

EAHP ACADEMY SEMINAR

30 Sept - 1 Oct 2016, Bucharest

From Medicines Reconciliation to Medicines Optimisation

Issues to consider linked with medicines review on the ward (UK)

- *Patients' Own Drugs***
- *Missed Doses***
- *Anticoagulants***
- *Medication Safety Officer role***

**Jane Smith, Principal Pharmacist,
Development & Governance
NBT Medication Safety Officer (MSO) (UK)**

Disclosure Statement

"Conflict of interest: nothing to disclose"

Learning Objectives



Participants should be able to:

- Transfer principles of the use of Patients' Own Drugs
- Understand how to measure and highlight the issue of Missed Doses
- Understand how to measure and Reducing Harm from Anticoagulants
- Understand the role of the Medication Safety Officer (in England) and what principles can be transferred for local use in improving reporting of and reducing harm from incidences

SUMMARY QUESTIONS:

Linked with the learning Objectives for today:

- **Missed Doses impact on the outcome of Medicines Reconciliation and Medication review. True or false?**
- **Patients Own Drugs (in the UK) are a useful source for aiding Medicines Reconciliation and Medication review. True or false?**
- **The incidence of high INRs do not impact on Medication review. True or false?**

Who are we ?

NBT – North Bristol

Patient Safety: Medicines Management work stream



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North Bristol **NHS**
NHS Trust

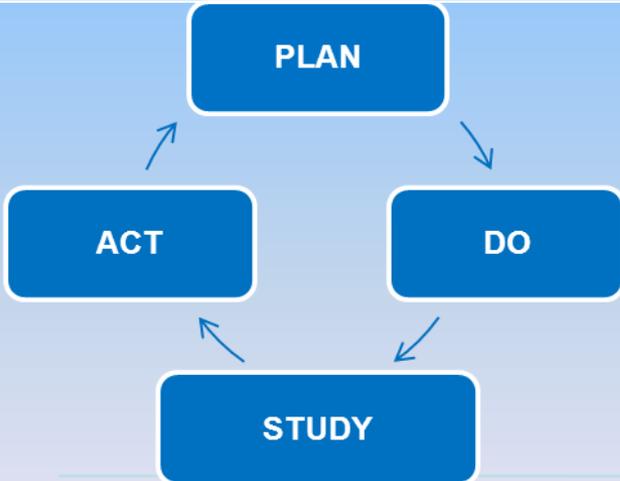


NBT Team



Quality Improvement Methodology

- Ongoing measurement
- Tests of change



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Worksheet for Testing Change –

Aim: (Overall goal you would like to reach)

Every goal will require multiple smaller tests of change

Describe your first (or next) test of change	Person Responsible	When to be done	Where to be done

Plan

List the tasks needed to set up this test of change	Person Responsible	When to be done	Where to be done

Predict what will happen when the test is carried out	Measures to determine if prediction succeeds

Do Describe what actually happened when you ran the test

Study Describe the measured results and how they compared to the predictions

Act Describe what modifications to the plan will be made for the next cycle from what you learned

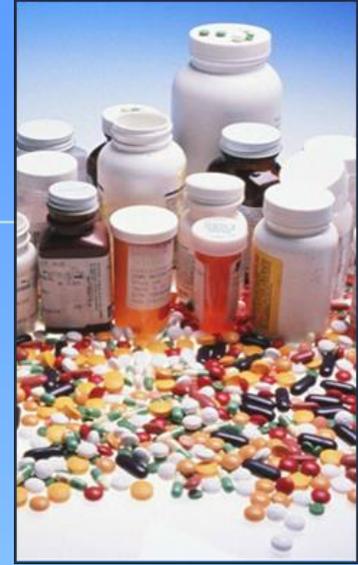
Patients Own Drugs (PODs)– key drivers:

PODs are the medicines that a patient has been taking before admission to hospital – and can include Rx medicines, herbal, Over-the-counter etc.

- “Duthie report” (1988)
- “A Spoonful of Sugar” (2001)
- “Improving the use of medicines for better outcomes and reduced waste: An Action Plan” (2012)



Patients Own Drugs – actions:



- Phase 1: 1992–1996: Pharmacy based:
- Phase 2: 1997–2000: Ward based:
- Phase 3: 2001–2004: Medicines Management: trials:
- Phase 4: 2005–2014: MM: service spread

MM Technicians are trained in all aspects of the process:

- Patients/Carers interviewed about PODs and “PODs at home”
- Depending on the estimated LOS - PODs are used on ward and in TTA
- All patients have bedside lockers – links with self-administration

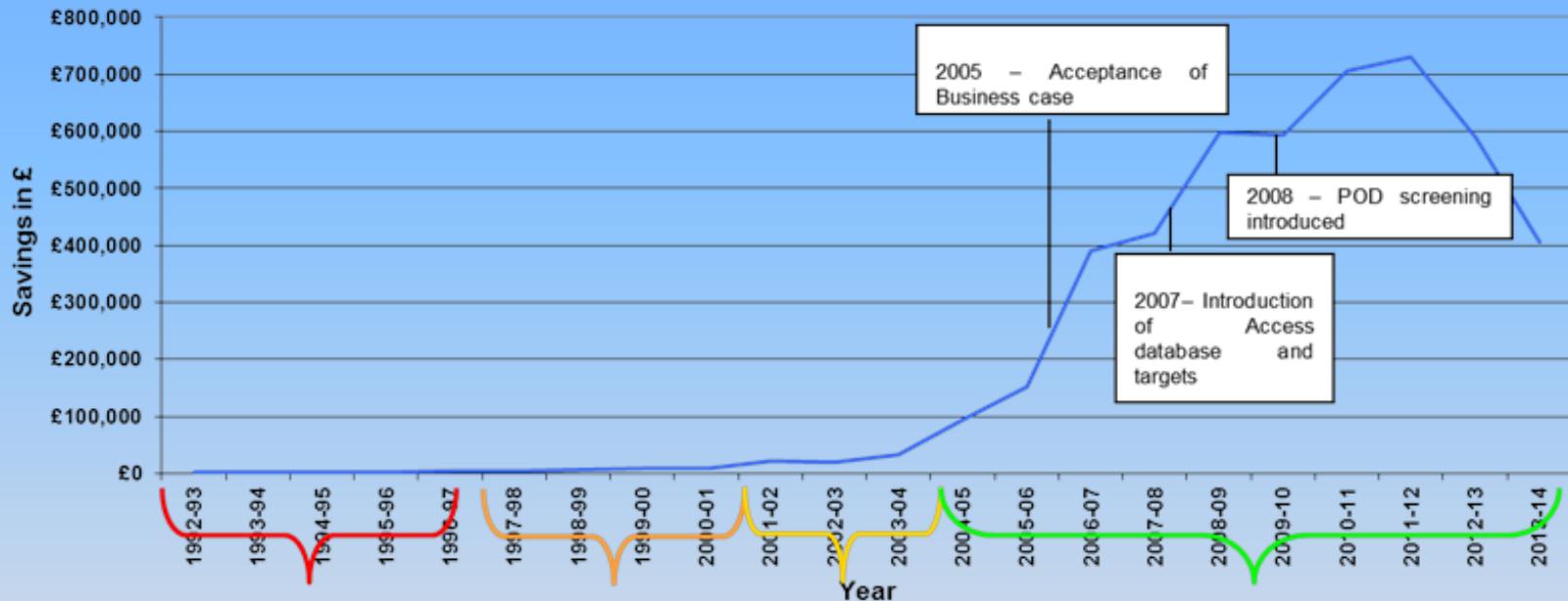
Impact on Medicines review:

- ***Accurate info. on administration for prescribing***
- ***Medicines available – reduced missed doses***

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Patient's Own Drugs – run chart:

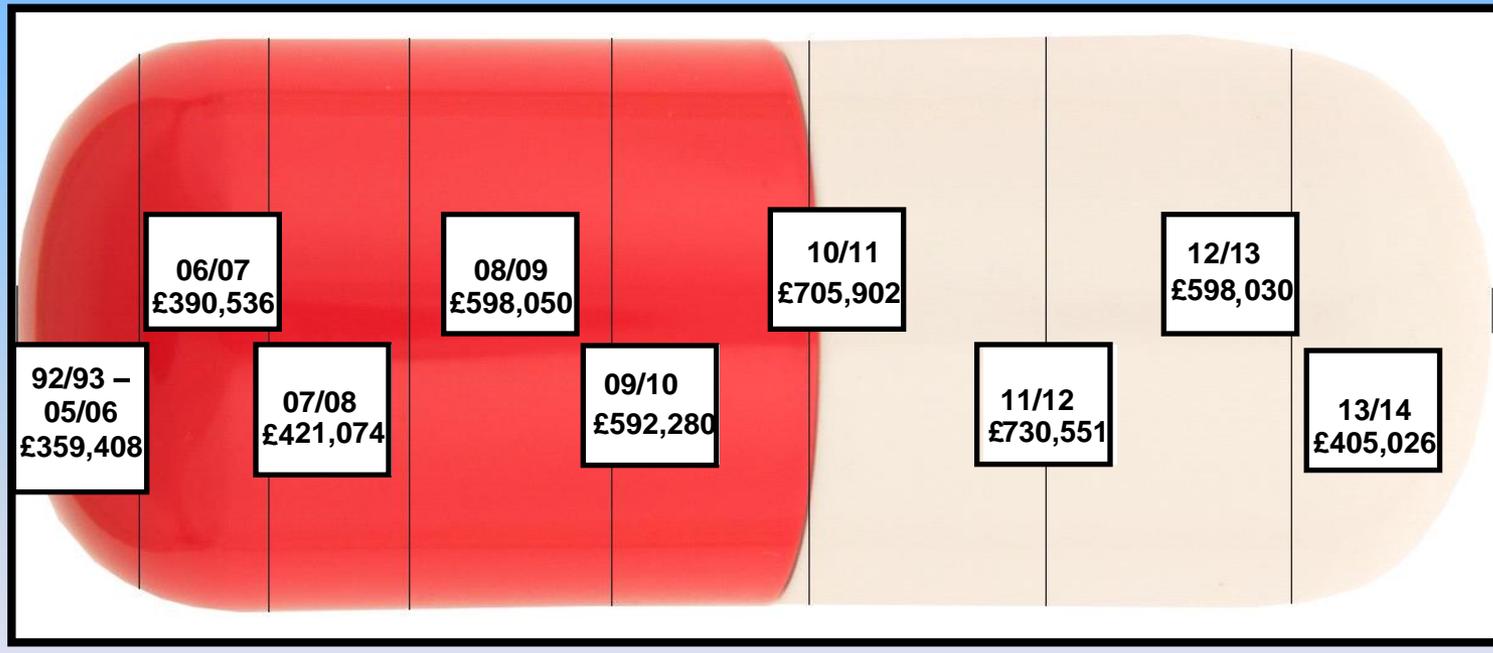
Patients Own Drugs Savings – North Bristol NHS Trust April 1992 – March 2014



Phase 1: 1992 – 1996 – POD: Pharmacy processed (SMH only)	Phase 2: 1997 – 2000 – POD: Ward processed (SMH only)	Phase 3: 2001 – 2004 – MM: trials (SMH)	Phase 4: 2005 – present time – MM: service spread (SMH + FR)
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Patient's Own Drugs – savings:

Patient Own Drugs Savings – North Bristol NHS Trust
Apr 1992 – Mar 2014
Total Savings - £4,800,859



Patients Own Drugs – Poster:

PATIENT'S OWN DRUGS ARE IMPORTANT

We need them in hospital

To Improve Patient Safety by:

- 1) Preventing delays in therapy
- 2) Preventing missed doses
- 3) Preventing errors in the medication history
- 4) Understanding compliance issues
- 5) Avoiding wasting valuable NHS resources

Why?

All Drugs Prescribed by the GP:

- 1) Tablets, Capsules and Liquids
- 2) Creams and Ointments
- 3) Eye and Ear Drops
- 4) Inhalers and Nebules
- 5) Insulin pens and cartridges
- 6) Over the counter medication from the Pharmacy

What?

