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### **Multimorbidity is common**



#### More people have 2 or more conditions than only have 1 The Scottish Government



## Why did you jump off a cliff?



#### Because the Guideline told me to. The Scottish Government

2010



#### The Scottish Government

Guthrie et al

### **Functional Status v Age : Person centred**



A Standard guideline would not differentiate between the two

# 'Use clinical judgement'

## Urgency



"not to put people on drugs they don't need" (GP Senior manager)



## **Urgency:**

Risk of High Risk Prescription v Number of Active Repeat Prescriptions



"not to put people on drugs they don't need" (GP Senior manager)





Chart 2. Percentage dispensed 10+ BNF paragraphs + high risk drug By age group and 2012 SIMD Quintile, Scotland Jul - Dec 2016



#### **Convince someone it is cheaper to prescribe well**

IMS Report "Advancing responsible use of medicines" & WHO, World Bank Global data set across 186 countries: 4% of total avoidable costs due to polypharmacy. Total of 3% global health expenditure could be saved = \$1867 The Scottish Government





### Guidelines

- EU evaluation: 5 countries with guidance- 3 scored highly
- BEERS,
   STOP
   START
- Australiandeprescribing







#### Creating practice models & Initiatives Polypharmacy national Programme: guidance : GP contract & commitment to practice based pharmaciets of **GP** contract & commitment to consensus 7 steps

01100		
Domain	Steps	Process
Aims	<b>1.</b> What matters to the patient?	<ul> <li>Review diagnoses and identify therapeutic objectives with respect to:</li> <li>Identify objectives of drug therapy</li> <li>Management of existing health problems</li> <li>Prevention of future health problems</li> </ul>
Need	Identify 2. essential medicines	<ul> <li>Identify essential medicines (not to be stopped without specialist advice)</li> <li>Medicines that have essential replacement functions (e.g. thyroxine)</li> <li>Medicines to prevent rapid symptomatic decline (e.g. drugs for Parkinson's disease, heart failure)</li> </ul>
	<b>3.</b> Does the patient take unnecessary medicines?	<ul> <li>What is medication for? (Consider OTCs and traditional medicines.)</li> <li>Review the reason for giving, and the on-going need for, each medication: <ul> <li>with temporary indications</li> <li>with higher than usual maintenance doses</li> <li>with limited benefit/ evidence of its use in general</li> <li>with limited benefit in the patient under review (see Drug efficacy &amp; applicability (NNT) table)</li> </ul> </li> </ul>
Effectiveness	Are therapeutic objectives being achieved?	<ul> <li>Identify the need for adding/intensifying drug therapy in order to achieve therapeutic objectives</li> <li>&gt; to achieve symptom control</li> <li>&gt; to achieve biochemical/clinical targets</li> <li>&gt; to reduce disease progression/exacerbation</li> <li>&gt; Is there a more appropriate medication or strategy that would help achieve goals?</li> </ul>
Safety	Is the patient at risk of side effects? Does the patient know what to do in the event of illness?	<ul> <li>Identify patient safety risks by checking</li> <li>if the targets set for the individual are appropriate?</li> <li>drug-disease interactions</li> <li>drug-drug interactions (see <u>ADR table</u>)</li> <li>monitoring mechanisms for high-risk drugs</li> <li>risk of accidental overdose</li> <li>Identify adverse drug effects by checking</li> <li>specific symptoms/laboratory markers (e.g. hypokalaemia)</li> <li>cumulative adverse drug effects (see <u>ADR table</u>)</li> <li>medicines that may be used to treat side effects caused by other medicines</li> <li>If appropriate, discuss and give Sick Day rule card to patient [link)</li> </ul>
Cost- effectiveness	6. Is therapy cost- effective?	<ul> <li>Identify unnecessarily costly therapy by</li> <li>considering more cost-effective alternatives (but balance against effectiveness, safety, convenience)</li> </ul>

practice based pharmacists £16.2M Scot) +£31M (England)









#### **Identifying Patients to target: Risk stratification**

• Indicators e.g Swedish

 Tools such as BEERS, STOPP START, Palliative

- High Risk drugs
- 10+ meds

**Co-morbidities** 

Care homes

Frailty

The Scottish Government





## What has been successful?

- DQUIP study
- PINCER study
- USA
- Spanish
- Chinese: National Essential Medicines Scheme
- Australia: deprescribing





### **Communicating : Across the care interfaces**





### Can this be implemented @ Scale?

#### **10 Organisations**

UNIVERSIDADE DE COUMERA



М⊒Н

ANADEMPAKA

**AUUKHURFT** 

www.MoticalScheel



#### Inappropriate Polypharmacy A Major Health Issue

50% of the people taking 4 or more medicines don't take them as prescribed.

Changing the approach to multiple prescriptions requires a "collective" and joint effort involving different stakeholders.



Health Programme (2014-2020).

of the European Union

### **Global Challenge : Health Professionals**

### **Co-production**

- Cultural issues: human factors
- Joint education
- Guidance-
- mobile app developed by team
   + patient for use across interface
- Multi-disciplinary working
- Health professionals engage "what matters to you"

App Download and Analytics Report



### **Global Challenge: Systems & Practices**



#### SIX PILLARS:

- Patient held medical records
- Pharmacovigilance systems
- Scientific regulation
- Monitoring for improvement
- Governance
- Patient and community engagement
  The Scottish Government

### **Global Challenge: Patients**



The Scottish Government

#### Global Challenge: Medicines & Monitoring & Evaluation Monitoring &

#### Medicines

- Key messages for patients
- Bar coding
- packaging



## EvaluationIndicators :

- > GI bleeds
- > AKI
- Antibiotics- HAI
- Heart failure
- Falls
- Resp- corticosterioids/ excess SABA
- Anticholinergic burden
- Vascular events
- Dependency
- Constipation
- Data across interface
- Patient passport data





### **Global Challenge**





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