Healthier Together

Improving health and care in Bristol, North Somerset and South Gloucestershire

BNSSG Medication Review Tool for Polypharmacy in the Elderly

Age alone is not an indication to consider deprescribing. The two main considerations (apart from patient choice) are:

- Prognosis
- Frailty

Prognosis

Prognostic indicators can be estimated using the Gold Standards Framework Prognostic Indicator Guidance.

Frailty

There are a number of tools to identify frailty, including the Rockwood Frailty Scale. EMIS also has the Electronic Frailty Index embedded within it, which is a population risk stratification tool, rather than a clinical diagnostic tool, so clinical judgment is still important. Gloucestershire ICB has produced some useful Prescribing Guidance for Moderate to Severely Frail patients

Please also see BNSSG Frailty focused SMRs in care homes guidance and STOPPFrail screening tool for use in frail adults.

Individualised Care

It is important to adopt an individualised approach to medication reviews and deprescribing, considering a person's preferences, values and approach to risk. This is summarised in an NHS England document on shared decision making.

Approach to Medication Reviews

There are a number of systematic approaches for assessing a patient's medication list.

The 7-steps medication review developed in Scotland considers: 1. What matters to the patient 2. Essential drug therapy 3. Unnecessary drug therapy 4. Effectiveness of a drug 5. Safety of a drug 6. Cost-effectiveness of a drug 7. Assessment of adherence

The NO TEARS tool developed in Wales uses the acronym "No Tears" to denote: **N**eed and indication, **O**pen questions, **T**ests and monitoring, **E**vidence and guidelines, **A**dverse events, **R**isk reduction or prevention, **S**implification and switches.

The table below is a guide to which specific drugs to review during a medication review:

MEDICATIONS	REVIEW ESPECIALLY IF:	WHY REVIEW?
ALPHA BLOCKERS	➢ Hypertension	High risk postural hypotension/falls
ANALGESIA Pain calculator	➢ Falls ➢ Opiate use	Falls, confusion, ACB, opioid dependence
AMIODARONE	➢ Persistent AF ➢ Rate control	Stop – not indicated Stop – use alternative
ANTIEMETICS (Prochlorperazine or Metoclopramide)	➢ Parkinsonism	Worsening symptoms
ANTIHISTAMINES (esp 1st generation)	➢ Used as hypnotic ➢ Confusion/constipation	Development tolerance Anti-cholinergic burden
ANTIMUSCARINICS (bladder) (catheter = no benefit)	➢ Dementia ➢ Glaucoma ➢ Constipation ➢ Prostatism	Worsening of conditions Anti-cholinergic burden
ANTIPSYCHOTICS (Tapered dose reduction: 25 - 50% dose reduction every 1-2 weeks) Anti-psychotic deprescribing algorithm	➢ Hypnotic > 1 month ➢ Parkinsonism ➢ Falls	Falls, confusion, extra-pyramidal side effects, sedation
ANTIPLATELETS **(Could be considered a priority for review)** **Cardiovascular guidelines**	➢ Primary Prevention ➢ Dual anti-platelets	Stop - not indicated Review indication
ANTISPASMODICS BOWEL **(not mebeverine)**	➢ Chronic constipation ➢ Dementia	Worsening symptoms Anti-cholinergic burden Confusion
BENZODIAZEPINES/Z DRUGS Benzodiazepine deprescribing algorithm	➢ Over 65s for insomnia ➢ Fallen in last 3 months	Confusion, sedation Falls
BETA BLOCKERS	➢ Diabetes ➢ Asthma ➢ With verapamil	Increased hypos Bronchospasm Heart block risk

BISPHOSPHONATES BNSSG algorithm to assess bisphosphonate drug holiday Alendronic acid shared decision aid Mayo Osteoporosis Decision Aid	➢ Use > 5 years ➢ Prognosis < 1-2 years	Consider drug holiday Stop – no benefit
CALCIUM CHANNEL BLOCKER	➢ Ankle swelling ➢ HF	Side effect Diltiazem - >HF worse
CARBOCISTEINE	➢ No benefit after 4 weeks	Not beneficial
"DAMN" drugs Diuretics/ACEI/Metformin/NSAIDS Patient leaflet sick day rules	➢ Dehydration states such as D&V ➢ CKD	Trigger AKI
DEMENTIA DRUGS Dementia deprescribing algorithm	➢ End stage dementia with deterioration functioning and cognition	Reduce risks harm
DIABETES Diabetes deprescribing algorithm Low carb resource for reducing medication	➢ Age > 65 years and hypoglycaemia risk ➢ Uncertain benefit	Reduce hypoglycaemic episodes
DIGOXIN	➢ Dose > 125micrograms daily and eGFR <50mL/min/1.73m^2 ➢ Hypokalaemia ➢ Pulse < 60 bpm	Toxicity
DIURETICS	➢ Gout (thiazides) ➢ Ankle oedema and no diagnosis heart failure	Exacerbate gout No benefit
METFORMIN Metformin shared decision aid	➢ GFR <45mL/min/1.73m^2 : review dose ➢ Avoid GFR < 30mL/min/1.73m^2	Lactic acidosis
NSAIDs **(Could be considered a priority for review)**	➢ Hx Peptic Ulcer Disease/GI bleed ➢ HF ➢ GFR<60mL/min/1.73m^2 ➢ With anti-platelet/OAC/steroids	Exacerbation of all events Risk AKI

