CPSSQ
Centre for Patient Safety& Service Quality

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Imperial College Healthcare NHS
NHS Trust

Medication reconciliation – an English perspective

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Centre for Medication Safety & Service Quality

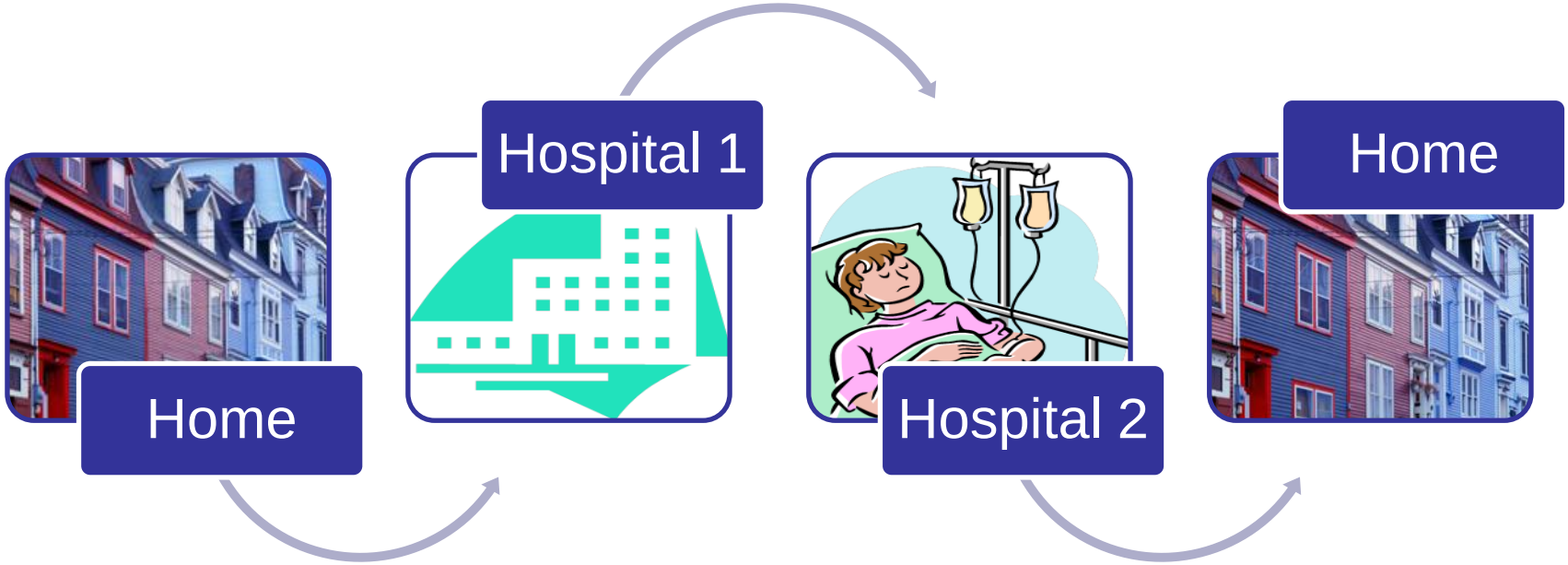
The English system

- Each patient registered with General Practitioner (GP), who refers to specialists as needed
  - GP information systems separate to secondary care
- Prescriptions free to those <16 years, >59 years, pregnant, on low income, and with some chronic conditions
- Otherwise, a £7.65 charge (about 24 Real) per medication prescribed
- Some differences in Wales, Scotland & Northern Ireland

