SCOTTISH PATIENT SAFETY PROGRAMME 2008-2018

Transitions, Omissions and High Risk Medicine

WebEx Series 2018-2019

Digital Solutions to reduce medicines transcription
NHS Greater Glasgow and Clyde

Thursday 8 November 2018
3pm-4pm

@SPSPMedicines
#SPSPMeds

As part of Healthcare Improvement Scotland's ihub, SPSP activities support the provision of safe, high quality care, whatever the setting.

Ten years of improving safety

A few points for our WebEx today:

Please dial in on your phone:

0800 032 8069 and then use the pass code: 564 897 14 #

If you are not presenting your phone is automatically on mute

Phone lines will open at the end of the WebEx for Q and A with the presenters.

Healthcare Improvement Scotland | ihub Enabling health and social care improvement

NHS SCOTLAND

Meet the team

Arvind Veiraiah
National Clinical Lead

Lesley Macfarlane
Improvement Advisor

Lorraine Donaldson
Project Officer

Kirsty Allan
Administrative Officer

Polling Question 1

Which of the following professions best describes you?

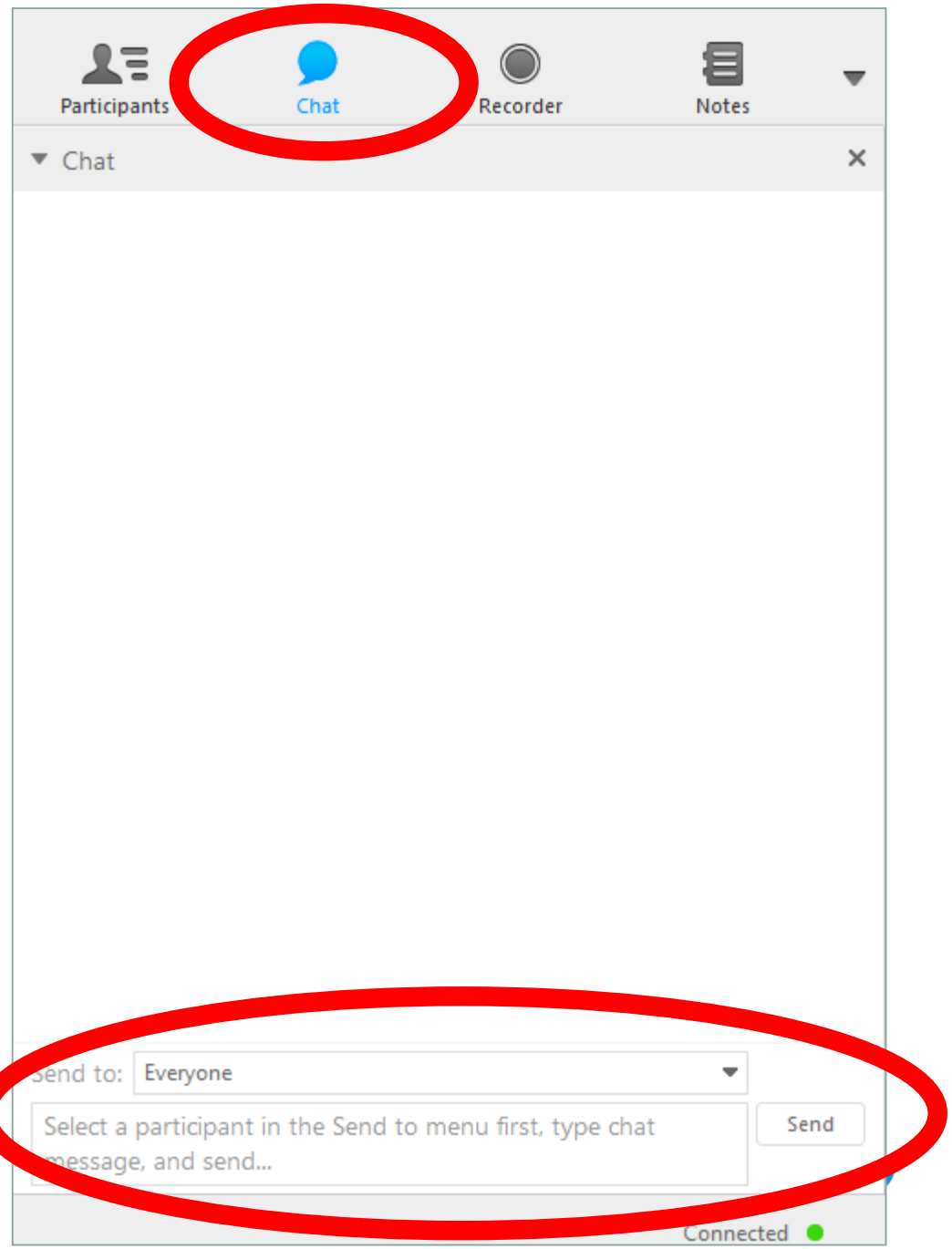
a. Patient / Service User
b. Medical
c. Nursing
d. Pharmacy
e. Other (please type in chat box)

Ten years of improving safety

To get involved in the conversation, please click on the Chat icon.

Select **Everyone** from the drop down menu, type your message then click send. Introduce yourself.

This WebEx is being recorded as a resource and will be available via the ihub website



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Medicines Reconciliation and Immediate Discharge Letter

Alastair Bishop
NHS Greater Glasgow & Clyde

Overview

- What problems are we trying to solve?
- Where are we now?
- What did we do?
- What worked well?
- What didn’t work well?
- What next?

NHS Greater Glasgow & Clyde

NHS Greater Glasgow & Clyde

- An NHS board in West Central Scotland
- The largest health board in the UK
- Serves 1.1 million people
- Many regional &national services
- ~38,000 staff
- 35 hospitals

Project scope

- ~350 wards
- ~ 6,000 beds
- ~10,000 users
- ~ 400,000 admissions/ discharges per year
- ~ 9 million dispensing events per year

What problems are we trying to solve?

What problems are we trying to solve?

- Medicines information in hospital is written down or typed in several times during a patient's stay
- Manual transcription wastes clinical time and increases risk of error
- **Aim is to reduce manual transcription of medicines information in hospital**

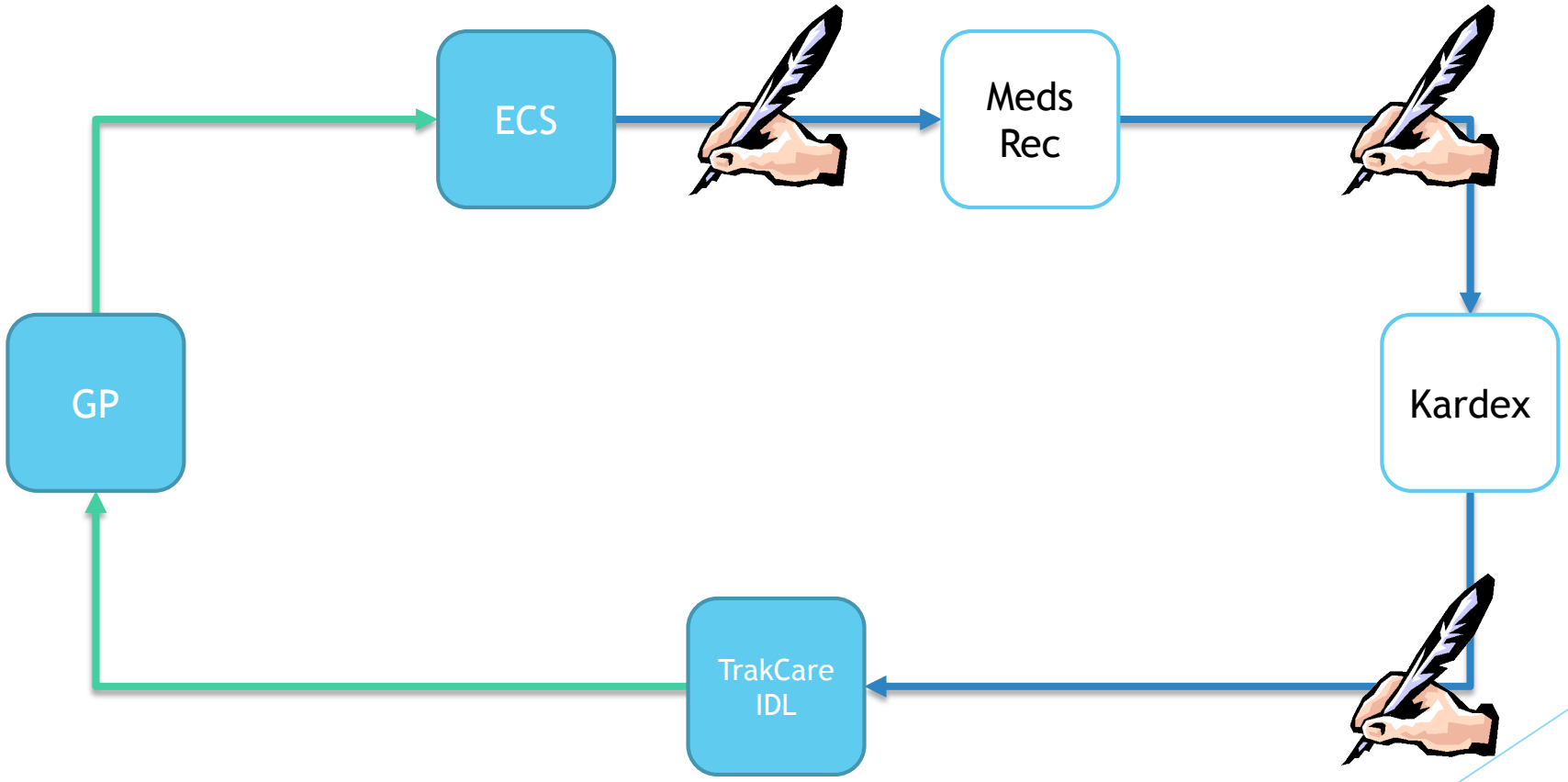
Other reasons to do this

- Increase uptake of medicines reconciliation
- Improve quality of medicines reconciliation
- Speed up the discharge process
- Release clinical thinking time to add value
- Improve quality of meds information on IDL

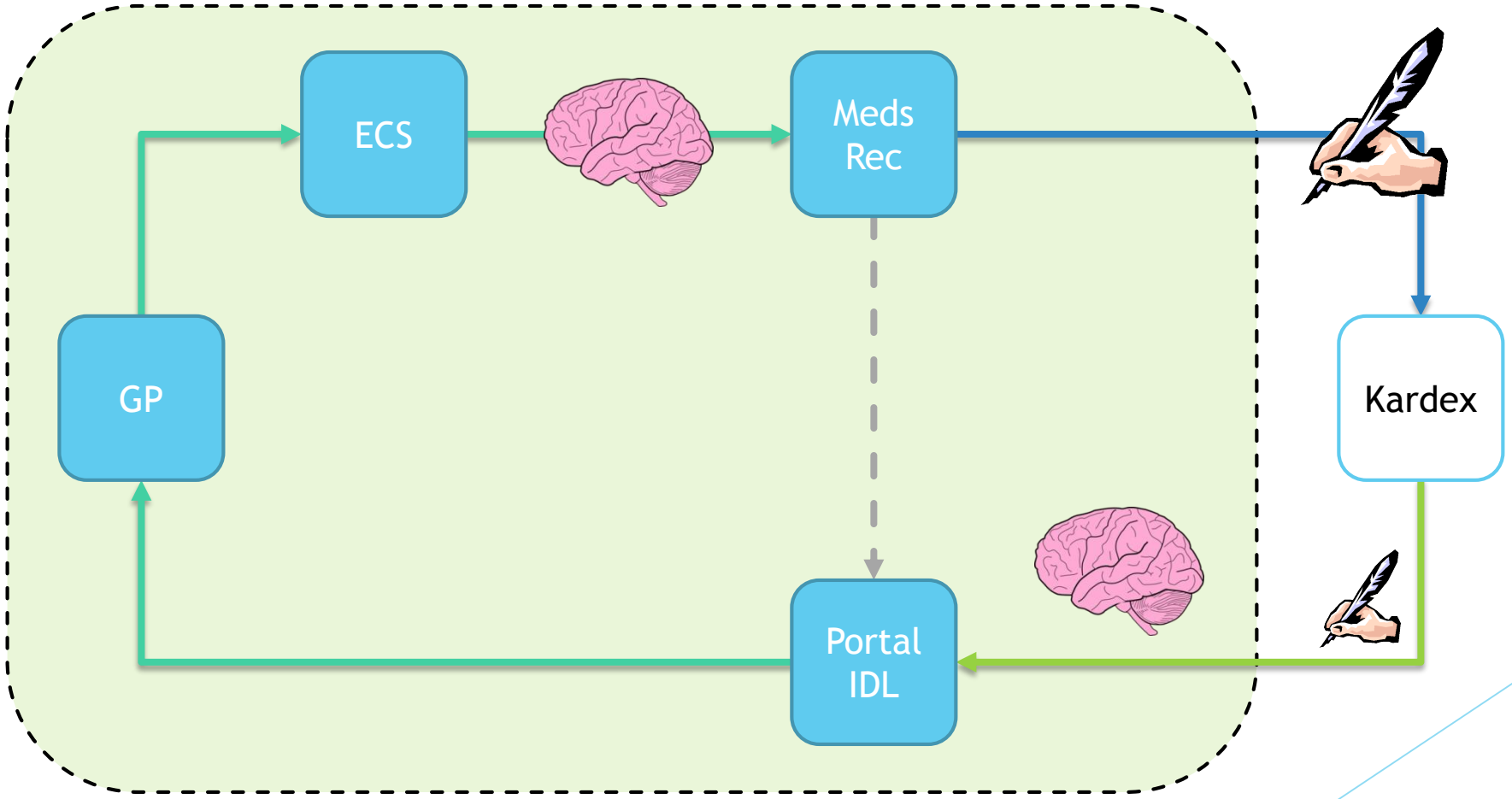
Enablers

- Single national patient ID (CHI number)
- Secure national network (NHSnet)
- National repository of GP prescribing info
- UK/ international data standards