For example:



Contact

North Bristol NHS Trust

Bristol Royal Infirmary:

Developed by: A. Sweeney + J Hamer

Date: 30th April 2010

Updated: March 2016

United Bristol Healthcare 
NHS Trust

Tel: 0117 4142303

Tel: 0117 928 2053

Approved by: J Smith + K Gibbs

Review date: April 2011

Review date: March 2019

North Bristol 
NHS Trust

Missed Doses – Definition:

“Missed Doses” are medication errors that occur when a medicine is not given to a patient when prescribed. They may cause harm to patients, lead to increased morbidity/mortality and inflate healthcare costs

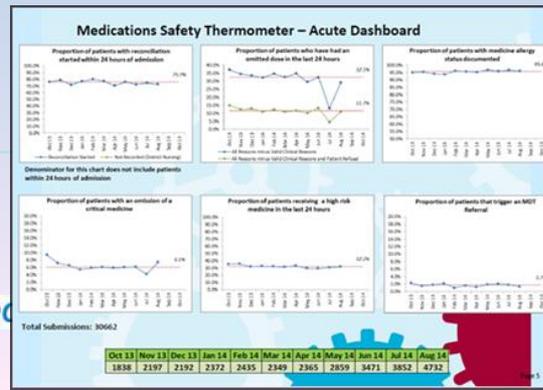
Causes: a result of errors during the supply, prescribing, dispensing or administration of medicines in hospitals and in patients’ home.

Impact on Medicines review:

- To consider impact when reviewing prescribing

Missed Doses – key drivers:

- NPSA alert (2010): RRR009: “Reducing harm from omitted and delayed medicines in hospital”
- NPSA/NICE: Medicines Reconciliation guidance (2007)
- Medication Safety Thermometer (2013)
- Medicines Optimisation Dashboard (2014)



Missed Doses – actions:

Phase 1 (Pre 2014 “MOVE”):

- A training package and Laminated posters
- An e-audit tool
- Ward handover sheets
- Pink missed dose order slip/orange leaflet
- Focus group discussion

Phase 2 (Post “MOVE”):

- Missed Doses Dashboard
- Admissions Medical Unit (AMU) audit
- Medication Safety Alert poster

Missed Doses Medication Safety Alert poster

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MEDICATION SAFETY ALERT

April 2015

“Missed Doses”

“Missed Doses” are one of the highest reasons for an incident report at NBT - and are medication errors which cause harm to patients.

Learning points:

- o **On Admission / or when Prescribing:**
 - o **Ensure Patients Own Drugs** are used as part of the Medicines Reconciliation process. **DO NOT** send home.
 - o **Doctors - Highlight changes to prescription charts to nursing staff**
- o **On Transfer**
 - o **Ensure Patients Own Drugs and any Pharmacy supplies are transferred with the patient**
 - o **Check availability of all drugs on the new ward**
 - Check Pharmacy endorsements on prescription chart
 - Check stock list / drug cupboards / POD chute
 - o **Nurses – report all missed doses on handover and follow up**
- o **Administration**
 - o If not available document code 6 on chart and obtain drug
 - o Once sourced, administer ASAP if safe to do so
 - o After giving drug – sign to avoid drug being given twice
- o **How to source a drug**
 - o Check “Unable to find medication” posters – on all wards
 - o Bleep your ward Medicines Management Technician / Pharmacist
 - o Order on a green Pharmacy item request slip
 - o If out of hours - contact the CSM
- o **Monitoring “Missed Doses”**
 - o Report all incidents on eAIMS safeguard
 - o Pharmacy - monitor Missed Doses daily
 - o Nurses – ward data collection