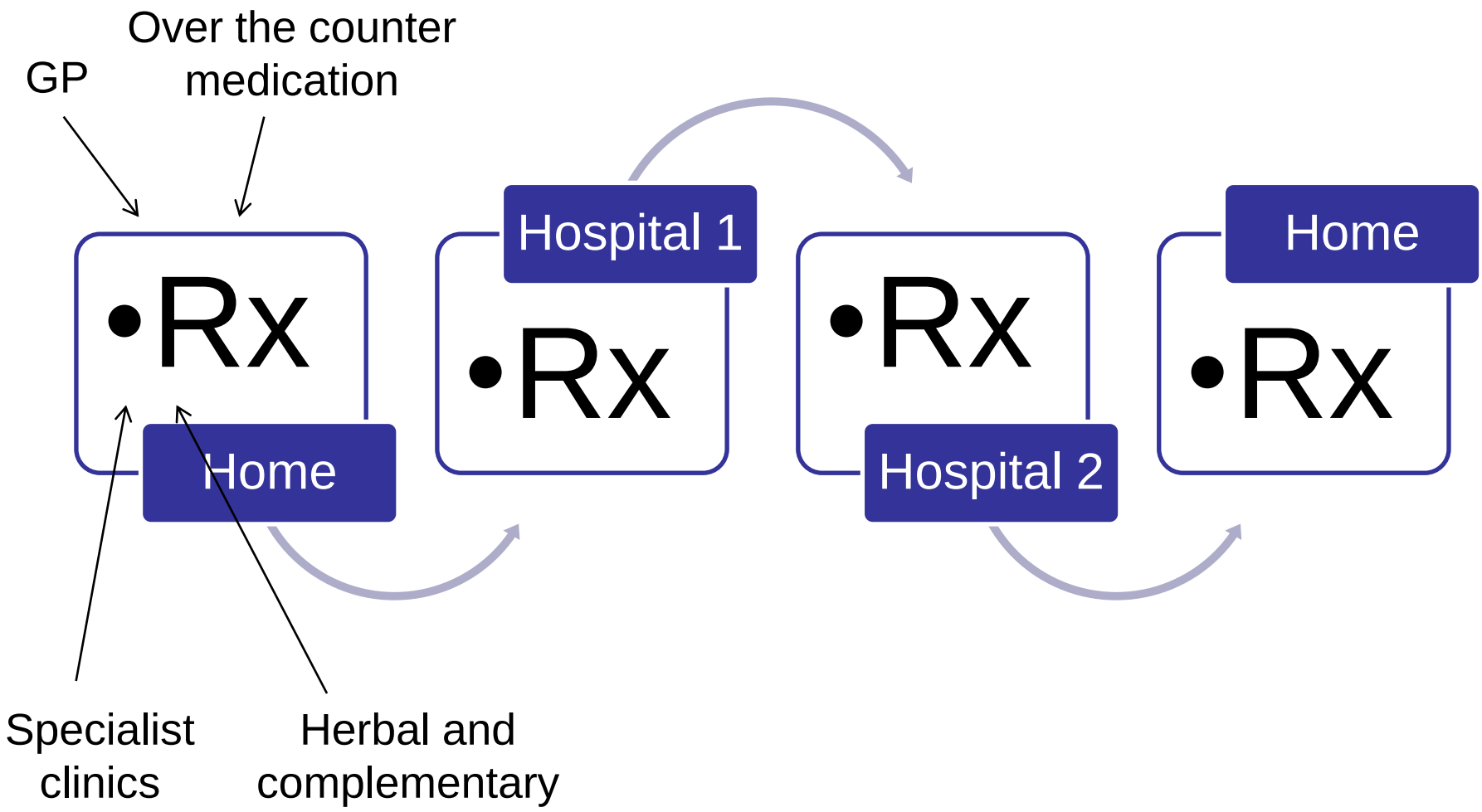
The English system

- On admission to hospital, patient may or may not have a list of medication with them
- On discharge from hospital, patients are supplied with at least two weeks' discharge medication (which they do not pay for)
- Before this medication runs out, patients need to see their GP to request a new prescription

The patient journey



The patient journey



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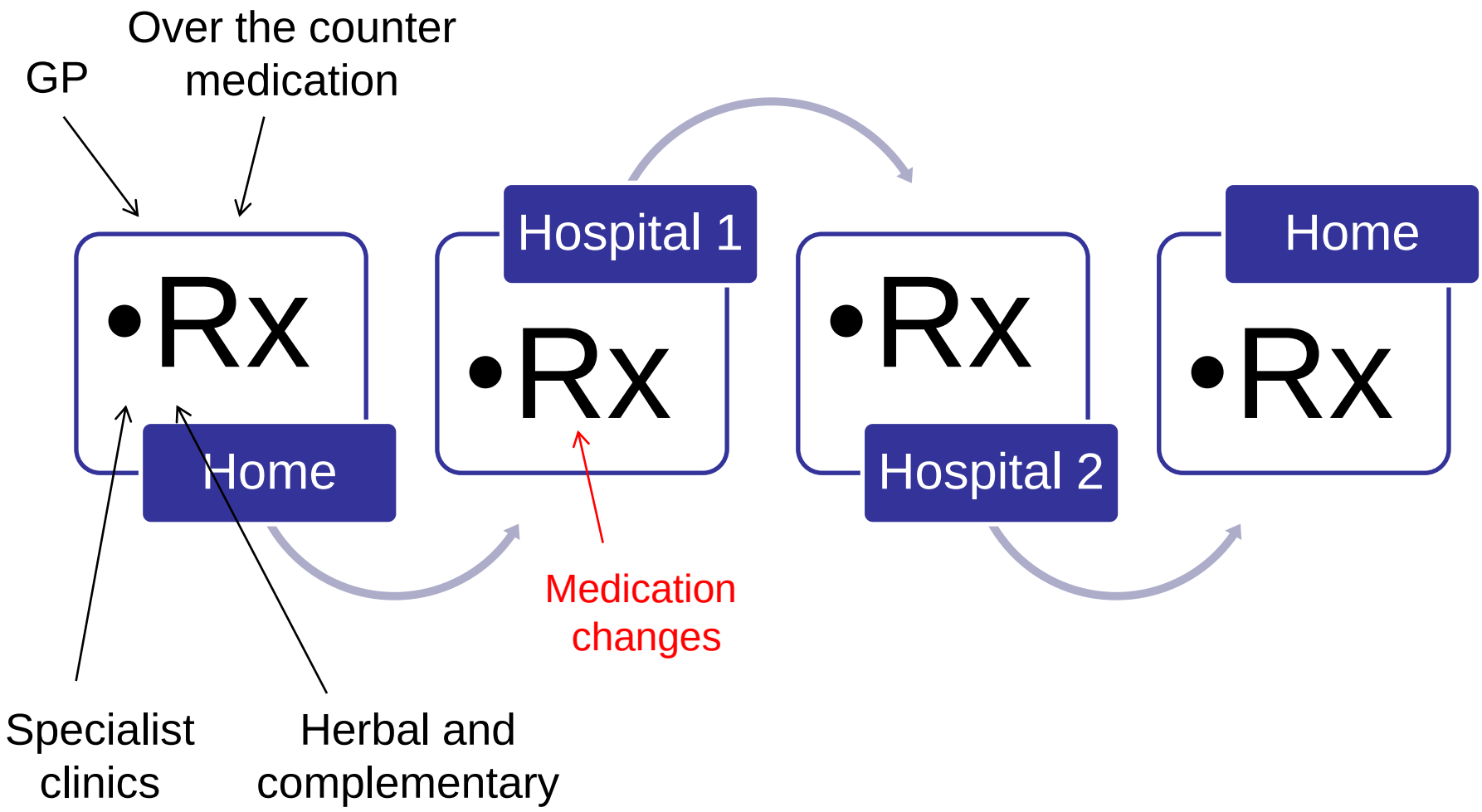

