# Hospital ePrescribing Shared learning and opportunities across the UK

27th March 2012

ICC, Birmingham

NIHR Programme Grant for Applied Research

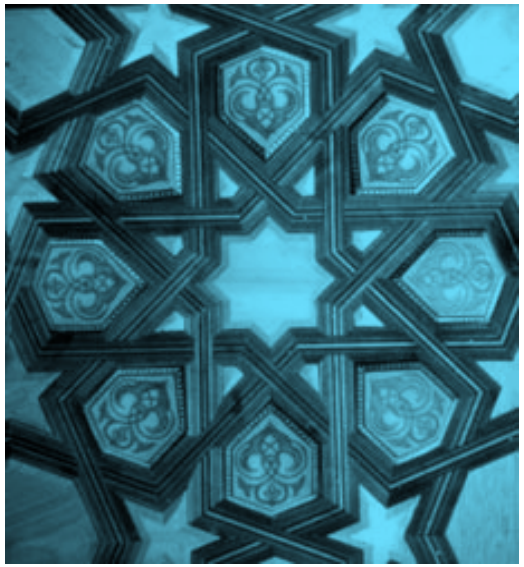
The University of Nottingham

UNIVERSITY OF BIRMINGHAM

University Hospital Birmingham NHS Foundation Trust

# Medicines are at the very heart of modern medicine

* The medications we use have increased in cost, number and complexity.
* This demands more knowledge and understanding from clinical staff, more attention to their management
* This also leads to greater concern over the risk of errors and the harm medicines cause
* Medication errors are a major preventable source of harm in healthcare



NIHR Programme Grant for Applied Research

The University of Nottingham

UNIVERSITY OF BIRMINGHAM

University Hospital Birmingham NHS Foundation Trust

# e Prescribing

* e Prescribing systems help reduce risk to patients through the following:

  - Produce more legible prescriptions
  - Alert for contra-indications, allergies and drug interactions
  - Guide inexperienced prescribers
  - Support timely and complete administration
  - Provide data to guide interventions to drive quality improvements

NIHR Programme Grant for Applied Research

# Improving communications

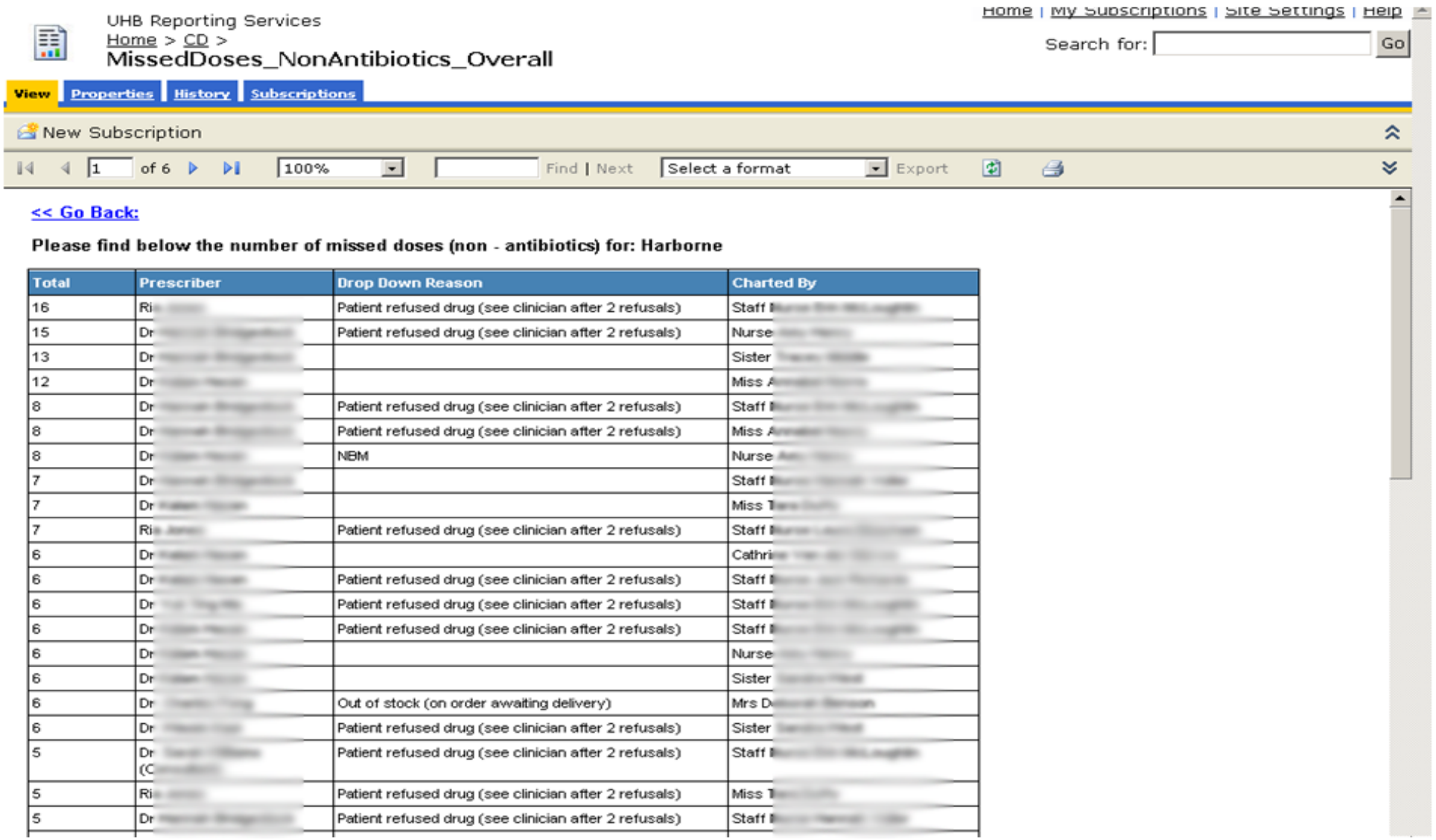
* e Prescribing should help communications between departments and care settings

