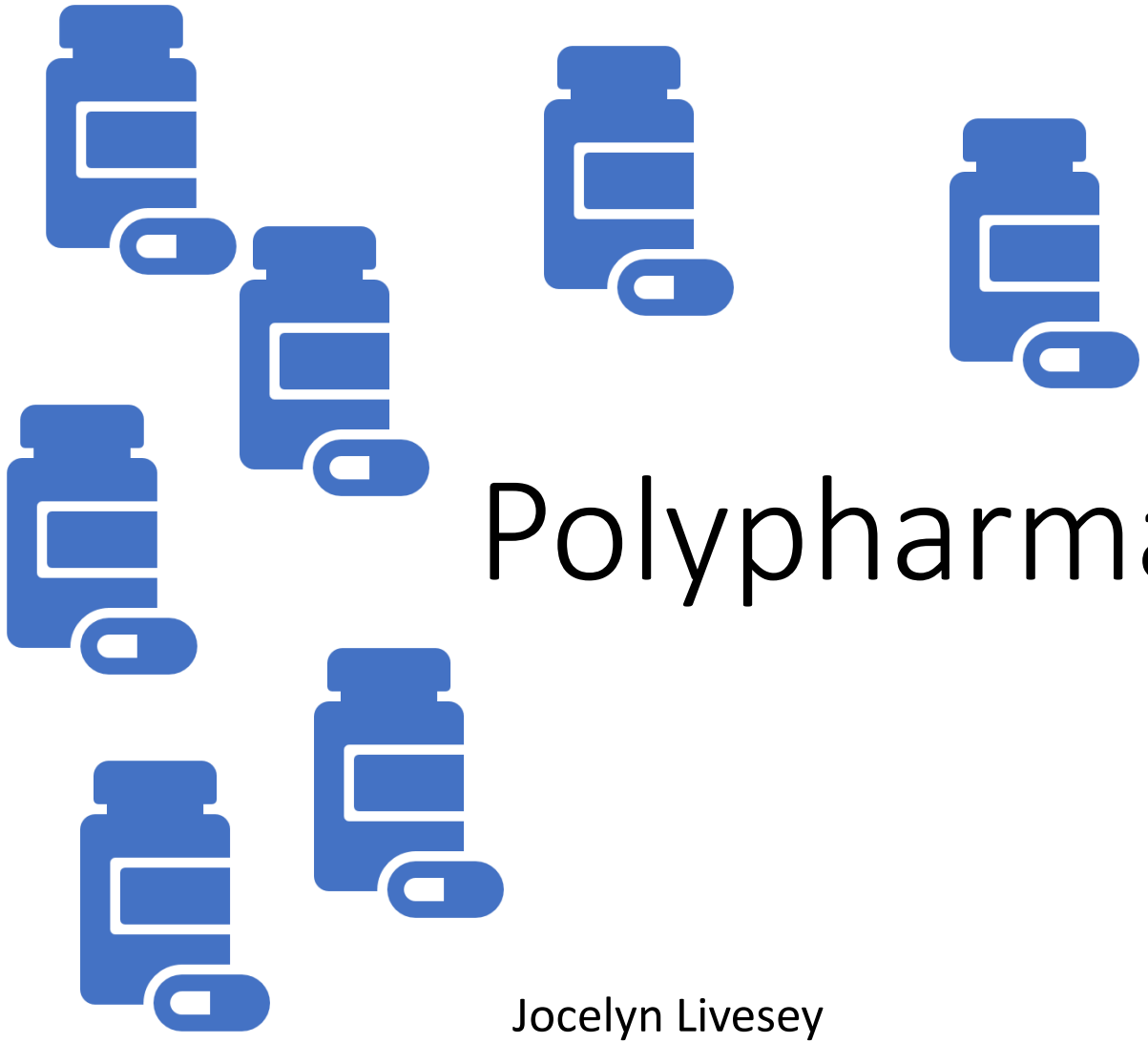

Polypharmacy

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Polypharmacy

- What is it?
- Is it a problem?
- Who is at risk?
- Whose responsibility is it?
- How can we prevent it?
  - Medication Review
  - Communication

Polypharmacy – what is it?