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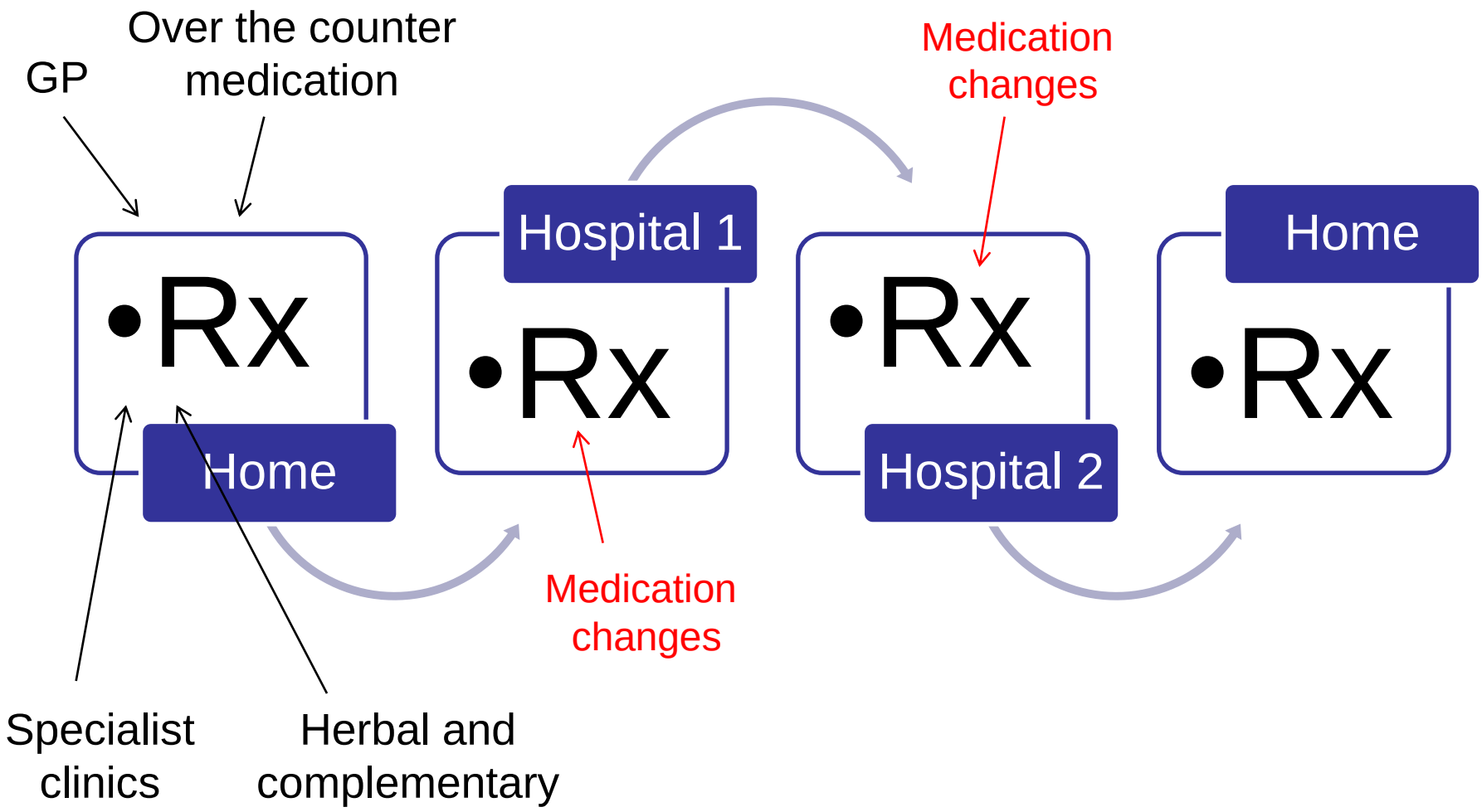