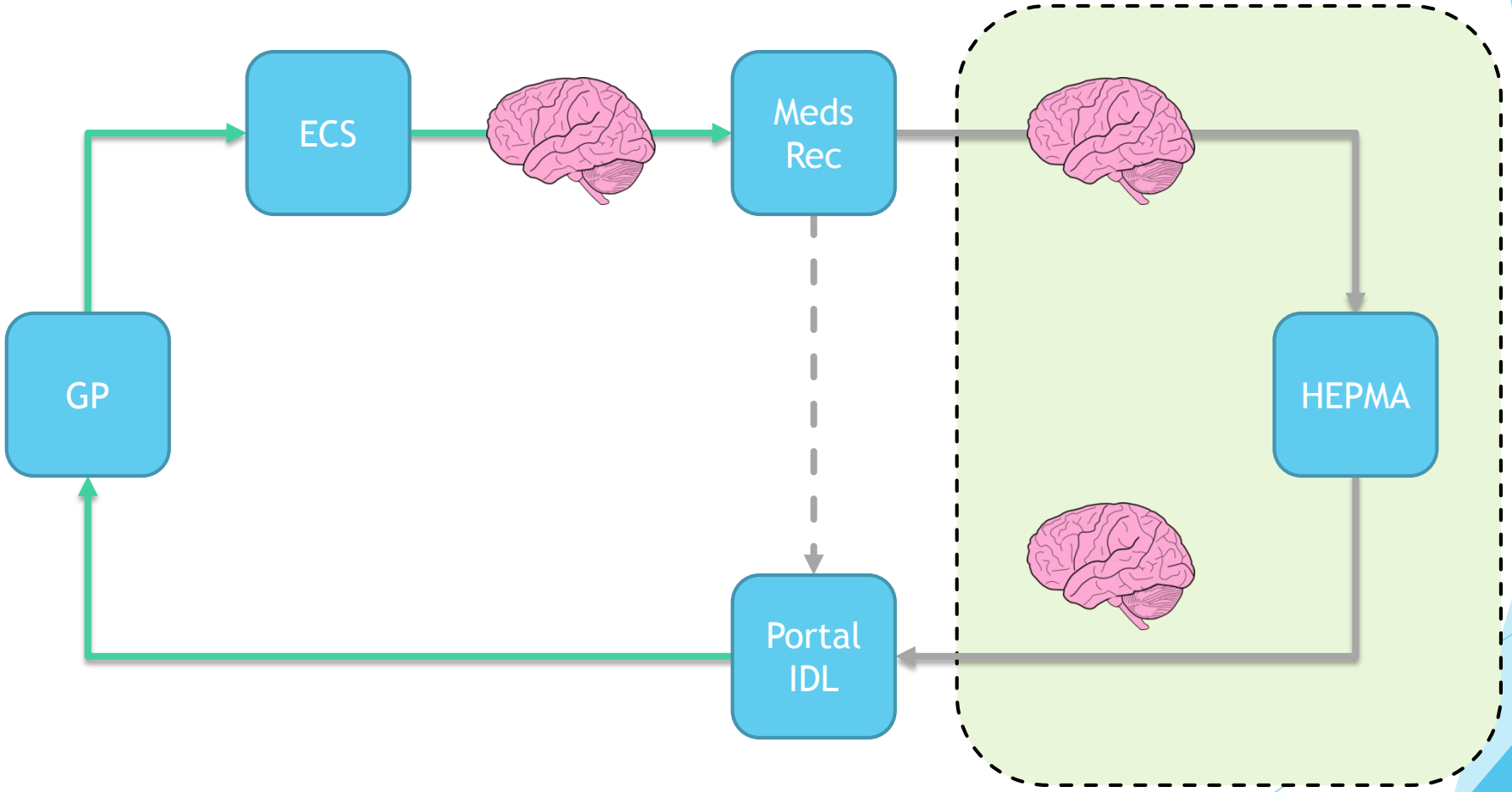
Previous process (Meds Rec on paper)



