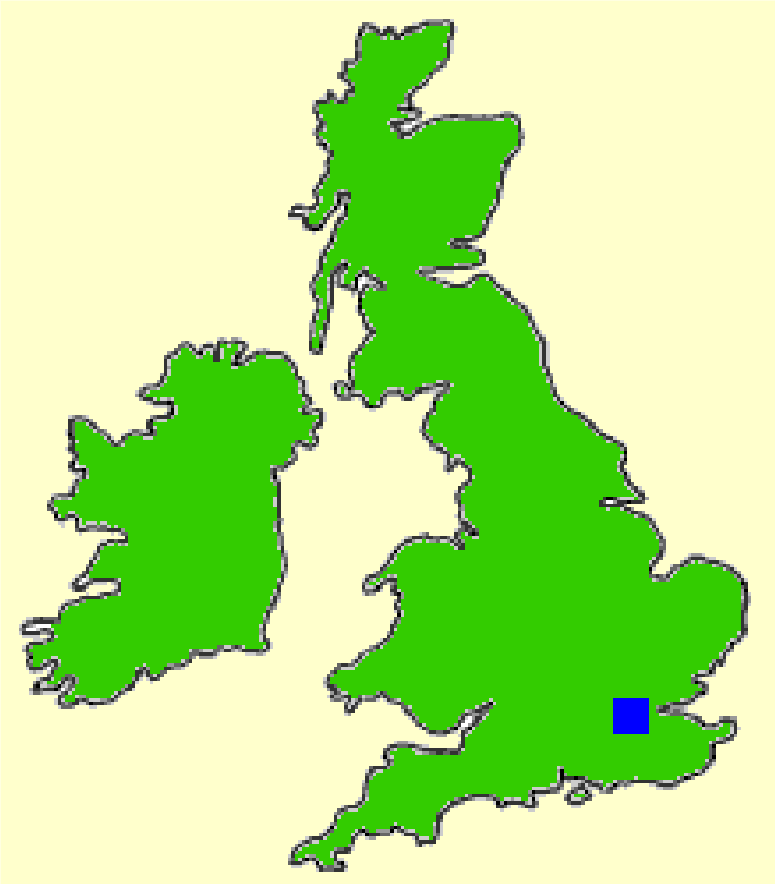
RFID in Hospital



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OVERVIEW

- Patient Safety concerns – Why do we want to adopt RFID?
- Electronic Inpatient Prescribing Project – What are we doing?
- GS1 HUG – How does my participation help the hospital?
- Questions & Answers

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Chelsea & Westminster Hospital

DIRECTORATES

- Anaesthesia & Imaging
- HIV & Sexual Health
- Medical
- Surgery
- Women's & Children's Service

Healthcare Commission

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AIMS & VALUES

- **Clinical Governance and Safety** – to improve continuously patient outcomes and assure patient safety.
- **Patient Experience** – improve all aspects of the patient's experience, make the patient the centre of everything we do through a focus on customer care, and consequently to be the provider of choice.
- **Service Line Reporting** – to develop a service portfolio and business model based on a clear understanding of our income and cost base through service line reporting.
- **Teaching and Research** – to provide excellent undergraduate and multi-professional teaching.
- **Specialist Services** – to maintain and develop our specialist services.
- **Strategic Partnerships** – to develop effective partnerships with all stakeholders, including the Members' Council.
- **Workforce** – to ensure we have a highly skilled, motivated, diverse, productive and customer focused workforce.
- **Modern Infrastructure** – to ensure clinical care is supported and enabled by effective, modern support services.
- **Innovation** – to be innovative with our clinical services and business models, in particular by using our new Foundation Trust freedoms.
- **Integrated Governance** – to develop further the Trust's framework for integrated governance.

