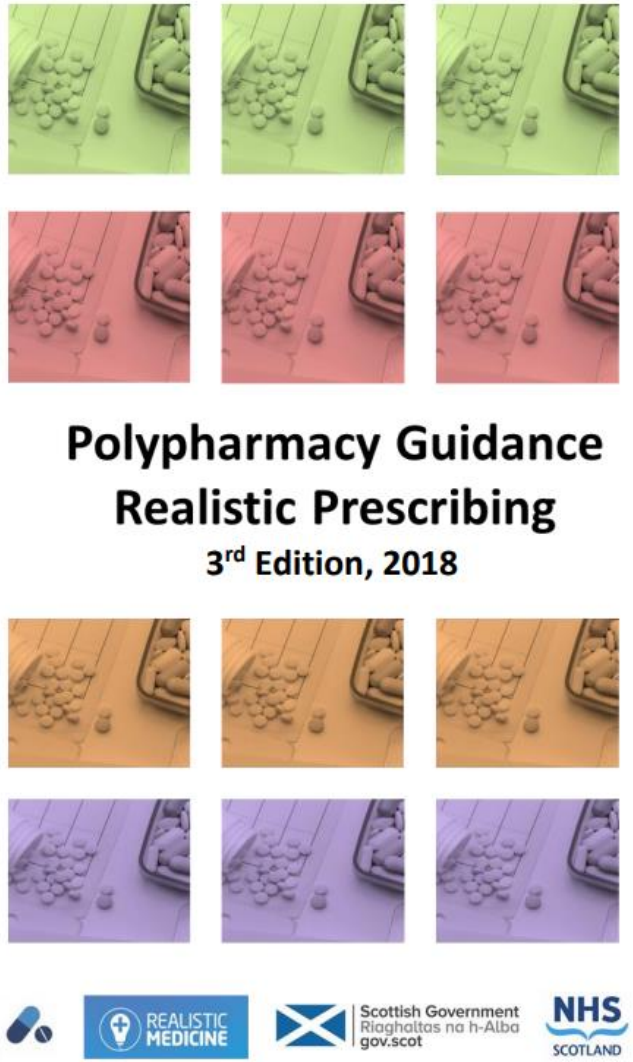
Quality Prescribing for Polypharmacy

A toolkit to support implementation



EFFECTIVE PRESCRIBING & THERAPEUTICS DIVISION

Scottish Government
Riaghaltas na h-Alba

Introduction

- This toolkit supports implementation of the recommendations within the current guidance due for release in 2025, Polypharmacy guidance: Realistic prescribing.
- It allows individuals to select the step(s) which are most useful to themselves, their practice or their boards
- It is interactive and flexible and allows you to select an area to focus on most relevant to your practice
- Clicking on each step will link to a range of suggested actions and resources that will help towards implementing each step
- This is the first edition of a live document and will develop over time as individuals, practices and boards add their experiences and resources. If you have any comments or suggestions for improvement, please email EPandT@gov.scot

How to use this toolkit

This toolkit focuses on polypharmacy reviews. It covers high priority areas such as individuals:

- prescribed 10 or more medicines
- taking high risk medicines
- living with or at risk of frailty
- aged 50 years and over and resident in a care home
- reaching the end of their lives

It covers:

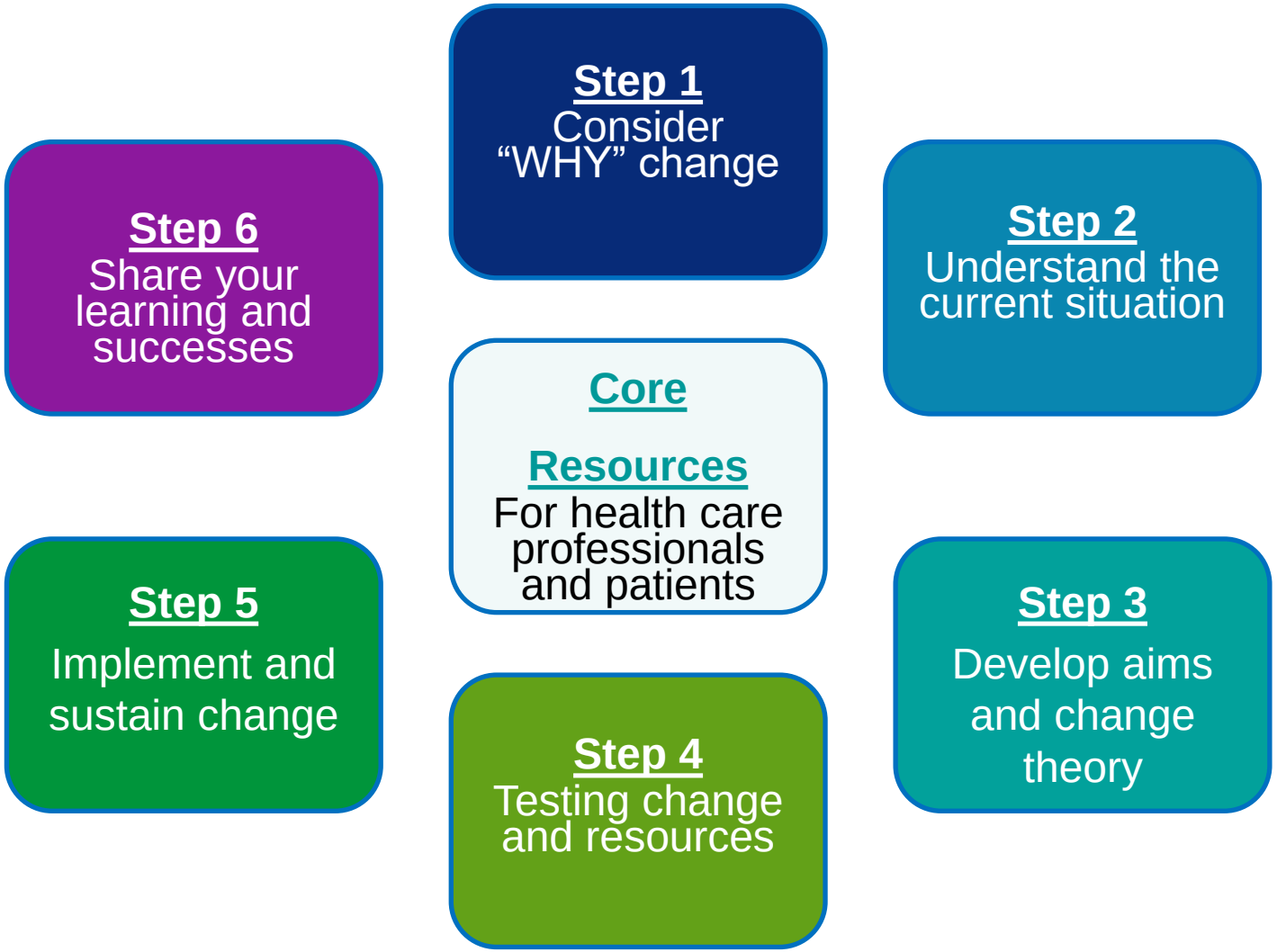
- The 7-Steps medication review for appropriate polypharmacy
- Consideration of non-pharmacological interventions
- Links to useful resources from trusted sources for healthcare professionals and people living with the conditions

The actions to support implementation will help you to identify and prioritise ideas for change in your practice, to improve provision of polypharmacy reviews. They guide you through current guidance, data and suggested areas you may wish to focus on alongside a suggested template to allow you to implement polypharmacy reviews in your practice.

You do not have to address everything at once, start small, for example, with one or two tests of change. Remember you can always pause and revert (if the change process is too difficult).

Actions to support implementation

Please also QI zone for learning and resources



Step 1

Consider "**WHY**" change?

Create conditions for change - consider the impact of polypharmacy locally, using local and national data, related to new guidance.

Suggested actions

Guidance available. Read and familiarise yourself with these key documents and policies:

- Polypharmacy guidance: realistic prescribing 3rd edition 2018 (new edition due release 2025)
- NHS Scotland climate emergency and sustainability strategy: 2022-2026
- Delivering Value based health and care
- Realistic Medicine

Consider your GP demographics and the impact that this may have on multi-morbidities locally, at board, cluster and practice level. Does this vary with national and other local data?

- General practice - demographics data visualisation - Public Health Scotland

Level of polypharmacy reviews

- How up to date are your annual polypharmacy reviews? Examine your practice level data (data pack, National Therapeutic Indicators)
- How do you prioritise reviews for those most at risk?