Polypharmacy is the situation when people are taking

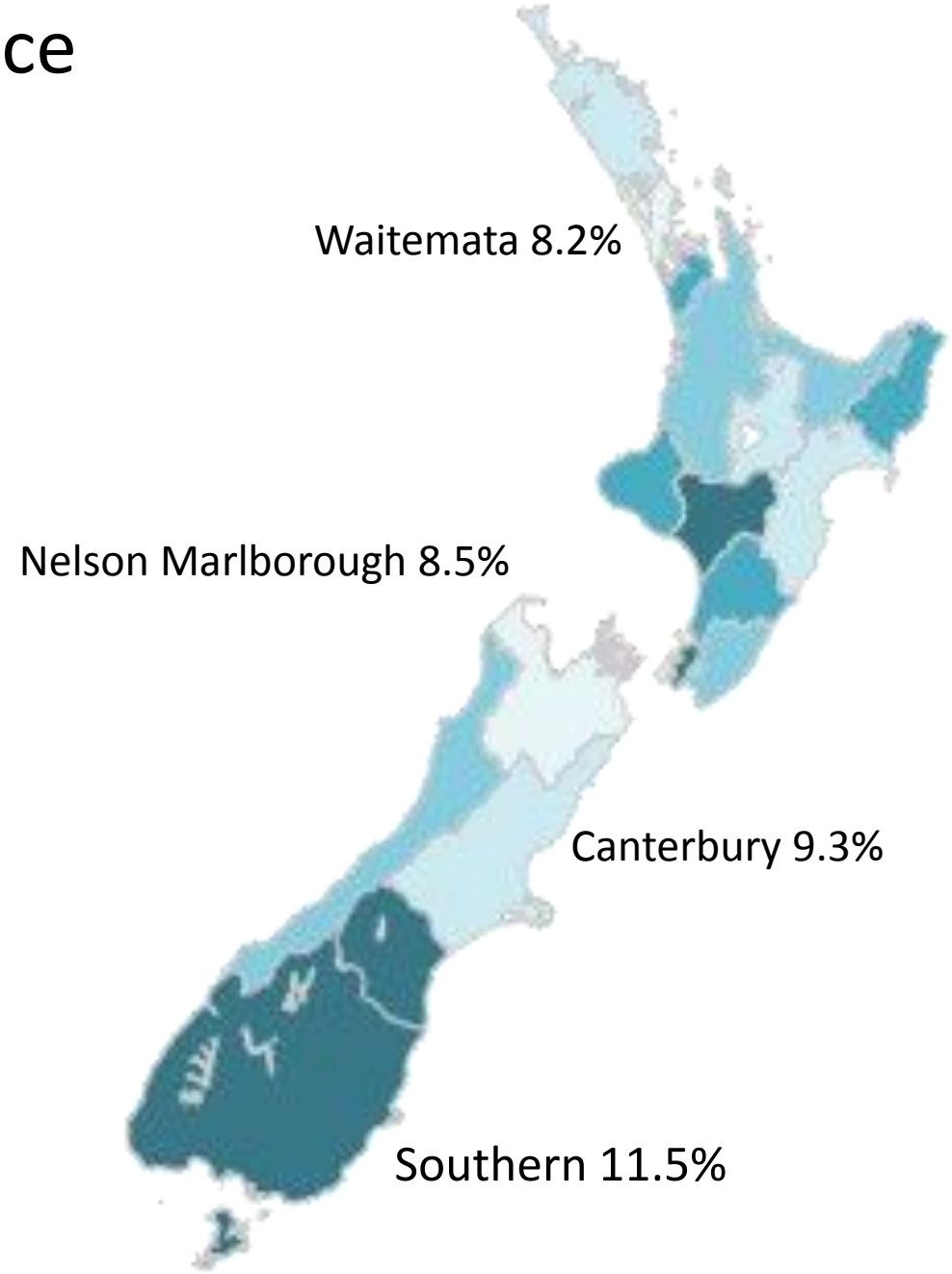
multiple medicines

BUT, this is not always bad.

The concern is problematic or inappropriate polypharmacy such as:

- Prescribing of medicines that are no longer clinically indicated, appropriate or optimal
- Where the benefit of using the medicines does not outweigh the harm
- Where a combination of medicines may cause, or is causing harm
- Where the practicalities of using the medicines have become unmanageable or distressful for the patient

Prevalence



% of population dispensed
8-10 long-term medicines
in 2016

From
HQSC Atlas of Healthcare Variation

Who is most at risk of harm?

Those with:

- **Multi-morbidity**
- **Frailty**
  - fewer reserves , adverse effects, cognitive
- **Multiple medicines, often 10 or more**
  - more adverse effects and interactions
- **High risk medicines**
  - e.g. anticoagulants, NSAIDs, diuretics, opioids
- **Deprivation (socioeconomic, cultural)**
  - Poorer diet, living conditions, access to health care
    - Earlier occurrence of multimorbidity
  - Poorer health literacy

Appropriate medication use

The key aims should be:

- Preservation of function,
- Maintaining or improving quality of life,

then

- Extending life

However, always consider :

What are the goals of the patient at this time?