Patient Safety Reporting

NHS

National Patient Safety Agency

National Reporting and Learning System (NRLS)

Local Risk Management Systems (LRMS)

Local Risk Management Systems (LRMS)

Local Risk Management Systems (LRMS)

'any unintended or unexpected incident that could of or did lead to harm for one or more patients receiving NHS-funded healthcare'

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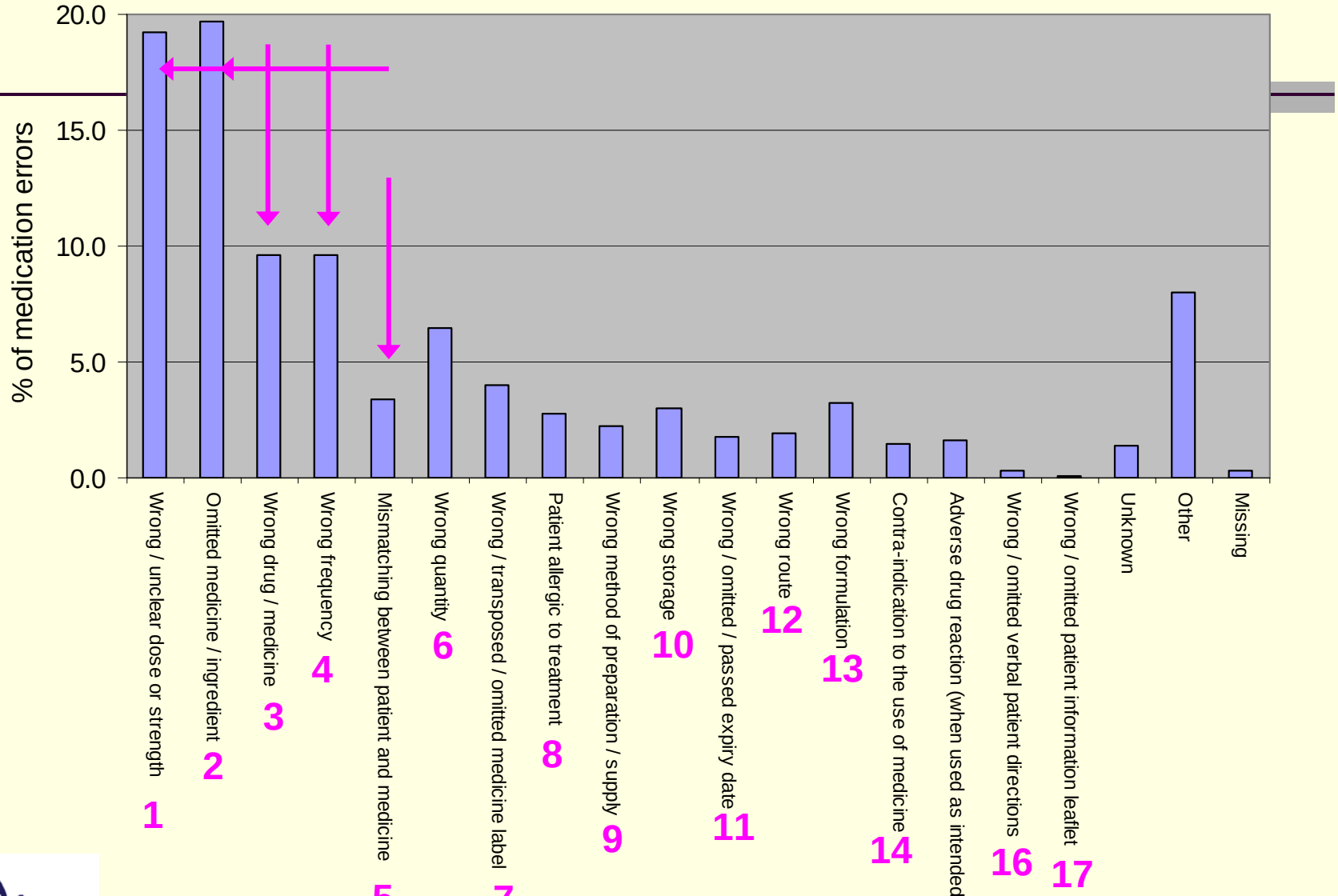
Type of Medication Errors