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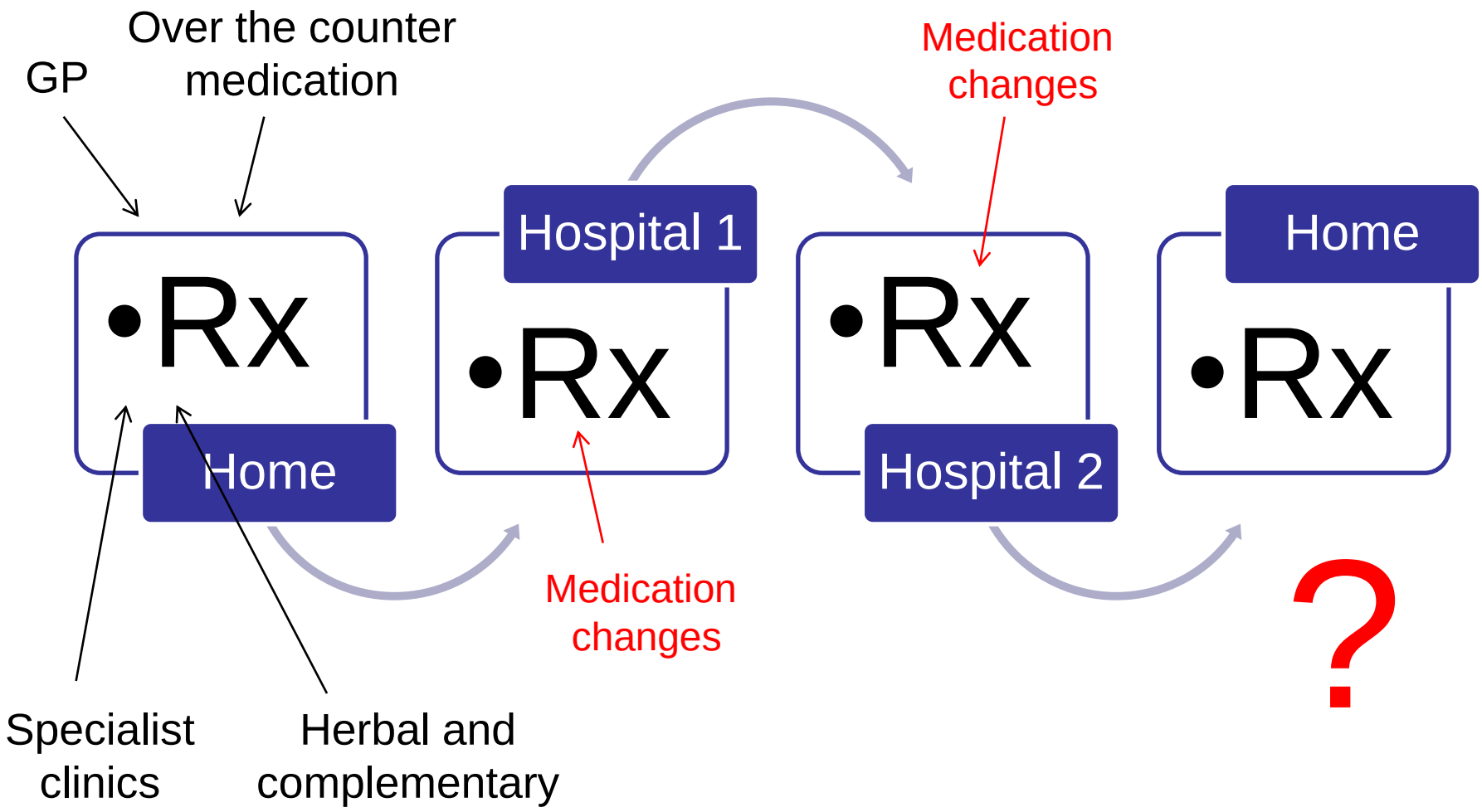