Outcomes for people living with multiple medicines/medical conditions

- What information has been given to people in your practice?
- How are you, as health care professionals, enabling people to live and die well?
- Consider the impact of better care on your patient outcomes
- Focus on 'What matters to the individual'
- Poor care can result in increased healthcare utilization and increased admissions.

Cost of managing polypharmacy

Consider the cost of multiple medicines and multiple conditions to the individual and the board in managing these – personally, financially and resource involved? Can this be optimised?

- Prescribing costs – PRISMs etc
- DALYs etc PHO
- Medication related harm

Environmental impact

Consider the environmental impact of prescribing multiple medicines, reducing medicines waste and improving safe medicine disposal. Take steps to reduce the carbon impacts of polypharmacy, considering the co-benefits of improving general health and wellbeing as well as environmental impact of medicines and waste

Consider factors to reduce/prevent long-term complications/manage multimorbidity and encourage self-management:

Ensure accurate timely diagnosis and coding
Optimising care to reduce unnecessary medication
Monitoring adherence

Provision of bone protection
Vaccination uptake
Smoking cessation
Lifestyle advice including weight management and physical activity
Inequalities of health – deep end practices, deprivation

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Step 1 Identify "**WHO**" can support change?

Suggested actions -

Think about your Guiding Coalition who can act as strategic facilitators and can link the work to the wider organisation priorities?
Who will be in your core Improvement/implementation Team? This may include representatives of people taking multiple medicines as well as colleagues from the multi-disciplinary team

People and Community Assets
- People living with multiple conditions
- Community link workers
- Third sector agencies
- Care agencies
- Smoking cessation groups
- Local community and council groups e.g. physical activity, walking, community singing (See ALISS for local groups)

Primary care/GP practice:
- Cluster quality leads
- Practice quality lead
- Clinical lead (Prescribing)
- Advanced Practitioners (Nursing and Allied Health Professionals)
- General practice nurses
- Healthcare assistants
- Reception staff
- Practice/office manager
- Pharmacist/technician
- Community pharmacy

Hospital/acute location:
- Care of Elderly/Medicines of elderly wards and staff
- General medical wards
- Acute admissions
- Pharmacy department

Specialism
- Managed Care Networks (MCN) for cardiovascular, diabetes, respiratory
- Specialist nurses
- Specialist AHPs
- Rehabilitation teams
- Falls teams
- Clinic managers
- Nursing/residential home managers and staff

Consider how you will involve people and wider stakeholder networks. Stakeholder analysis can help you identify who needs to be engaged and clarify the role they may play in your project e.g. people and community assets above, Local Formulary Groups, wider MDT (physiotherapists etc)

Create and communicate a clear vision by developing a communication and engagement plan to ensure stakeholders are kept informed and involved as you make changes
- Explain the benefits of optimising prescribed medication – ensuring effective polypharmacy reviews, improved disease control, less inappropriate medication usage, lower environmental impact
- Acknowledge the challenges – reviews not taking place (patients attending, capacity), resistance to change, polypharmacy should be appropriate, patient/clinician perception of 'good control'

Change leadership resources
Creating conditions Kotter 8 steps towards change Health Improvement Scotland improvement programmes

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Step 2

Understand the current situation

If we want different outcomes, we need to understand the system - the processes, people and how they interact with each other. This is important in identifying where you need to focus your improvement work.

Suggested actions - understanding systems

Health boards
Is this a clinical priority for the health board? If not, why not?
Does the board have an identified clinical lead for this?

Managed Clinical Networks (MCN) for long term conditions
Are the MCN and medical specialists e.g. care of the elderly, aware of the polypharmacy guidelines and ready to lead by example in implementing these?
Does the MCN link with local groups of people living with long term conditions and can these links be developed locally?

Clusters and Cluster Quality Leads (CQLs)
Have the CQLs and clusters reviewed the recently published cluster reports?
Are the clusters willing to work together to share experience and learning and work together to focus implementation on this area?

GP Practices and Primary Care Team
Is there a clinical lead within the practice for prescribing or polypharmacy? Is this the sole practitioner managing these people?
How does the practice direct/support clinicians involved in polypharmacy reviews to ensure competence and confidence? What training is offered to keep practitioners up to date? Consider the level of training for standard, advanced or expert polypharmacy reviews care. How is the practice managing and risk stratifying care and service to those most in need, for example the vulnerable, house bound or those at end-of-life?
Has the practice considered using a variety of consultation methods, e.g. group consultations, digital?

