World Patient Safety Day Symposium: Medication Without Harm

Person-centred Medicines Review in General Practice: iSIMPATHY Project

September 15th 2022

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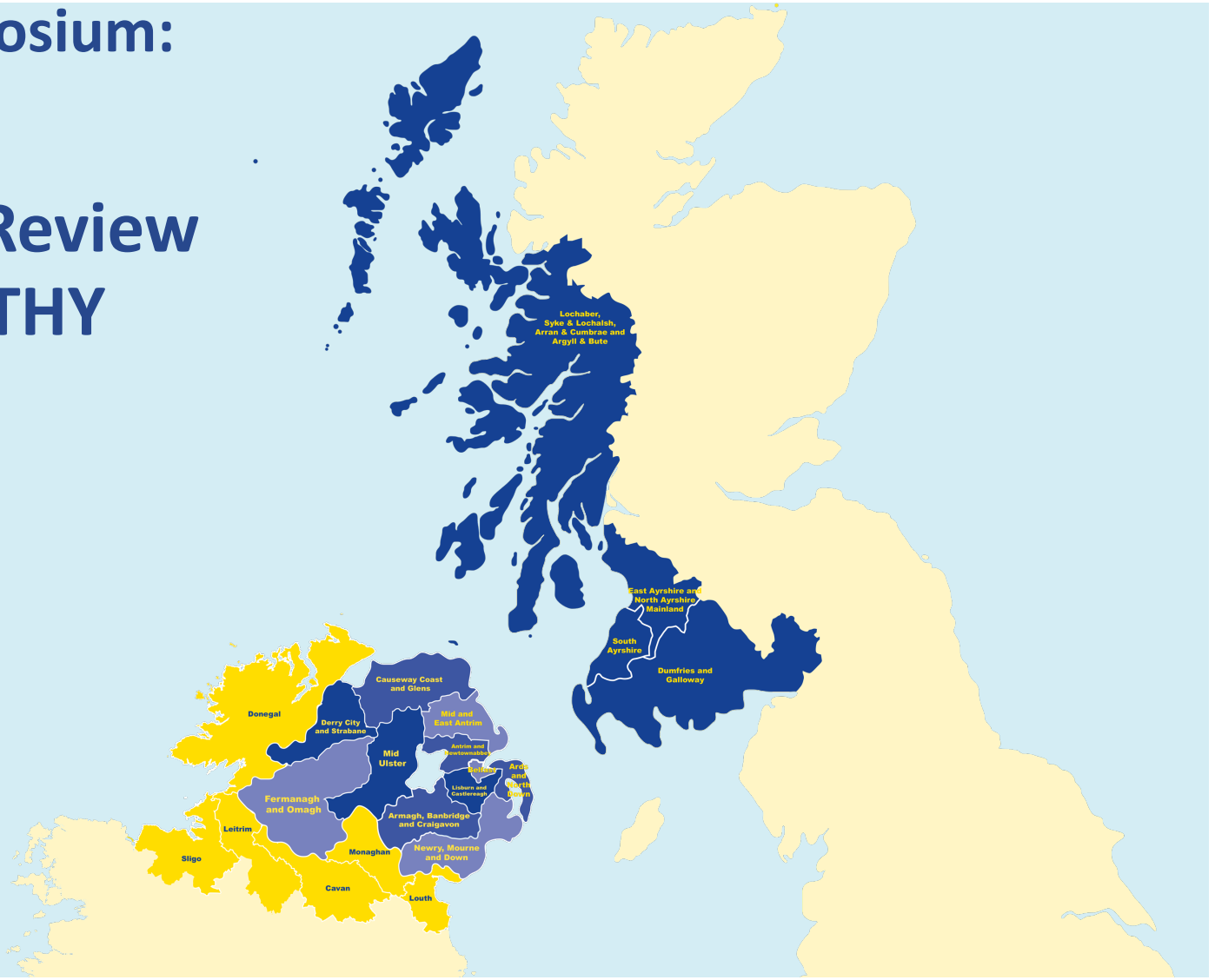

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iSIMPATHY is

- 3-year EU-INTERREG VA funded project (2019 – 2023) with matched funding from DoH
- Partnership between Scottish Government, HSE, MOIC/Northern Trust (*Primary and Secondary care)*
- Operational in CHO 1 and CHO 8 in Republic of Ireland *(Donegal, Sligo, Leitrim, Cavan, Monaghan and Louth)*

