1.5 The *7-Steps* medication review

Taken from: Scottish Government Polypharmacy Model of Care Group. Polypharmacy Guidance, Realistic Prescribing 3rd Edition, 2018. Scottish Government

The following *7-Steps* are intended as a guide to structure the review process and are presented as:

table 2a an overview of key considerations at each step
table 2b an overview of therapeutic groups by each step
table 2c provides greater detail on table 2b by therapeutic area and is an amalgamation of existing collections of medication assessment tools (START/STOP, DQIP and others)

N.B. No list can be comprehensive and the reviewers clinical judgement and experience continues to be essential in tailoring the advice given to the needs of an individual patient and to identify other additional medication related problems.

Step 1: (Aim) What matters to the patient?

- Identify aims and objectives of drug therapy by asking the patient ***what matters to you*?**
- Explain any key information such as laboratory markers
- Establish treatment objectives with the patient through shared decision making

Step 2: (Need) Identify essential drug therapy.

- Separate the list of medicines which the patient is taking
- Ensure the patient understands the importance of essential drug therapy
- All medication whether herbal, prescribed or traditional remedies should be included

Step 3: (Need) Does the patient take unnecessary drug therapy?

- For the remaining drugs, it should be verified that each has a function in achieving the therapeutic goals or outcomes that matter most to the patient
- Review preventative treatment to ensure the patient is able to continue taking medicine for required time to gain benefit (*Drug Efficacy (NNT)* table).
- Can lifestyle changes replace any unnecessary drug therapy?

Step 4: (Effectiveness) Are therapeutic objectives being achieved?

- Check treatment choice is the most effective to achieve intended outcomes
- If this is not the case, the possibility of patient non-adherence should be investigated as a potential explanation. Otherwise, the need for dose titration may also be considered. 50% of patients taking four or more medicines don't take them as prescribed (Medication Adherence: WHO Cares?).

Step 5: (Safety) Is the patient at risk of ADRs or suffers actual ADRs?

- The presence of ADRs can sometimes be identified from laboratory data (e.g. hypokalaemia from diuretic use)
- The patient may report such symptoms (including drug-drug and drug-disease interactions, but also the patient's ability to self-medicate)
- Ask the patient specific questions (e.g. about the presence of anticholinergic symptoms, dizziness or drowsiness). If patient is experiencing ADRs, use Yellow Card Reporting

Step 6: (Efficiency) Is drug therapy cost-effective?

- Opportunities for cost minimisation should be explored, but changing drugs for cost reasons should only be considered if effectiveness, safety or adherence would not be comprised
- Ensure prescribing is in line with current formulary recommendations

Step 7: (Patient-centred) Is the patient willing and able to take drug therapy as intended?

- Does the patient understand the outcome of the review?
- Ensure drug therapy is tailored to patient preferences
- Agree and communicate plan with patient and/or welfare proxy
- Even if adult lacks capacity, adults with Incapacity Act still requires that the adult's views are sought. Ensure "Adults with Incapacity Documentation" in place

Table 2a: An overview of key considerations at each step

Domain	Steps		Process
Aims	1.	What matters to the patient?	**Review diagnoses and identify therapeutic objectives with respect to:** • What matters to me (the patient)? • Understanding of objectives of drug therapy • Management of existing health problems • Prevention of future health problems
Need	2.	Identify essential drug therapy	**Identify essential drugs (not to be stopped without specialist advice):** • Drugs that have essential replacement functions (e.g. levothyroxine) • Drugs to prevent rapid symptomatic decline (e.g. drugs for Parkinson's disease, heart failure)
	3.	Does the patient take unnecessary drug therapy?	**Identify and review the (continued) need for drugs:** • With temporary indications • With higher than usual maintenance doses • With limited benefit in general for the indication they are used for • With limited benefit in the patient under review (See: *Drug Efficacy (NNT)* table)
Effectiveness	4.	Are therapeutic objectives being achieved?	**Identify the need for adding/intensifying drug therapy in order to achieve therapeutic objectives:** • To achieve symptom control • To achieve biochemical/clinical targets • To prevent disease progression/exacerbation
Safety	5.	Does the patient have ADR/Side Effects or is at risk of ADRs/Side Effects? Does the patient know what to do if they're ill?	**Identify patient safety risks by checking for:** • Drug-disease interactions • Drug-drug interactions (see *Cumulative Toxicity* tool) • Robustness of monitoring mechanisms for high-risk drugs • Drug-drug and drug-disease interactions • Risk of accidental overdosing (Yellow Card Scheme) **Identify adverse drug effects by checking for** • Specific symptoms/laboratory markers (e.g. hypokalaemia) • Cumulative adverse drug effects (see *Cumulative Toxicity* tool) • Drugs that may be used to treat ADRs caused by other drugs (*Sick Day Rule* guidance can be used to help patients know what do with their medicines if they fall ill)
Cost-effectiveness	6.	Is drug therapy cost-effective?	**Identify unnecessarily costly drug therapy by:** • Consider more cost-effective alternatives (but balance against effectiveness, safety, convenience)
Patient centeredness	7.	Is the patient willing and able to take drug therapy as intended?	**Does the patient understand the outcomes of the review?** • Does the patient understand why they need to take their medication? • Consider Teach back **Ensure drug therapy changes are tailored to patient preferences** • Is the medication in a form the patient can take? • Is the dosing schedule convenient? • Consider what assistance the patient might have and when this is available • Is the patient able to take medicines as intended? **Agree and Communicate Plan** • Discuss with the patient/carer/welfare proxy therapeutic objectives and treatment priorities • Decide with the patient/carer/welfare proxies what medicines have an effect of sufficient magnitude to consider continuation or discontinuation • Inform relevant healthcare and social care carers change in treatments across the care interfaces Add the READ code **8B31B** to the patients record so that when they move across transitions of care it is clear their medication has been reviewed

1.5.1 The *7-Steps* to appropriate polypharmacy

The *7-Steps* to appropriate polypharmacy demonstrates that the patient review process is not in fact a linear one off event, but cyclical, requiring regular repeat and review. The circle is centred around *what matters to the patient*, as they play a vital part in making informed decisions about their medicines, as long as they provided with the right information, tools and resources.