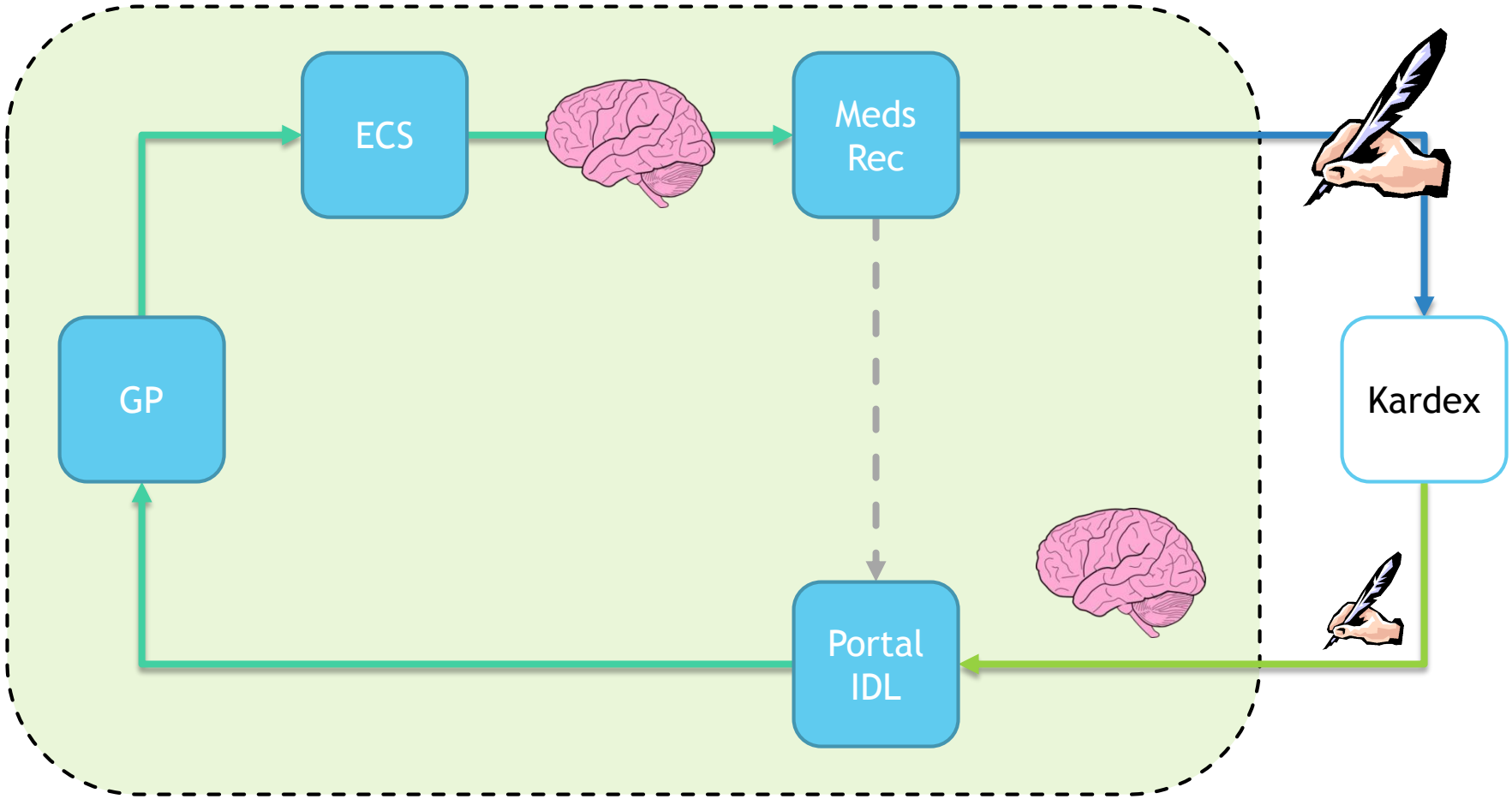
New process



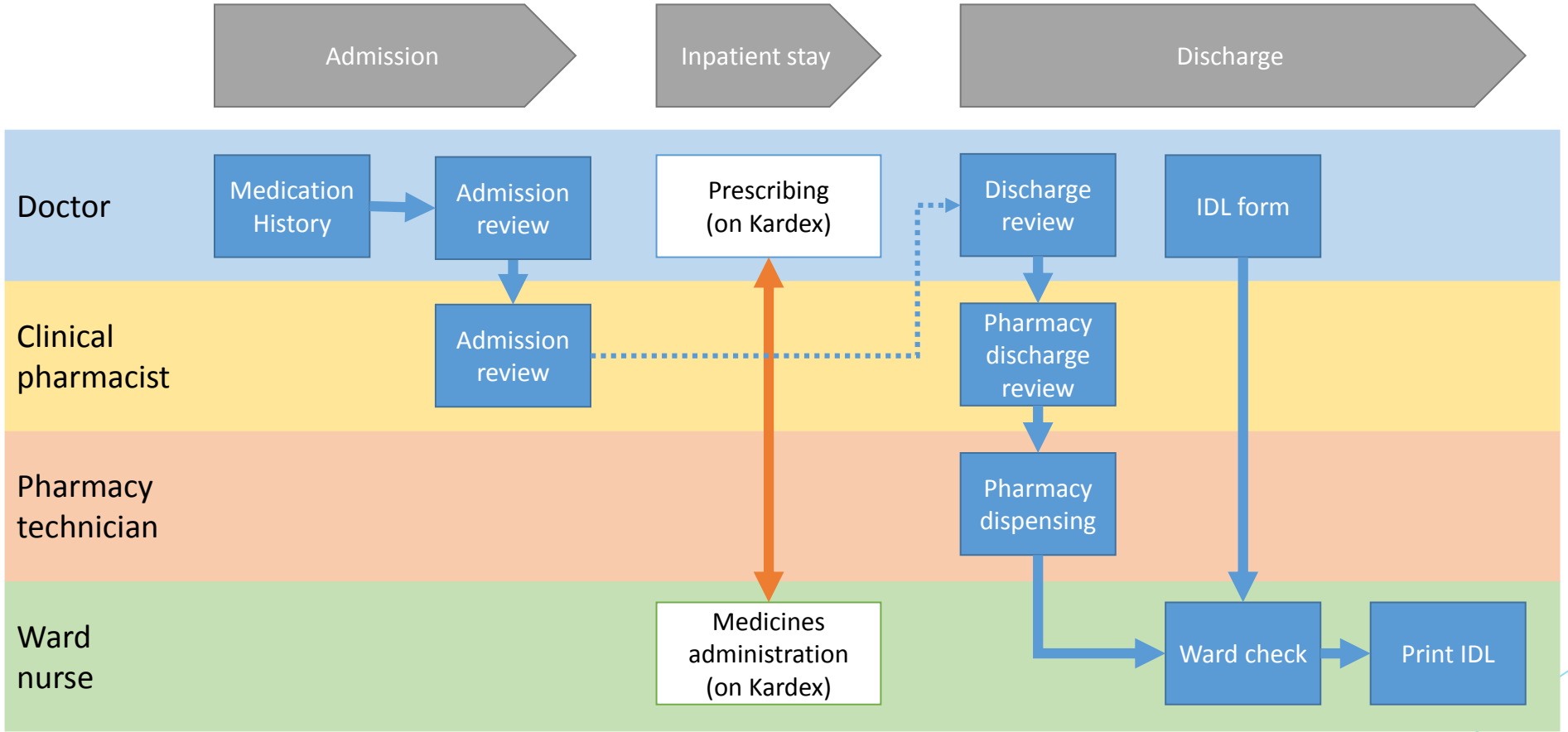
HEPMA

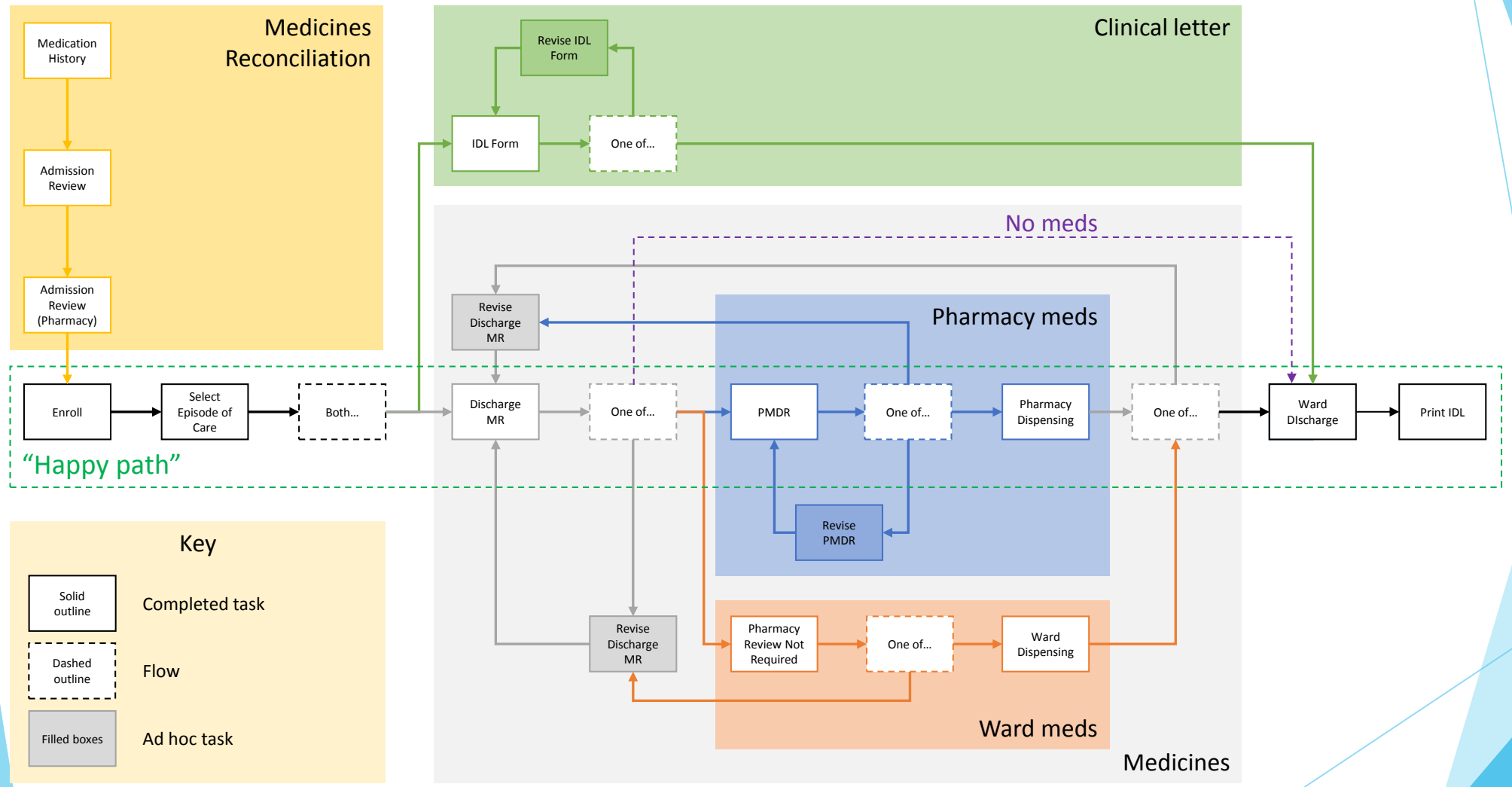


It’s not that simple…


ECS
Meds Rec
GP
Kardex
Portal IDL

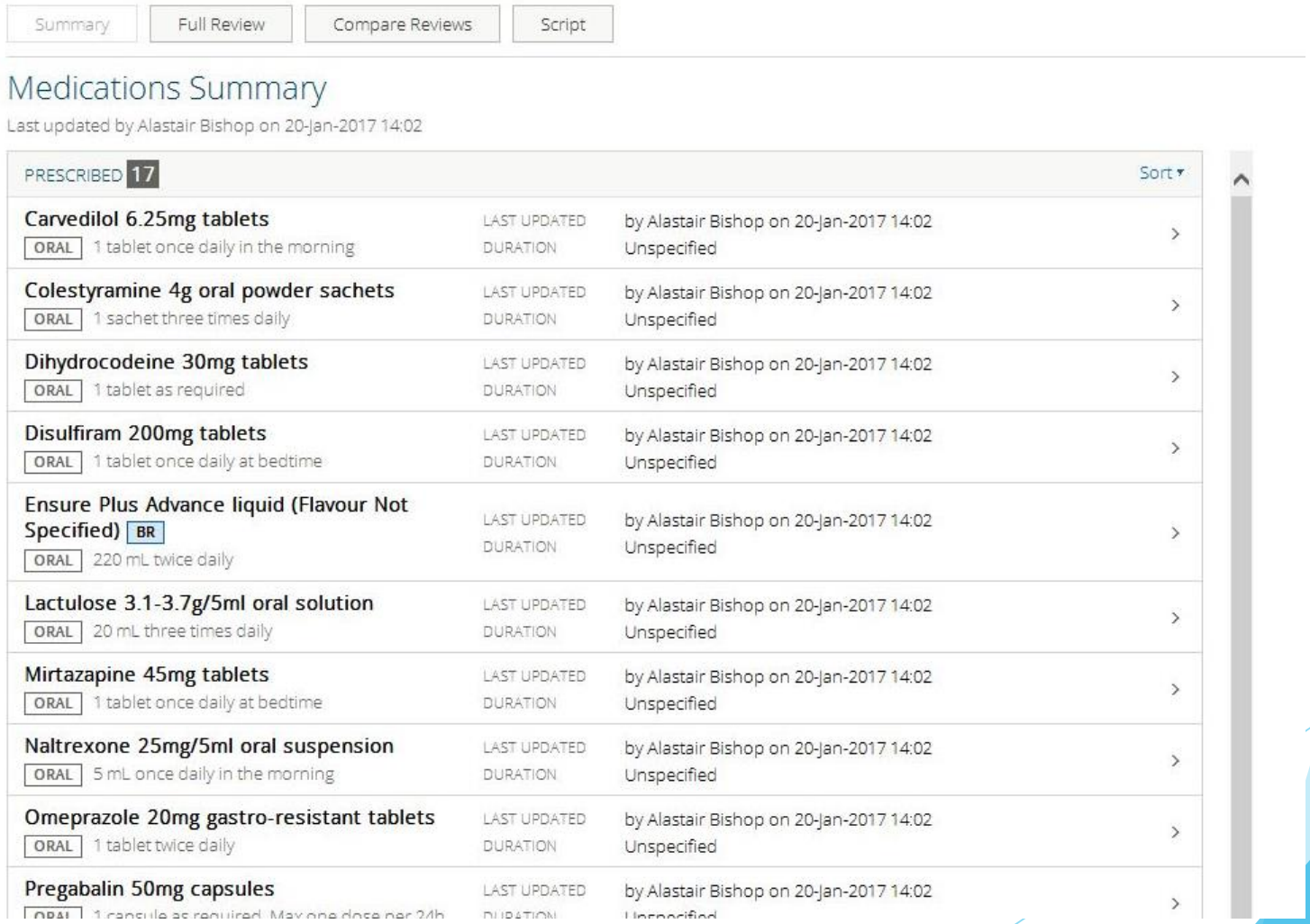
Medicines reconciliation/ immediate discharge letter process



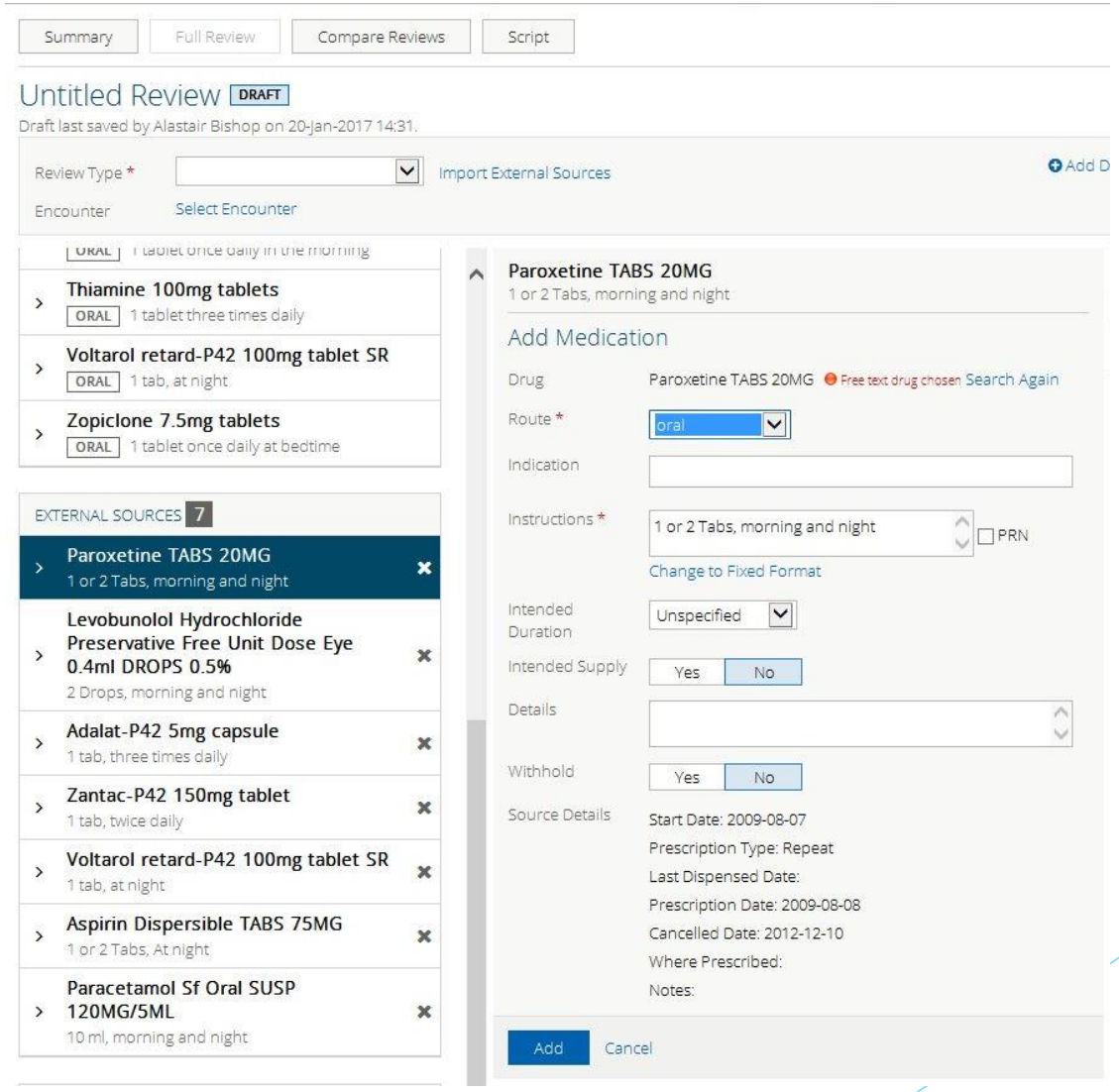

Medicines Reconciliation
Medication History
Admission Review
Admission Review (Pharmacy)
Clinical letter
Revise IDL Form
IDL Form
One of...
No meds
Revise Discharge MR
Pharmacy meds
Enroll
Select Episode of Care
Both...
Discharge MR
One of...
PMDR
One of...
Pharmacy Dispensing
One of...
Ward DIscharge
Print IDL
"Happy path"
Revise PMDR
Revise Discharge MR
Pharmacy Review Not Required
One of...
Ward Dispensing
Ward meds
Medicines
Key
Solid outline
Completed task
Dashed outline
Flow
Filled boxes
Ad hoc task

What does it look like?