  - Reduce paperwork
  - Reduce lost or illegible medication records
  - Provide clear and complete audit trails
  - Improved formulary guidance and adherence
  - Support care pathways

# But there are risks….

* Systematic errors may be programmed in, e.g. terminating antibiotics without warning
* Assumption that ‘the computer must be right’, e.g. unthinking use of default doses
* Alert and Alarm fatigue
* Errors using drug selection drop-down lists
* Reduction in face-to-face communications within the care team

NIHR Programme Grant for Applied Research



UHB Reporting Services
Home > CD >
MissedDoses_NonAntibiotics_Overall

Home | My Subscriptions | Site Settings | Help
Search for: Go

View | Properties | History | Subscriptions

New Subscription

1 of 6 | 100% | Find | Next | Select a format | Export

<< Go Back:

**Please find below the number of missed doses (non - antibiotics) for: Harborne**

| Total | Prescriber | Drop Down Reason | Charted By |
|---|---|---|---|
| 16 | Ri | Patient refused drug (see clinician after 2 refusals) | Staff |
| 15 | Dr | Patient refused drug (see clinician after 2 refusals) | Nurse |
| 13 | Dr | | Sister |
| 12 | Dr | | Miss |
| 8 | Dr | Patient refused drug (see clinician after 2 refusals) | Staff |
| 8 | Dr | Patient refused drug (see clinician after 2 refusals) | Miss |
| 8 | Dr | NBM | Nurse |
| 7 | Dr | | Staff |
| 7 | Dr | | Miss |
| 7 | Ri | Patient refused drug (see clinician after 2 refusals) | Staff |
| 6 | Dr | | Cathri |
| 6 | Dr | Patient refused drug (see clinician after 2 refusals) | Staff |
| 6 | Dr | Patient refused drug (see clinician after 2 refusals) | Staff |
| 6 | Dr | Patient refused drug (see clinician after 2 refusals) | Staff |
| 6 | Dr | | Nurse |
| 6 | Dr | | Sister |
| 6 | Dr | Out of stock (on order awaiting delivery) | Mrs D |
| 6 | Dr | Patient refused drug (see clinician after 2 refusals) | Sister |
| 5 | Dr (C | Patient refused drug (see clinician after 2 refusals) | Staff |
| 5 | Ri | Patient refused drug (see clinician after 2 refusals) | Miss |
| 5 | Dr | Patient refused drug (see clinician after 2 refusals) | Staff |

NIHR Programme Grant for Applied Research

The University of Edinburgh
Harvard
The University of Nottingham
University of Birmingham
University Hospital Birmingham NHS Foundation Trust

# Implementing e Prescribing

* e Prescribing brings changes in how tasks are undertaken, where they are undertaken, and how the workflow is organised

* Some of these changes are *designed in* as part of implementation, for example changes in supply to wards

* Some changes will come about as people learn to use the system and adapt to it, and also adapt it to their needs

NIHR Programme Grant for Applied Research

# Implementation brings its own concerns

* Changing from paper to a computer based system is a challenge and requires a change in mind-set
* Tasks take longer both initially as people get used to the system and as a consequence of full data entry
* Some people are fearful that their computer skills are not sufficient