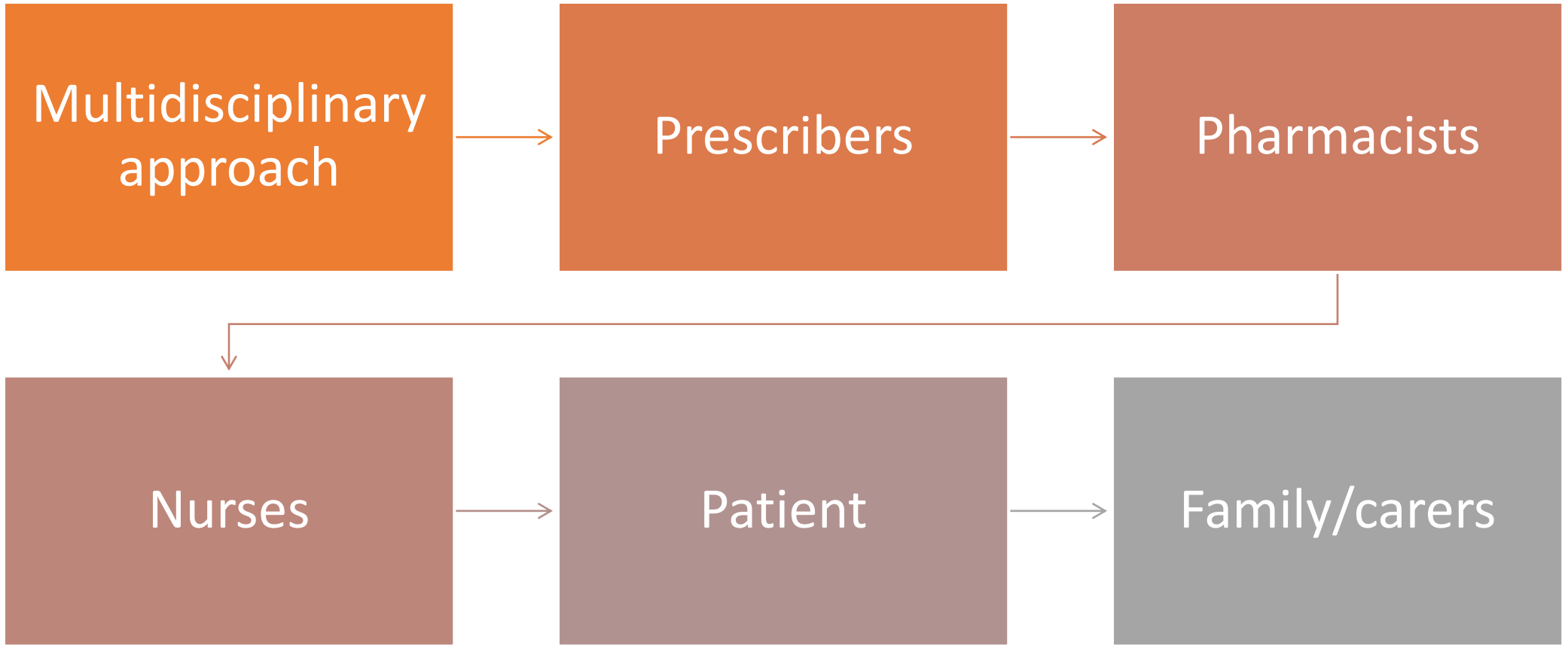
Also vital that concerns over polypharmacy don't lead to **undertreatment**

The goal is to:

Avoid problematic prescribing,

but

Continue treatment with a clear benefit to the patient



What can we do?

Prescribing

"At your age, people get anxious about taking so many pills, but I can prescribe something for that."

Before adding a new medicine – consider:

- Is the patient taking their current medicines as prescribed?
- Are the patient's symptoms due to an adverse drug reaction?
- What are the goals of treatment?
- Is the patient likely to receive a net benefit from treatment, and if so, how much? Will they live long enough to receive this benefit?
- Are there non-pharmacological treatments that can be considered instead of a medicine?
- What does the patient want? Do they understand the risks and benefits?
- Will the new medicine interact with their current medicines or conditions?

Adherence

Is the patient taking the medicines as directed?