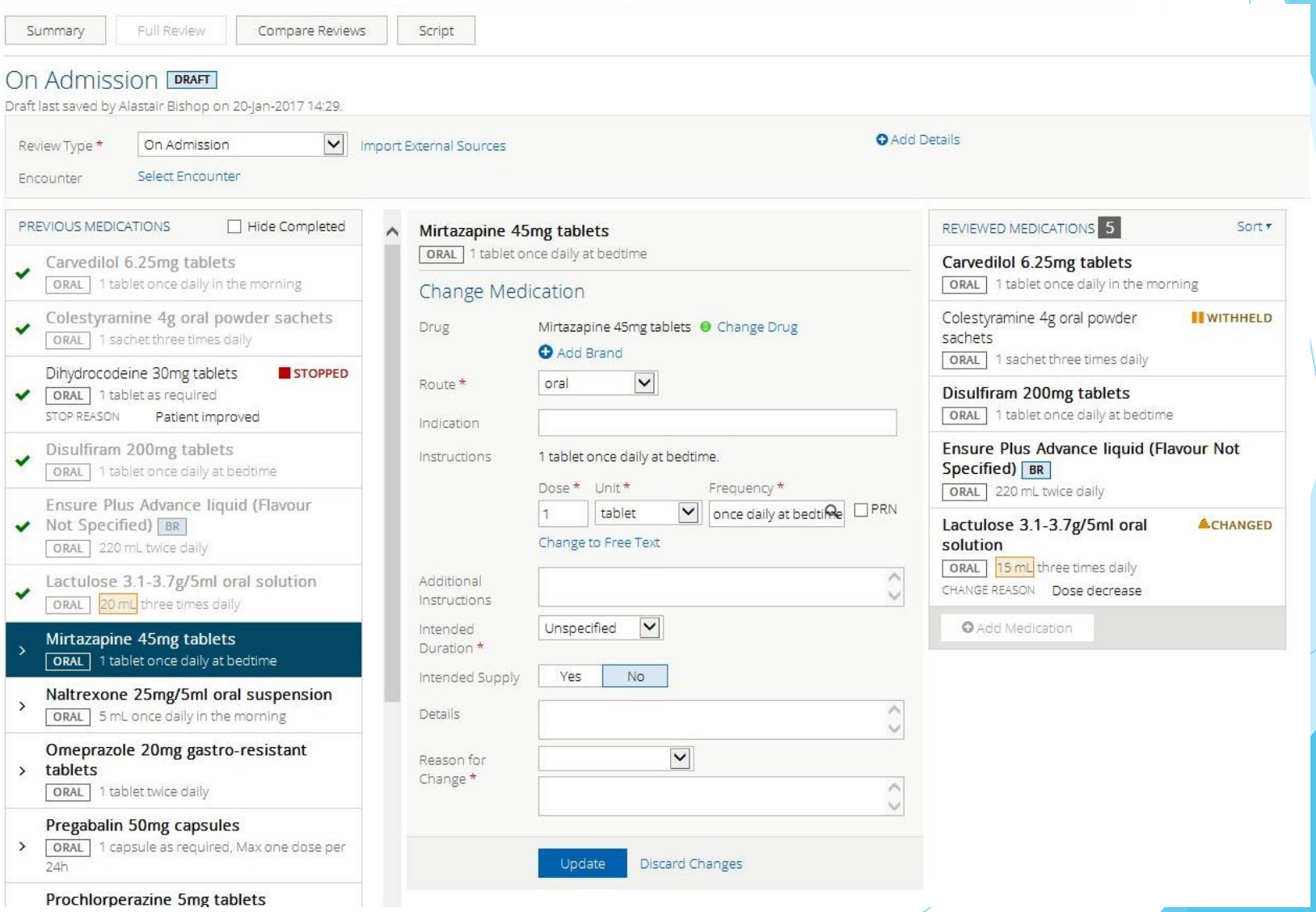
Medications Summary



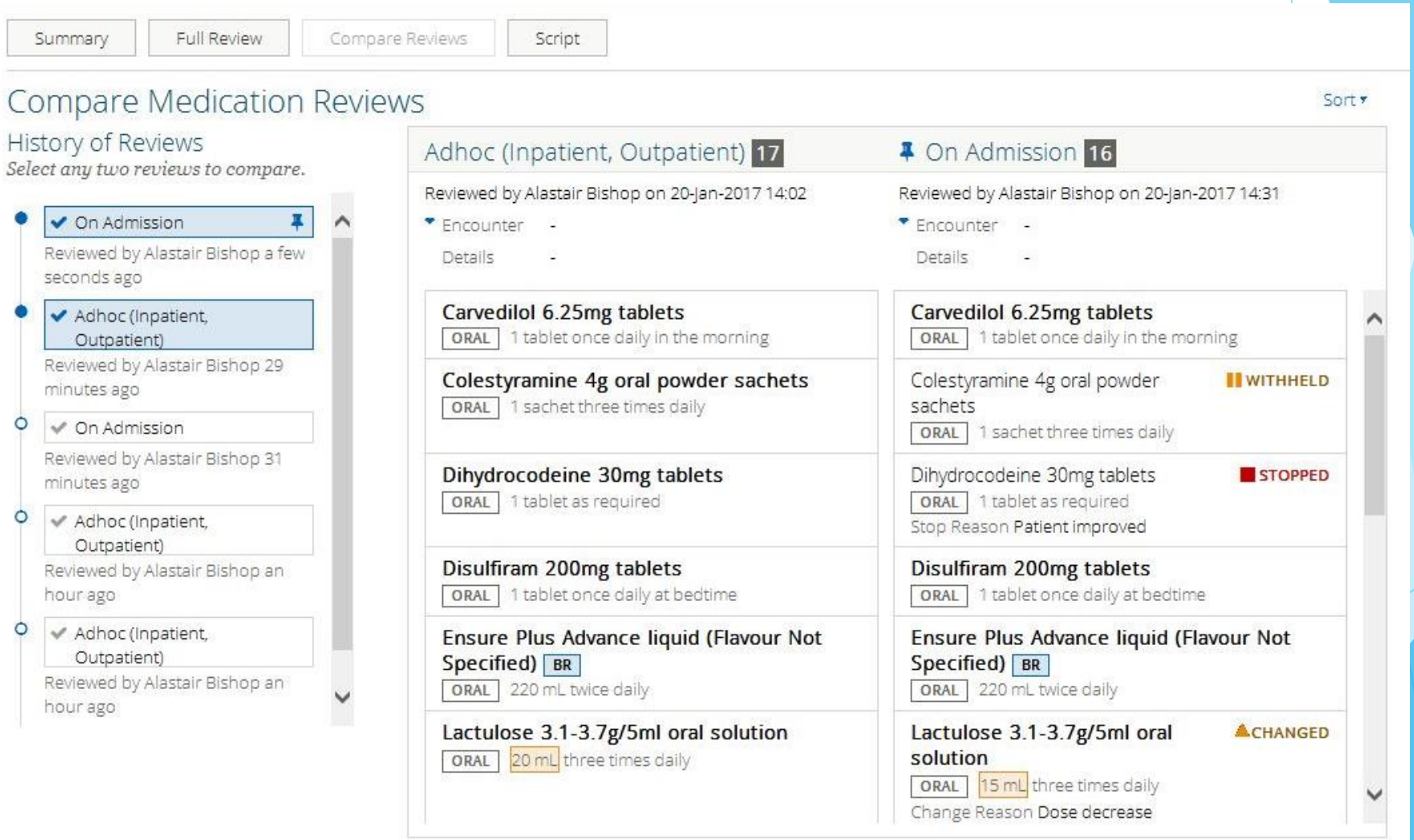
Import from ECS

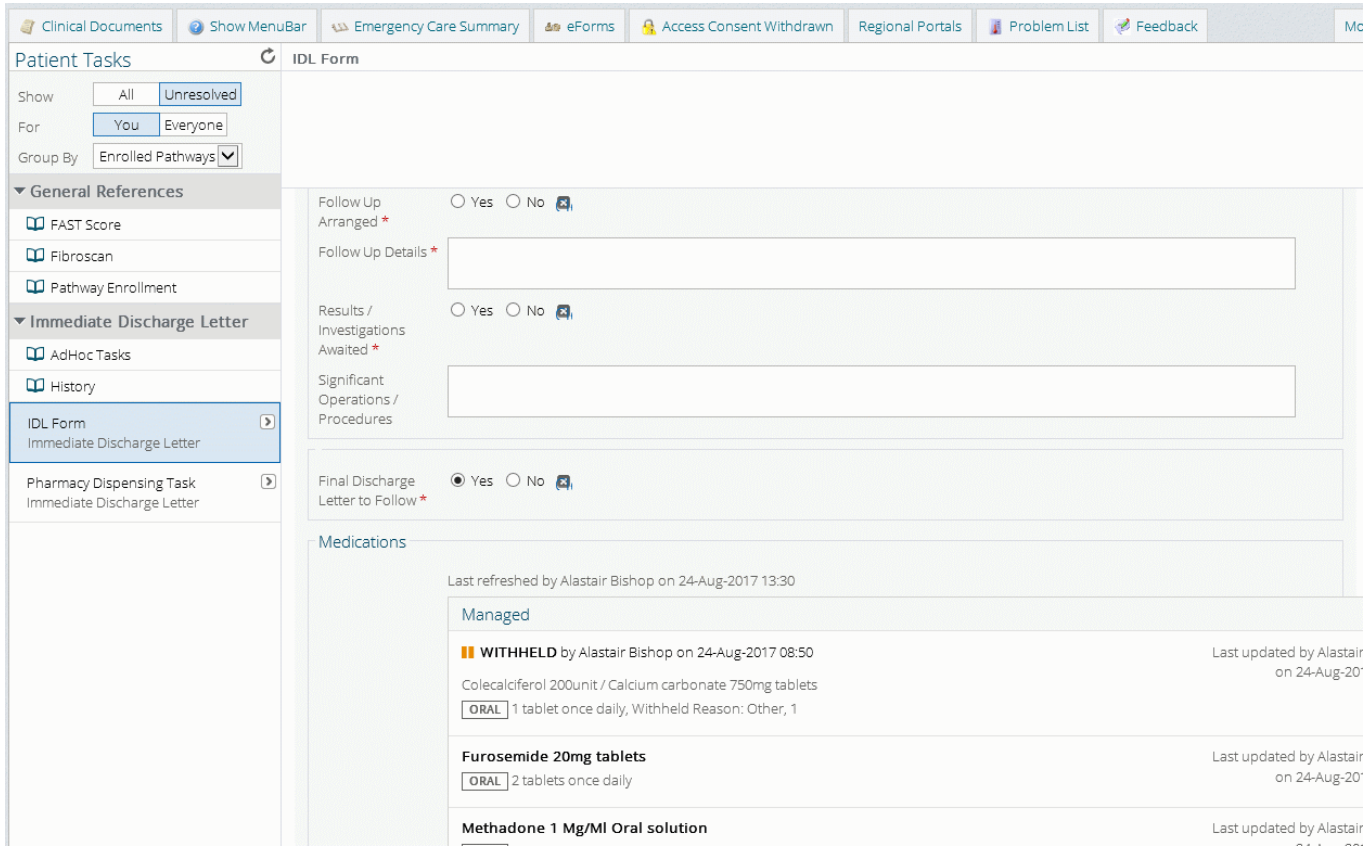


Medicines Reconciliation i.e. Drug History



Compare Reviews





CHI: DoB:

Immediate Discharge Letter

Highly Sensitive: No Consent for Sharing Withheld: No

NHS Greater Glasgow and Clyde

Queen Elizabeth Hospital,1345 Govan Road,Glasgow G51 4TF
Main Switchboard: 0141 2011100
Date of Completion: 24-Aug-2017

Dear

Name	CHI	DoB	Address
			NHS Greater Glasgow & Clyde, Glasgow Royal Infirmary, Glasgow, G4 0SF

Admitted	Type	Discharged	Destination
13-Jan-2017 15:31	IP	24-Aug-2017	

Specialty	Consultant	Ward	Telephone
Orthopaedics		ISTRK_W_SUARU2	

Reason for Admission and Presenting Complaints	Admission Category
[reasonForAdmissionAndPresentingComplaints]	[admissionCategory]

Primary Diagnosis
Angina pectoris

Secondary Diagnosis
There is no data to display.

Clinical Comments:	
Follow Up:	Yes 1
Results Awaited:	No
Significant Operations / Procedures:	
Medications Comments:	
Compliance Aid:	
Final Discharge Letter to Follow:	Yes

Discharge Medication:

Drug	Route	Dose	Dispensing	Quantity	Reason	Further Details	Since Admission
Furosemide 20mg tablets	oral	2 tablets once daily	Yes	1			Added
Methadone 1 Mg/Ml Oral solution	oral	, ONE 5ML SPOONFUL TO BE TAKEN TWICE A DAY	Yes	1			

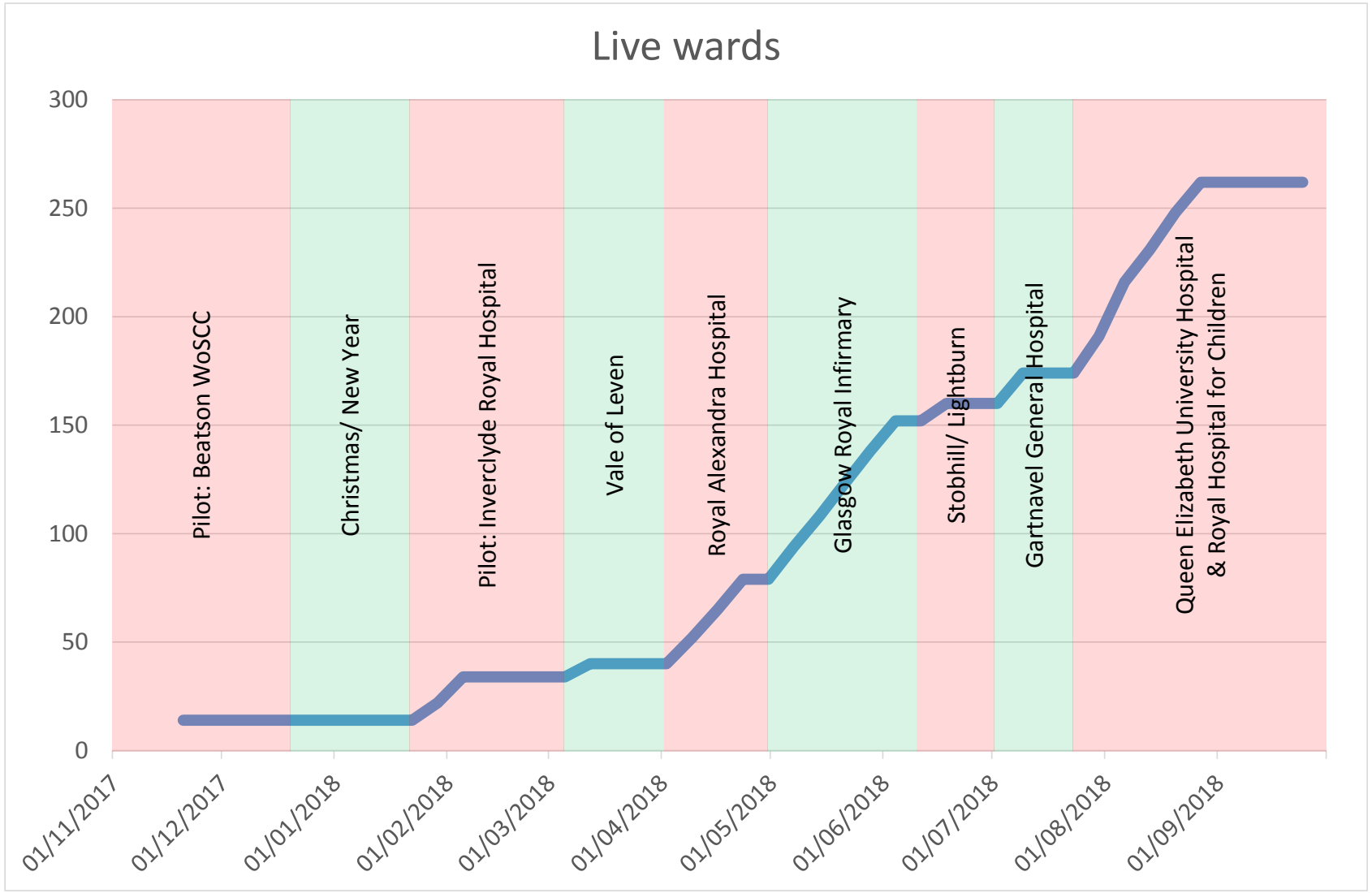
Withheld Medication:

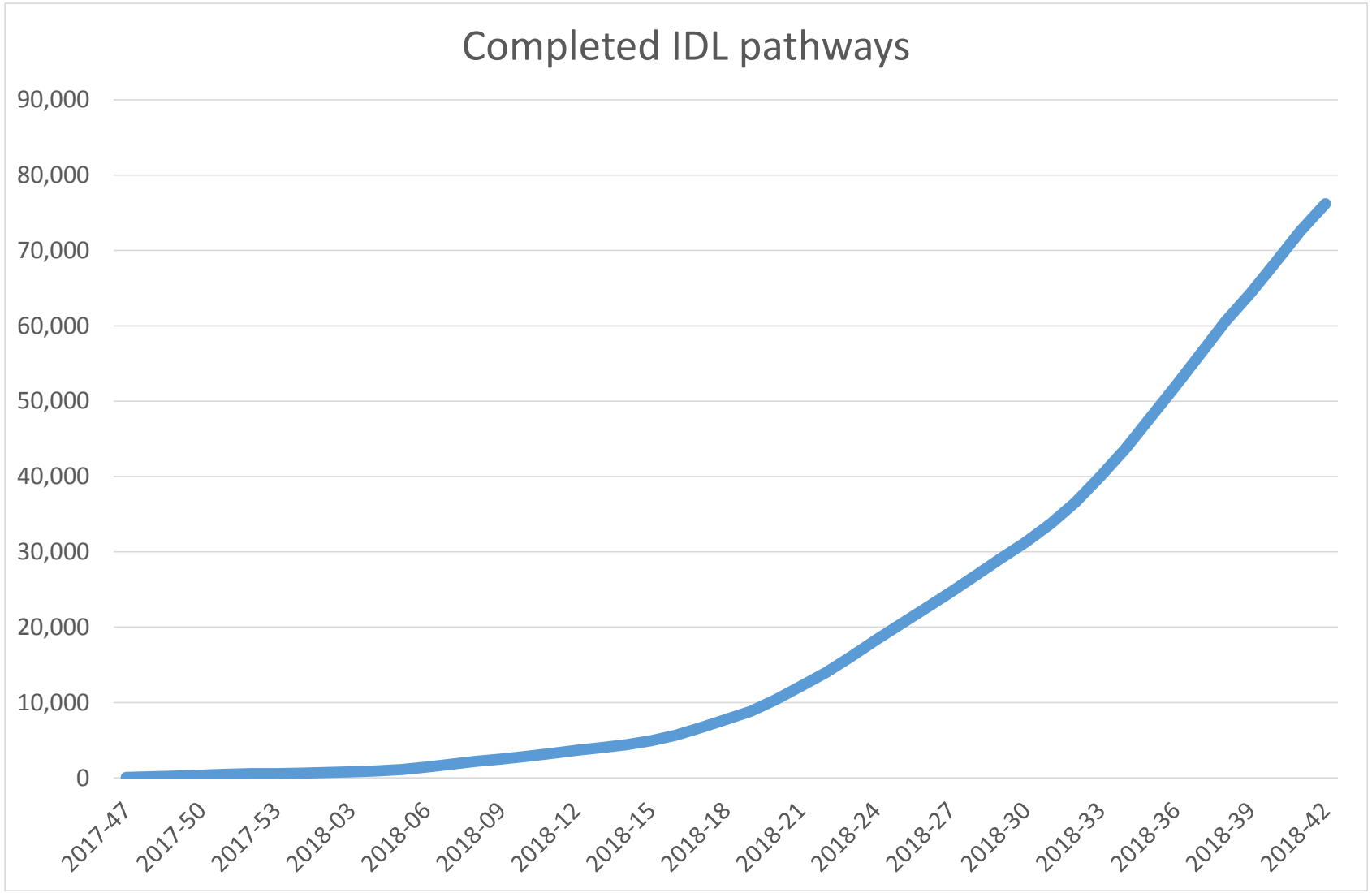
Date	Drug	Route	Dose	Note
2017-08-24	Colecalciferol 200unit / Calcium carbonate 750mg tablets	oral	1 tablet once daily	

Stopped Medication:

Date	Drug	Route	Dose	Note
2017-08-10	Methadone 1 Mg/Ml Oral solution	oral	, ONE 5ML SPOONFUL TO BE TAKEN TWICE A DAY	
2017-08-10	Colecalciferol 200unit / Calcium carbonate 750mg tablets	oral	1 tablet once daily	
2017-08-10	Furosemide 20mg tablets	oral	2 tablets twice daily	
2017-08-10	Omeprazole 10mg dispersible gastro-resistant tablets	oral	2 tablets once daily	

Where are we now?


Live wards
300
250
200
150
100
50
0
Pilot: Beatson WoSCC
Christmas/ New Year
Pilot: Inverclyde Royal Hospital
Vale of Leven
Royal Alexandra Hospital
Glasgow Royal Infirmary
Stobhill/ Lightburn
Gartnavel General Hospital
Queen Elizabeth University Hospital & Royal Hospital for Children
01/11/2017
01/12/2017
01/01/2018
01/02/2018
01/03/2018
01/04/2018
01/05/2018
01/06/2018
01/07/2018
01/08/2018
01/09/2018


Completed IDL pathways
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
2017-47
2017-50
2017-53
2018-03
2018-06
2018-09
2018-12
2018-15
2018-18
2018-21
2018-24
2018-27
2018-30
2018-33
2018-36
2018-39
2018-42

The rollout in numbers

Completed pathways	77,000
Medicine reviews	240,000
Individual medicines	2,500,000

Unfinished business

- One small acute hospital still to go live
- Mental Health inpatients to be rolled out

- More on this later…

What did we do?

Implementation plan

- Design and build
- Two pilot sites:
  - Specialist cancer hospital: small and complex
  - DGH: larger and more representative
- Rapid rollout across the Board:
  ~15 wards/ week

Implementation approach

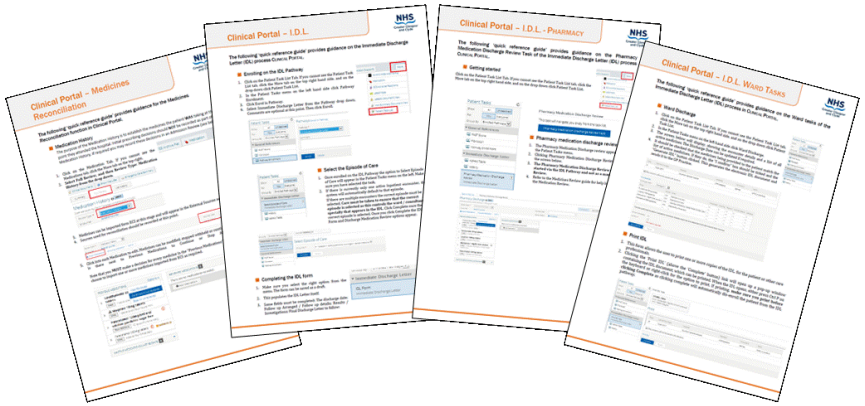
- Super-users: doctors, nurses, pharmacy
- Super-user orientation and training sessions before go-live
- No classroom-based training for end-users
- “On the floor” training and support
- We train users by guiding them through their first few real patients

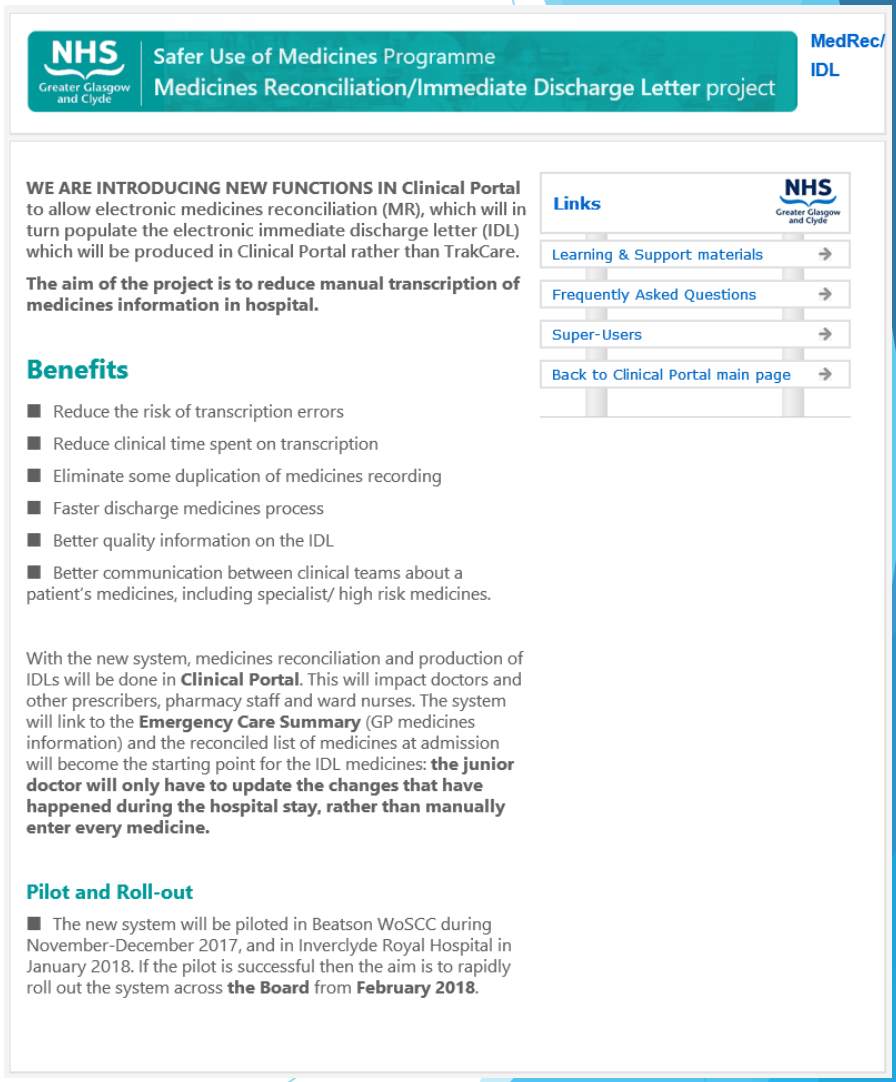
Implementation approach

- On-site support from 08:00-18:00 Mon-Fri
- Hotline plus pro-active support/ driving clinical change
- Specific sessions for night shift & weekend staff
- Each site transitions to operational support and the facilitation team moves on to the next site

Training materials

- Project website
- Quick Reference Guides
- FAQs
- Video guides





NHS Greater Glasgow and Clyde | Safer Use of Medicines Programme
Medicines Reconciliation/Immediate Discharge Letter project

MedRec/ IDL

WE ARE INTRODUCING NEW FUNCTIONS IN Clinical Portal to allow electronic medicines reconciliation (MR), which will in turn populate the electronic immediate discharge letter (IDL) which will be produced in Clinical Portal rather than TrakCare.

The aim of the project is to reduce manual transcription of medicines information in hospital.

Links

- Learning & Support materials
- Frequently Asked Questions
- Super-Users
- Back to Clinical Portal main page

Benefits

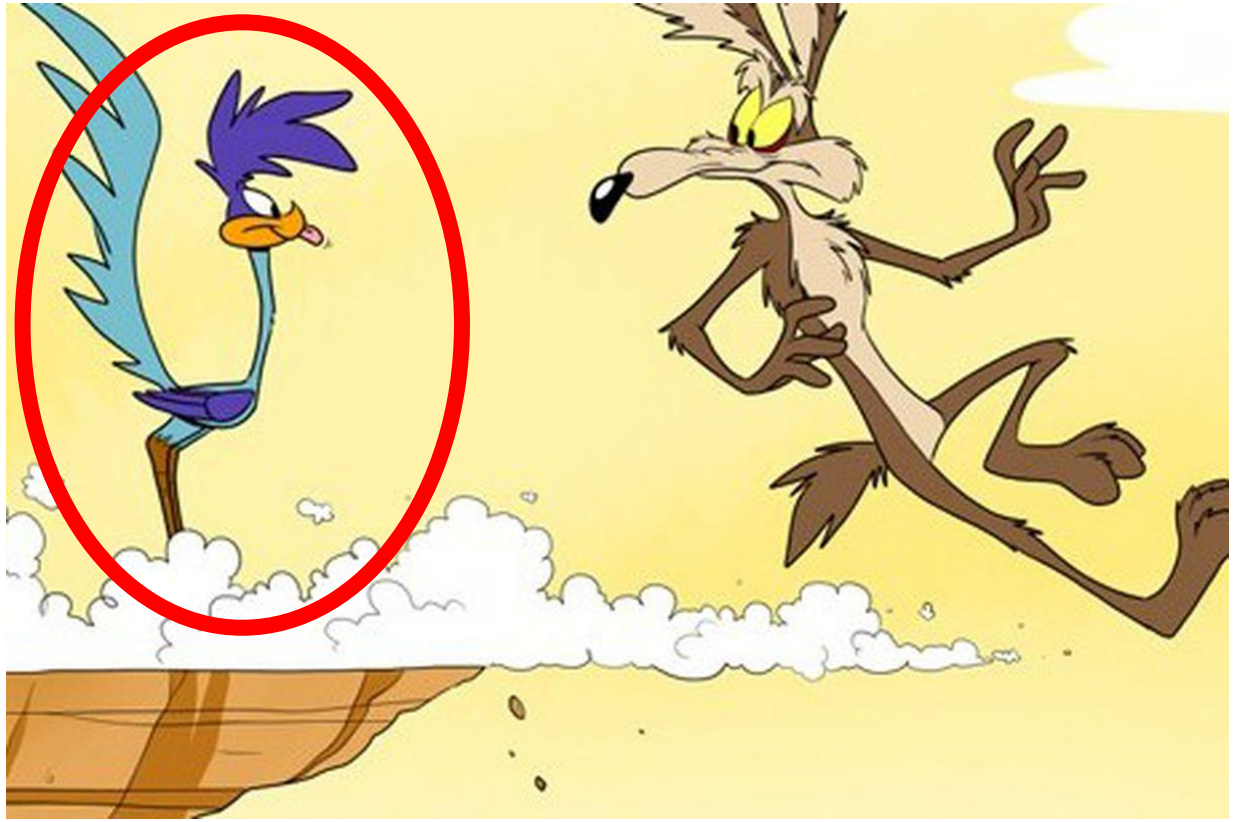
- Reduce the risk of transcription errors
- Reduce clinical time spent on transcription
- Eliminate some duplication of medicines recording
- Faster discharge medicines process
- Better quality information on the IDL
- Better communication between clinical teams about a patient's medicines, including specialist/ high risk medicines.