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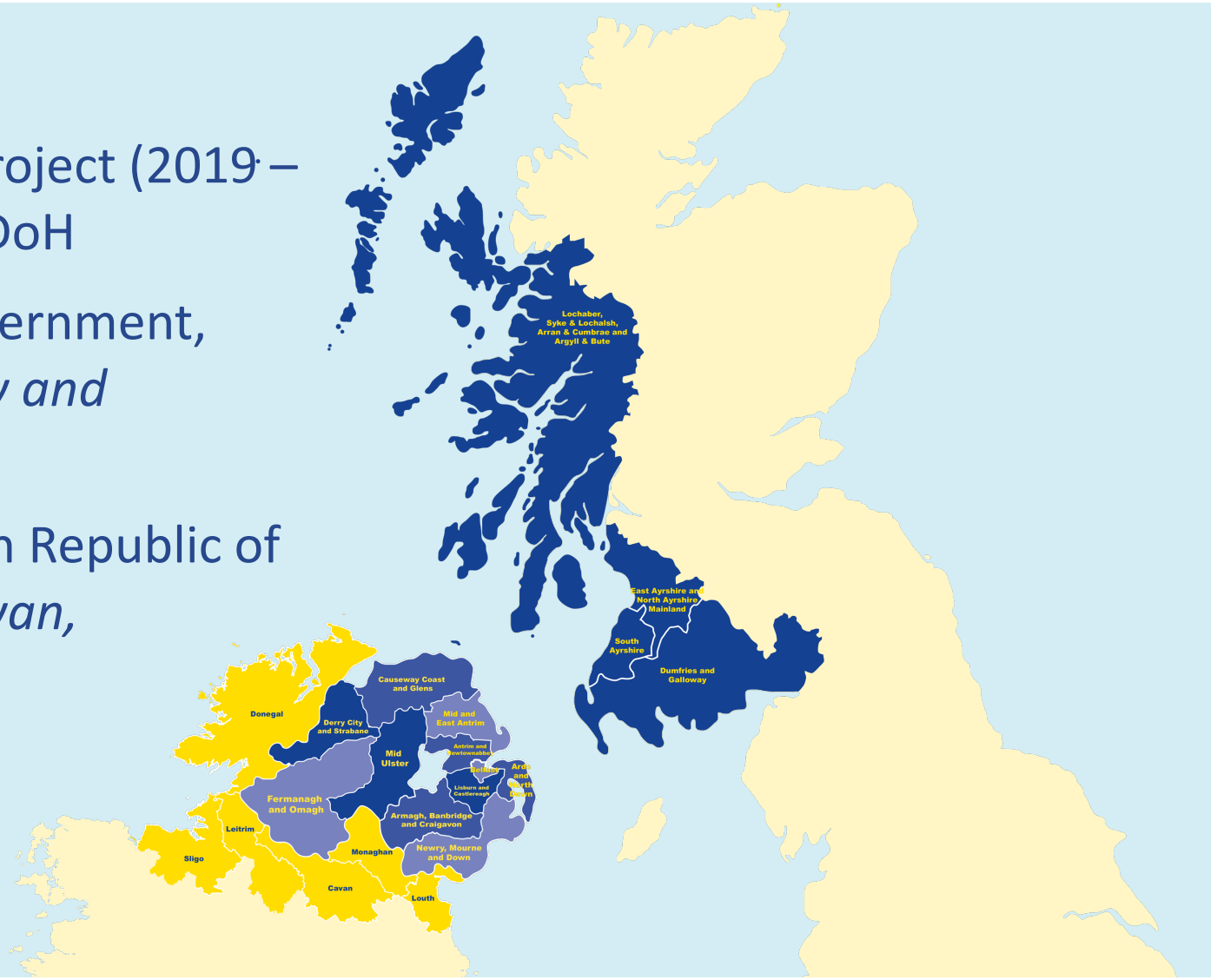

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iSIMPATHY…

- implementing Stimulating Innovation in the Management of **Polypharmacy** and **Adherence** Through the Years
- Delivering effective, comprehensive, person-centred, pharmacist led, polypharmacy medicines reviews
- Across the three project jurisdictions
- Liaising with doctors and nurses to implement agreed changes

Why?

To enable those with multiple morbidity to live healthy and active lives

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iSIMPATHY = Shared Decision Making

iSIMPATHY recognises that experts in Healthcare include :

- ✓Policy Makers
- ✓Healthcare Professionals

But….

iSIMPATHY polypharmacy medicines reviews also recognise

- ✓**Patients**
  - As experts in their **own** care and their own needs
  - Holistic medication review
  - We are putting the patient and the family at the heart of every decision and empowering them to be genuine partners in their care [1]

1 M.J. Barry, S. Edgman-Levitan, Shared Decision Making — The Pinnacle of Patient-Centered Care NEJM 2012 366;9

Polypharmacy – back to basics!

