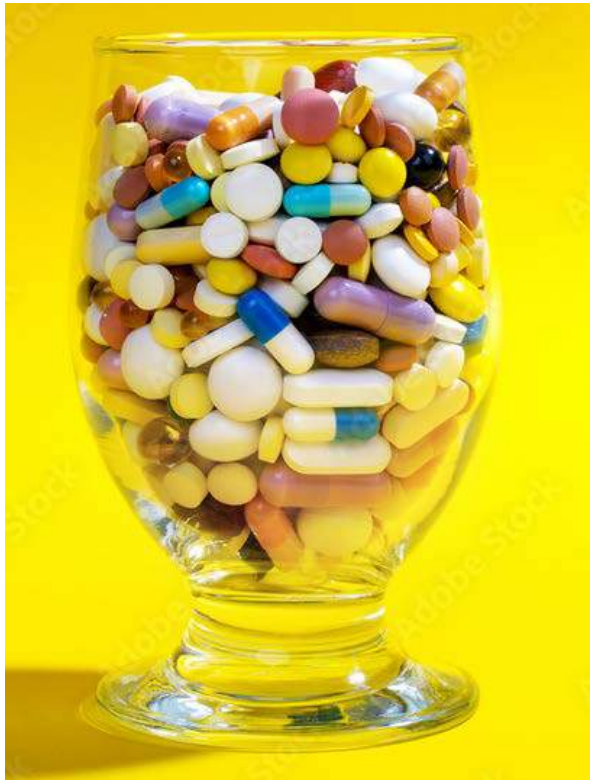
Overprescribing



TRANG DINH

SEL Learning Disability and Autism Specialist Prescribing Advisor

Senior Clinical Pharmacist

National Overprescribing Review Report

Workforce, Education and Training (page 48)

Update training and development to reflect growing understanding of overprescribing. Include:

- **Identification of patients** who would benefit from a Structured Medication Review (SMR)
- **How to conduct an SMR** and complete medicines optimisation
- **Encouraging and facilitating shared decision-making**, the importance of listening to patients and cultural competency
- **Deprescribing** and identifying adverse drug event and instances where harm outweighs benefits

Overprescribing

Definition: The use of a medicine where there is a **better non-medicine alternative** OR the use **is inappropriate for that patients' circumstances and wishes**

- A **COMPLEX** problem
- Each patient and clinician experience it differently
- Tackling, requires a new approach to include shared decision making with patients
- Many drugs are often continued beyond the point at which they are beneficial and may actually cause harm *(DTB 52:2014)*

Overprescribing – Causes and Drivers

Multifactorial and **complex** involving systems, cultures and individuals (patients and clinicians)

Systemic

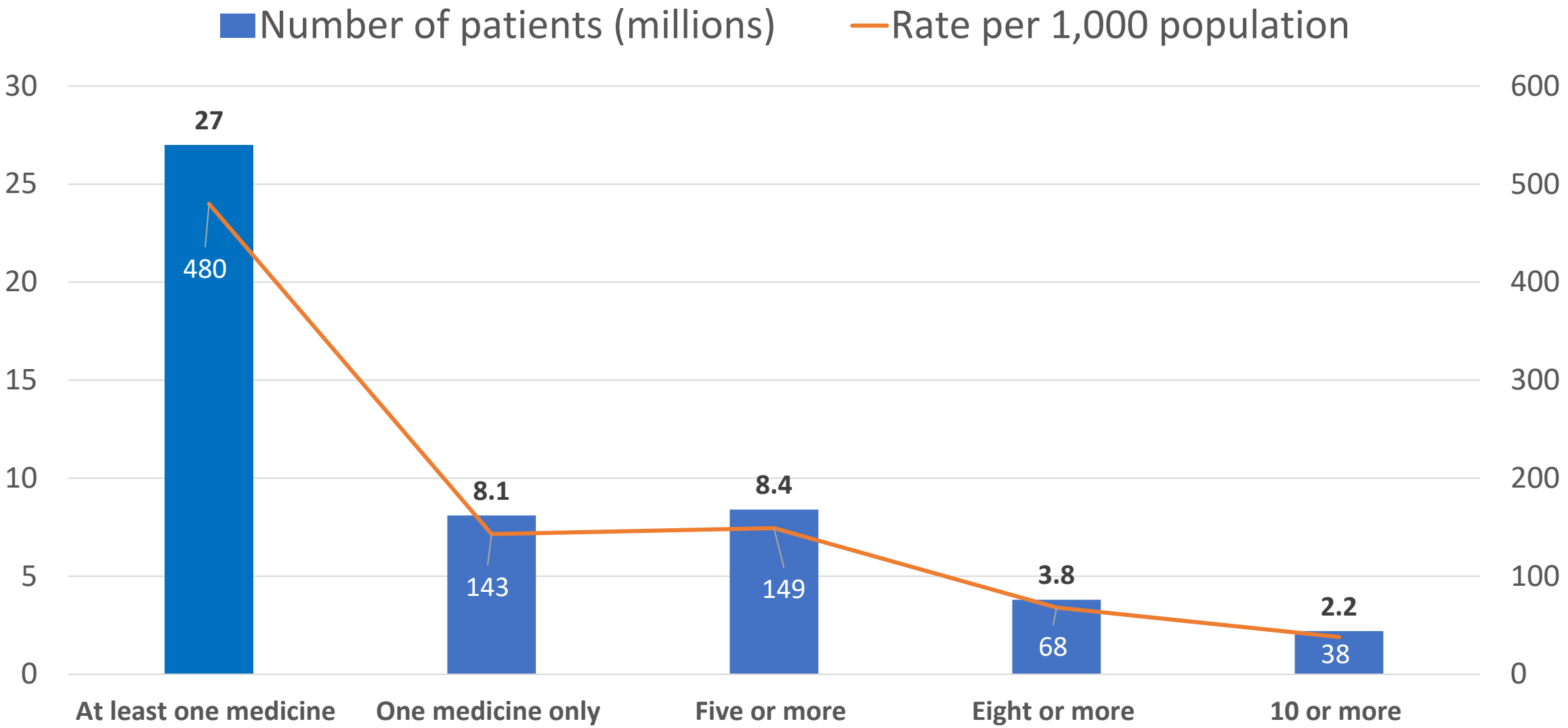
- Single-condition clinical guidelines
- Lack of non-drug alternatives
- Need on-going review and deprescribing built into prescribing process including repeats
- Inability to access comprehensive patient records
- Lack of digital interoperability
- Pressure of time