- Do they understand **why** they need them?
  - Information provided in a suitable format and language
- Do they understand **the benefits and the risks?**
- Have they **agreed** on a management plan?
  - Stop any medicines that are no longer beneficial
  - Simplify medication regimens and make them fit the patient's needs

Adverse reactions

The more medicines taken, the more risk of adverse effects

e.g. common adverse effects

- Dizziness
- Rash
- Confusion
- Constipation
- Sedation
- Hypotension

- A patients may complain of a problem and expect to be prescribed a medicine to “fix it”

Is a medicine the cause of the problem?

Interactions

Pharmacokinetic - a new medicine may affect the concentration of another medicine

Pharmacodynamic - a new medicine may cause additive adverse effects for the patient

e.g. anticholinergic, sedative and/or hypotensive effects can lead to confusion and falls, especially in the frail

Often a cumulative effect of several medicines

e.g. amitriptyline, quetiapine, zopiclone, codeine, oxybutynin

Prescribing cascade

Mrs Polly P, 78years old with OA

- Mild hypertension - felodipine started
- Arthritis flares up - takes the ibuprofen she has at home
- BP up, ankles swollen - bendrofluazide started
- Potassium low - Span K started
- Getting indigestion - omeprazole started
- Incontinent - oxybutynin started

→ Drinks less, becomes confused, has several falls

→ Admitted to Older Person's Health for assessment

Guidelines may contribute to polypharmacy

Example

- 79 year old woman with:
  - COPD
  - Type 2 diabetes
  - Hypertension
  - Osteoarthritis
  - Osteoporosis

How many medicines are recommended by guidelines for these conditions?

What is the benefit:risk ratio?

Changes over the years

Little data in elderly patients so don't know exactly

Some drugs only show a benefit if taken for several years, will the patient live long enough to benefit?

How to convey this to patients?

- NNT
- Percentages
- Pictograms

e.g. A patient may be told they are on aspirin to prevent them getting a stroke. Do we tell them it will e.g.:

Decrease the risk of you getting a stroke by 5%

BUT

Increase the risk of you getting a GI bleed by 3%

Secondary prevention of cardiac death

A patient with a cardiac event: may be recommended:

ACE inhibitor + a beta blocker + a statin + aspirin

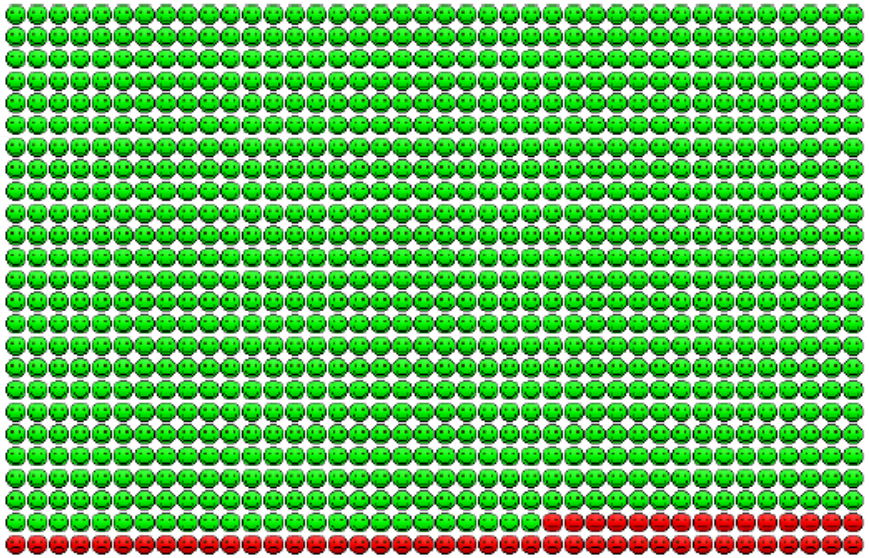
Because together,

these may reduce the risk of a cardiac death in the next 6 months by approx. 75%

But, what is the patient's absolute risk of an event in the next year with or without the medicine?