- Many definitions, the most accepted being those patients **taking 5 or more medications**[1]
- If any medication is **not appropriate** for the patient, we have inappropriate Polypharmacy
- This not only represents one of the most pressing prescribing challenges, it can also **increase the risk of avoidable harm to patients**[2]
  - Cumulative side effects
  - Increase in hospital utilisation
  - Avoidable hospital admissions
  - Therapeutic failure – intentional and non intentional non-adherence
  - Drug – drug interactions, drug – disease interactions
  - Medicines waste

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1 Masnoon N, Shakib S, Kalisch-Ellet L, Caughey GE. What is Polypharmacy? A systematic review of definitions. BMC geriatrics 2017; 17 : 230
2 1 Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. Lancet. 2012;380(9836):37-43.

The Answer - Appropriate Polypharmacy[1]

✓All drugs are prescribed for the purpose of achieving specific therapeutic objectives that have been agreed with the patient

✓Therapeutic objectives are actually being achieved or there is a reasonable chance they will be achieved in the future

✓Drug therapy has been optimised to minimise the risk of adverse drug reactions

✓The patient is motivated and able to take all medicines as intended (ADHERENCE)

- **WHO Global Patient Safety Challenge, Medication Without Harm, includes the appropriate management of polypharmacy as a key priority to reduce severe avoidable medication-related harm**

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1 Scottish Government Polypharmacy Model of Care Group. Polypharmacy Guidance realistic Prescribing, 3rd edn. 2018

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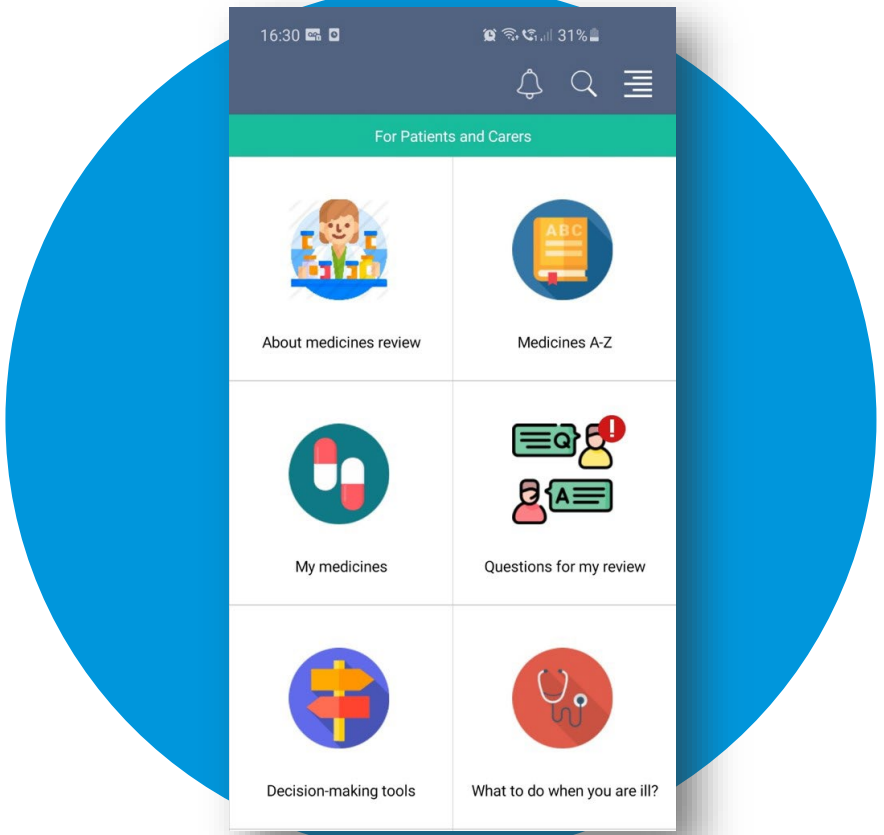
Where to start, key recources:

https://www.isimpathy.eu/uploads/Polypharmacy-Guidance-2018.pdf



https://managemeds.scot.nhs.uk/

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7 STEPS TO APPROPRIATE POLYPHARMACY

Step 1: What matters to the patient

Step 2: Identify essential drug therapy

Step 3: Does the patient take unnecessary drug therapy?

Step 4: Are therapeutic objectives being achieved?