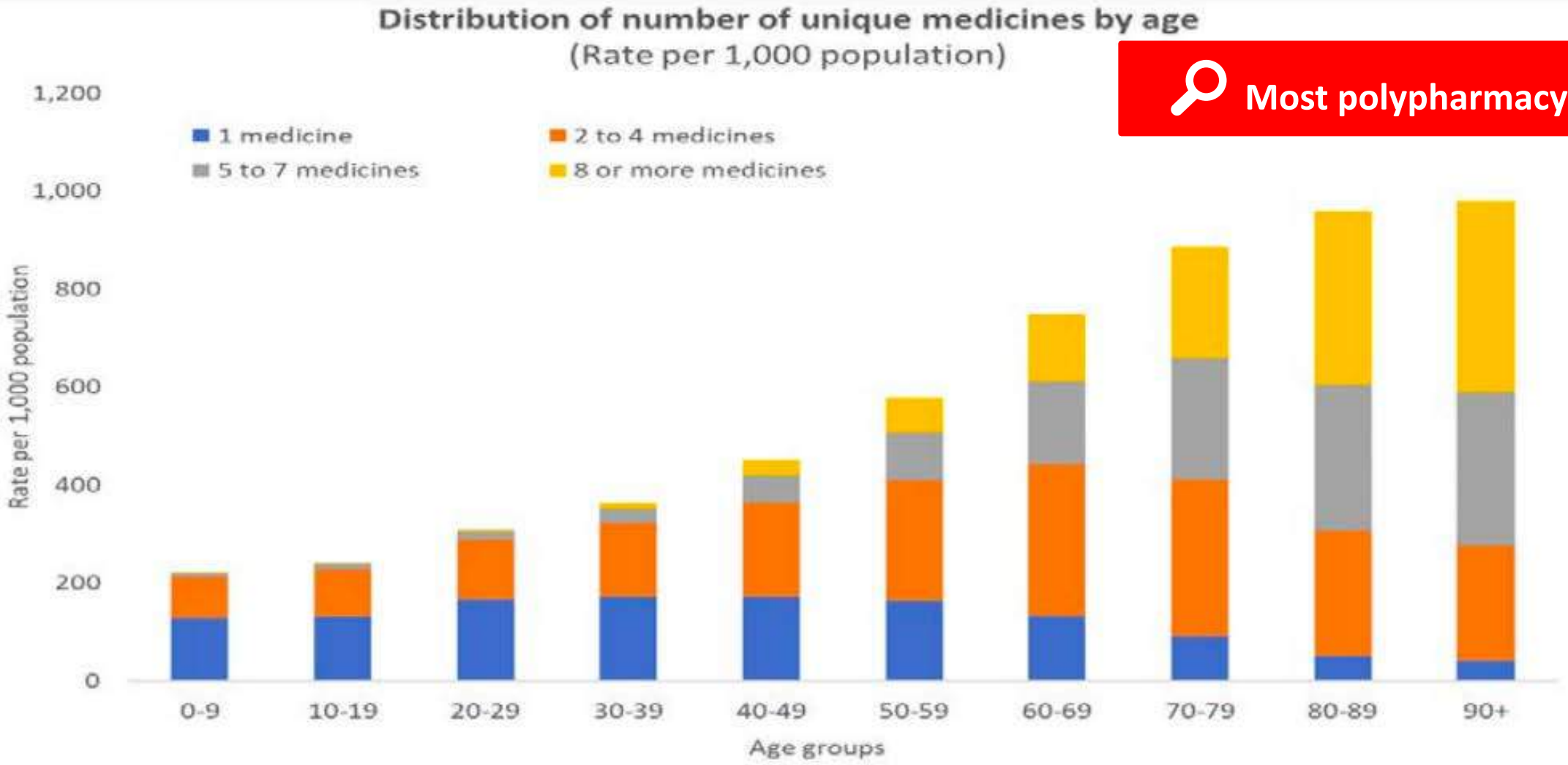
Cultural

- A healthcare culture
  - that favours medicines over alternatives
  - in which some patients struggle to be heard
- Inadequate shared decision making
- Pharma conflict of interest

Scale of polypharmacy in primary care in England (Oct-Dec 2019)

Spread of medications by number and rate per population





Most polypharmacy is in >70s

Figure 2: Distribution of number of unique medicines by age (rate per 1,000 population)

Wasted Medicines

Greatest waste of medicines is from those not taken by patients!