Communicate with key stakeholders
Engage with special interest groups of people living with long term conditions, wider MDT, community link workers/third sector groups to understand the current situation

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Step 2

Understand the current situation using data

Use your data to help you understand where to focus your improvement work (including person outcome data as well as prescribing data)

Suggested actions - understanding systems

- Dashboard - National therapeutic indicators data visualisation - Public Health Scotland

National Therapeutic Indicators available include:

- 10+ Medicines with a high risk medicine >75yrs
- 10+ Medicines with a high risk medicine
- Mental health triple whammy
- Patient aged 75 years or older is prescribed an NSAID without gastroprotection
- Patient on methotrexate not prescribed folic acid
- Patient with heart failure prescribed verapamil or diltiazem
- Patient on an ACEI /ARB and a diuretic is prescribed an NSAID

How does this compare with others – board, cluster, practice and individual levels? Use the data to compare and understand areas of excellence to share and where to improve.

Scottish Therapeutics Utility (STU) in GP practices linking prescribing data with GP system read codes, values, etc. Case finding indicators have been developed within STU to help identify patients for review in GP practices

STU installation Information and download instructions for practices List of case finding indicators

Process map – a QI tool to help you understand your system and key processes which may need to be improved

Review data on your own IT systems:

- GP systems : Are drug dictionaries up to date? Are formulary choices highlighted? Are prescribing synonyms up to date? How are ScriptSwitch messages for clinicians used? Number of polypharmacy reviews taking place (Polypharmacy template for IT systems available). What are your DNA rates?
- Hospital prescribing systems – highlight new formulary choices and update dispensary stock systems

Scottish Public Health Observatory updates
Air pollution dashboard
Smoking prevalence: Scottish Health Survey data

Health and Care experience data
Patient satisfaction surveys (internal data)
Frailty information from your practice

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Step 3a Develop aims – consider particular service user groups

Your aim to improve appropriate polypharmacy, in line with guidance, should be specific (e.g. all people with 10 or more medicines or limited to particular groups); timebound (e.g. in next quarter, at next medication review); aligned (e.g. to guidance and local formulary choices), numeric (e.g. target percentage change)

Suggested actions - developing aims

Frailty

e.g. 100% of people aged ≥75 years on 10+ medicines +/- a high risk medicine to have a person-centred polypharmacy review in the next 12 months.

e.g. 100% of people aged ≥75 years dispensed > 10 items of strong or very strong anticholinergics (mARS 2&3) to have a person-centred polypharmacy review in the next 12 months. Use STU to identify cohort

e.g. 100% of people classed as moderate frailty and above (Rockwood scale) to have a person-centred polypharmacy review in the next 12 months. Use knowledge of practice population to compile patient lists.

People taking 10 or more medicines

e.g. 100% of people prescribed 10 or more medicines to have a person-centred polypharmacy review in the next 12 months

Use STU to identify patient cohort

People taking high risk medicines

e.g. 100% of people prescribed classed as having a high-risk medicine/combination to have a person-centred polypharmacy review in the next 12 months.

Examples which can be identified using STU are:

- Triple whammy of ACEI/ARB, diuretic, NSAID and/or metformin
- Mental health triple whammy
- Antipsychotics in people aged 75 years and over
- Opioid dependency: number of people prescribed an opioid at an average daily dose of opioid equivalent to ≥ 120mg per day of oral morphine
- Oral anticoagulant: number of patients prescribed an antiplatelet also prescribed an oral anticoagulant but without gastroprotection

People aged 50 years and above and living in a care home

e.g. 100% of people aged 50 years and above and living in a care home to have a person-centred polypharmacy review in the next 12 months.

Use STU to identify patient cohort

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Step 3a Develop aims – consider particular service user groups (continued)

Suggested actions - developing aims, project planning

People reaching end of life

e.g. 100% of people reaching end of life to have a person-centred polypharmacy review in the next 3 months. Use knowledge of practice population to compile patient lists.