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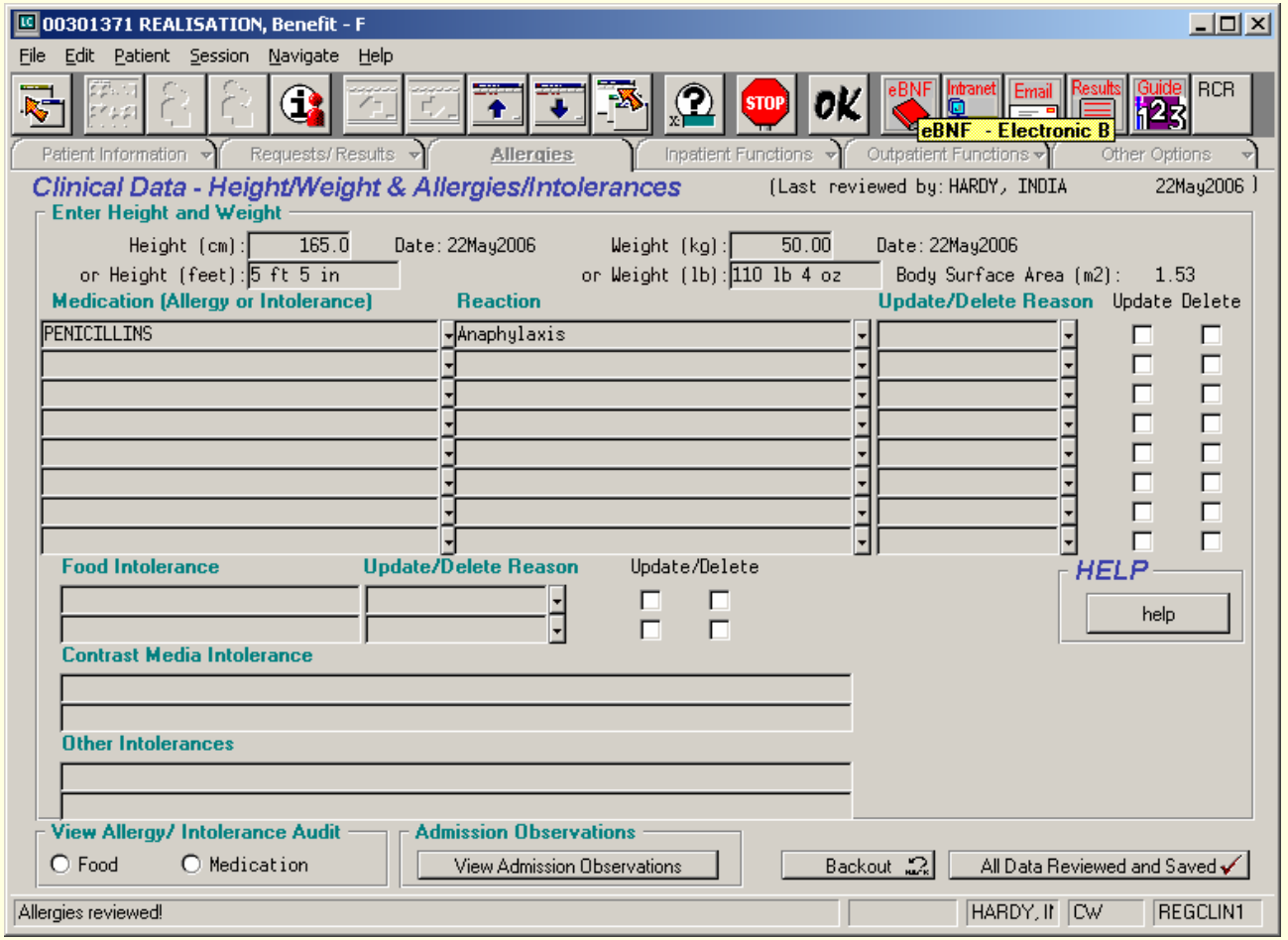
Electronic Patient Record (EPR)