Atrial fibrillation:
anticoagulant options
decision aid

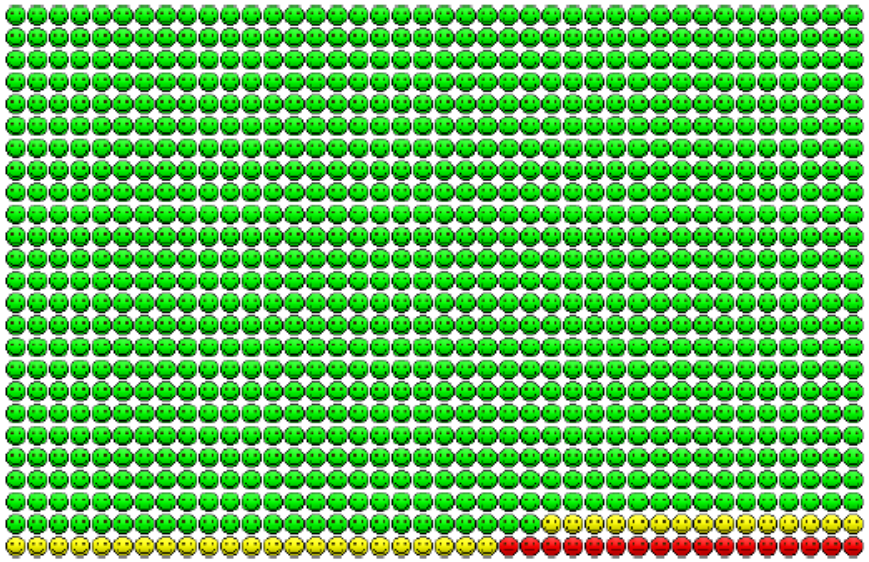
No treatment: CHA_2DS_2-VASc score 4



If 1000 people with AF and a CHA_2DS_2-VASc score of 4 take no anticoagulant, over 1 year on average:

- 945 people will not have an AF-related stroke (the green faces)
- 55 people will have an AF-related stroke (the red faces).

Anticoagulant: CHA_2DS_2-VASc score 4



If all 1000 people take an anticoagulant, over 1 year on average:

- 945 people will not have an AF-related stroke (the green faces), but would not have done anyway
- 38 people will be saved from having an AF-related stroke (the yellow faces)
- 17 people will still have an AF-related stroke (the red faces).

What does a person want near the "end of life"?

Life enhancing medicines?

OR

Life prolonging medicines?

- Important to treat symptoms at end of life
- May want to keep drugs that are enhancing life
- May want to stop drugs that are just prolonging it
- Needs discussion with the patient, each person is different (not an easy conversation)

Medication Review

Identify Therapeutic objectives – what matters to the patient?

- Management and/or prevention

Optimise essential medicines **e.g. replacement, symptomatic**

- Effective? Dose appropriate? Adverse effects?
- Is the patient taking them?

Review remaining medicines **e.g. preventative**

- Still needed?
- Benefit still outweigh risk ?

Are all conditions being treated adequately?

- Symptom control, disease progression and prevention

Discuss with patient

- Do they want intervention? Do they understand the risk:benefit?
- Can the patient take the medicines as intended?

Where do nurses fit in?

- Aware of the impact on their patients of taking multiple medicines
- Routinely monitor patients so can see any changes
- Can engage with patients about how they are coping with their medicines and highlight any issues to prescriber
- May identify those who are not managing and highlight these for eview
- Can start the discussion with patients about the possibility of stopping some medicines

Communication

- **Within a facility** – so everyone caring for a patient knows the plan
  - Reason for starting or stopping, expected benefit, timeframe, adverse effects, allergies
- **Between primary and secondary care** – **both** directions
  - Admission and discharge notes
  - Medicines Reconciliation at admission and discharge
- **Between health professionals and patients**
  - Has the plan been discussed with the patient and have they agreed to it?

Documentation

Document the reasons for a treatment so they are clear to other health professionals

Document all discussions about treatment including any plan for stopping medicines

Conclusion

We are all responsible for optimal medicines management

Talk to your patients, you are often their go-between

Tell the prescriber about any concerns you or they have

Question the prescriber if you don’t understand the plan

Talk to the pharmacist about any concerns or ask about potential adverse effects, interactions or alternatives

Document conversations and plans

Further information

- Health Quality and Safety Commission Polypharmacy in people aged 65 and over, Atlas of Healthcare variation https://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/atlas-of-healthcare-variation/polypharmacy/
- Pharmac seminar https://www.pharmac.govt.nz/seminars/seminar-resources/polypharmacy-and-deprescribing/
- BPAC :Polypharmacy in primary care https://bpac.org.nz/bpj/2014/october/polypharmacy.aspx
- BPAC: Stopping medication in elderly https://bpac.org.nz/2018/stopping.aspx
- RPS Polypharmacy: Getting our medicines right 2018 https://www.rpharms.com/recognition/setting-professional-standards/polypharmacy-getting-our-medicines-right