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

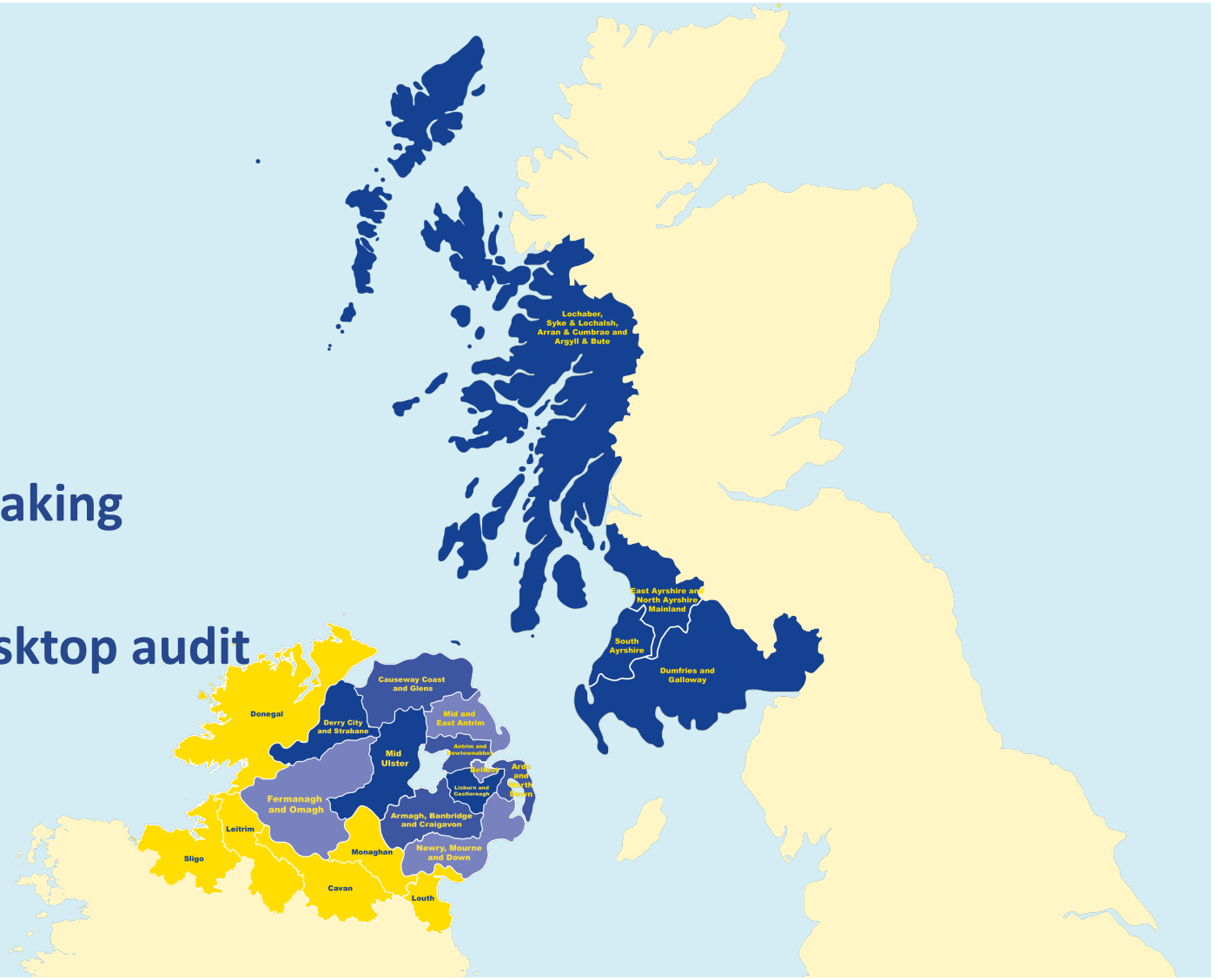
Step 6: Is drug therapy cost-effective?

Step 7: Is the patient willing and able to take drug therapy as intended?

The 7 steps in action –

A case study….

- Complex patient
- Multiple morbidities
- Polypharmacy
- Demonstrates shared decision making
- Selected by *chance* one Friday morning……PPI & Clopidogrel desktop audit



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Patient Details	
75 year old Male- "Billy"	
Current medical history	
• IHD (PCI 2010, 2014, 2019 x 2) • T2DM • PVD • Previous thrombosed left popliteal artery aneurysm • Glaucoma (Right eye)	• Visually impaired (complete blindness left eye) • Atrial Fibrillation • COPD • Hypercholesterolemia •

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Results	
• CrCl = 54ml/min • HbA1c 41mmol/mol • BMI 29.8 (high) • FBC Normal • Liver profile Normal • U&E Normal	• Total Cholesterol 4.4 mmol/L • LDL 2.62 mmol/L (high) • HDL 1.19 mmol/L (low) • BP 131/79 (24 hour ABPM April 22) • CHA_2DS_2-VASc 8 • ECG irregular (AF) some ectopic beats but nil of concern to GP
Lifestyle and Current Function	
• Ex-smoker • Physically active 5-7 days per week but pace has slowed significantly over the past few months • Using multiple pharmacies due to cost	• Alcohol 4 units per week • Continues to work in own business • Wants to be more active but feels health is holding him back • Medication review revealed patient is poor historian, much time was spent on detailed medicines reconciliation with patient, pharmacies, PMR review.