GE Healthcare

FIRSTDATABANK
The Knowledge Inside

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Project Workflow

Step 1: Dr prescribes Rx

Step 2: Pharmacist verifies Rx

Step 3: Dispensary supplies Rx

Auto-ID of patient via RFID wristband

Step 4: Nurse administers Rx

Supply chain

Robotic Dispensing

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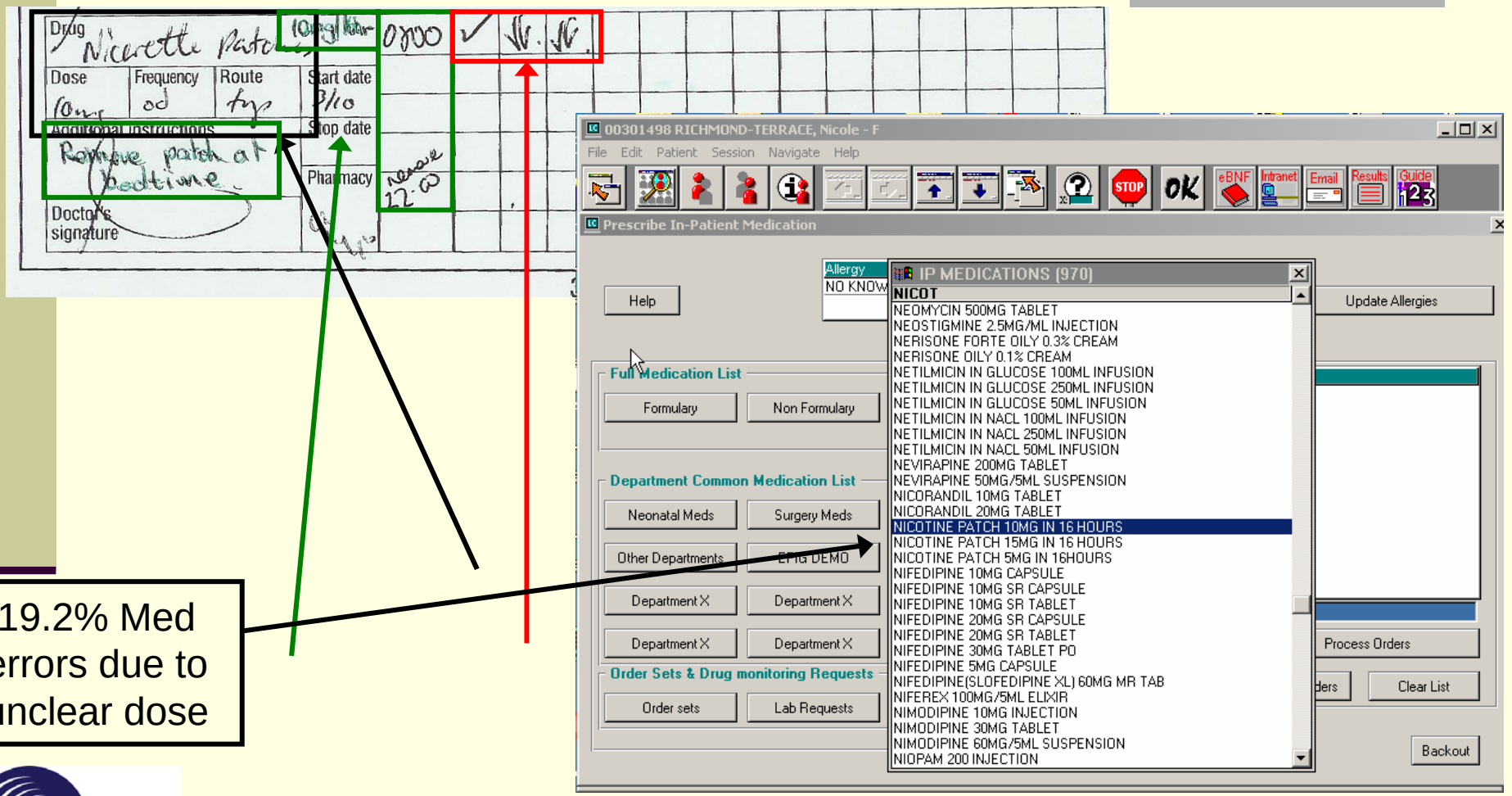
Step 1: Dr prescribes Rx