With the new system, medicines reconciliation and production of IDLs will be done in **Clinical Portal**. This will impact doctors and other prescribers, pharmacy staff and ward nurses. The system will link to the **Emergency Care Summary** (GP medicines information) and the reconciled list of medicines at admission will become the starting point for the IDL medicines: **the junior doctor will only have to update the changes that have happened during the hospital stay, rather than manually enter every medicine.**

Pilot and Roll-out

- The new system will be piloted in Beatson WoSCC during November-December 2017, and in Inverclyde Royal Hospital in January 2018. If the pilot is successful then the aim is to rapidly roll out the system across **the Board** from **February 2018**.

What worked well?



What makes a good team?

- Communication
- Flexibility
- Patience
- Assertiveness
- Mutual support
- Energy

Training and support

- On the floor training and support very positively received
- Short, visual training aids work well
- Users like to feel they are supported
- Users like to feel they are listened to

Training and support

- Lesson learned: also provide eLearning
- Include mandatory assessment, linked to user provisioning if possible
- Reduces risk of “I didn’t get any training”

User feedback

- More robust process
- Better handling of last-minute changes to medicines
- Saves time at discharge
  (if you do meds rec at admission!)
- Ongoing system improvements build confidence

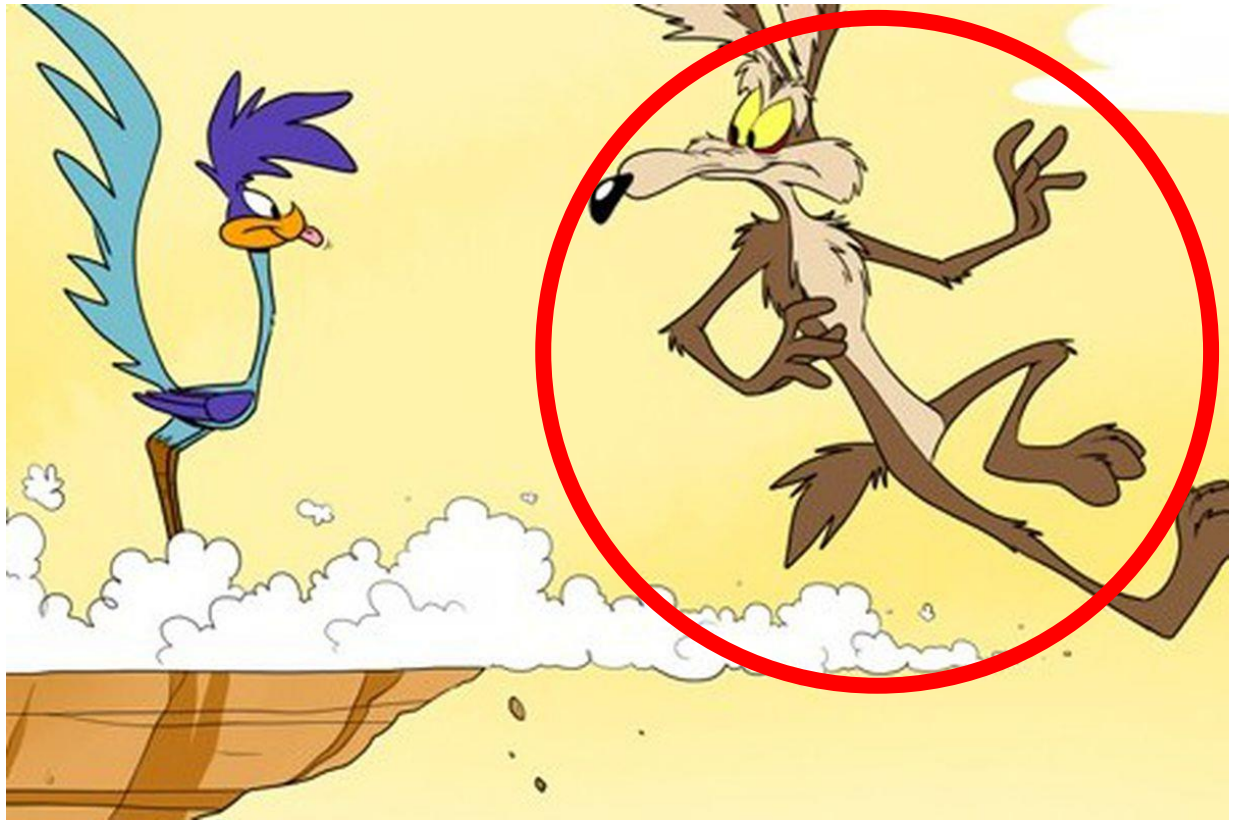
Quality improvements

- Clear picture of areas of good practice, and areas where further improvement is required
- IDL information is better quality e.g. discontinued medicines
- Documentation of follow-up arrangements

Clinical change at scale and pace

- “eHealth can’t drive clinical change” - but we HAVE to!
- Achieving sustainable clinical change is difficult
- Ongoing senior clinical leadership is essential
- Needs to be ACTIVE: ownership, monitoring, consequences

What didn’t work well?



Performance and reliability

- More people are using Clinical Portal
- People can do more with Clinical Portal
- Portal is working harder
- Demand outstripped capacity
- Upgrades required to increase capacity
- Roll-out paused while we address this

Training and support

- Super-users are great where they exist…
- …but they often don’t
- Teaching the basics is easy, but exceptions are numerous and challenging

User feedback

- Doesn’t save time at discharge (if you don’t do meds rec at admission!)
- The more complex aspects of the process can be difficult to use
- The new system can take longer in high turnover areas with few medicines e.g. day surgery units

Changing practice

- The new system is a tool that can help clinical staff do a better job, but it won't do that job for them
- Key challenges:
  - Admission meds rec done early and well
  - Accurate recording of coded diagnoses
  - Discharge meds rec done early and well
  - IDL should include full details of supplied meds

What next?

Complete the roll out

- Final acute hospital
- Mental Health inpatients
  - Low volume of discharges
  - This makes it harder, not easier!
  - Geographical spread

Continue to enhance the system

- Large number of potential enhancements drawn from user feedback
- Assessed by priority and difficulty
- Agile working with Orion to deliver a series of enhancement releases
  - Improve user experience
  - Show users we're continuing to listen and act

Procure and implement HEPMA

- HEPMA is the next big piece of the jigsaw
- Meds Rec/ IDL “bookends” HEPMA
- Challenges:
  - Technical integration
  - Consistent clinical process
- Learning from MR/ IDL implementation will directly inform how we implement HEPMA

Conclusions

Conclusions

- Clinical Portal can support a better way of doing meds rec and IDL
- It is possible to implement technology-enabled clinical change at scale and pace
- A different approach to training and support worked well

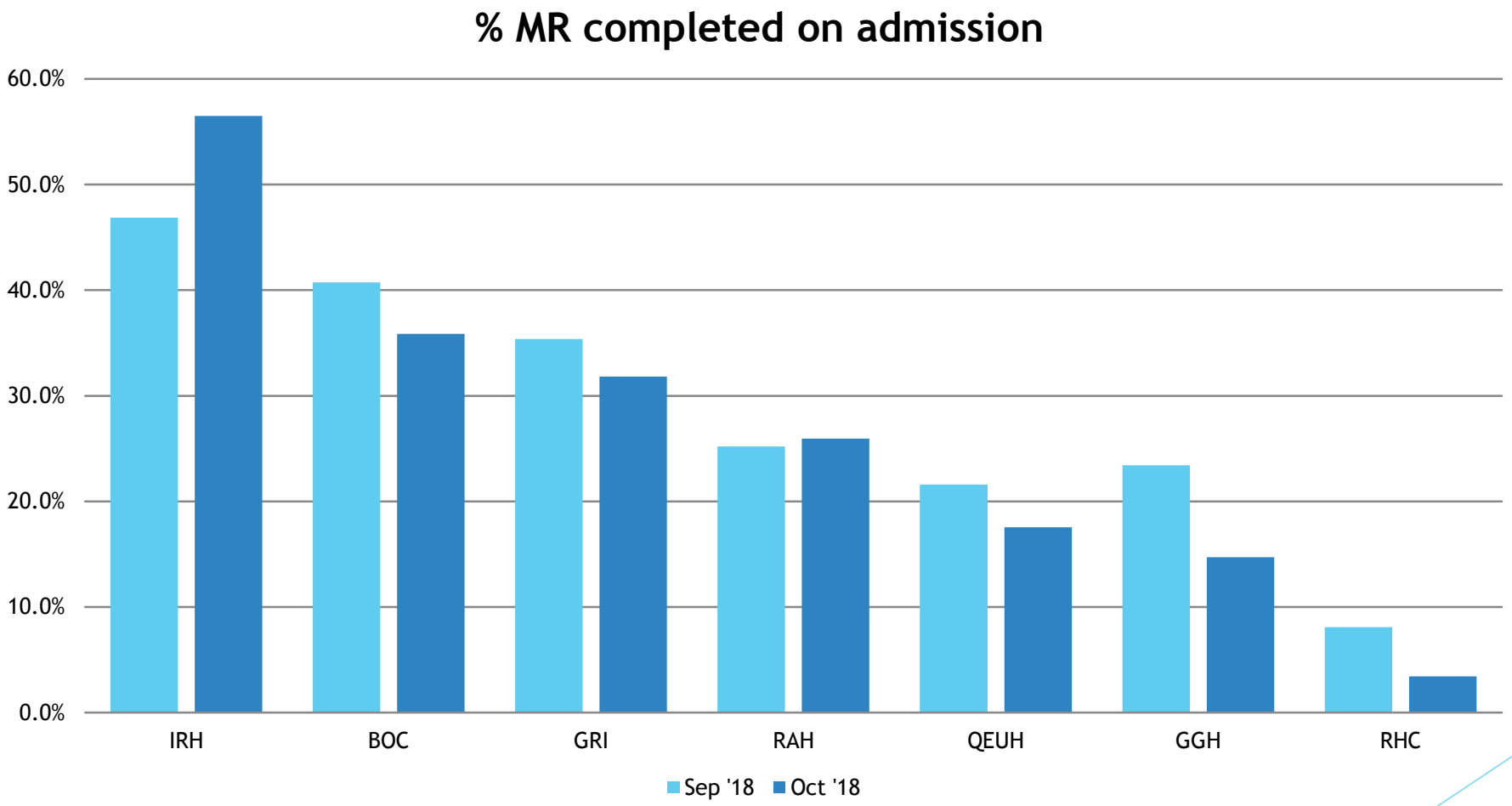
Conclusions

- The process is complex, and the solution isn’t perfect
- Many lessons learned which will inform future clinical change projects
- Essential to keep listening to users, and keep improving the system