Patient transfer

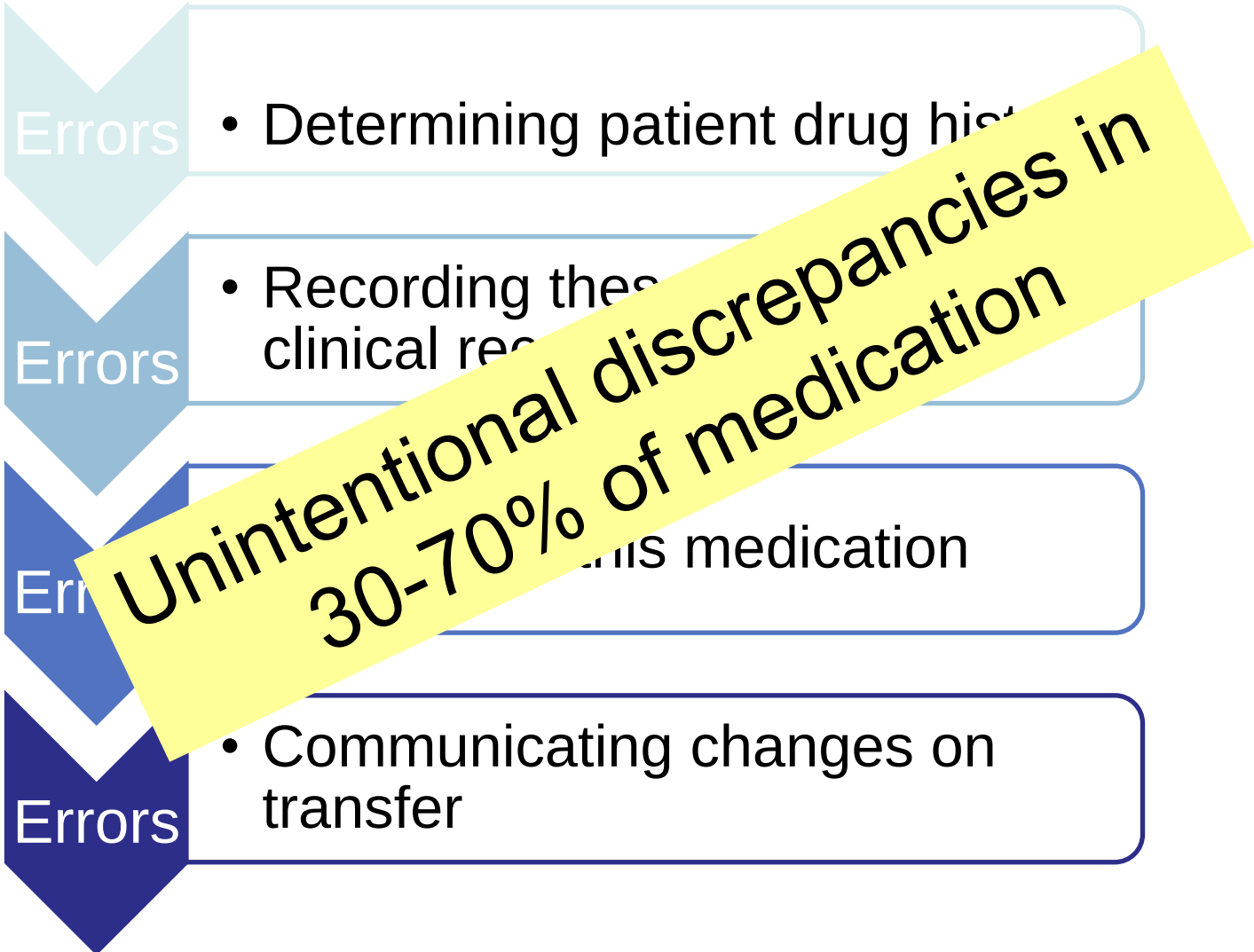
Patient transferred between sectors

Information about their medicines??

Why is medication history important?

- **Continuity** of treatment
- Identification of **adverse drug reactions**
- Drugs may need to be **modified** when health status changes – eg anticoagulants and surgery
- **Implications for new medications** prescribed – drug interactions

What actually happens?



Medication reconciliation - definition

- Collecting information on medication history using the most recent & accurate sources of information to create a full and current list of medicines
- checking or verifying this list against the current prescription(s), ensuring any discrepancies are accounted for and actionned appropriately
- documenting any changes, omissions and discrepancies

(UK National Prescribing Centre)