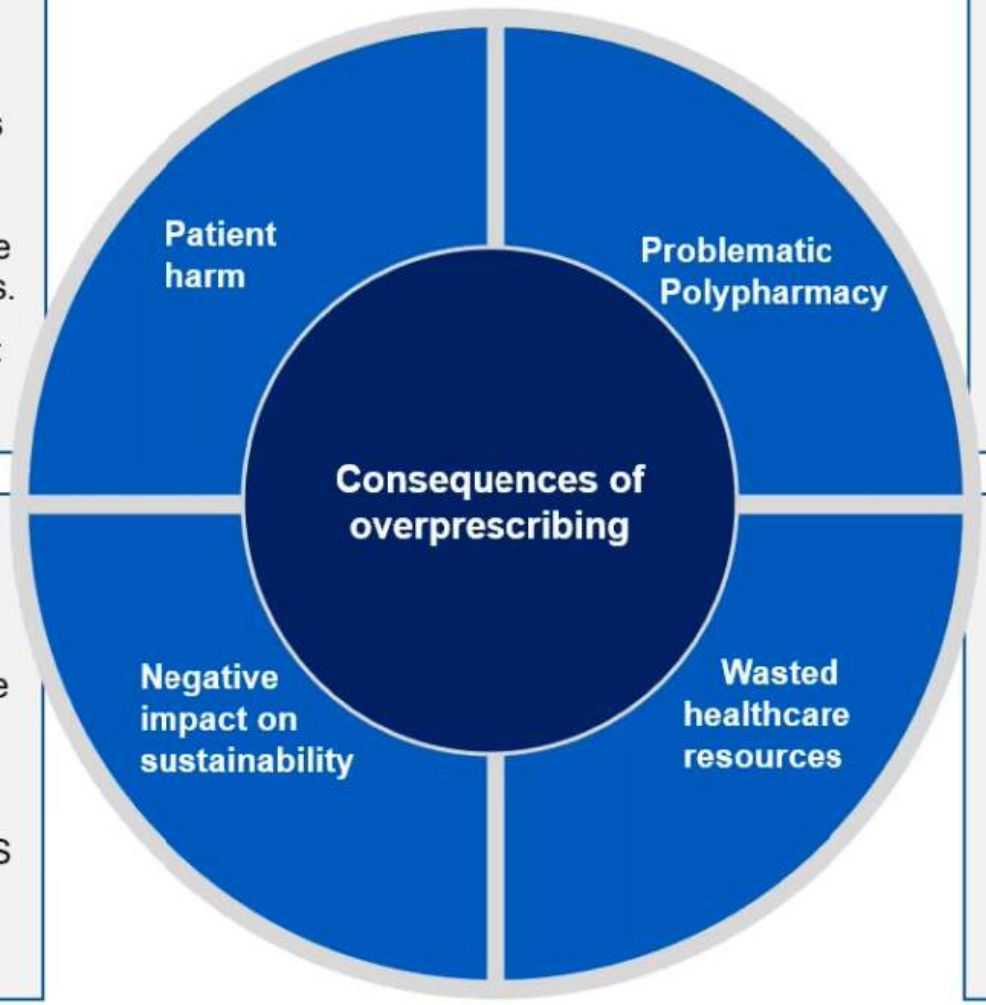
- 30-50% of medicines prescribed for long-term conditions are not taken as intended
- **Overprescribing** and inappropriate polypharmacy contribute significantly
- Cost of NHS primary & community care medicines waste in England was £300 million in 2009.

Consequences of Overprescribing

Adverse drug reactions: increase with more medicines taken:

- Occur in 10 - 20% of hospital admissions.
- Person taking 10 or more medicines is 300% more likely to be admitted to hospital.
- Around 6.5% of hospital admissions are caused by adverse effects of medicines.

Increased risk of becoming dependent on certain medicines



Problematic polypharmacy People who are taking multiple medicines are more likely to be older, have worse health conditions, be taking medicines for longer, face more difficult decisions about treatment and find the cumulative burden of their medication harder to bear than the average.

Overprescribing does not optimise:

- Patient outcomes
- Positive patient experiences
- Personalised approach

Waste medicines are a significant burden and need to be disposed of carefully, to avoid harm to patients and the public, and to minimise harm to the environment

Wasted medicines do not support the NHS commitment to become carbon net zero.

In 2010 it was been estimated **£300 million of NHS prescribed medicines are wasted** each year.

It is thought this figure may have now doubled.

It is It is estimated that at least 10% of the current volume of medicines may be overprescribed.

Clinicians Tackling Overprescribing

Changing culture, practice and system that create overprescribing

Upstream
(preventative)

START WELL -Interventions
- Self management
- Non-drug options
- Patient activation
- Social Prescribing
- Supply packaging (MDS)

Principles
- **Case find individuals/populations**
- **Patient-centred care, Values based care and Shared Decision making**
- **Manage risks and uncertainties**
- **Better conversations**

Downstream
(reactive)

END WELL- Interventions
- Medication reviews/ Deprescribing
- Non-drug options
- Medicines reconciliation
- Repeat prescribing, ERD, travel and delivery

Structure Medication Review

An outcome focused and patient centred NICE approved intervention

- **WHAT? Comprehensive and clinical review** of a patient's medicines and detailed aspect of their health
- **WHO?** People with **Complex or Problematic Polypharmacy**
- **HOW?** Delivered by facilitating **shared decision making conversations** with patients
- **WHY?** Ensure their medication is **working well for them**

Deprescribing

- The complex **process** required for the safe and effective cessation (withdrawal) of **inappropriate medication**. Takes into account the patient's physical functioning, co-morbidities, preference and lifestyle *(DBT 2014; 52:25, DBT 2016; 54:69)*
- An important part of SMR, to tackle overprescribing
- Seek and seize opportunities to link deprescribing back to patent's priorities

Case Finding Patients for SMRs and Deprescribing

Use appropriate tools/searches to identify and prioritise patients who would benefit from an SMR

- Care home residents
- Complex and problematic polypharmacy especially >10 medicines
- Medicine associated with medication errors
- Severe frailty
- Potential addictive pain medicines

NHSBSA Polypharmacy comparator searches e.g. patients over 65/75 years old on 10+ drugs

Patient Centred Care

Evidence Based Practice and Medicine Optimisation

Care that is respectful of, and responsive to, individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions *(Institute of Medicine 2001)*

Emphasises that **building relationship** and **good communication** are critical to meaningful involvement