Most recent consultation

- Ongoing dizziness and lack of energy, “really getting me down, I now have to get men in to do jobs I used to do myself without the blink of an eye”
- Admitted to hospital December 2021 with chest pain
- ?Angina/?GORD: started on Ranolazine 375mg BD. PPI was also changed from Pantoprazole to Esomeprazole
- Referred to cardiology, given his strong history. Angiogram completed and cardiology stated **“I can categorically say that his symptoms are not angina in nature”**
- Referred for Sleep Apnoea Studies and Atrial Fibrillation assessment – awaiting outcome
- Patient was prescribed Betahistine 16mg TDS for dizziness, referred to vascular for review of leg pain and underwent iSIMPATHY medication review with me

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The Clinical Piece Unravelled : Pre-review Medication listing (19 items)

- Apixaban 5mg BD*
- Clopidogrel 75mg OD*
- Atorvastatin 40mg OD*
- Meformin 500mg OD*
- Praxilene® (Naftidrofuryl) 200mg BD*(recently reduced from 200mg TDS)
- Folic Acid 5mg OD*
- Verapamil 240mg OD*
- Ranolazine 375mg BD*
- Esomeprazole 40mg *
- Pregabalin 50mg BD*
- Anoro One puff OD
- Brimonidine 2mg/ml eye drops OD
- Azarga 10mg/5mg eye drops BD
- Monopost 50mcg/ml OD
- Hylo-Forte eye drops TDS
- Chloramphenicol eye drops 1% OD*
- Pred forte 1% eye drops OD*

On PMR, actively prescribed but not taken by the patient

- *Butrans 5mcg/hr patches weekly**
- *Sertraline 50mg OD**

(= queried during medication review)*

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Domain	Step	How should you respond to this case?
Aims	1. What matters to the patient?	Ongoing dizziness and lack of energy, "really getting me down, I now have to get men in to do jobs I used to do myself without the blink of an eye, can I reduce any of tablets".
Need	2. Identify essential drug therapy.	None – by definition as per 7-Steps guidance
	3. Does the patient take unnecessary drug therapy?	?Ranolazine based on Consultant letter "categorically not angina" ? Pregabalin ?Pred forte 1% ?Chloramphenicol 1%
Effectiveness	4. Are therapeutic objectives being achieved? Consider over and under treatment	Lipid profile – not optimum – aim for ESC Guidelines for LDL lowering (Very high risk <1.4mmol/L) Folate – levels corrected , review ongoing need GP visit with leg pain – erroneous reduction in Naftidrofuryl during hospital visit? BMI – high – target diet
Safety	5. Does the patient have ADR/Side effects or are they at risk of ADRs/Side effects? Ask the patient to report these too Does the patient know what to do if they are too ill?	Antiplatelet and NOAC – review of ongoing need due to bleed risk PPI interaction with Clopidogrel – for alternative PPI ? Ranolazine – no angina – cause of dizziness Falls risk – ranolazine, pregabalin, ?Butrans, ? sertraline Long term use of ophthalmic antibiotic – resistance Long term use of ophthalmic steroid – increased risk of glaucoma and posterior subcapsular cataract ?Where does Butrans and Sertraline fit in
Cost-Effectiveness	6. Is drug therapy cost-effective?	PPI to MMP drug of choice Anoro (LAMA/LABA) preferred by MMP
Patient Centeredness	7. Is the patient willing and able to take drug therapy as intended?	Yes, "it is time now I did what I was told, this is all getting too much to manage" ***Highlighting the importance of shared decision making for this patient***

Pre-review medication listing		Post-review medication listing
Apixaban 5mg BD	✓	Apixaban 5mg BD
Clopidogrel 75mg OD	✓	Clopidogrel 75mg OD
Atorvastatin 40mg OD*	→	Atorvastatin 80mg OD
	*	Ezetimibe 10mg OD
Meformin 500mg OD	X	Meformin 500mg OD
	*	Empagliflozin 10mg OD
Naftidrofuryl 200mg BD*	↑	Naftidrofuryl 200mg TDS (for review with vascular)
Folic Acid 5mg OD*	X	Stopped
Verapamil 240mg OD	✓	Verapamil 240mg OD
Esomeprazole 40mg *	→	Pantoprazole 40mg , plan to wean to 20mg
Ranolazine 375mg BD*	X	Reduce and stop
Pregabalin 50mg BD*	↓	Pregabalin 25mg mane , 50mg nocte (may reduce further)
Anoro One puff OD	✓	Anoro One puff OD
Brimonidine 2mg/ml eye drops OD	✓	Brimonidine 2mg/ml eye drops OD
Azarga 10mg/5mg eye drops BD	✓	Azarga 10mg/5mg eye drops BD
Monopost 50mcg/ml OD	✓	Monopost 50mcg/ml OD
Hylo-Forte eye drops TDS	✓	Hylo-Forte eye drops TDS
Chloramphenicol eye drops 1% OD*	X	Stopped
Pred forte 1% eye drops OD*	X	Weaned and stopped
On PMR, actively prescribed but not taken by the patient		
Butrans 5mcg/hr patches weekly	X	Removed
Sertraline 50mg OD	X	Removed

Outcomes in *"Billy's"* case…..