19.2% Med errors due to unclear dose

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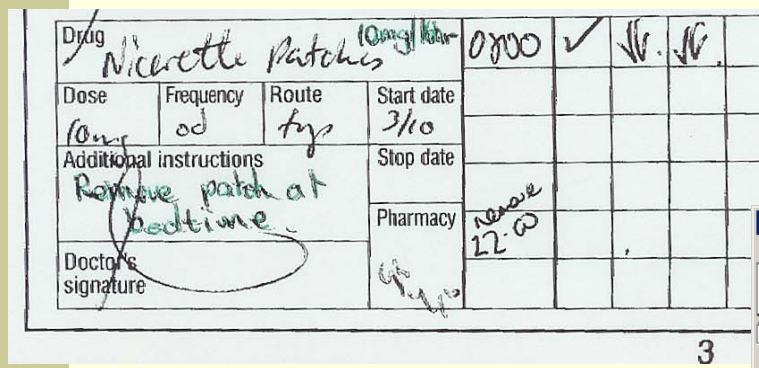
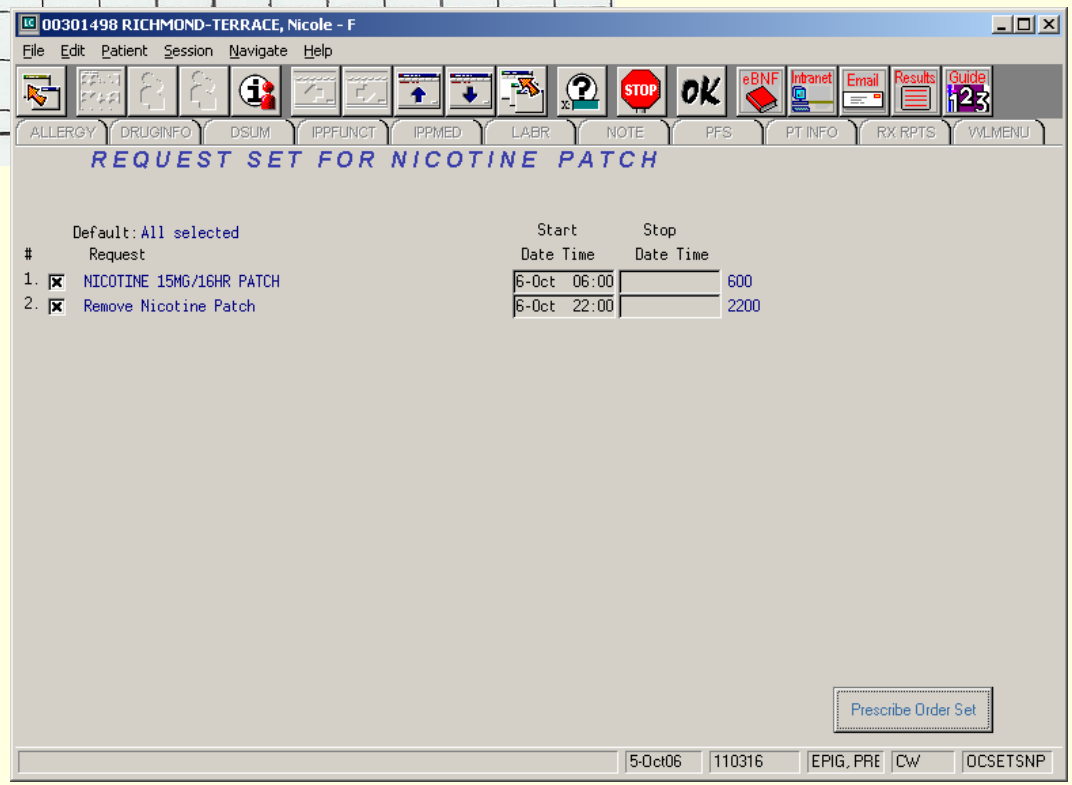
Order Sets