Clinical Judgement of Practitioner

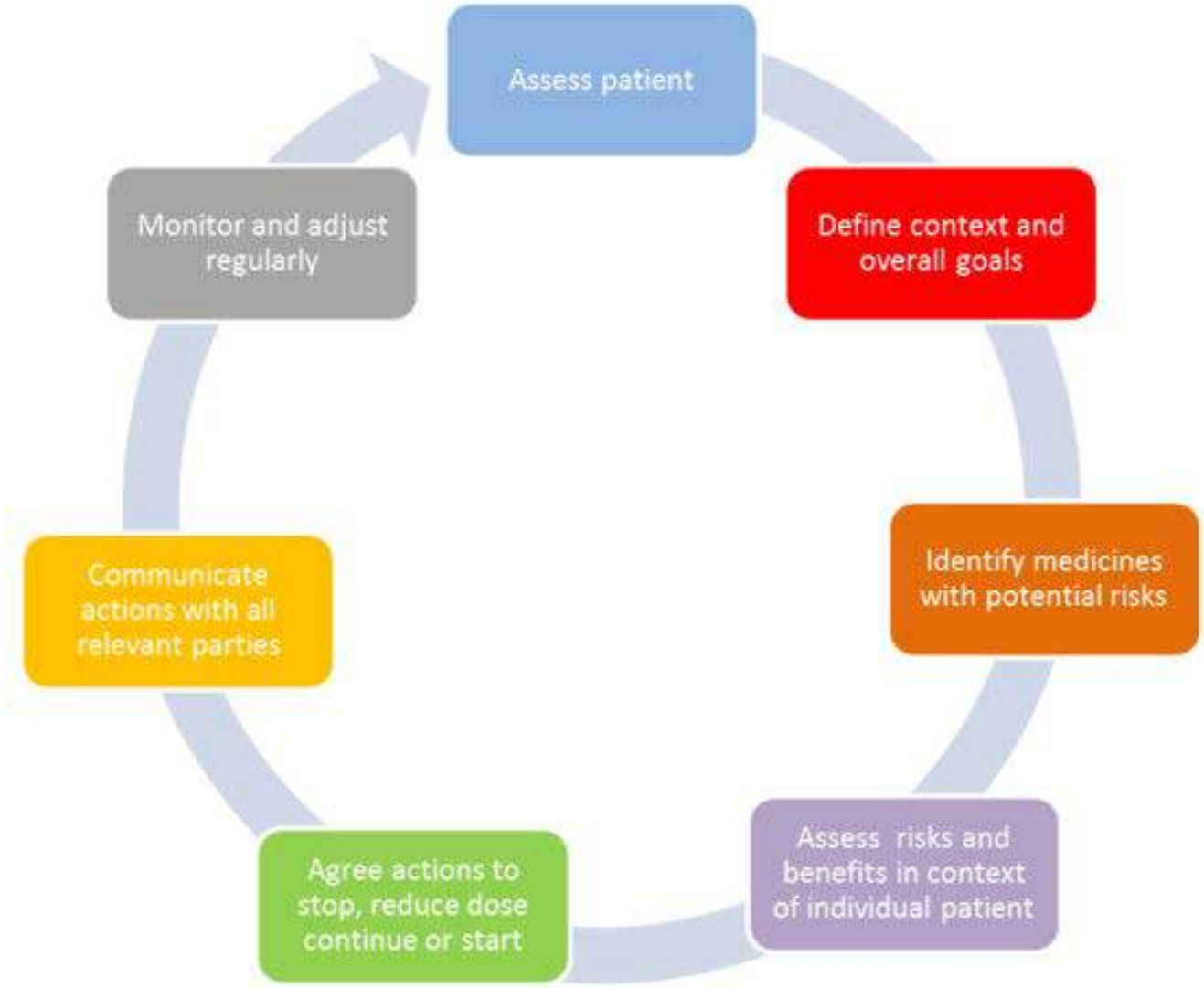
Expertise, situational awareness, tacit knowledge

Best Available Research Evidence

Guidelines and tools

NHS SPS – A Patient-Centred Approach To Prescribing/Deprescribing

- **Identify** most vulnerable to adverse medicines problems.
- **Use a structured and evidence-based approach** to conduct medication reviews.
- Use **clinical judgement and personalised goals** to apply disease-based clinical guidelines to individual's drug therapy.
- Generate a **personalised shared care & support plan**, treatment goals, interventions, follow up review, crisis plan.
- **Patient engagement, care co-ordination and sustained support**



N Barnett L Oboh K Smith EJHP: 23 December 2015

Overall Goal for Optimising Medicines (Prescribing/Deprescribing)

🚫 Not to decide if patient is on too many or too few medicines

✅ **AVOID** the use of a medicine where there is a **better non-medicine alternative** OR it is **inappropriate for the patient's circumstances and wishes** *(DoH National Overprescribing Review 2021)*

✅ ENSURE patient is TAKING the appropriate medicines tailored to their circumstances, goals of care, multiple morbidities preference, willingness and capability to adhere to medicines….and SAFETY

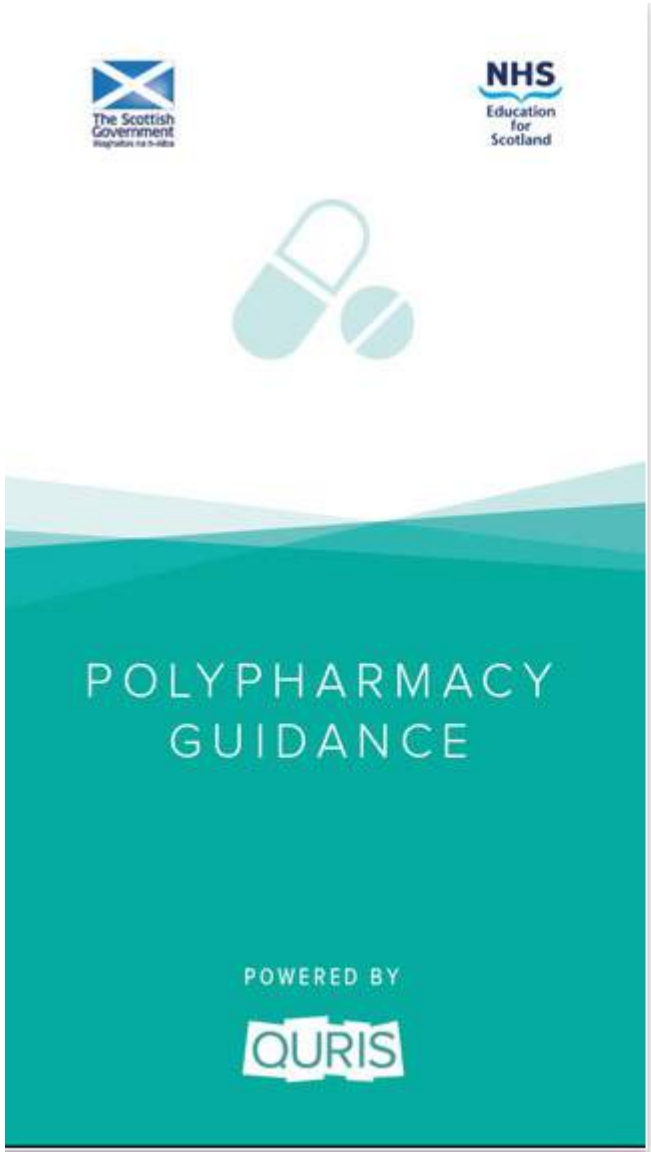
✅ ENSURE that the patients medicines is **working well for them**