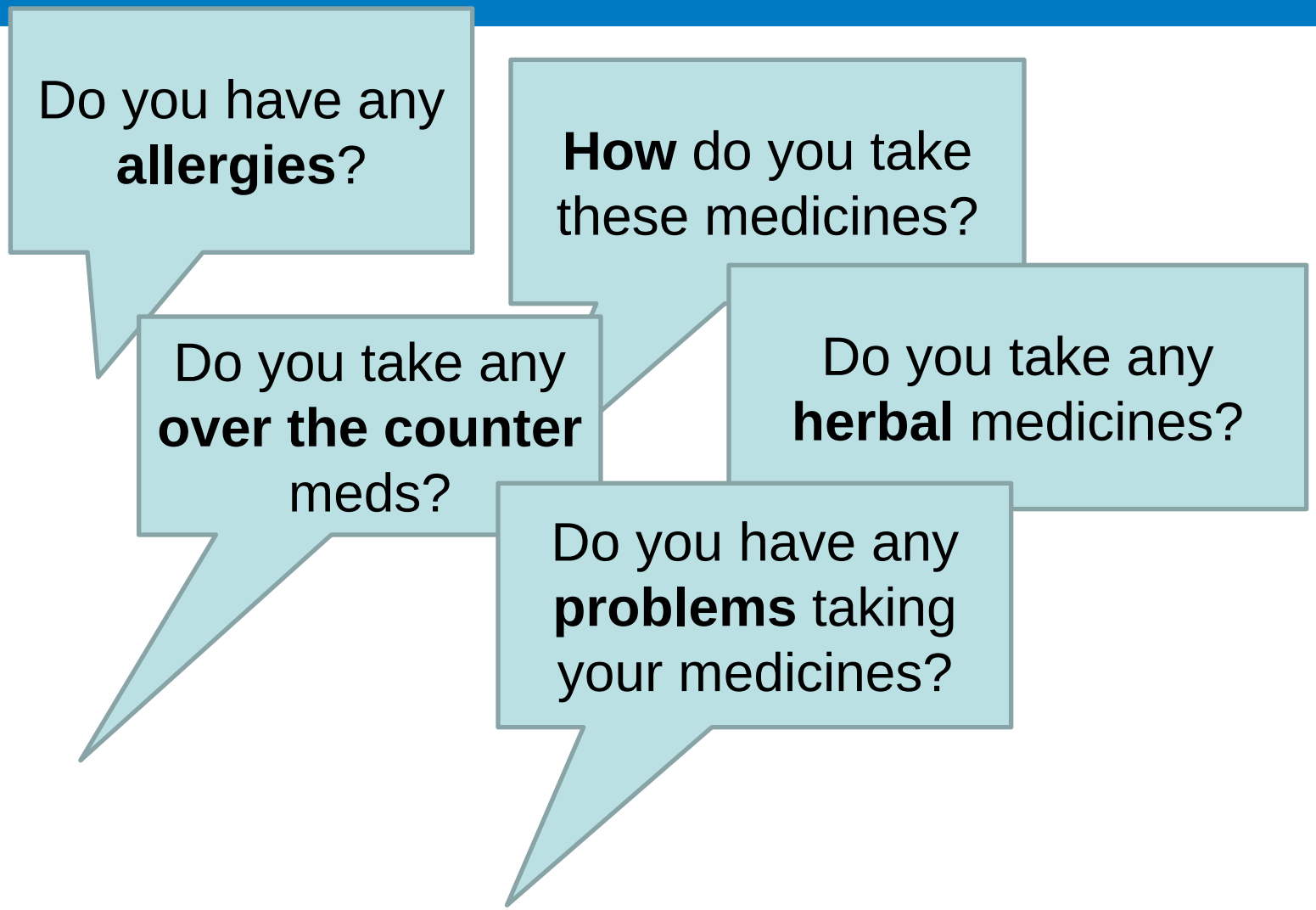
Medication reconciliation

- In UK - NICE/NPSA guidance on medication reconciliation, December 2007
- “All organisations that admit adult inpatients should have policies in place for medicines reconciliation on admission, to ensure that:
  - **pharmacists involved** in medicines reconciliation **as soon as possible** after admission
  - **responsibilities** of pharmacists and other staff are **clearly defined**”

How?

- Ask the patient?
  - May have list of medication
- Look at patient's own drugs ?
- Telephone general practitioner (GP)?
- Prescription records from recent admission?

Also…


Do you have any **allergies**?
How do you take these medicines?
Do you take any **over the counter** meds?
Do you take any **herbal** medicines?
Do you have any **problems** taking your medicines?

Leading to...

- Up to date list of medication, doses and formulations on admission
- Clearly documented reasons for any drugs stopped / changed
- Clearly documented details of any new drugs started during admission

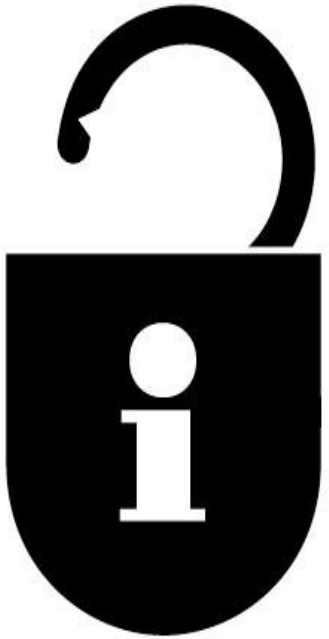
Possible tools / solutions...

1. Patient held records

- With thanks to Kandarp Thakkar, Lead Pharmacist IMPE project

Patient held records

- Explore with PATIENTS what sort of information they need about medicines
- Patients take part in the creation of a solution



DO ask the doctor, pharmacist or nurse if you have any queries about your medicines.

DO read the label on your medicines and use them as instructed.

DO bring all your medicin… with you whenever y…

DO ask for plain bottle… prefer them.

DO keep all med… reach.

DO return unused /… your family doc… pharmacist for…

DO NOT stop taking your … told to do so by yo…

DO NOT take more than … ed dose.

…labelled

…n one

…with other

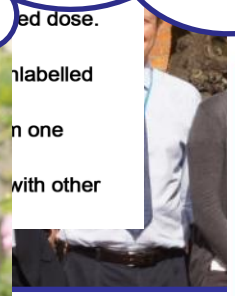
It should fit in a mans pocket and be conspicuous so it's not lost in a woman's handbag

…cation Passport

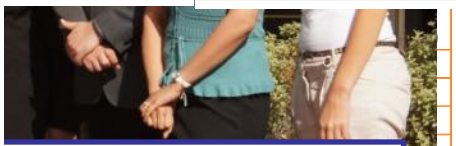
Current Medicines

…ase list all medicines including inhalers, eye/ear patches, injections and alternative/herbal medicines

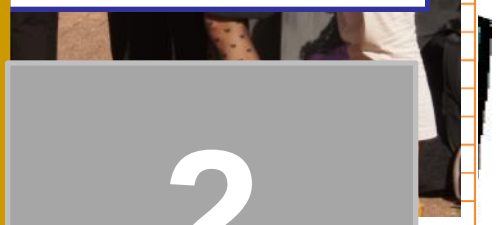
Name, strength and form of medicine	Morning	Midday	Evening	Bedtime	Additional Information