Meds Rec/IDL Doctors Survey

Alister MacLaren
NHS Greater Glasgow & Clyde

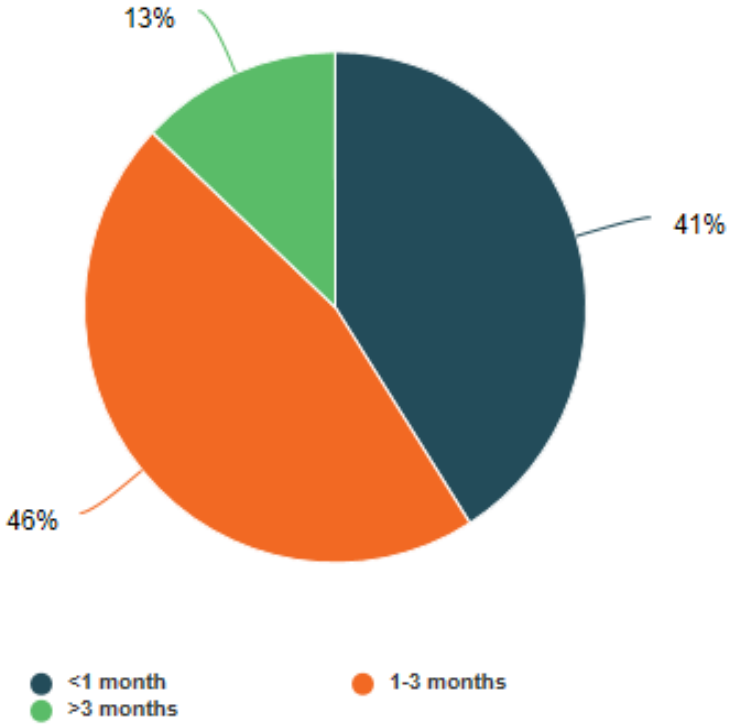
Baseline Data



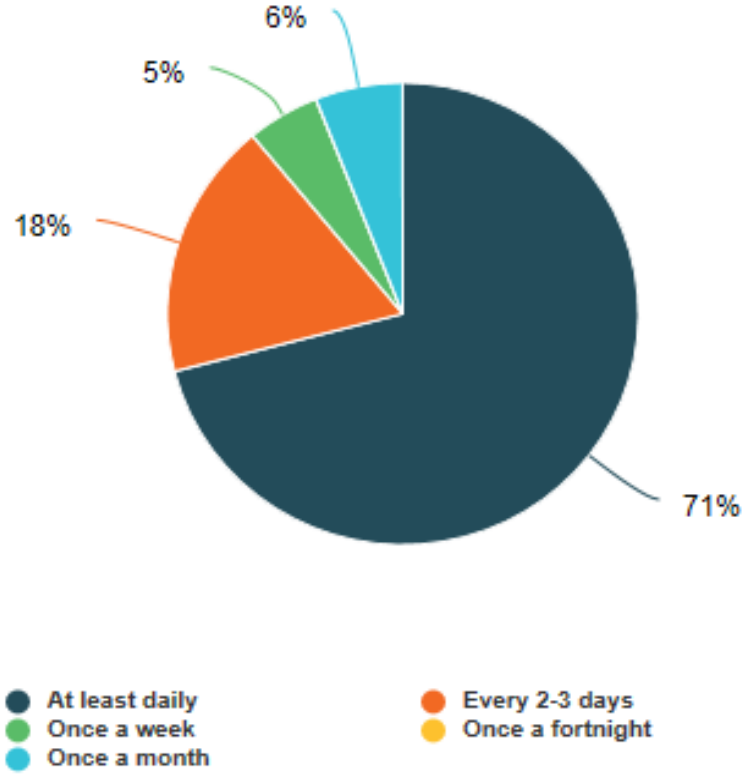
Orion MR/IDL Doctors Survey

- Jun – Aug 2018
- 81 responders, two thirds were junior doctors
- 5 live sites (Nov ‘18 – May ‘19)
- 56% based in GRI - last site to go live (May ’18)
- 62% working in medical specialties, 28% in surgical

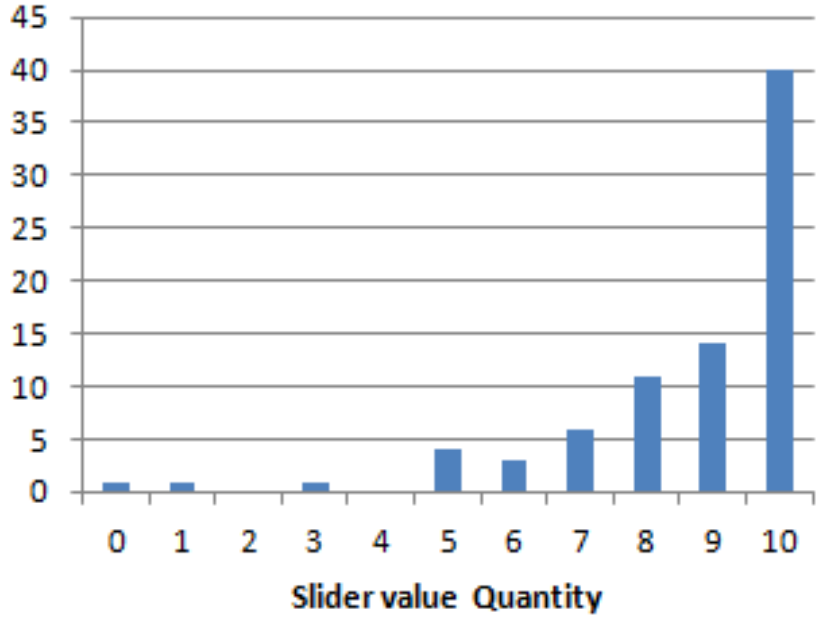
How long have you been using the Orion Meds Rec/IDL system?



On average, how often do you use the Orion Meds/Rec IDL system?



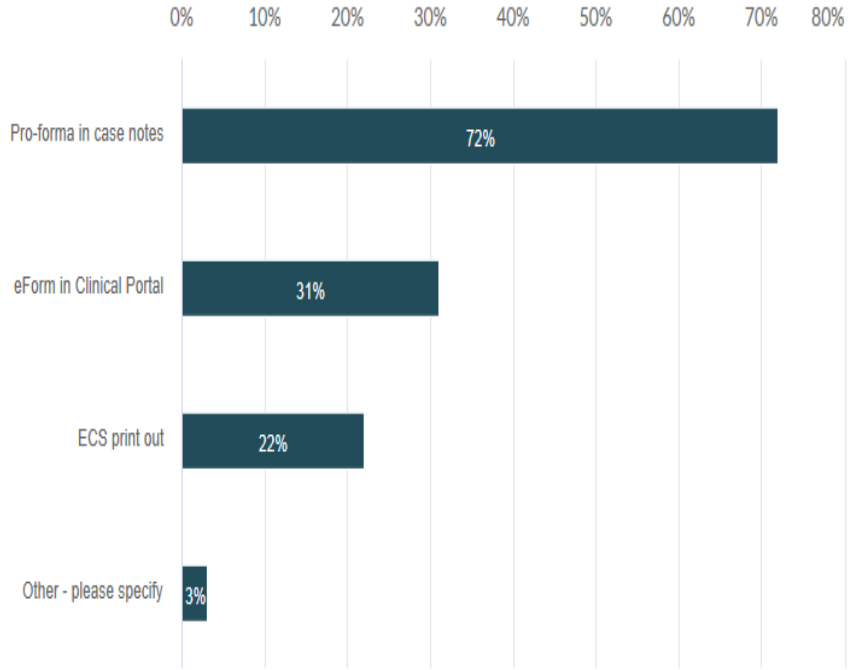
How clinically important do you think it is to complete Medicines Reconciliation (MR) when patients are admitted to hospital? n=81



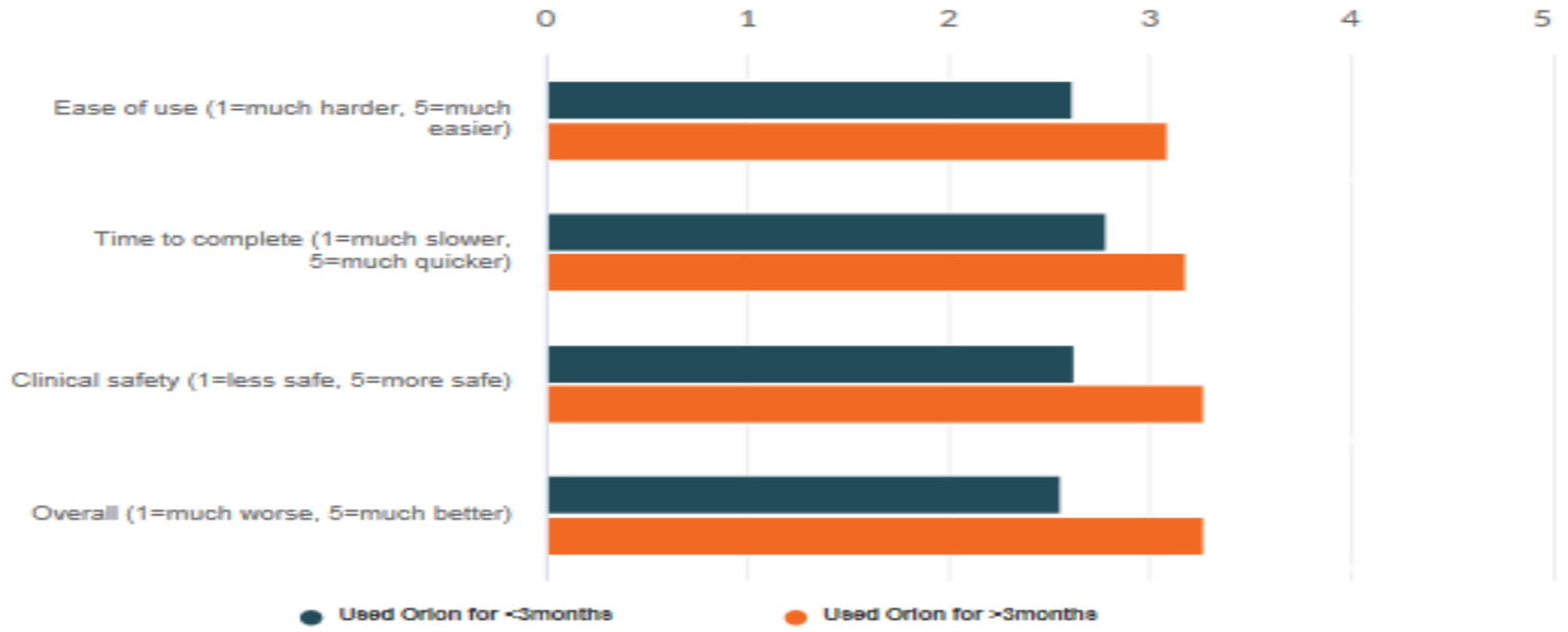
Min value= 0 (not important) Max value=10 (very important)
Average = 8.62 Median = 9

Respondents considered completion of Meds Rec to be a very important clinical task (80% scored 8 or above and almost half scored it 10)

Where did you previously record Medicines Reconciliation? (please tick all that apply). n= 78 (more than one answer could be selected)



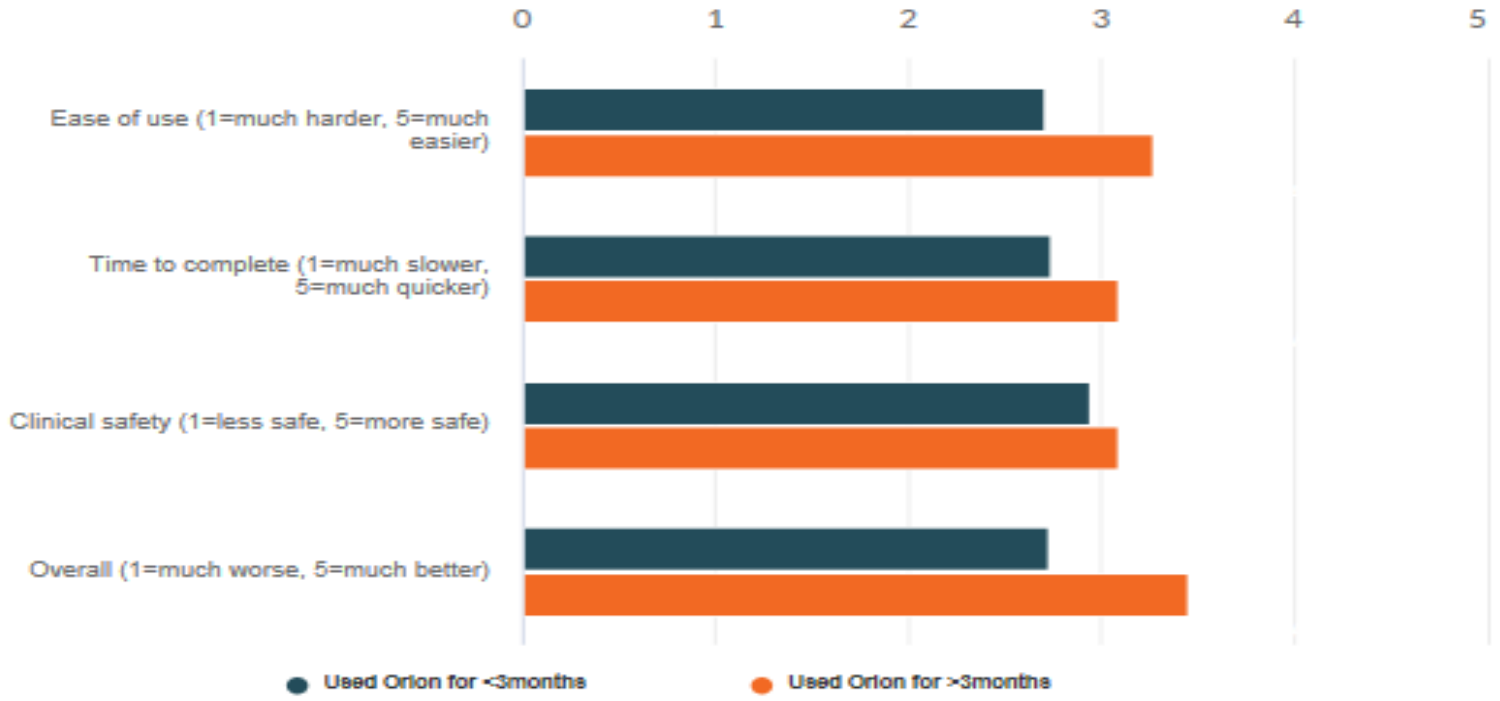
How does the new Orion Med Rec/IDL system compare with how you previously recorded Meds Rec?
Comparison between those using the system for <3months Vs those using the system for >3months



- Each factor had a median of 3
- The majority of respondents (51-57%) rated each factor at 3 or above; respondents who had used the system for >3months (n=11) rated each factor higher, with 91% of this sub-group rating 3 or above for the 'overall' factor.
- 45% (n=35) of all respondents considered the system to be overall worse (score of 1 or 2) than the previous system for recording MR. In contrast, in the '>3month Orion use' subgroup, only one respondent (9%) considered Orion to be overall worse.