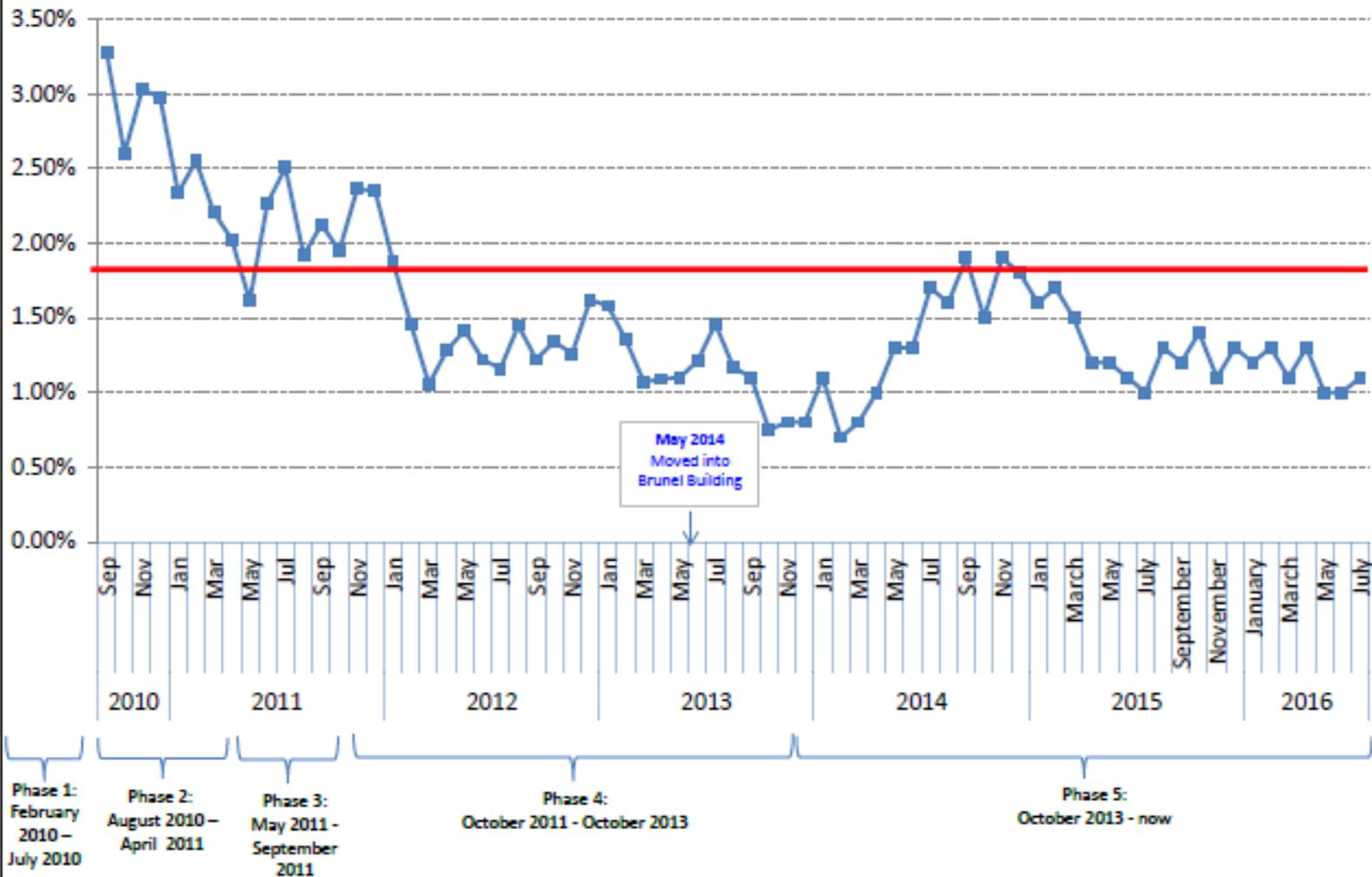


For Action by: All medical staff, nursing and pharmacy staff

Alison Mundell, Clinical Team Manager
Julie Hamer, Senior Pharmacy Technician Medicines Management
Dr Jarrod Richards, Consultant, Care of the Elderly
Sarah Dodds, Deputy Director of Nursing
Jane Smith, Principal Pharmacist and NBT Medication Safety Officer

Missed Doses – run chart:

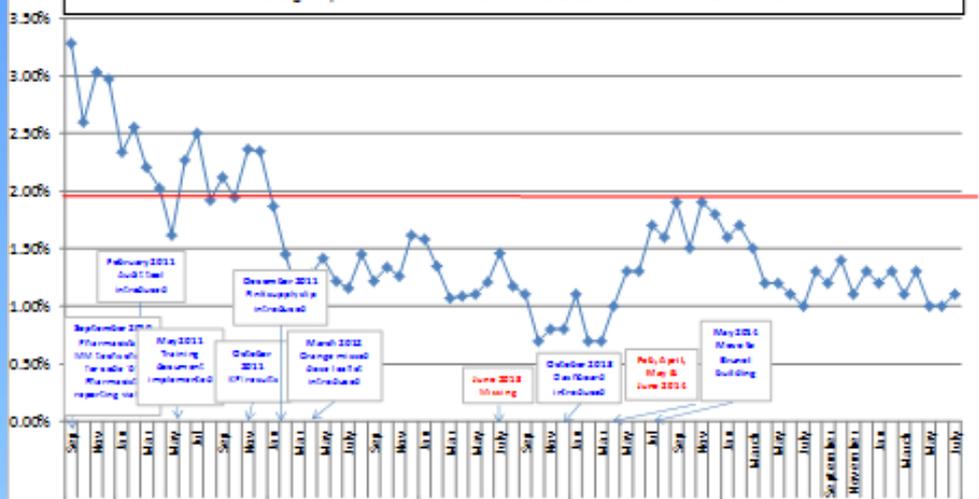
Confidential North Bristol NHS Trust
 Percentage of patients with one or more missed doses across
 North Bristol NHS Trust



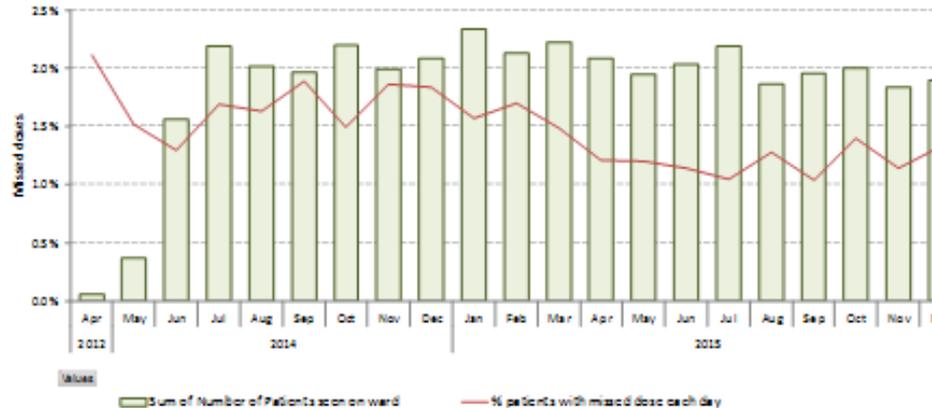
Pharmacist KPI data

Percentage of patients with one or more missed doses across North Bristol NHS Trust: Jul 2016

Percentage of patients with one or more missed doses across North Bristol NHS Trust