Identifying people at risk

- Frequent attenders (GP, OOH, A and E)
- People at risk of falls
- Community pharmacy identification e.g. not managing medication due to confusion or difficulty with taking medication
- Frequent hospital admissions
- Identification by concerned relatives/carer

Focus on health inequalities and disadvantaged groups

This may include minority ethnic groups, those with English as an additional language, low literacy, mental health conditions, people living in adversity, poor housing etc.

How are they supported – leaflets in additional languages, community outreach work?

- Depression and anxiety patient health questionnaire (PHQ-9) , PHQ4, Generalised anxiety disorder assessment (GAD-7)
- Scottish Government publication: Improving the Physical Health and Well Being of those Experiencing Mental Illness

Patient identification and prioritisation

- Use the National Therapeutic Indicators (NTIs) to identify variation between boards, clusters or practices.
- Individuals within each group can be identified using the Scottish Therapeutics Utility (STU) in general practice

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Step 3b

Develop aims – consider holistic person-centred care

Are there specific aspects of lifestyle management which you could focus on improving?

Suggested actions

Empower people:
Are practitioners using consultation techniques that provide equity to all. Are there leaflets/electronic resources/links available to support everyone for their individual needs, and encourage active lifestyle, physical activity, healthy diet, weight management and smoking cessation? Is there peer support available, such as local support groups for people with various conditions?
Support preparation for effective reviews How to prepare for an effective medication review? Patient information on 7-step medication review process
Consider inclusion on practice website and refer to Polypharmacy: Manage Medicines (scot.nhs.uk) patient resource, 'What matters to you?'

Mental health and self help
Do practitioners refer people to resources to help with self-management of mental health conditions e.g. Scottish Action for Mental Health,
NHS Inform has links to a wealth of information for many mental health conditions Daylight an online CBT programme for anxiety
Silver cloud for improving mental wellbeing Sleepio for sleep problems

Resources to support holistic person-centred care and signposting to wider resources
Do practitioners and local co-ordinators know and have lists available of local groups, e.g. walking groups, weight management groups, sports centres?
Practitioners may wish to consider starting up their own groups to support their population. How does the practice work with community link workers to help achieve this support? ALISS - find services, groups and activities for health and wellbeing across Scotland Consider those most in need e.g. people's health trust

Consider additional local support which can improve care
Activity – e.g. walking groups – Paths for all - NatureScot – Sport for life
Weight management
Befriending services
Be aware of local pathways available for smoking cessation and social prescribing support Stop smoking advice Smoking cessation NHS inform
Alcohol and problem drug use support
Air quality information e.g. pollution, thunderstorms* Pollution forecast Daily air quality index Lowering your risk from air pollution
Housing, damp and mould WHO indoor air quality guide: dampness and mould

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Step 3c

Develop aims – what are you trying to achieve in your practice: what does good look like?

What is required for your practice to embed the polypharmacy strategy and deliver improvements in care?
For example, embedding the 7-Steps medication review, ensuring trained and competent team, empowering people, using data (NTIs, STU)

Suggested actions

Before making changes/starting a new process, define your current process, what works well, what could be better, always remembering the aim of implementing the prescribing guidance and improving care of those with multiple medicines/conditions (understanding your systems) Process map Pareto chart

Once you have taken some time to examine and understand your system, your team should have some good ideas about what changes may lead to improvement.

A driver diagram is a useful tool to help visualise how you will achieve your goal. It can also be used to help communicate your aim.

It will show what parts of the system should change, in which way, and includes your ideas about how to make this happen. As your project progresses and you gather more information, your aim and change theory may need to be updated to reflect new knowledge. Your driver diagram should be updated in line with your aim and change theory.

Measurement

Use data to monitor progress and tell other of the impact of your changes

Use a measurement plan to outline what types of data to collect, how and when to collect it and how it will be analysed and presented.

These measures will be key to understanding the impacts – planned or unplanned – that your change ideas are having.

Populate the measurement plan or other tracking device with details from

STU data

NTIs

Feedback from service users

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Step 4

Testing changes

Implementing change is not limited to one person/role. Everyone involved in the care of those with polypharmacy has a role. However, change ideas need to be tested to determine what works well and is sustainable.

Suggested actions testing changes

Once you have decided on your change(s) and actions, there are tools to help test and review the impact of the change(s).
Cause and Effect Analysis SWOT analysis

There may be more than one change required. A change idea is not just a general concept. For example, improve communication in the team is a concept whereas the introduction of a weekly huddle is a change idea.