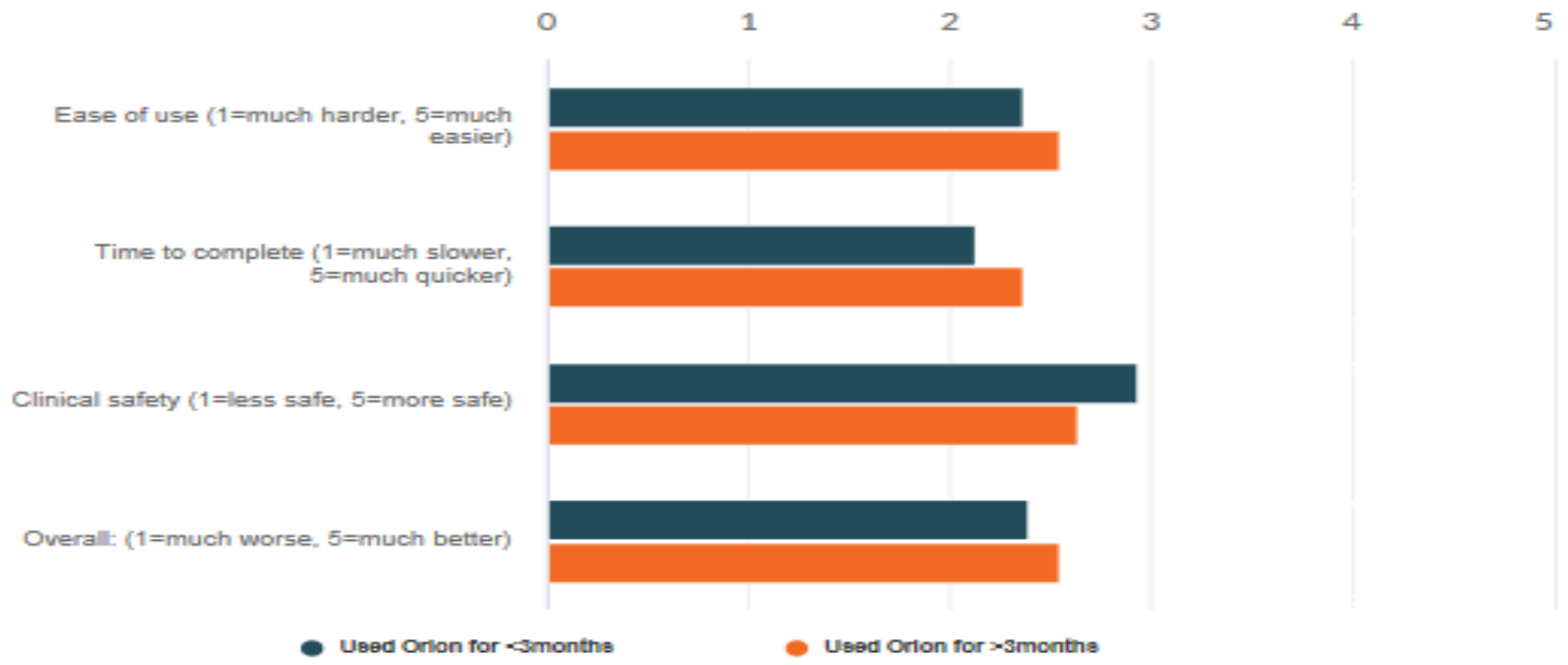
How does the new Orion Meds Rec/IDL system compare to the previous system (TrakCare) for the task of prescribing discharge medicines?

Comparison between those using the system for <3months Vs those using the system for >3months



- Each factor had a median of 3
- The majority of respondents (53-68%) rated each factor with a score of 3 or above. Respondents who had used Orion for >3months (n=11) rated 3 out of the 4 factors higher (the exception being 'clinical safety' where scores were similar), with 91% of this sub-group rating 3 or more for the 'overall' factor
- 42% (n=33) of respondents considered the system to be overall worse (score of 1 or 2) than TrakCare for prescribing medicines at discharge. In contrast, in the '>3month Orion use' subgroup, only one respondent (9%) considered it to be overall worse.

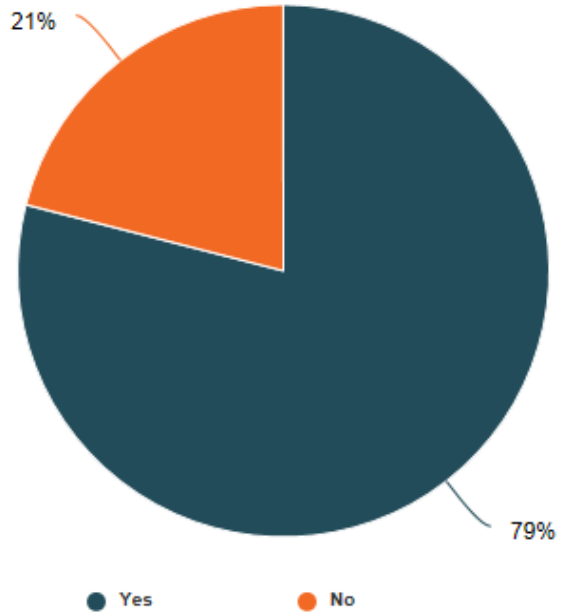
How does the new Orion Meds Rec/IDL system compare to the previous system (TrakCare) for the task of completing the clinical letter? **Comparison between those using the system for <3months Vs those using the system for >3months**



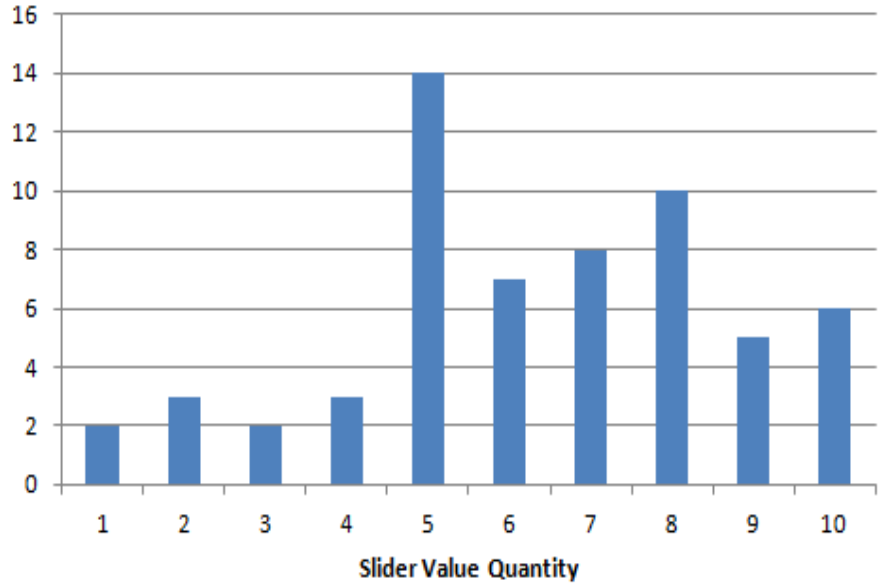
- Respondents rated the clinical letter part of the IDL lower (median 2) than the prescribing part (median 3). This was also observed in the group who had used the system for >3months

- 57% (n=45) of respondents considered the system to be overall worse (score of 1 or 2) than TrakCare for writing the clinical letter at discharge; in the '>3month Orion use' subgroup, 4 respondents (36%) considered the system to be overall worse

Did you receive any form of training prior to using the new Orion Meds Rec/IDL system?



How would you rate the face to face training? n=60



Min value= 1 (very poor), Max value=10 (very good)
Median = 6

What do you think are the benefits of this new system?

Quality & Safety

- Reduces transcription errors from ECS
- You have to address all meds the patient has been prescribed in the community
- Ensures discharge meds are reconciled with admission meds
- Having to comment why meds were stopped on discharge to give GP more info
- Eliminates problems with handwriting
- Easier to audit
- This system will be more useful/make more sense once e-prescribing is working

What do you think are the benefits of this new system?

Efficiency/Ease of Use

- Imports information easily from ECS
- Electronic record of meds rec is useful and good for future admissions
- If meds rec is done on admission, then it makes discharge Rx quicker/easier as you don't have to transcribe all the medicines, which saves time
- Quick when no med changes are needed
- Easier to discharge people on lots of meds
- Quicker/Saves time

What do you think are the risks of the new system?

- *Not engaging the patient in MR process and over-reliance on ECS as a single source of information*
- *Risk of continuing medicines without due consideration*
- *Branded medicines convert to generic name when pulled in from ECS making it difficult to reconcile*
- *Medicines are recorded as specific formulations and doses as number of tablets, capsules, millilitres etc. This is different to the way medicines are currently prescribed in hospital*
- *No record of Meds Rec in paper admission notes*
- *New system still requires transcription to the kardex and the associated risk of errors*
- *You can't access other portal functions e.g. lab results, whilst writing the IDL*
- *Knowledge gaps in how to use the system*
- *Clinical portal slowdowns or downtime impact efficiency and safety*

What improvements would you like to see made, if any?

Orion Meds Rec/IDL Application

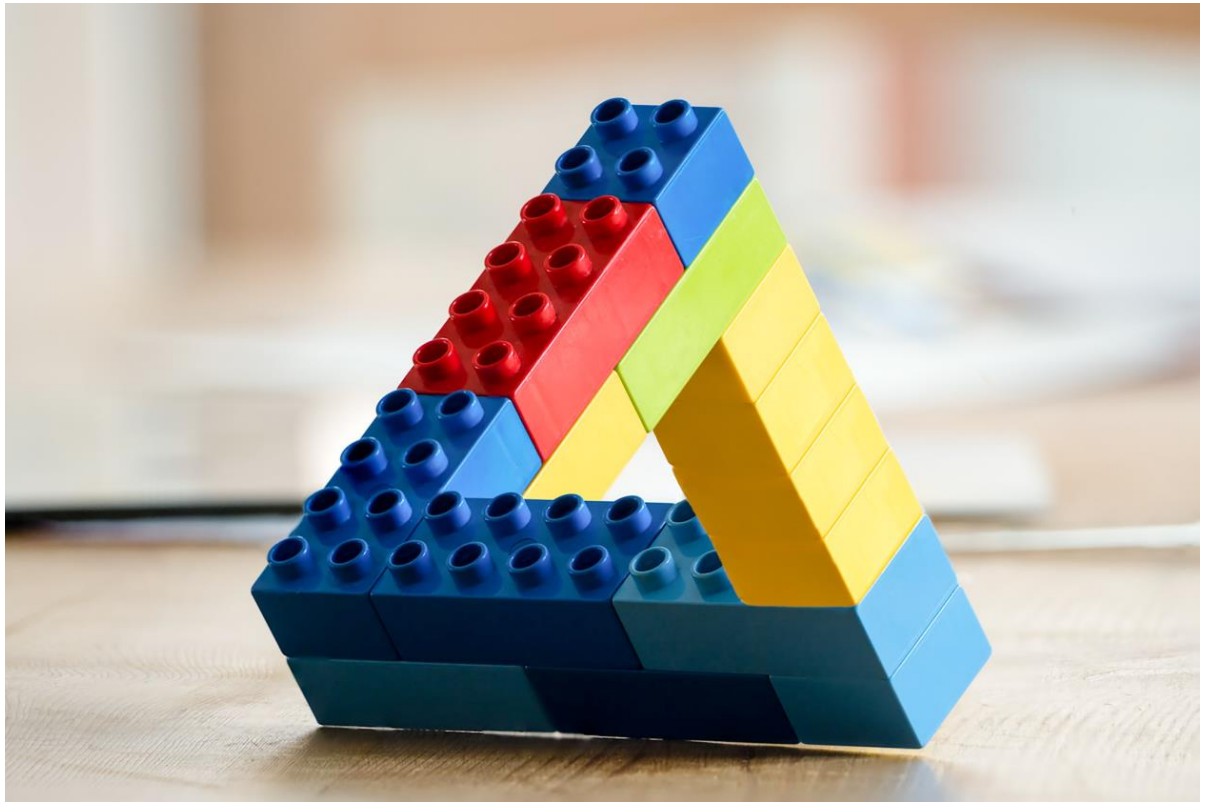
- Has to be able to import allergies from ECS
- Certain branded medicines shouldn't be switched to generic name e.g. inhalers
- Be able to view/use portal while doing an IDL e.g. access to lab results, reports
- Process needs to be less clunky and more streamlined. Reduce the number of clicks/buttons. It really takes far too long compared to the old system because of all the different stepse.g. enrolling in pathway/waiting for next 'step' to appear in menu bar/ having to go into adhoc tasks to edit a letter that's already been done.
- Reformat the layout to be more small screen friendly – lots of us use laptops with small screens and no mouse . Most of the time you have to scroll down a page to click anything, if you are just using the trackpad on a laptop this is not user friendly and is poorly designed.

What improvements would you like to see made, if any?

Clinical Practice

- MR form must be printed and included in the admission notes
- Ensure admission meds rec actually happens in receiving wards. Enforce the need to complete on admission
- Need to be able to do a simplified discharge for patients in for short periods e.g. day cases, without completing a full meds rec i.e.only additional meds
- Support for doing meds rec at the bedside e.g. ipads
- Implement HEPMA. Either go all out and eprescibe or don't bother making us do both jobs

Questions



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