- ✓Medications optimised
- ✓Removal of medicines with expired indications
- ✓Removal of medicines patient no longer taking (NB transitions of care)
- ✓Patient was furnished with a My Medicines List (Know Check Ask)
- ✓Reduction in medication related harm
- ✓MDT approach to polypharmacy overseen by a patient centered, pharmacist led medication review

Most importantly:

- ✓**Patient reports improvement in dizziness, over all well being and understanding of his medications**

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Patient feedback:

"my dizziness is as good as gone, I am delighted to have reduced the tablets I am taking and I can get back to work again. I am a happy man"

Consultant feedback:

"This is a fantastic service, is it available nationwide?...as I have multiple patients who would benefit"

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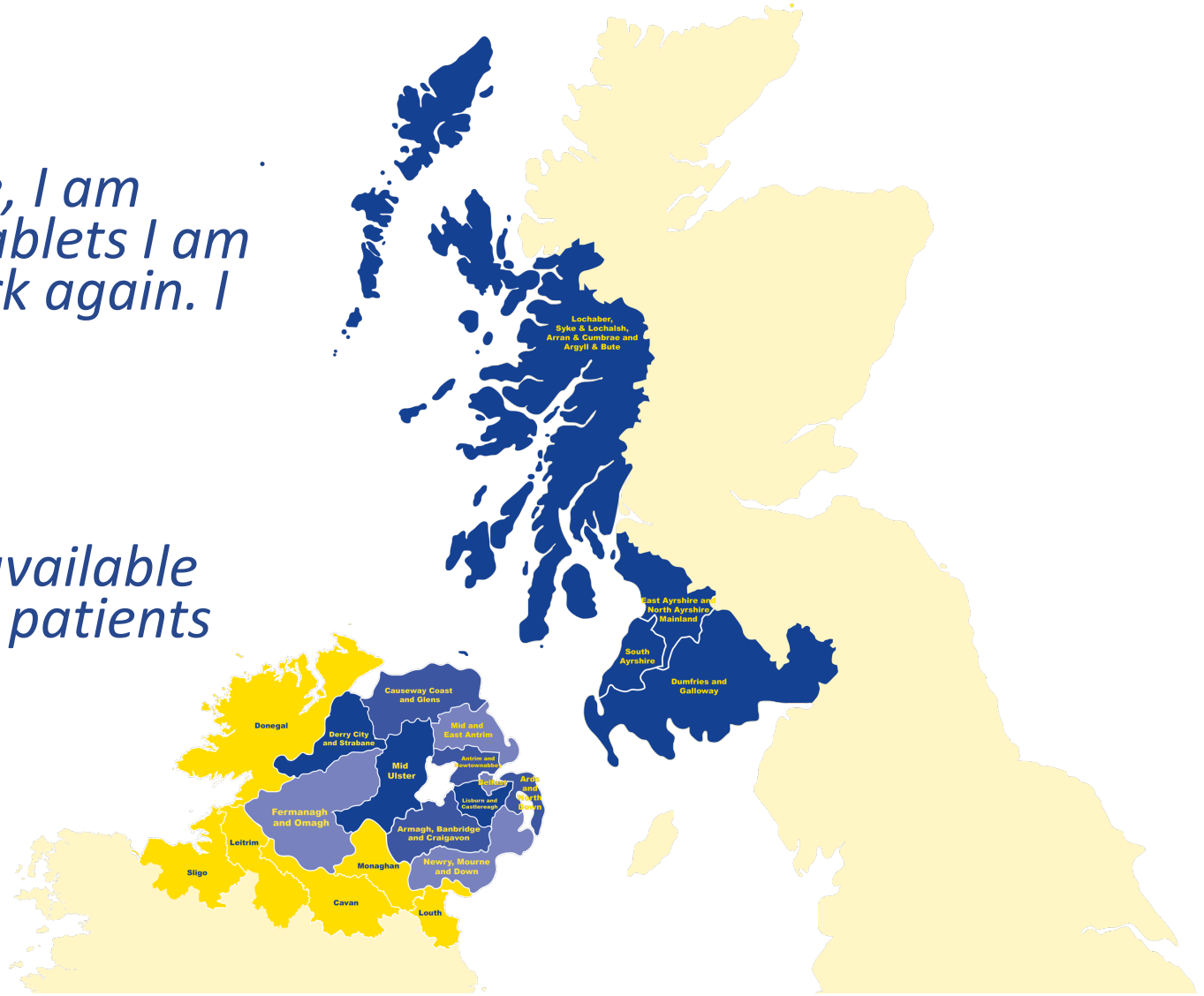