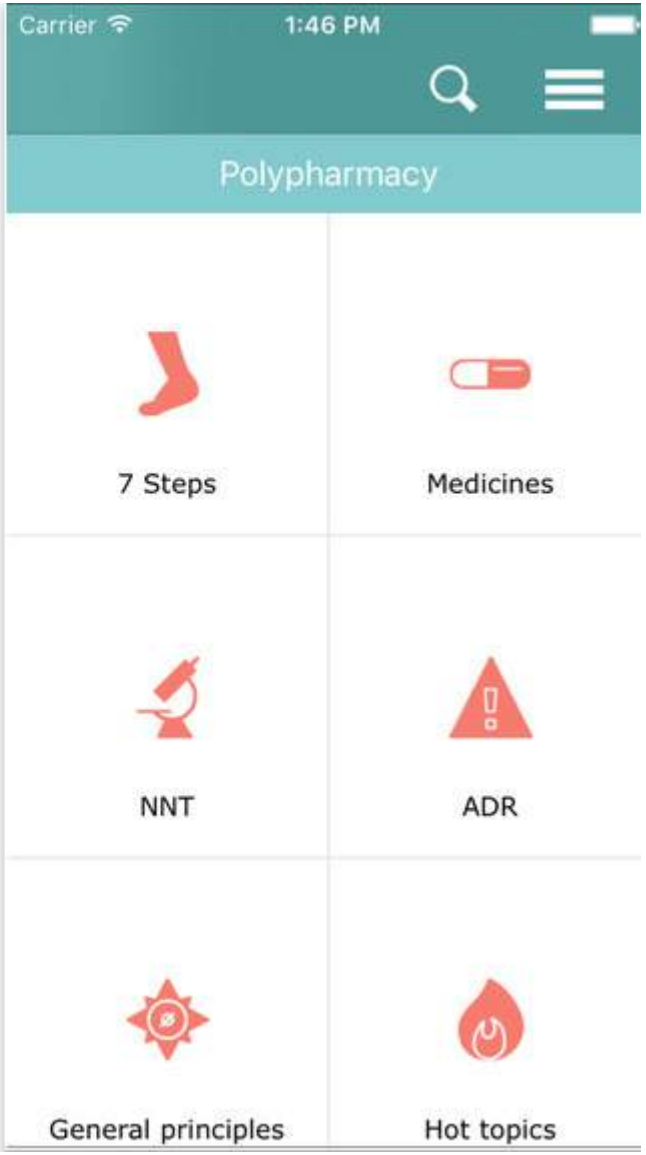
Evidence-Based Tools

[Using tools to support medication review – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice]

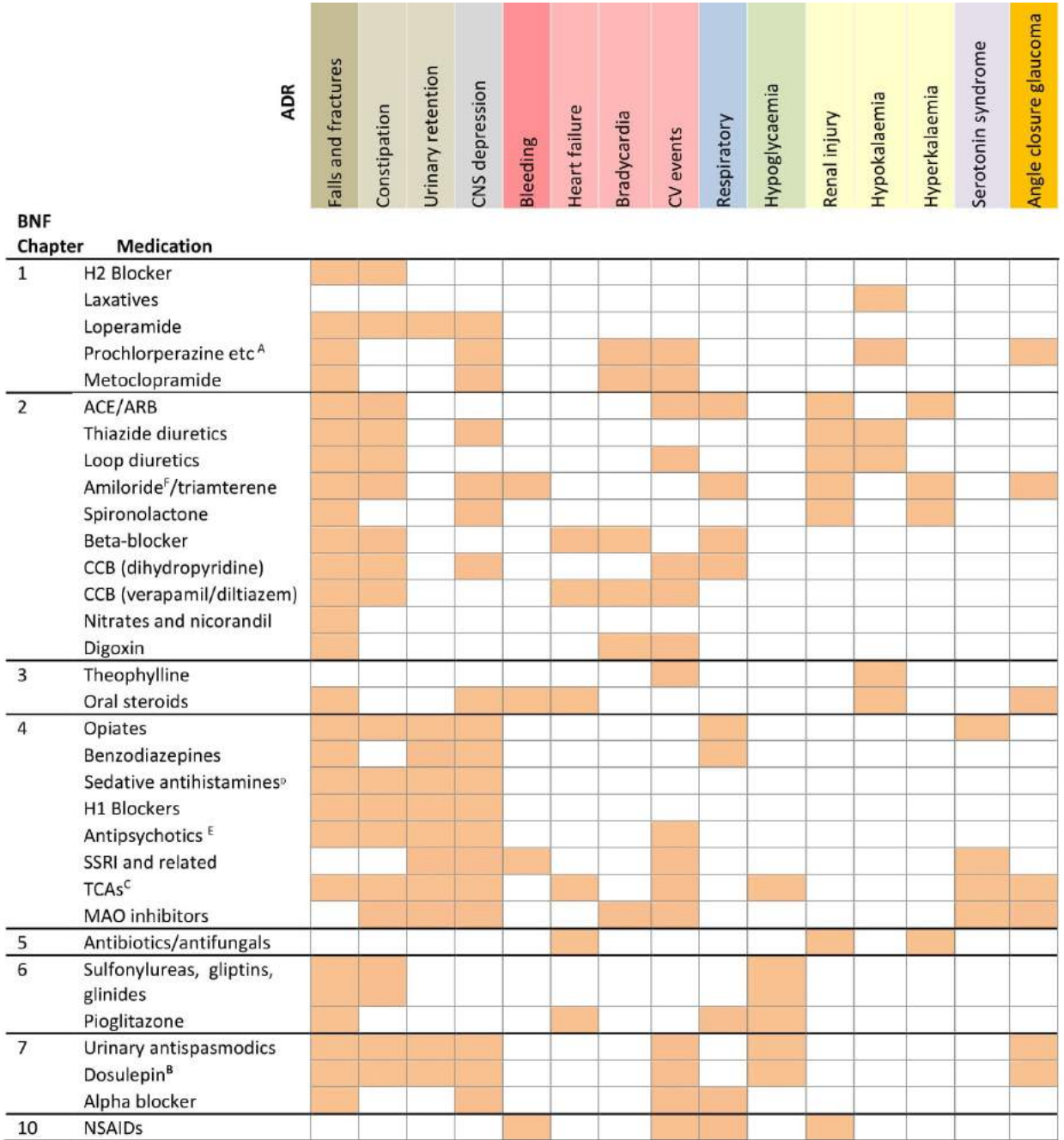
- Beers Criteria
- Canadian Deprescribing Network
- Medication Appropriateness Index
- STOPPFrail Tool