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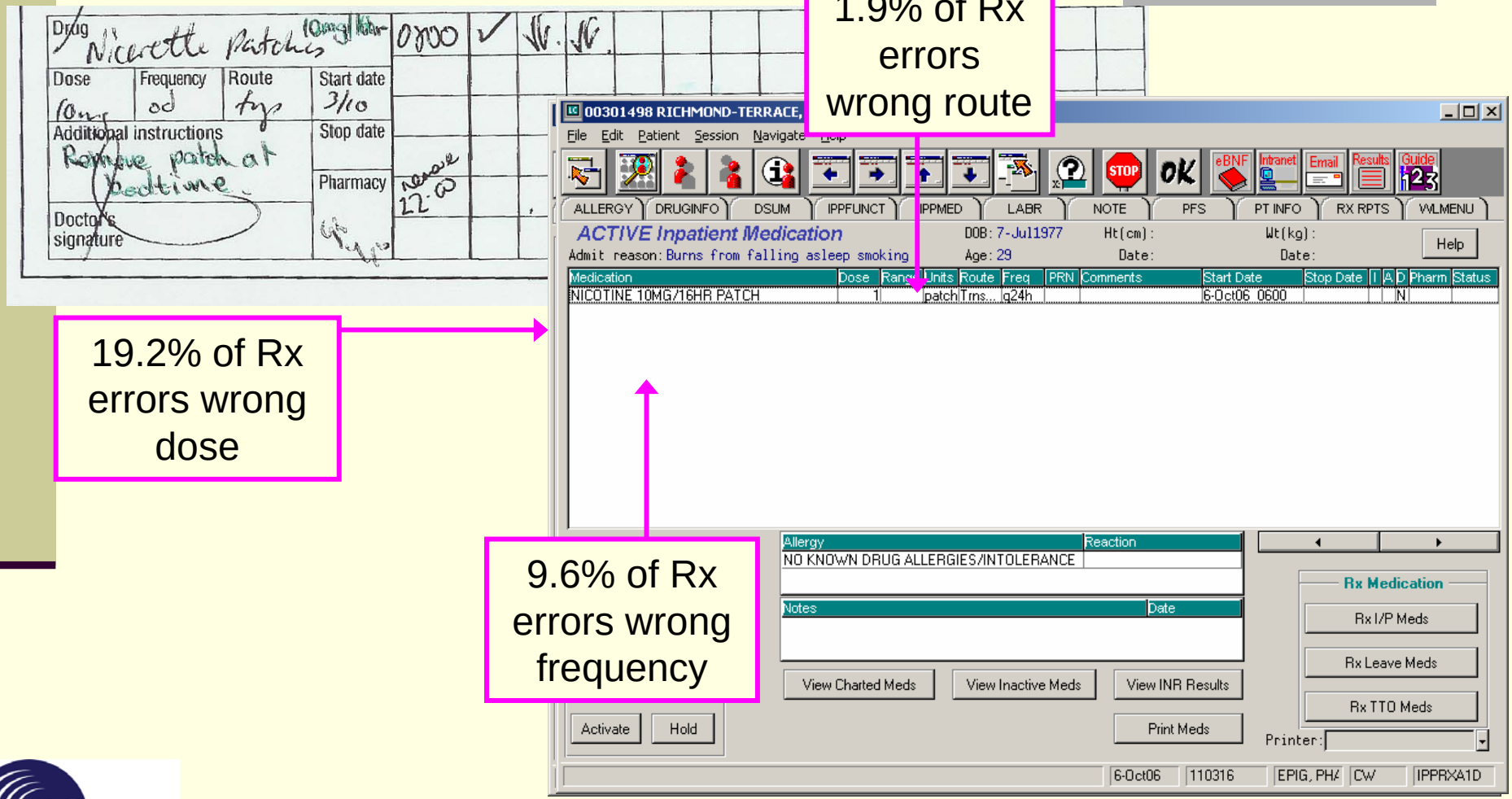
Default dosing



1.9% of Rx errors wrong route

19.2% of Rx errors wrong dose

9.6% of Rx errors wrong frequency

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Step 3: Dispensing of Rx

- Dispensary is technician lead to free pharmacist up for clinical duties
- over 80% of lines are dispensed automatically from robot
- robot picks over 100,000 pack per month