Total patients seen and % with missed dose

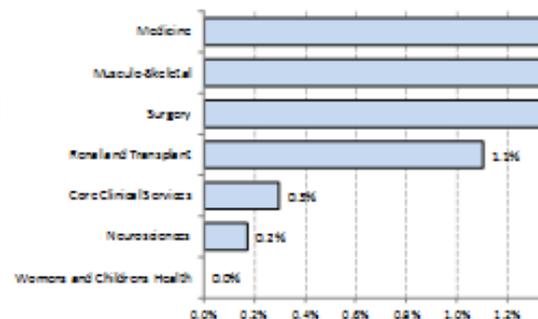
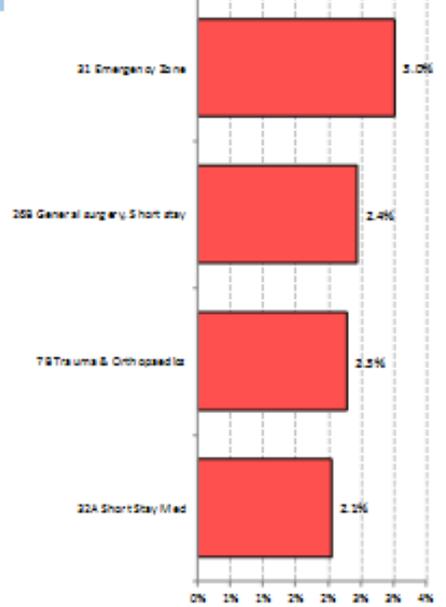
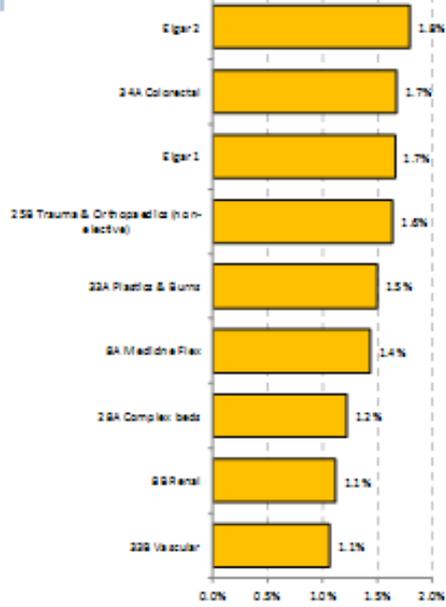
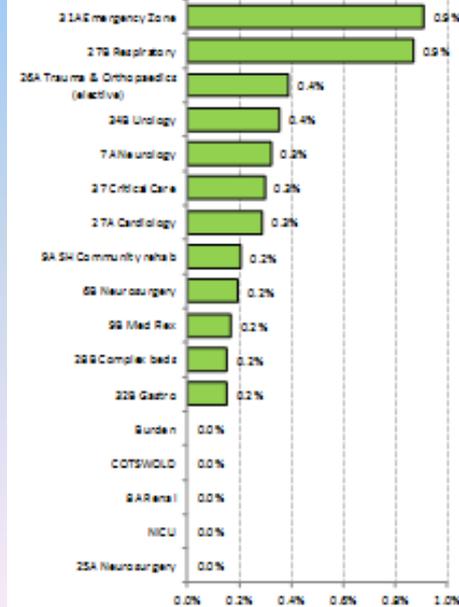


Target = 1.95%

0.00 - 0.99%

1.00 - 1.95%

>1.95%



Years

2014

2015

2016

+02/04/2012

+01/05/2016

Date

Mar

Apr

May

Jun

Jul

Directorate

Core Clinical Services

Medicine

Musculo-Skeletal

Neuroscience

Renal and Transplant

RIVERSIDE

S PETERS HOSPICE

Surgery

Ward

7A Neurology

7A Stroke

7B Trauma & Orthopaedics

8A Medicine Res

8A Renal

8B Renal

9A

9A SH Community rehab

Warfarin – key drivers:

Warfarin is a high risk medicine. Patients with INR>6 are at exponentially increasing risk of bleeding.

Drivers include:

- *NPSA alert (2007) “Actions that make anticoagulation safer”.*
- *SPI2 set a target of reducing harm from anticoagulants by monitoring INRs>6.*

Impact on Medicines review:

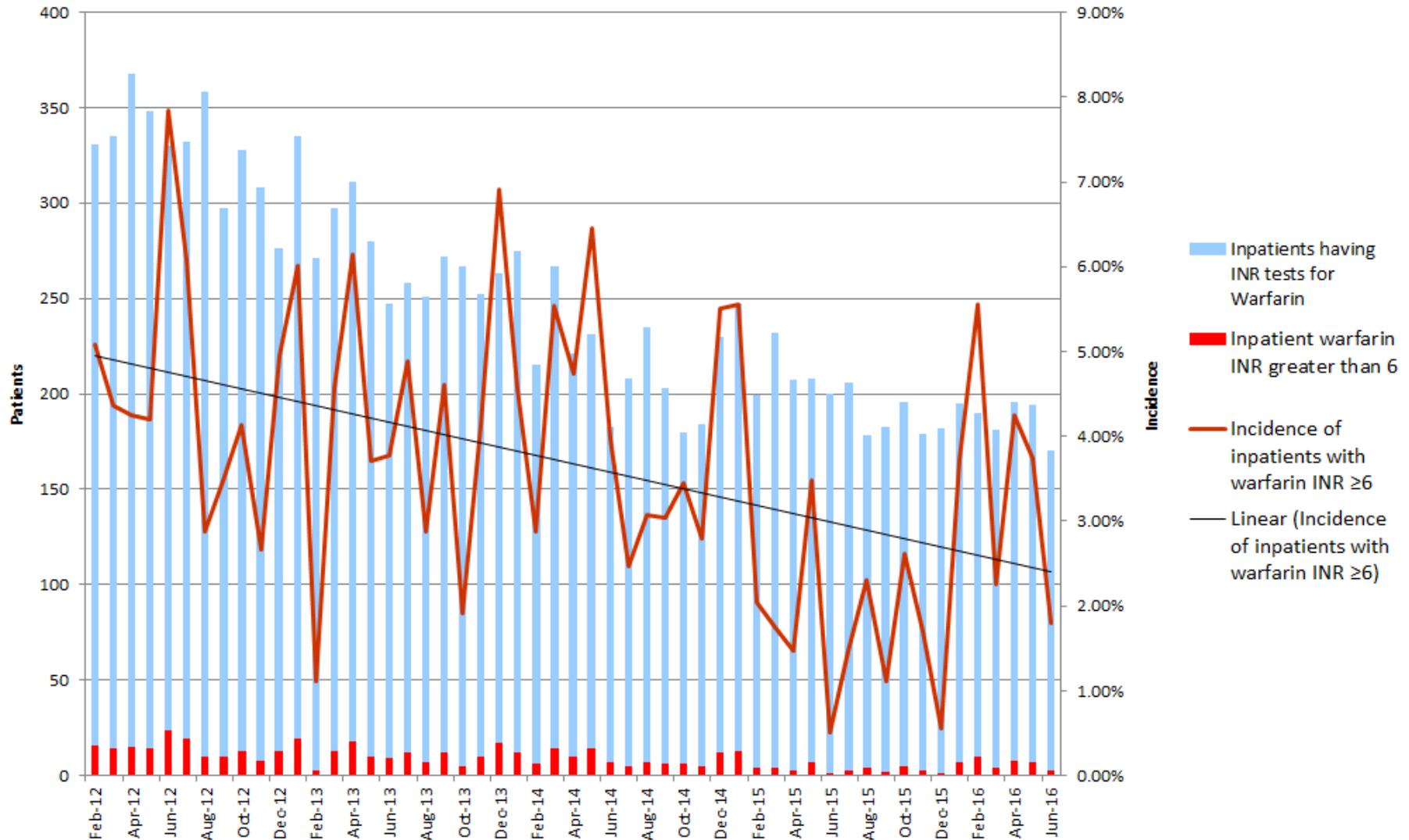
- *Accurate info. on administration for prescribing*
- *Potential drug interactions*