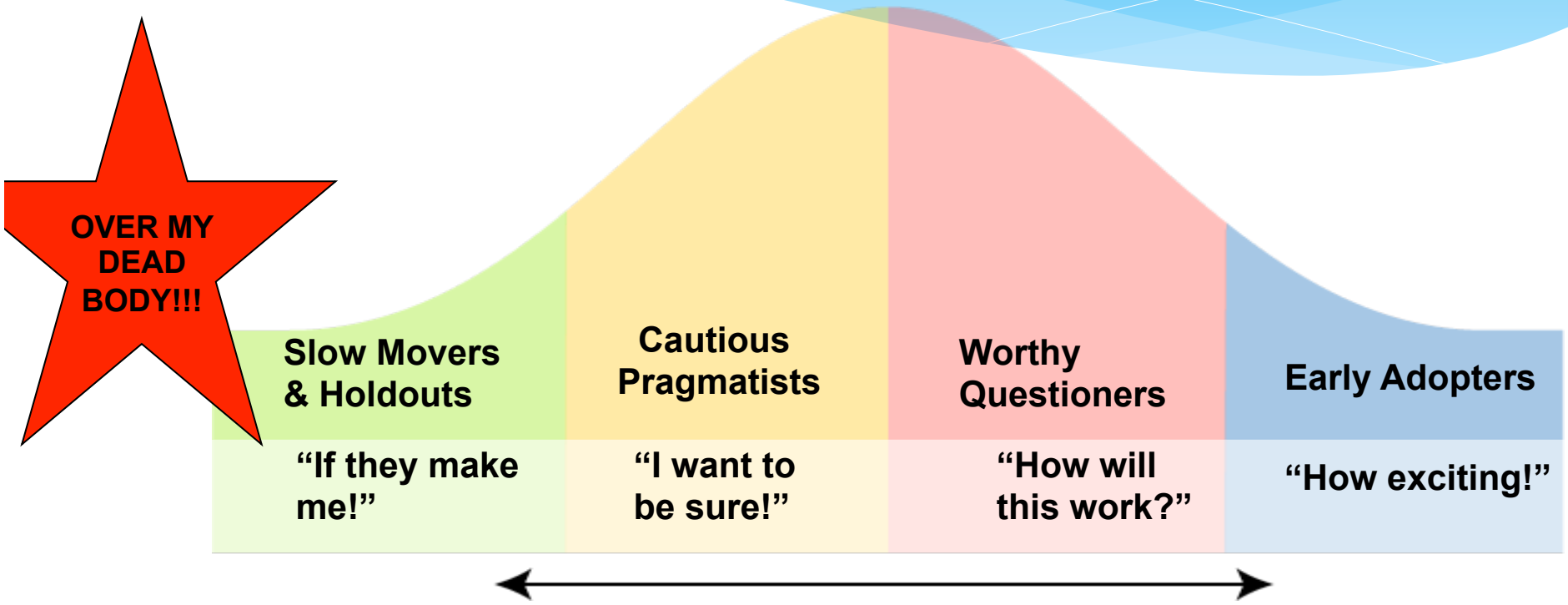
NIHR Programme Grant for Applied Research

# Implementation needs a Team

* **Executive level support** – Medical Director, Nurse Director and Operations
* **Senior Clinical Support** – across clinical disciplines including, Medicine, Nursing , Pharmacy and also IT ("Super-Users")
* **"Middle Grade" Champions** – Medics & Nurses (Super-Users")
* Dedicated Training Team (Super-Users")
* Additional flexible resource which can be deployed as necessary

NIHR Programme Grant for Applied Research

# Key Implementation Challenges: Changing Culture, Custom & Practice




NIHR Programme Grant for Applied Research

The University of Nottingham

UNIVERSITY OF BIRMINGHAM

University Hospital Birmingham NHS Foundation Trust

# Planning Implementation (1)

* Project Planning Methodology applies
* Qui bono ? – Articulate the message – this may have different facets for different professional groups but patient safety is common to all
* Encompass the concerns of professional groups and address these head-on
* Assess training requirements (including prior IT competence) and plan how to deliver

# Planning Implementation (2)

* Establish and communicate the vision and its relationship with wider hospital strategy
* Build and sustain links to senior management and clinical leaders
* Work to secure wide stakeholder commitment
* Talk to other people and other sites that have experience with e Prescribing

# Planning Implementation (3)

* Specifying, selecting, procuring and installing software and hardware – consider e.g infection control: disability: storage: security: "unauthorised use"

* Configuring software and building required databases with appropriate governance

* Map & Understand current processes: Current state – Future state – consider need to standardize processes before implementation of e Prescribing

# Planning Implementation (4)

* Understand and categorise risks
* Consider requirements for disaster recovery and ensure plans in place
* Test disaster recovery responses and outcomes as part of a "pre-implementation" phase
* Keep testing and using these facilities – e.g. during software upgrades/maintenance

# Planning Implementation (5)

**e Prescribing can be rolled-out in a mix of a number of different ways.**

* A **pilot site** – perhaps one or two wards or clinics – where software, equipment and re-designed work processes can be tested
* **Parallel running**, where the new system is run alongside an older system for a period of time to validate its outputs
* **Incremental** implementation in which the system is launched with limited or restricted functions, and more are added to over time
* **Big bang**, where work is moved in one swift activity from the old paper based system to the new e Prescribing

# Planning Implementation (6)

**Decide what you are implementing:**

* The level of functionality in the first version of a system put into use will also need to be carefully considered.
* Too little functionality may disappoint users; too much may overwhelm them
* A successful initial implementation of e Prescribing is the start, not the end, of building and running a successful system

# Planning Implementation (7)

**Consider:**

* Un-intended consequences and capacity to manage these swiftly (!)
* Key staff to support implementation on the ground
* Optimum time to commence and speed of change
* Lines of communication to executive level

# Group Work