorvastatin 10mg tablets	28	1	0.55	0.55	
28								Co-codamol 8/500 tablets	100	1	2.8	2.8	
29								Adcal D3 750/200	112	1	4.25	4.25	
30								Total				293.32	
31													
32													
33	Total PDSA 1 &2				459.5								



A Quality Improvement Project to Tackle Medicines Waste



Introduction

- Medication waste is a major issue in community pharmacy, adding avoidable NHS costs and environmental impact.
- Around **£9.6 million** is wasted each year in Gwent on unused or unnecessary repeat prescriptions (1)
 - This project aimed to reduce waste at handout
 - Supports the NHS campaign “Only Order What You Need” and aligns with NICE guidance on medicines optimisation (2).
 - Conducted at Shackleton's Pharmacy, Ebbw Vale,
 - Scoping tools including a process map and cause and effect analysis helped identify where intervention would have the greatest impact.
 - **Problem:** Patients often receive all items on their prescription, even when not all are needed — leading to avoidable waste and cost.

AIM

By October 2025, achieve 100% of patients or representatives collecting repeat medication being asked by pharmacy staff if they need every item in their bag.

Results

Outcome – Patients Not Asked

- Baseline: 88.8/day
- PDSA 1: 21.8/day
- PDSA 2: 6/day
- Run chart shows a clear, sustained shift below baseline.

Process – WRS Endorsements

- Baseline: 0.18/day
- PDSA 1: 1.18/day
- PDSA 2: 1.41/day

Waste Prevention

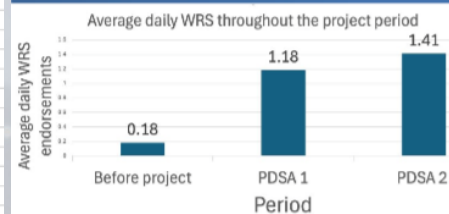
- Items prevented/day: PDSA 1 → 2.2, PDSA 2 → 3.5

Total saved= £459.5 in 34 working days

Methods

- **Duration & Staff:** July–September; all pharmacy staff involved
- **Data:** Patient/ representative interactions recorded in Excel daily
- **PDSA Cycles:**
 - Cycle 1: Staff must ask all patients/representatives if they need every item
 - Cycle 2: Implement SOP for staff to read/sign
- **Measures:**
 - Outcome: Number of patients/representatives not asked
 - Process: WRS daily endorsements
 - Balancing: Staff workload/annoyance questionnaire
- **Stakeholders:** Staff, patients, and representatives

Reducing the Number of Patients Not Asked If They Need Every Item



Discussion

- **Impact:** Reduced medication waste by asking patients about each item
- **PDSA 1:** Boosted staff awareness and consistency
- **PDSA 2:** SOP Standardised and sustained improvements
- **Feasibility:** Low additional workload and minimally disruptive
- **Limitations:** Busy periods/unusual staffing days; baseline items per day data unavailable
- **Implications:** Simple, structured interventions can reduce waste, engage staff, and support NHS “Only Order What You Need”

Conclusion

Consistently asking patients/representatives if they need all items in the bag reduced medication waste, increased WRS endorsements and proved the intervention effective. Challenges like staff shortages occurred but did not hinder improvement. This approach could be implemented across other branches to maximise waste reduction. Future work could include live savings displays to further engage patients.



Waste collected!

Author: Rhys John, Pharmacist
Supervisor: Lee Coombs, Pharmacist
Pharmacy: H Shackleton Ltd, Ebbw Vale
Health Board: Aneurin Bevan University Health Board

Medication saved!



Key learning from OOWYN and QI project

Awareness alone does not drive behaviour change

- OOWYN achieved substantial reach through social media, campaign materials and stakeholder engagement.
- However, awareness did not always translate into action.
- Greater impact was achieved when medicines waste conversations were embedded into routine care and supported by pharmacy teams.

Conversations matter

- The simple prompt "**Do you need everything in your bag?**" encouraged patients to review their medicines before collection.
- Small interventions at the point of supply can influence behaviour without increasing workload.



Key learning from OOWYN and QI project

Data helps refine the approach

- Social media posts featuring photographs of medicines waste generated the highest engagement.
- Environmental-themed posts generated lower levels of engagement.
- Regular review of campaign analytics and stakeholder feedback helped refine messaging and target support where needed.

Positive, non-judgemental messaging is essential

- Some patients initially perceived waste reduction messages as restricting access to medicines.
- Reframing messaging around:
 - Patient safety
 - Environmental sustainability
 - Protecting NHS resources improved engagement and acceptance.



Next steps....

- QI project being repeated by another academy pharmacist in a pharmacy that orders patients repeat medications.
- Building on the OOWYN campaign to promote the question “Do you need everything in your bag”
- Refreshed campaign materials, targeted social media content, ongoing stakeholder engagement and sharing examples of good practice.
- Developing into an All-Wales initiative with potential £3,174,000 annualised savings across NHS Wales.



What else can we do to reduce medication waste?

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