Warfarin – actions:

- *Re-design the warfarin administration chart:*
 - *highlighting co-prescribing of interacting medication*
 - *adding prescribing hints*
 - *removing 10mg doses from low loading regimen*
 - *updating management of high INRs and bleeding*
- *Development of the mini-RCA tool*
- *Medical and nursing electronic learning packages*
- *Medication Safety Alert*

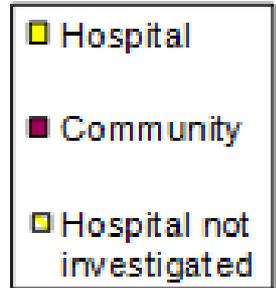
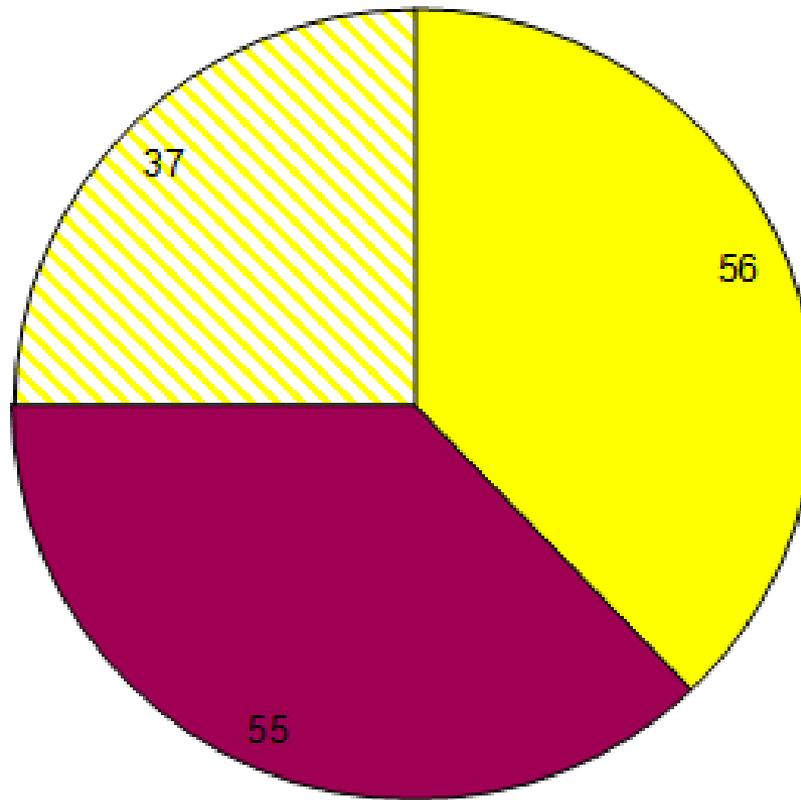
Warfarin – run chart:

Number and incidence of inpatients with warfarin INR ≥ 6



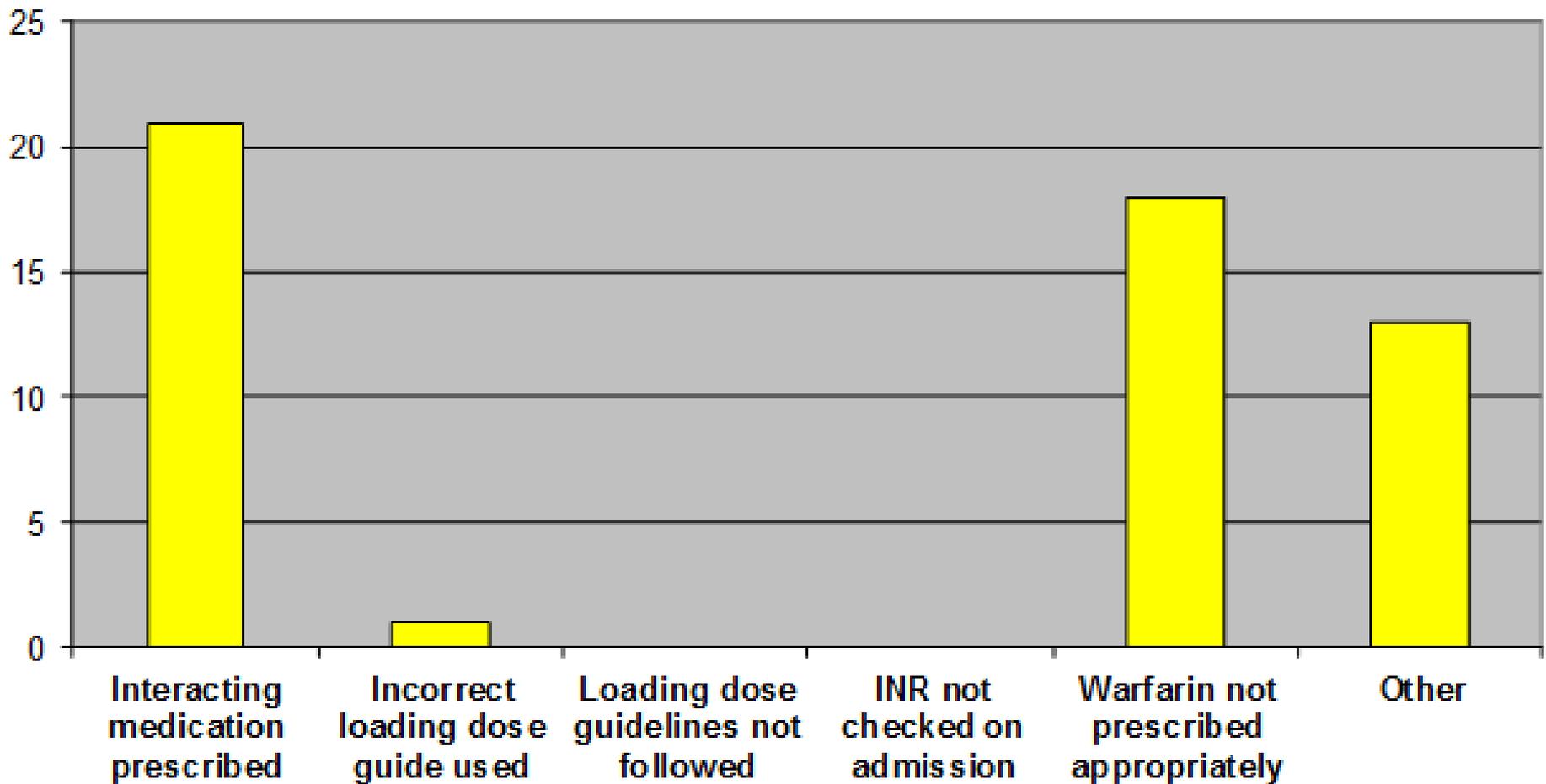
Warfarin – origin of INR >6:

Origin of INR > 6



Warfarin – causes:

Reason for investigated in hospital warfarin INR > 6



Role of MSO – National scene: England

NPSA (National Patient Safety Agency) - now NHS Improvement

National Alerts –

- ***2001 – 2013: ... 40 alerts/ signals***
- ***2014 – 7 alerts 2015 – 7 alerts***

Actions -

- **Three-stage alerting system - new “Patient Safety Alerts” (PSA’s):**
 - **Stage 1: - Warning – action required in approx. 1 month**
 - **Stage 2: - Resources– action required in approx. 3 months**
 - **Stage 3: - Directive– action required in approx. 6 months**

Regional Networks – “steal shamelessly !!”

Impact on Medicines review: high risk drugs

e.g. fatalities from missed desmopressin

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NHS – Medication Safety

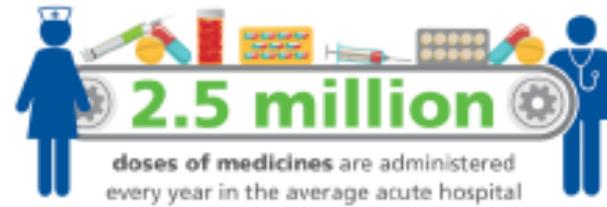
England

At the heart of future NHS challenges



20%

of people over 70 years old take five or more medicines. With an ageing population and multiple chronic medical conditions these numbers will just keep increasing