NHS Scotland Polypharmacy App





Cumulative Toxicity Tool and Adverse Drug Reactions



STOPP START Medication Review Tool

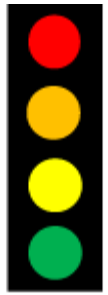
STOPP START Information

STOPP: Screening Tool of Older People's Potentially Inappropriate Prescriptions

The following drug prescriptions are *potentially* inappropriate in persons aged □ 65 years of age

Drug name or class (+ examples)	+ Condition	= Risk / reason
Cardiovascular		
Digoxin >125µg/day	Low GFR	*Toxicity*
Diuretic (monotherapy)	Hypertension	*Safer, more effective alternatives*
Thiazides (bendroflumethiazide)	Gout	*Exacerbation of gout*
Non-cardioselective Beta-blocker (propranolol, carvedilol, sotalol etc)	Wheeze (COPD/asthma)	*Bronchospasm*
Beta blocker + verapamil	Any	*Heart block*
Diltiazem or verapamil	Heart failure	*Exacerbation of heart failure*
Calcium channel blockers	Chronic constipation	*Exacerbation of constipation*
Aspirin + Warfarin	Without gastro-protection	*Gastrointestinal bleeding*
Dipyridamole (monotherapy)	Stroke	*No evidence for efficacy*
Aspirin	Peptic ulcer	*Bleeding*
	>150mg/day	*Bleeding, no evidence for increased efficacy*
	Without arterial occlusive disease	*Not indicated*
	Dizziness, without stroke as cause	*Not indicated*
Warfarin >6 months	1st deep vein thrombosis	*No proven benefit*
Warfarin >12 months	1st pulmonary embolus	*No proven benefit*
Aspirin, clopidogrel, dipyridamole or warfarin	Any bleeding disorder	*Bleeding*
Central Nervous System & Psychotropics		
Tricyclic antidepressants (amitriptyline, imipramine etc)	Cognitive Impairment	*Worsening cognitive impairment*
	Glaucoma	*Exacerbation of glaucoma*
	Cardiac arrhythmia	*Pro-arrhythmic effects*
	Constipation	*Exacerbation of constipation*
	+ Opiate or calcium channel blocker	*Severe constipation*