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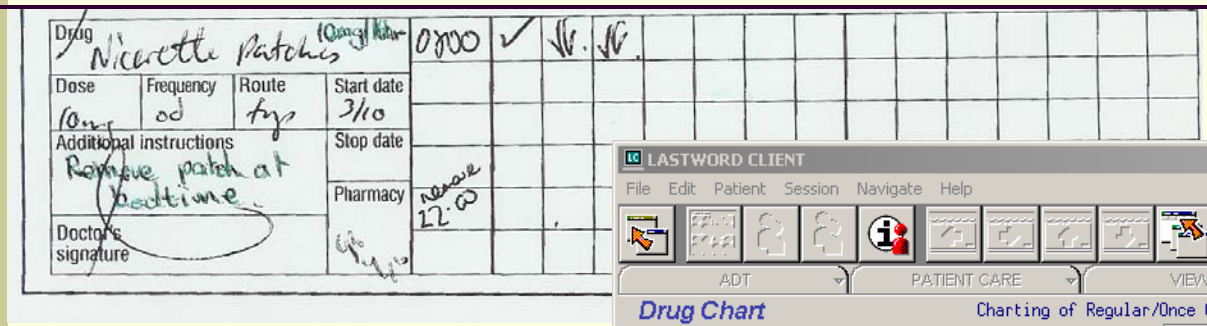
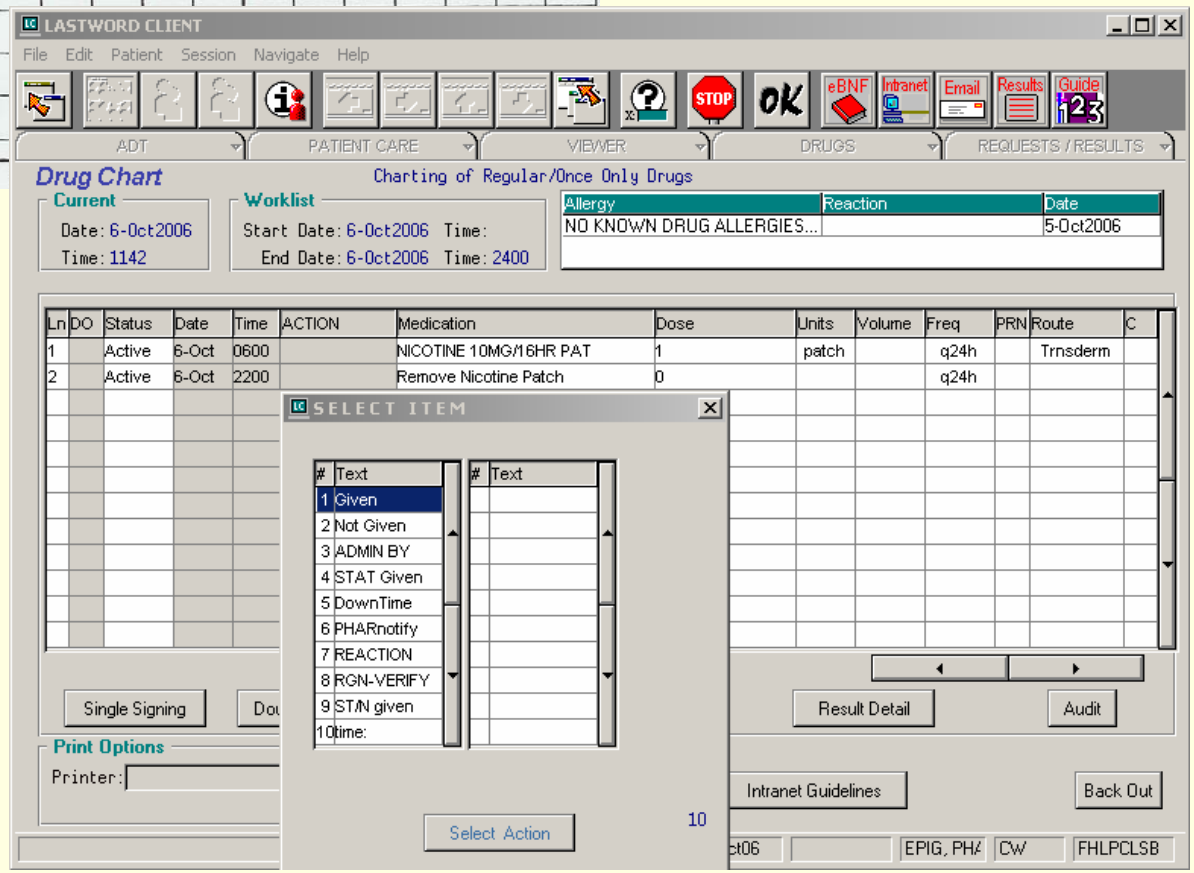
Step 4: Nurse Charting





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Why RFID?