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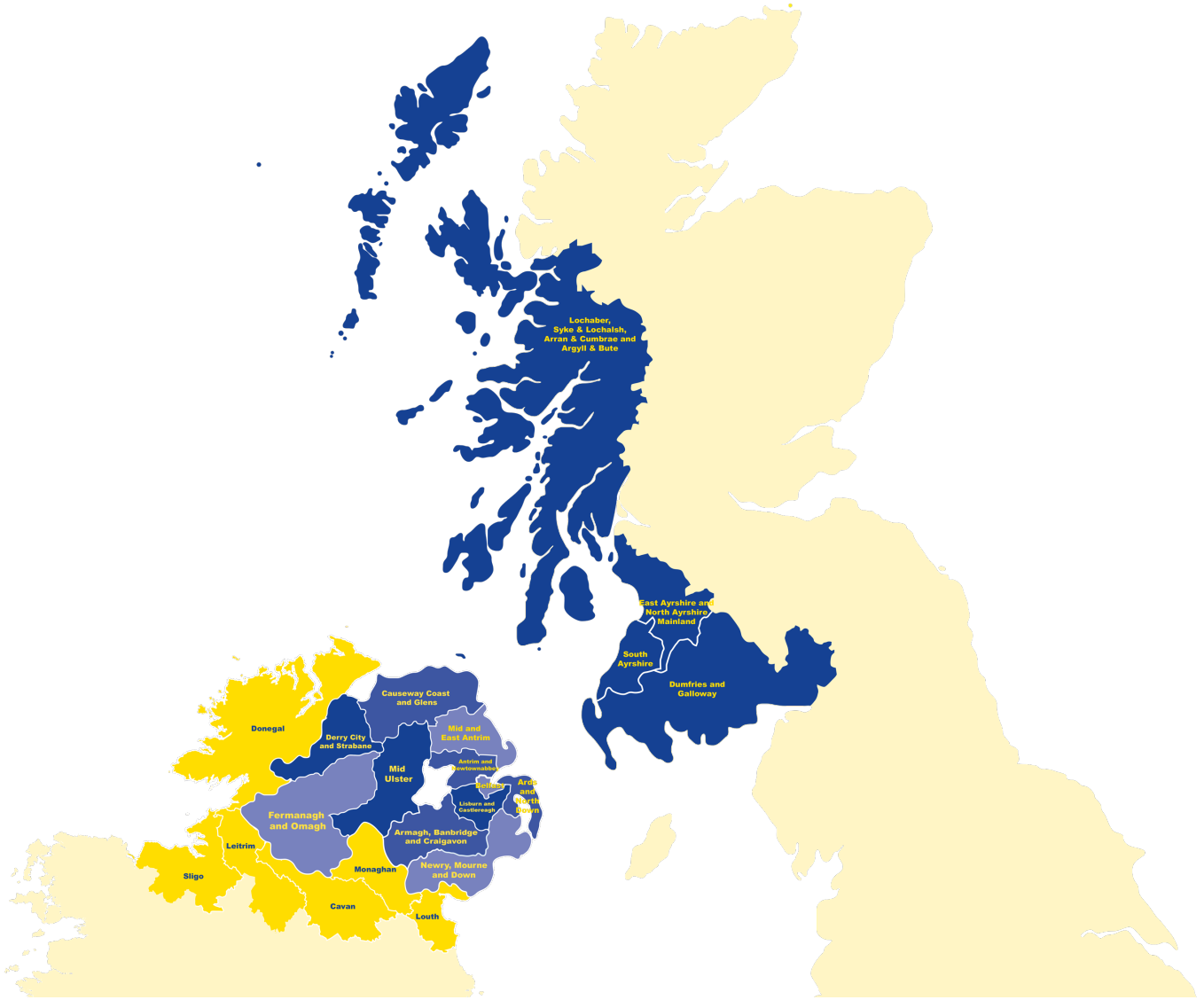
Outcomes of iSIMPATHY to date in ROI



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Outcomes

- Almost 1850 reviews completed in ROI (Jan ‘21 – Aug ‘22)

(Equating to Approx 10 reviews per pharmacist per working week)

- Average patient age 77 years (31-101)
- Average co-morbidities 7 (complexity)
- Average of two drugs stopped per review

(14 drugs pre review, 12 drugs post review)

- Average of 13 interventions per review: (not simply deprescribing)
  - ✓ Drugs changes
  - ✓ Dose changes
  - ✓ Education
  - ✓ Information
  - ✓ Monitoring
  - ✓ Referral

96% of interventions hold clinical significance *(Eadon grade 4 or above)*

- Economic analysis calculated net savings of €208 per review

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Outcomes continued….