Anticholinergic Evaluation of Cognition Tool



3 - review and withdraw or switch

2 - review and withdraw or switch

1 - caution required

0 – safe to use

Limited data so unable to score		Drugs with AEC score of 0		Drugs with AEC score of 1	Drugs with AEC score of 2	Drugs with AEC score of 3
Alendronic Acid	Ramipril	Alprazolam	Lovastatin	Amiodarone	Amantadine	Alimemazine (trimeprazine)
Allopurinol	Rivaroxaban	Amlodipine	Lurasidone	Aripiprazole	Chlorphenamine	Amitriptyline
Anastrozole	Rosuvastatin	Amoxycillin	Meloxicam	Bromocriptine	Desipramine	Atropine
Apixaban	Spironolactone	Aspirin	Metoclopramide	Carbamazepine	Dicycloverine (dicyclomine)	Benztropine
Baclofen	Tamoxifen	Atenolol	Metoprolol	Citalopram	Dimenhydrinate	Chlorpromazine
Bisoprolol	Topiramate	Atorvastatin	Moclobemide	Diazepam	Diphenhydramine	Clemastine
Bumetanide	Tizanidine	Buproprion	Morphine	Domperidone	Disopyramide	Clomipramine
Captopril	Verapamil	Cephalexin	Naproxen	Fentanyl	Levomepromazine (methotrimeprazine)	Clozapine
Carbimazole	Zopiclone	Cetirizine	Omeprazole	Fluoxetine	Olanzapine	Cyproheptadine
Carvedilol	Zotepine*	Chlordiazepoxide	Paracetamol	Fluphenazine	Paroxetine	Dothiepin
Chlortalidone		Cimetidine	Pantoprazole	Hydroxyzine	Pethidine	Doxepin
Clarithromycin		Ciprofloxacin	Pravastatin	Iloperidone	Pimozide	Hyoscine hydrobromide
Clonazepam		Clopidogrel	Propranolol	Lithium	Prochlorperazine	Imipramine
Codeine		Darifenacin	Rabeprazole	Mirtazapine	Promazine	Lofepramine
Colchicine		Diclofenac	Ranitidine	Perphenazine	Propantheline	Nortriptyline
Dabigatran		Diltiazem	Risperidone	Prednisolone	Quetiapine	Orphenadrine
Dexamethasone		Enalapril	Rosiglitazone	Quinidine	Tolterodine	Oxybutynin
Dextropropoxyphene		Entacapone	Simvastatin	Sertindole	Trifluoperazine	Procyclidine
Digoxin		Fexofenadine	Theophylline	Sertraline		Promethazine
Erythromycin		Fluvoxamine	Thyroxine	Solifenacin		Trihexyphenidryl (benzhexol)
Flavoxate*		Furosemide	Tramadol	Temazepam		Trimipramine
Hydrocodone		Gabapentin	Trazodone			
Irbesartan		Gliclazide	Trimethoprim			
Lansoprazole		Haloperidol	Trospium			
Levetiracetam		Ibuprofen	Venlafaxine			
Metformin		Ketorolac	Valproate			
Methocarbamol		Lamotrigine	Warfarin			
Methotrexate		Levadopa	Ziprasidone			
Nitrofurantoin		Lisinopril	Zolpidem			
Oxcarbazepine		Loperamide				
Oxycodone		Loratadine				
Phenytoin		Lorazepam				
Pregabalin		Losartan				

Medstopper


MEDSTOPPER
BETA
Languages: English (EN)
Starting medications is like the bliss of marriage and stopping them is like the agony of divorce. - Doug Danforth
HOME
ABOUT
FAQs
RESOURCES
CONTACT
MedStopper is a deprescribing resource for healthcare professionals and their patients.
1 Frail elderly?
2 Generic or Brand Name:
3 Select Condition Treated:
Generic Name
Brand Name
Condition Treated
Add to MedStopper
Previous Next


MedStopper Plan
Arrange medications by: Stopping Priority
CLEAR ALL MEDICATIONS
PRINT PLAN
Stopping Priority RED=Highest GREEN=Lowest
Medication/ Category/ Condition
May Improve Symptoms?
May Reduce Risk for Future Illness?
May Cause Harm?
Suggested Taper Approach
Possible Symptoms when Stopping or Tapering
Beers/STOPP Criteria

Prioritising Drugs To Consider For Deprescribing (with Shared Decision Making)

- Aligns with patient priorities and what matters
- Drugs without a clear indication
- Indication = appropriate. If an indication
  - ✓ Drugs patient is not taking/not working
  - ✓ Drugs with actual or high ADE profile or drug-drug disease interactions
  - ✓ Drugs cause non-specific side-effects e.g. falls, dizziness, ‘muddled’, cognitive impairment, confusions, constipation, less obvious – One way to ascertain is to stop and see
  - ✓ Evidence for limited or no benefit especially where non-drug option is available and accessible
  - ✓ Drugs where current dose is too high or too low

Better Conversations

- Circumstances that trigger deprescribing should be considered and discussed as part of prescribing

- Use patient centred language for deprescribing *(Cahill. L 2014 PresQIPP)*
  - ‘too many medicines’ ➔**“the right amount for you”**
  - ‘stopping your medicines’ ➔ **“trial without”** or **“suspend”**
  - Take medicine ‘for life’ ➔**take this medicine for as long as it is appropriate for you**
  - ‘initiating medicines’ ➔ **“trial with”**

- Eliciting ‘what matter most’
  - Explaining how/why important it is to you take/stop this medicine
  - Golden minute
  - “One thing to address”

And how are you feeling now???

Case Scenario: Frailty, Dementia, Multimorbidity

- 75 year-old female resident in nursing home
- Moderate frailty
- Vascular dementia
- T2DM
- Bilateral cataracts
- Swallowing difficulties
- BP 131/80, 114/80 (recent)
- BMI 30.4
- HbA1c 7.3%
- eGFR 45mL/min
- Cholesterol 4.1, HDL 1.11
- Allergy: Trimethoprim

1. Oxybutinin 10mg m/r tabs OD
2. Bendroflumethazide 2.5mg tabs OD
3. Losartan 100mg tabs OD
4. Gliclazide 80mg tabs BD pc
5. Sertraline 50mg tabs OD
6. Promethazine 25mg tabs BD (3+9pm)
7. Amisulpride 50mg tabs BD
8. Salbutamol inhaler 2QDS PRN
9. Dermol 500 lotion soap substitute
10. Zerobase 11% cream PRN
11. Eumovate cream BD
12. Cetraben cream PRN
13. Thick and easy as directed

- Can verbalise when she needs toilet, wears pads
- Very dry mouth – asking for water
- Mobile but shaky, very slow
- Not tearful or signs of depression
- Previously on residential floor – shouting. Difficult to deliver personal care etc. Recently moved to nursing floor – calmed down and can be managed if she is left alone

What signs indicate that this patient may benefit from a Structured Medication Review (SMR) and deprescribing to tackle overprescribing?

How would you plan to deprescribe the medicines?