- Non contact data transmission
  - Improved infection control
- No direct line of sight required
  - Can scan through bed sheets etc…
- Less read failures
  - saves nursing time

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Error Reduction

Medication Errors	How Reduced?
1. Wrong / unclear dose or strength	FDB Compendium
2. Omitted medicine / ingredient	Order Sets
3. Wrong drug / medicine	FDB Compendium; Robotic Dispensing
4. Wrong frequency	Default Dosing
5. Mismatching between patient and medicine	Auto-ID using RFID wristband
6. Wrong quantity	FDB Compendium; Robotic Dispensing
7. Wrong / transposed / omitted medicine label	No transcription
8. Patient allergic to treatment	Allergy checking
9. Wrong method of preparation / supply	2.2%
10. Wrong storage	3.0%
11. Wrong / omitted / passed expiry date	1.8%
12. Wrong route	Default Dosing
13. Wrong formulation	FDB Compendium
14. Contra-indication to the use in relation to drugs or condition	Allergy/Interaction Checking
15. Adverse drug reaction (when used as intended)	1.6%
16. Wrong / omitted verbal patient directions	0.3%
17. Wrong / omitted patient information leaflet	0.1%
Total Not addressed by project	9%

Why is it important for Chelsea & Westminster Hospital to be part of HUG?

5 RIGHTS of the PATIENT

- ➔ right PERSON
- ➔ right MEDICINE
- ➔ right DOSAGE
- ➔ right TIME
- ➔ right ROUTE of ADMINISTRATION

AUTHENTICITY

TRACEABILITY

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Why is it important for Chelsea & Westminster Hospital to be part of HUG?

➔ interface with manufacturers, wholesalers, other hospitals

➔ assists process planning, horizon scanning, workflow design and project direction

➔ timeline and decision making

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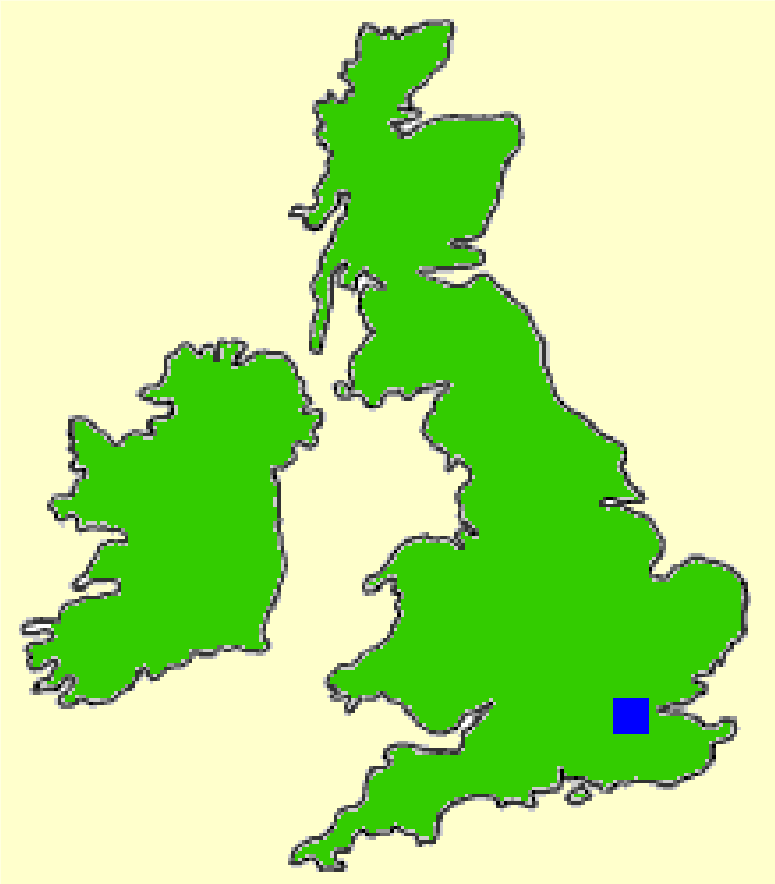
RFID in Hospital



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