Inpatient …



Monthly meetings



House…

3

1

2

2. Use patients' own drugs (PODs)

- Routine practice in UK for the last 10-15 years
- Advantages:
  - Assists with medication history taking
  - Patients continue medication that they are familiar with
  - Less risk of dose omissions
  - Less waste

Patients' own drugs

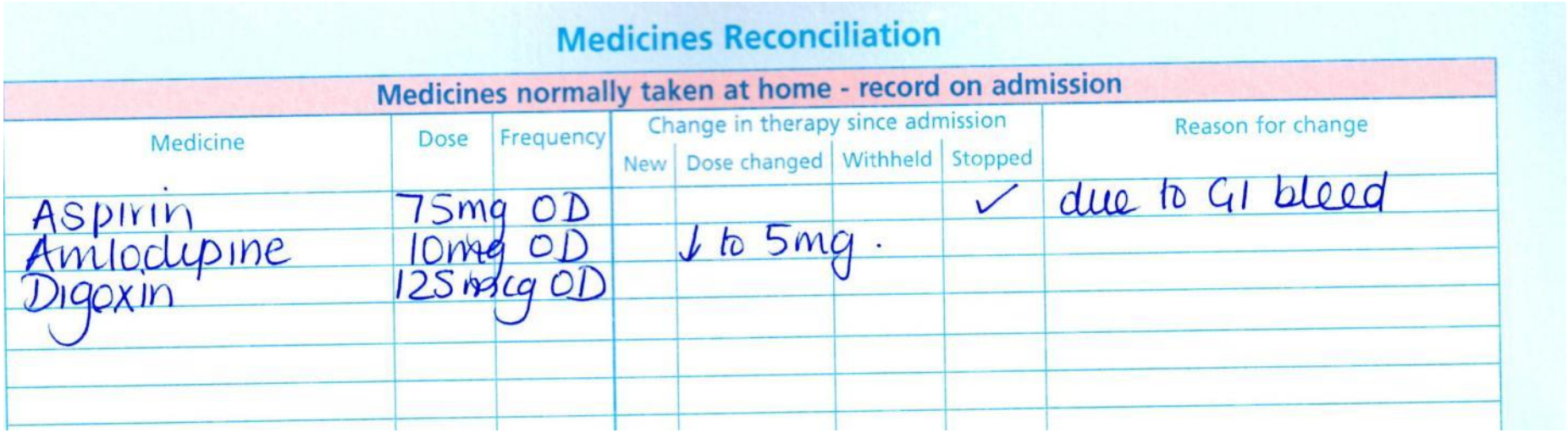
- Disadvantages
- Hospitals generally have criteria for confirming that suitable for use
  - Identifiable?
  - In date?
  - Labelled with patient name?
  - In good condition?