Start small - you don't have to address all the changes that you think are necessary all at once.

Use the Plan Do Study Act (PDSA) cycles to test ideas of change and assess its impact

Examples of projects can be found here
Sustainability and Quality Improvement | Turas | Learn (nhs.scot)
Anticholinergic burden in OlderPatients with Polypharmacy QI project
Deprescribing: medication reviews

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Step 4

Testing changes – resources to support effective medication review

Regular medication review is essential to ensure all medication continues to be appropriate and any changes in clinical conditions are managed appropriately. The 7-Steps medication review process improves clinical outcomes and reduces harm. Medication review can be planned or ad hoc and will often depend on the setting and service user group.

Suggested actions testing changes

Consider the review process and the 7-Steps medication review

Current guidance Manage Medicines app

Training and case studies
Polypharmacy guidance including 7-Steps medication review process, this includes a template for a 7-step medicine review
Evidence Based Polypharmacy Reviews and the 7-Steps Process (CPD accredited online training on Turas)
Turas Shared Decision Making

Consider the location
The location of the review will determine the type of review (ad hoc or planned); staff involved; preparation required (e.g. bloods, measurements); single disease or polypharmacy; **Ensure follow-up**

Planned – acute setting:
Planned – primary care:
Utilise all team members – practice/office manager (identification/prioritisation); reception team (organise appointments); healthcare assistant/health care support worker/CTAC (bloods (if necessary) and measurements); general practice nurse/practice pharmacist/GP (medication review); general practice nurse (long term condition review)
Ad hoc/unscheduled care – acute setting: During acute admission
Ad hoc/unscheduled care – primary care: When other change in medication occurring; acute condition/minor illness, e.g. acute infection or after transitions in care settings or in Out of Hours

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Polypharmacy Reviews in Primary Care

Consider evidence

Polypharmacy guide

iSIMPATHY evaluation

HSCP will provide regular quarterly updates

- Number of polypharmacy reviews
- Measure agreed outcomes and change over time

Regular health board reporting (standardised across boards to support national evaluation)

HSCP/health board to consider how resources can be invested into service re-design including:
- resources to deliver
- benefits realisation

Discuss with practice team:

- What does this mean for us?
- Where do we start?
- What is it we would like to achieve and by when?
- How long will it take? Who will do it? What will we measure?
- What support might we need?

Undertake 7-Steps review

- Add template to Vision or EMIS
- Use relevant patient letters and resources

National reporting and evaluation of short and long-term benefits

- Feedback to practices

Access accredited Polypharmacy training module on TURAS

Access practice data – e.g. all patients >75 years on 10 or more medicines

- **Use STU reports to identify priority groups or individuals at risk**

V 0.3 – 25/2/2025

Step 5

Implement and sustain change

Once your change ideas have been tested, i.e. determining what works in the place where you are testing and what can be improved, the changes can be expanded to others in the team and a wider population., i.e. how to make the change business as usual

Suggested actions – approaches to implementation
Implementation supports making the change a routine part of practice and “business as usual”
Implementation as a series of cycles Three implementation approaches: • Just do it • Parallel • Sequential Implementation checklist
Consider communication, training, updating policies and procedures to reflect the change
Remember to keep measuring and feeding back to all involved!

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Step 6

Share your learning and successes

Share with others in the cluster and throughout networks. Be honest about what worked and what didn't and what you learnt from this.

Suggested actions

Consider how to share the results:

- Cluster meetings
- Practices meeting

Regular progress reports and outcomes

Use STU reports, NTIs and dashboards to monitor (and celebrate) change

Consider organising an improvement event

This could be board-wide, across primary and secondary care, or multiple events tailored for each area, but with same common purpose. Have a senior manager or executive attend. They can be invaluable in leveraging necessary support and resolving bottlenecks especially if the action can be linked to wider organisational priorities.

Regular follow-up and progress reports

Establish regular meetings reporting action and progress. Remember to praise progress and, where applicable, share the team's success and innovative ways of working.

If you have a success story or case study to share, please email us at EPandT@gov.scot

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Core

Support the individual

Taking multiple medications and living with long term conditions has many implications. Some will accept this and take positive steps to improve general wellbeing and care. Others will have difficulty accepting this and therefore managing their conditions, particularly if they have concurrent mental health issues. Therefore, supporting the individual is essential.