- 75 year-old female resident in nursing home
- Moderate frailty
- Vascular dementia
- T2DM
- Bilateral cataracts
- Swallowing difficulties
- BP 131/80, 114/80 (recent)
- BMI 30.4
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1. ~~Oxybutinin 10mg m/r tabs OD~~
2. ~~Bendroflumethazide 2.5mg tabs OD~~
3. Losartan 100mg tabs OD
4. Gliclazide 80mg tabs BD pc
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7. Amisulpride 50mg tabs BD
8. ~~Salbutamol inhaler 2QDS PRN~~
9. ~~Dermol 500 lotion soap substitute~~
10. Zerobase 11% cream PRN
11. ~~Eumovate cream BD~~
12. ~~Cetraben cream PRN~~
13. Thick and easy as directed

Stop sequentially, taper slowly where necessary
Monitor for withdrawal symptoms/worsening condition

Outcome

- 75 year-old female resident in nursing home
- Moderate frailty
- Vascular dementia
- T2DM
- Bilateral cataracts
- Swallowing difficulties
- BP 131/80, 114/80 (recent)
- BMI 30.4
- HbA1c 7.3%
- eGFR 45mL/min
- Cholesterol 4.1, HDL 1.11
- Allergy: Trimethoprim

1. ~~Oxybutinin 10mg m/r tabs OD~~
2. ~~Bendroflumethazide 2.5mg tabs OD~~
3. Losartan ~~100mg~~ tabs 50mg OD
4. Gliclazide 80mg tabs BD pc
5. Sertraline 50mg tabs OD
6. Promethazine ~~25mg~~ 10mg tabs BD (3+9pm)
7. Amisulpride 50mg tabs BD
8. ~~Salbutamol inhaler 2QDS PRN~~
9. ~~Dermol 500 lotion soap substitute~~
10. Zerobase 11% cream PRN
11. ~~Eumovate cream BD~~
12. ~~Cetraben cream PRN~~
13. Thick and easy as directed (for food, not medicines)

Outcome – 4 weeks later

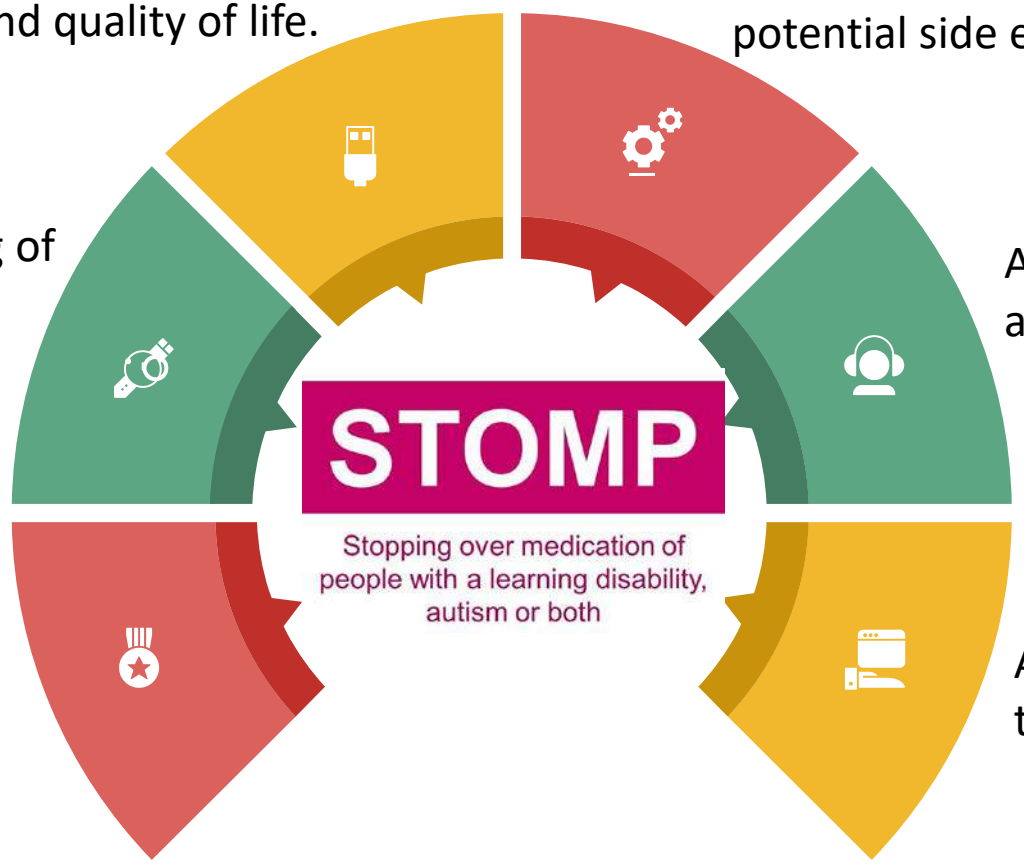
- Dry mouth stopped
- Reduced pill burden – help with swallowing difficulties
- No worsening of challenging behaviour

What does STOMP aim to achieve?

Promoting wellbeing and quality of life.

Understanding of psychotropic medication, including why it is being used and its potential side effects

Ensuring monitoring and reviewing of psychotropic medication is in line with local and national guidance



Ability to recognise areas of concerns around inappropriate medication

Empowering patients on their medication and involving them in decisions about their care

Actively exploring alternatives to medication

STOMP in real life…..

Example 1

- On specific psychotropic medication
- No MH indication
- Not under any services due to mild LD
- No review from GP

Example 2

- On risperidone
- MH diagnosis
- Hyperprolactinaemia; Switch to aripiprazole.
- However risperidone not reduced or withdrawn due to communication error

Example 3

- On low dose risperidone long term
- Unlicensed use
- No regular review of efficacy
- LD patients are more likely to be unable to express themselves
- Could there be a more appropriate treatment option

….getting the right medication, at the right time, for the right reason

Take Home Messages

- Tackling overprescribing is complex
- Foolproof or certainty does not exists!
- Multiple factors contribute including frailty, multi-morbidities, polypharmacy
- Start with patient's priorities
- Use a structured, patient-centred, evidence-based approach, then individualise to suit patient needs/what matters most
- Shared decision making is a must!
- Prescribed with a deprescribing in mind
- Need TOOLs, evidence based, conversational and shared decision-making
- Risk and benefits are relative, contextual information is important
- Collaborate with patients, carers, health and social care MDT
- Follow up and monitor regularly
- SMR is ongoing process vs one-off interaction


THANK
YOU


Questions
?
?
Answers
?