Key role for pharmacy staff in checking suitability

PODs and developing appropriate procedures

3. “Green bags” for ambulances

4. Documentation of changes during hospital stay

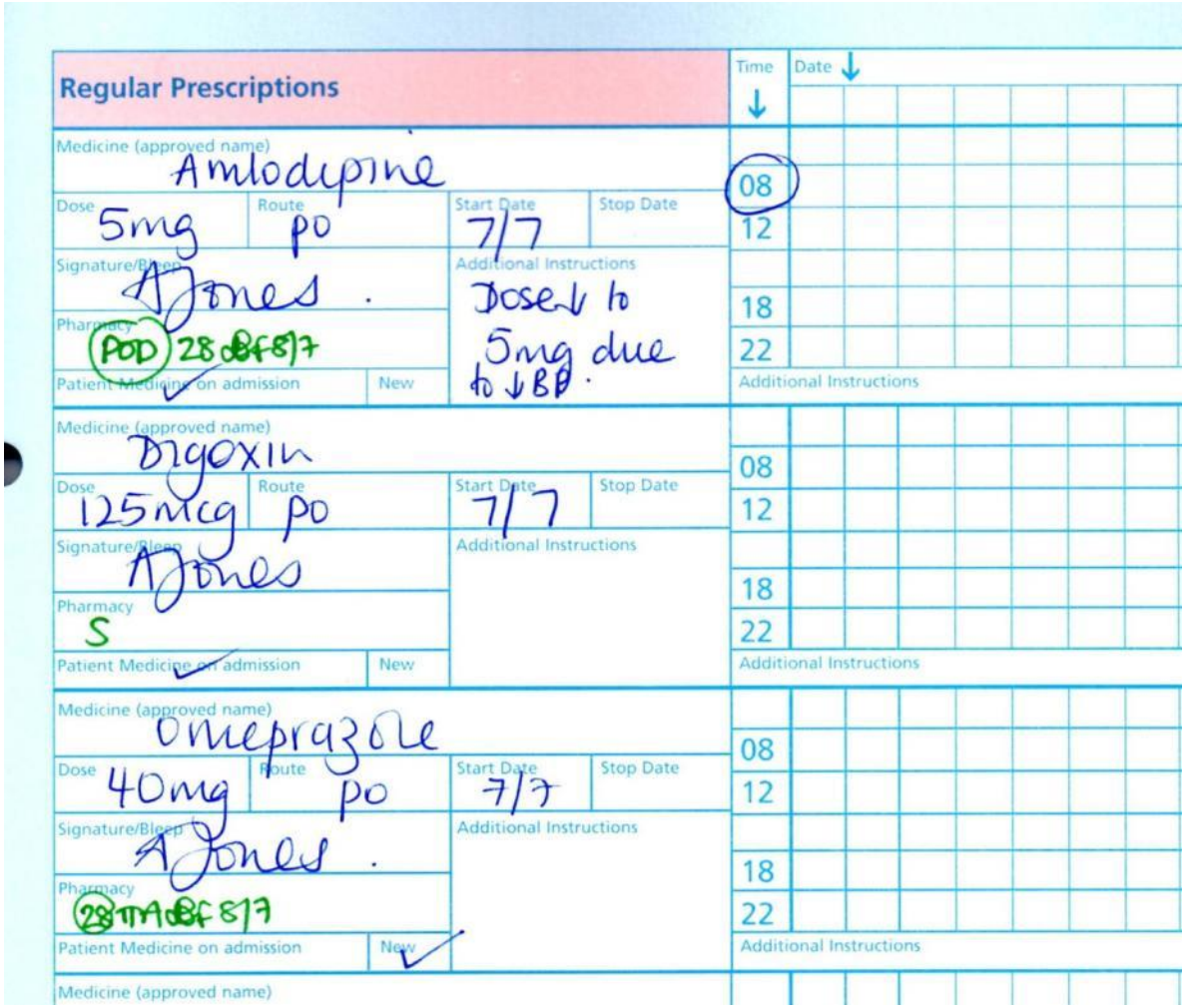


Medicines Reconciliation

Medicines normally taken at home - record on admission

Medicine	Dose	Frequency	Change in therapy since admission				Reason for change
			New	Dose changed	Withheld	Stopped	
Aspirin	75mg	OD				✓	due to GI bleed
Amlodipine	10mg	OD		↓ to 5mg.			
Digoxin	125mcg	OD					

4. Documentation of changes during hospital stay



Regular Prescriptions

Time ↓ | Date ↓

Medicine (approved name): Amlodipine
Dose: 5mg | Route: PO | Start Date: 7/7 | Stop Date:
Signature/Bleep: A Jones .
Additional Instructions: Dose↓ to 5mg due to ↓BP.
Pharmacy: POD 28 08 8/7
Patient Medicine on admission ✓ | New
Time: 08 12 18 22 — Additional Instructions

Medicine (approved name): Digoxin
Dose: 125mcg | Route: PO | Start Date: 7/7 | Stop Date:
Signature/Bleep: A Jones
Additional Instructions:
Pharmacy: S
Patient Medicine on admission ✓ | New
Time: 08 12 18 22 — Additional Instructions

Medicine (approved name): Omeprazole
Dose: 40mg | Route: PO | Start Date: 7/7 | Stop Date:
Signature/Bleep: A Jones .
Additional Instructions:
Pharmacy: 28 TTA 08 8/7
Patient Medicine on admission | New ✓
Time: 08 12 18 22 — Additional Instructions

Medicine (approved name):

5. Communication of changes at discharge

Medication on discharge:

Drug	Dose	Frequency	Days	Route	GP Continue?
Admission drugs (unamended)					
lansoprazole	30mg	each morning	7	Oral	Yes
clopidogrel	75mg	each morning	7	Oral	Yes
beclometasone Q-var inhaler 100 micrograms	1 puff	twice a day	on ward (locker)	Inhaled	Yes
senna *(Indications: not in MCCA)*	2 tabs at night	as required	14	Oral	Yes
Admission drugs (amended)					
fultium-d3 *(Indications: not available from Charing Cross hospital; to re-start once discharged.)*	800 units	daily	7	Oral	Yes
Drugs prescribed since admission					
paracetamol *(Indications: not in MCCA)*	1g	four times a day as needed	14	Oral	Yes
clexane	100mg	twice a day	14	Sub-Cutaneous	Yes
digoxin *(Indications: MOnitor renal funstion)*	250mcg	each morning	14	Oral	Yes

Details of information booklets and other information given with medicines:

Patient medication passport

Allergies:

NKDA

6. The future

- Electronic records accessible by primary and secondary care?
- Patient held smart cards?
- Smart phone apps?

The challenges

- Whose responsibility is medication reconciliation?
  - Most evidence is based on extensive pharmacy involvement
- How extensive?
  - A “bundle”: admission, discharge, communication with primary care physician, telephone follow up
- Which patients to prioritise, if insufficient resources for all?
  - Older patients
  - Other high risk patients

The evidence

- Medication reconciliation and pharmacist review significantly reduced inappropriate drugs and drug related readmission (Hellström et al, 2011) and length of stay (Scullin et al, 2012)
- Studies consistently demonstrate reduction in discrepancies, potential ADEs and ADEs (Mueller et al 2012)

We need to take on the challenge

References

- Hellstrom et al: Impact of the Lund Integrated Medicines Management (LIMM) model on medication appropriateness and drug-related hospital revisits. Eur *J Clin Pharmacol* 2011, 67(7):741-752.
- Mueller et al: Hospital–based medication reconciliation practices. *Arch Int Med* online first 25 June 2012
- Scullin et al: Integrated medicines management - can routine implementation improve quality? *J Eval Clin Pract* 2011.