Health Innovation Network
Local change, national impact

Polypharmacy: getting the balance right

NHS Bedfordshire, Luton and Milton Keynes Integrated Care Board

Health Innovation Oxford & Thames Valley

Minimising Harm from Polypharmacy

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Opportunity for change

Polypharmacy is a significant cause of Adverse Drug Reactions (ADR) leading to increased hospital admissions, particularly among older adults with multiple comorbidities. Deprescribing can minimise harm, reduce ADR risk, and enhance medication adherence.
The team identified the need to reduce polypharmacy risks and pill burden for safer patient care. An Advanced Pharmacist Practitioner attended Polypharmacy Action Learning Set (ALS) training, gaining the confidence and tools to deprescribe safely, reducing hospital admissions and improving patient outcomes.
Following opportunities for change aimed to optimise therapeutic outcomes and to foster a safer and more efficient healthcare environment the project focused on:

- **Enhancing Patient Safety:** Reducing adverse drug effects by stopping inappropriate medications for frail patients or those with frequent hospitalisations.
- **Reducing Anticholinergic Burden:** Lowering anticholinergic load to decrease fall risks and improve quality of life.
- **Empowering Colleagues:** Building confidence and competence in conducting Structured Medication Reviews (SMRs) and deprescribing for more patient-centred care.

Intervention

The initiative targeted high-risk patients over 75 on multiple medications to reduce hospital admissions. Using Eclipse, a GP Software system, patients with moderate to severe frailty or frequent hospitalisations (more than 3 in the last 12 months) were identified and invited for Structured Polypharmacy Reviews.

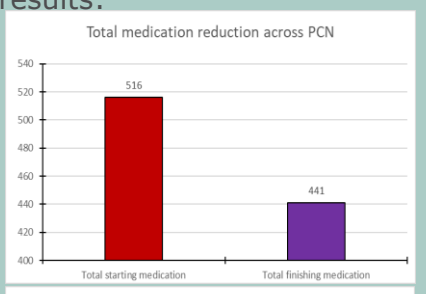
Each review involved 15 minutes to assess patient notes and 30 minutes for the consultation, using tools like GP Evidence and the STOPP-START toolkit. Reviews (some face-to-face) were conducted at PMC, LR, and CMC, with team members collaborating to build confidence and ensure continuity.

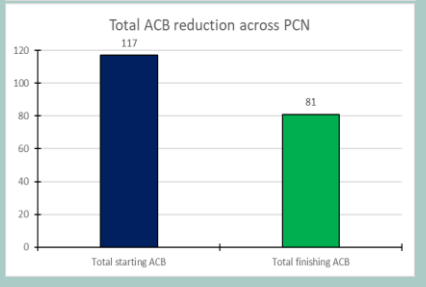
The focus was on understanding patient adherence and safely deprescribing high-risk medications, including Diuretics, Antiplatelets, Metformin, NSAIDs, and anticholinergic drugs. Initially targeting 20 patients, the initiative expanded to 36 across four surgeries. The goal was to enhance patient safety, reduce hospital admissions, and minimise pill burden while empowering patients in their care decisions.

Impact/Outcomes

The project was complex, facing challenges beyond the QI aims. Despite this, it achieved significant results:

- **33% reduction in Anticholinergic Burden (ACB)** by stopping medications like Amitriptyline and Solifenacin,and switching Paroxetine to Sertraline.
- **14.5% reduction in inappropriate medications**, including discontinuing statins, Aspirin, Clopidogrel, Isosorbide Mononitrate, and DHC M/R in a CKD5 patient.
- **31% reduction in ACB for high-risk medications,** potentially improving cognition and reducing fall risk.





These changes enhanced patient understanding of their medications and potentially lowered hospital admission risks.

Examples of Pharmacist identification and management of safety issues:

1. Patient with mild learning disability: Found with poor hygiene and untreated hypertension (BP 190/111) due to missed medications for four months. Safeguarding was raised, and multidisciplinary collaboration led to medication resumption and ongoing BP management.
2. Rheumatology patient: Methotrexate was paused due to abnormal LFTs, Alendronic switched to Prolia, and opioid use was halved with ongoing weaning supported by a pain management service.
3. CKD4 patient with poor eyesight: Reduced medications from 22 to 16, addressing nephrotoxic drugs and overcoming challenges with local pharmacy support. The patient was moved to supported living with dosette box delivery.

Patients quotes about the review:

Patient 1: "Explained everything I needed to know, very helpful."

Patient 2: "Fantastic service"

Patient 3: "He was wonderful and explained everything in a simple language and allowed me to make decisions about my care"

Conclusion/lessons learned

Navigating the complexities of this Quality Improvement (QI) project required strategic collaboration and adaptability. Throughout the process, several key insights emerged:

- Collaboration across four surgeries was challenging but crucial for targeting high-risk patients.
- Multiple issues were identified during reviews, requiring a multidisciplinary approach and follow-ups.
- Flexibility and transparency with patients were essential for effective deprescribing.
- ALS training was instrumental in driving change and ensuring patient safety.

Future work

Over the next 12 months, follow-up reviews will monitor patient outcomes. Mentorship of staff will ensure the independent continuation of SMRs.

Sharing of QI outcomes within the Primary Care Network will promote safer prescribing practices, with sustained awareness of ACB and DAMN medication risks. This will influence prescribing behaviours in long-term conditions.