- Early project analysis identified:
  - ✓**Medication Safety**
    - 390 polypharmacy indicators identified (indicators with potentially serious adverse outcomes) 69% addressed (others partially address or not appropriate to address) (n=524)
  - ✓**Deprescribing:** 342 STOPP criteria were identified; 75% addressed (n=100)
  - ✓**Medicines optimisation:** 54 START criteria identified; 80% addressed (n=100)
  - ✓**iSIMPATHY reviews integrating into HSE initiatives such as:**
    - Antimicrobial Stewardship policies
  - ➢ Deprescribing of long-term antimicrobials:

From 524 reviews analysed, 38 patients (7%) were on long-term antimicrobials. For the 31 patients where a change was recommended, there was follow up data for 27, of which 23 ***(85%) were stopped***

  - ➢ iSIMPATHY pharmacists also influence better practice through highlighting www.antibioticprescribing.ie and AMRIC programme recommendations

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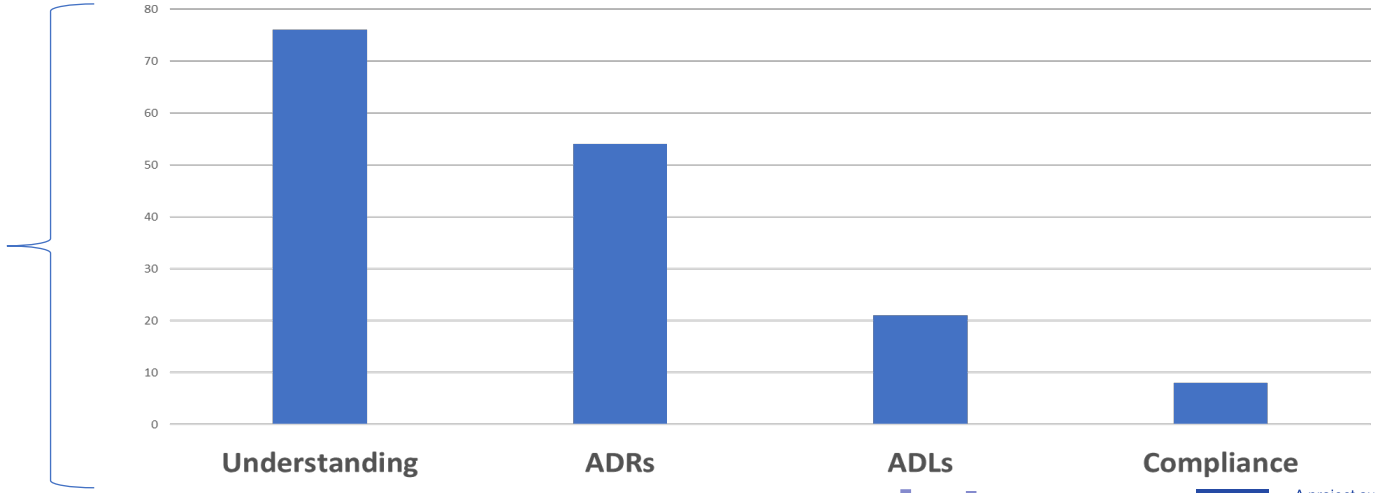
Feedback

- High uptake of reviews and openness to shared decision making
- Phone reviews favoured by most patients
- Very positive feedback received from patients, family, carers and GPs
- GPs have reported:
  - Positive effect on GP job satisfaction, knowledge and understanding
- Patients have reported:
  - 88% of patients experienced improvements in at least one Patient Reported Outcome Measures (PROMs) domain



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Polypharmacy Training Opportunity:

- Accredited training available to HCPs in working in *any* healthcare setting in CHO 1 & 8 (*Donegal, Sligo, Leitrim, Cavan, Monaghan and Louth)*
- Access to online training:
  - https://www.isimpathy.eu/resources

OR

- **In person** training will be delivered at our shared learning event:
  - November 24th 2022
  - Hillgrove Hotel, Monaghan
  - Link to registration available via https://forms.office.com/r/zVRhcF470s

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To Recap and Close:

Remember….“Not every medication is for life” - keep applying the 7 steps!

Handing over Dr John Garvey
Thank you!

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