OPIOIDS Opioids Aware resource BNSSG Chronic Pain Guidelines	➢ Chronic non-cancer pain ➢ Morphine > 120mg day	Consider alternatives Taper down
PARACETAMOL Oral paracetamol dosing in adult patients	➢ Weight < 50kg + other risk factors	Increased toxicity - > reduce dose
PIOGLITAZONES	➢ HF ➢ Elderly	Increased risk fracture/HF/bladder Ca
PPIs (will need additional medication while stopping) BNSSG PPI deprescribing algorithm PPI deprescribing algorithm	➢ High dose > 8 weeks ➢ Maintenance > 1 year	Risk bone fractures, low magnesium, C diff
QUININE MHRA quinine	➢ Leg cramps	Little evidence
SSRIs Drug safety update citalopram	➢ Citalopram > 20mg in over 65 years	Maximum dose
STATINS (Primary Prevention) NNT in primary prevention Mayo Statin Decision Aid primary prevention Absolute CVD risk benefit tool	➢ Stop if prognosis < 2 years ➢ Muscle weakness/pain	Risks outweigh benefits Check CPK
THEOPHYLLINES	➢ Frailty and prognosis < 1 year	Increased risk toxicity
TRICYCLIC ANTIDEPRESSANTS	➢ Dementia ➢ Glaucoma ➢ Constipation ➢ Lower urinary tract symptoms	Worsens all conditions
VITAMINS/IRON	➢ Duration > 6 months	Review indication for all but especially if constipated

Anticholinergic Burden (ACB)

Anticholinergic drugs block acetylcholine and side effects include cognitive impairment, dizziness, sedation, blurred vision, palpitations, confusion, dry mouth, urinary retention and falls. There is an association with an ACB > 3 and increased mortality. (PrescQIPP Anticholinergic Drugs). Assessing ACB should be a priority for a medication review.

An ACB Calculator can be used to determine the anticholinergic burden of a drug, which the table below summarises.

1 point	2 points	3 points
Codeine Haloperidol Mirtazapine Quetiapine Ranitidine	Baclofen Carbamazepine Cetirizine Cimetidine Hyoscine Loperamide Loratadine Nortriptyline Prochlorperazine Sertraline Solifenacin	Amitriptyline Chlorpheniramine Chlorpromazine Cyclizine Diphenhydramine Dosulepin Doxepin Hydroxyzine Imipramine Olanzapine Oxybutynin Paroxetine Promethazine Propantheline Tolterodine Trifluoperazine Trihexyphenidyl Trospium

Falls risk

There is evidence that certain medicines increase falls risk in older adults, referred to as falls-risk-increasing-drugs (FRIDs) The National Falls Prevention Co-ordination Group/RPS-Medicines and Falls guidance contains a FRID-management decision tree, information on osteoporosis, orthostatic hypotension, BP and HbA1c targets and a table with the mechanism of action of each FRID.

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References and resources

Scottish Polypharmacy Guidance

Scotland Polypharmacy Guidance: Realistic Prescribing

Wales Polypharmacy Guidance

RPS Guidance Polypharmacy

Polypharmacy and Medicines Optimisation: Kings Fund

NICE Guidance Multimorbidity

NICE database of treatment effects

Canadian Deprescribing Guidelines

Medstopper tool

Prescribing Guidance for Moderate to Severely Frail patients: Gloucestershire CCG

Primary Health Tasmania Deprescribing Resources

PrescQIPP Anticholinergic Drugs

NNT website

European Journal of Hospital Pharmacy: Deprescribing themed issue

2015 AGS BEERS criteria: pocket guide

7-steps medication review

NO TEARS tool for Medication Reviews

ACB Calculator

Person-centred approach to Polypharmacy (Specialist Pharmacy Service)

Good for you, good for us, good for everybody: Overprescribing in England

STOPPFrail (Screening Tool of Older Persons Prescriptions in Frail adults with limited life expectancy): consensus validation

National Falls Prevention Co-ordination Group/RPS- Medicines and Falls guidance

Prescqipp IMPACT TOOL (Presqipp login needed)

NHSE decision support tools about health conditions