Suggested actions

Prevention
Does every team member support and encourage an active lifestyle, healthy diet, smoking cessation and weight management at every opportunity?
Initiating prescribing: ensure that there is a plan for review and follow up, follow the 7-Steps medication review process to check that medication is having the desired outcome, is still needed and that a person-centred plan is agreed and shared with the individual.

Diagnosis
What resources does the team have to support the person who is newly diagnosed with a long-term condition? Make use of local peer support groups.

Ongoing care
Summary of anticipated review – medication, symptom control, Questions to ask for my medication review (PROMs), self-management
Frequency of review

Service user version of guide
Manage Meds app (in development)

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Core Resources for healthcare professionals

NES TURAS e-learning: Training on evidence-based polypharmacy review and the 7-step process Accredited with 3 CPD credits by the RCP London

Manage Medicines website and app

iSIMPATHY resources for healthcare professionals and patients

CPD connect (PBSGL) modules available: Polypharmacy, Diagnosis and management of frailty, (Log in required)

Medication Sick Day guidance (HIS) information and downloadable Medicines sick day guidance from RDS

Anticholinergic Risk Scales

ACB calculator is a decision-making tool to aid the clinician in calculation of the potential anticholinergic burden

Medichec helps to identify medications potentially negatively affecting cognitive function, including those causing dizziness and drowsiness, using the Anticholinergic Effect on Cognition (AED) scale which also defines the extent of this effect

Beers criteria (US) were first developed in 1992, provides a list of medications and types of medications that are either potentially inappropriate or should be used with caution in older people, including people with specific health conditions or poor kidney function

STOPP/START tool

Based on a literature review and a consensus of European experts, this tool provides a list of medication which supports prescribers to reduce inappropriate prescribing in older people tool. Version 3 was published in May 2023

STOPPFrail tool

This tool focusses on the Frail older population and identifies 27 medicines-related criteria that highlight potentially inappropriate medicines for people with a limited life expectancy. It supports prescribers by offering a structure to deprescribing and can be used in all healthcare settings

Clinical Frailty Scale training module developed at the Ottawa hospital, available free online

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Core Resources for healthcare professionals

Environmental Resources for healthcare professionals

Greener practice has many resources to help UK general practices take action on sustainability in primary care, including resources to assist prescribing reviews and deprescribing. It contains step-by-step Quality Improvement (QI) projects. Project resources include downloadable searches, educational videos, templates and patient information.
Greener Practice information

The Centre for Sustainable Healthcare (CSH) offers strategic input and consultancy on sustainable healthcare research and practice to national and local programmes. There is a CSH Sustainable Respiratory Care Network with many resources and projects shared.
Sustainable Care resources

The Royal College of General Practitioners (RCGP) Green Impact for Health toolkit has been developed and can help any general practice improve their sustainability and environmental impact; reduce their harmful impact on planetary health, the risks of climate change and reduce their practice expenses. It answers the question – 'What can we do in our practice?' and covers many aspects, including reviewing prescribing
RCGP green impact for health

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Core Resources for people taking multiple medicines

Manage Meds app / website for patients and carers

Information for patients and carers on medication reviews
What happens during a polypharmacy review

Polypharmacy: manage medicines. Questions for my review (PROMs).
Video explaining how to use in the app
Animation to explain how to prepare questions for a medication review
Questions to prepare for my medicines review including print versions

Polypharmacy: Reducing waste
Adherence and waste | PrescQIPP C.I.C
Presqipp: Don`t tick it if you don`t need it - medicines waste video (log-in required)

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Core Resources for people with multiple conditions

Holistic care

Smoking Cessation:
Stopping Smoking - CHSS
Stopping smoking | NHS inform

Vaccinations:
Vaccine information for NHS Scotland

Healthy eating:
CHSS Healthy eating advice

Keeping active
NHS Inform Keeping active

Wellbeing
Breathing and relaxation exercises for stress
Breathing Space Free confidential phone and webchat service for low mood
Mindfulness information
Headspace - free 14 day trial, exploring mindfulness

Managing breathlessness:
Managing Breathlessness (NHS Highland leaflet)
Video and audio to help manage breathlessness
CHSS Breathlessness management

Environmental information: RPS sustainability policies

ALISS - find services, groups and activities for health and wellbeing across Scotland

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