2.5 million

doses of medicines are administered every year in the average acute hospital

215,000 errors

600,000



non-elective hospital admissions are due to medicines



1 billion

prescriptions are issued every year in primary care



1/2 million

inpatient prescriptions every year in the average acute hospital

45,000 prescribing errors with 550 potentially fatal

40-100 dispensing errors

70%

of these are preventable



2500 preventable deaths across all acute hospitals are due to medicines

5 classes of medicine account for most admissions

NSAIDs

Antiplatelets

Anticoagulants

Diuretics

Antihypertensives

50 million prescribing errors

400,000 33 million dispensing errors

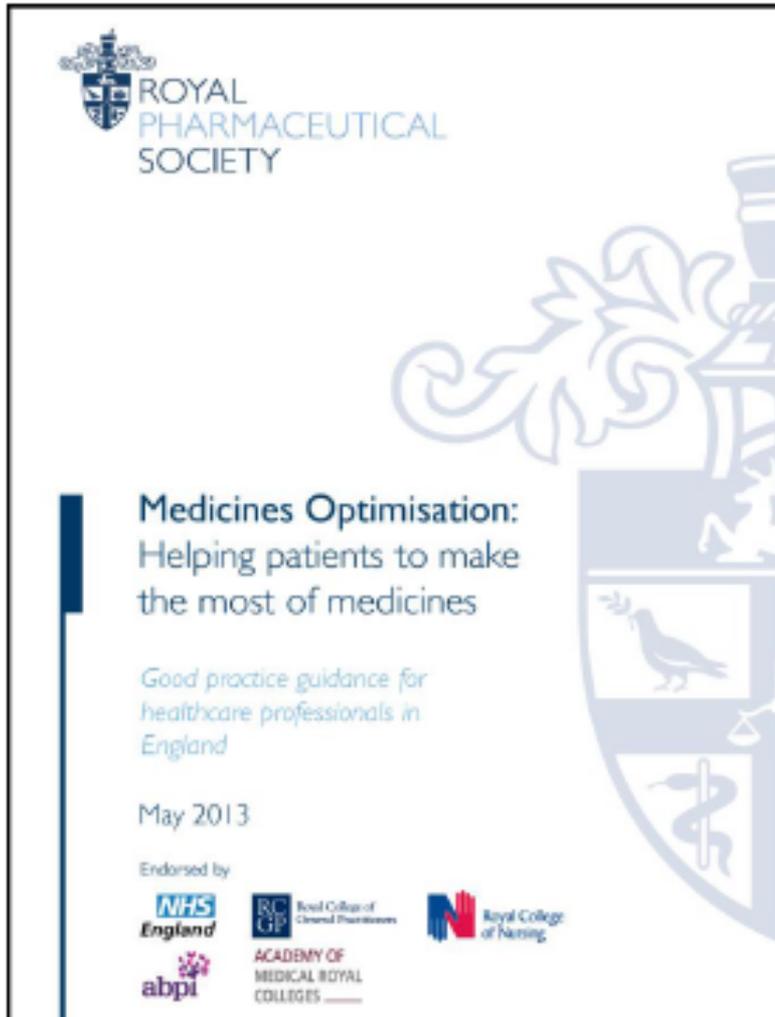


97,000

patients admitted to all acute hospitals suffer from harm due to medicines

97% of medication errors reported to the NHS result in no or low patient harm

NHS – Medication Safety



ROYAL PHARMACEUTICAL SOCIETY

Medicines Optimisation: Helping patients to make the most of medicines

Good practice guidance for
healthcare professionals in
England

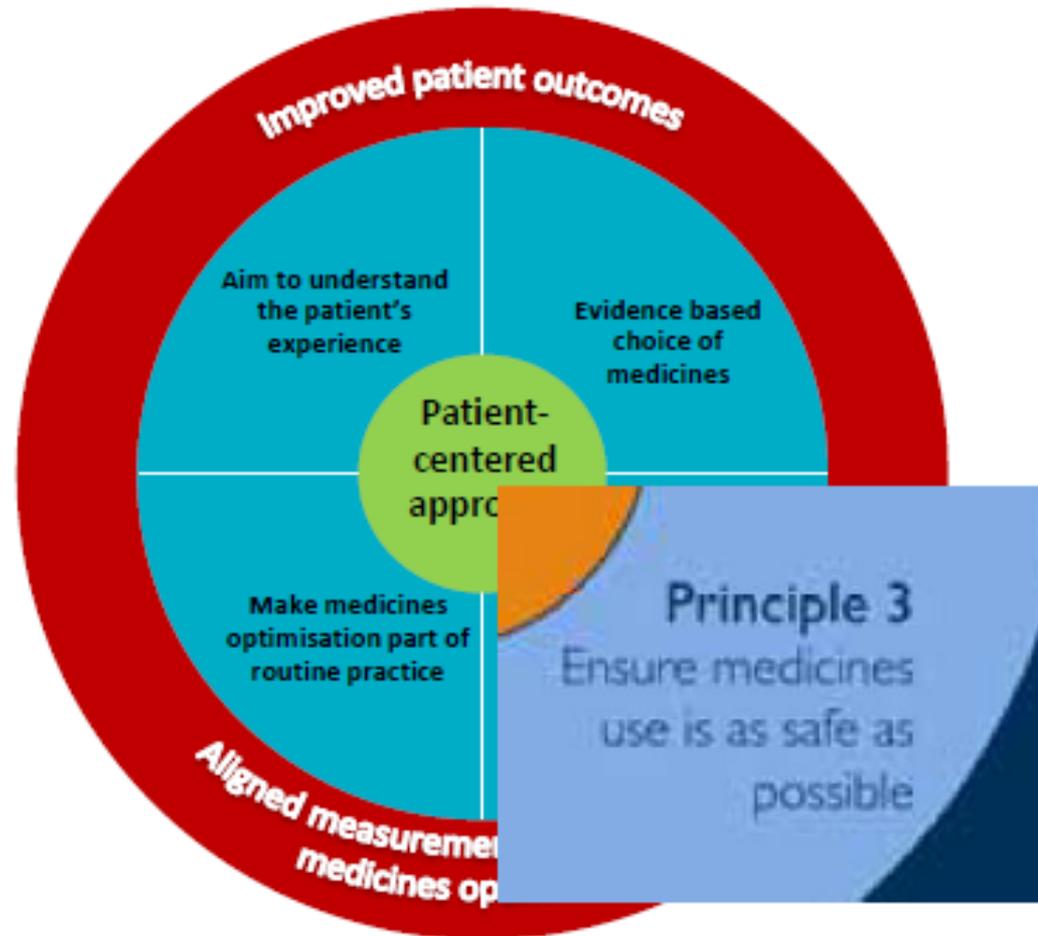
May 2013

Endorsed by



NHS England **RCGP** Royal College of General Practitioners **RCN** Royal College of Nursing **ACADEMY OF MEDICAL ROYAL COLLEGES**

abpi



**All centred around
measurement/metrics and outcomes**

NHS – MSO role

Organisation	count	count aggregate
NHS Acute Medium	46	
NHS Acute Large	41	
NHS Acute Teaching	30	
NHS Acute Small	24	
NHS Acute Specialist	17	
NHS Acute Trust		158
CCG		80
NHS Mental Health Trust		51
Community pharmacy sector		21
Other Independent Sector		21
NHS Community Trusts		18
NHS England Area Team		14
NHS Ambulance Trust		9
Community Interest Company		8
Independent		2
Cosmetic Surgery		1
Mental Health		1
NHS Acute		1
Online Pharmacy		1
Social Care Enterprise		1
Grand Total		387



Patient Safety Alert

Stage Three: Directive
Improving medication error incident reporting and learning
 20 March 2014

Alert reference number: NHS/PSA/D/2014/005

Alert stage: Three - Directive

NHS England and MHRA are working together to simplify and increase reporting, improve data report quality, maximise learning and guide practice to minimise harm from medication errors by:

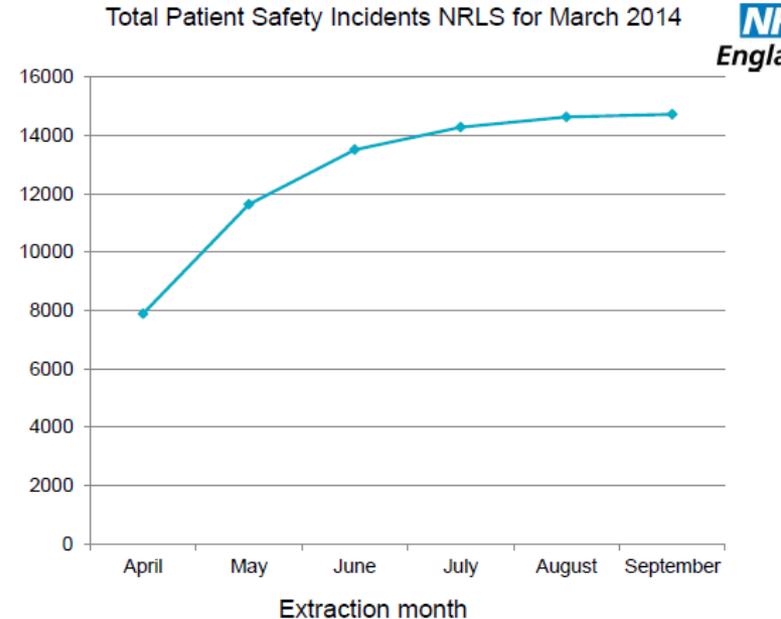
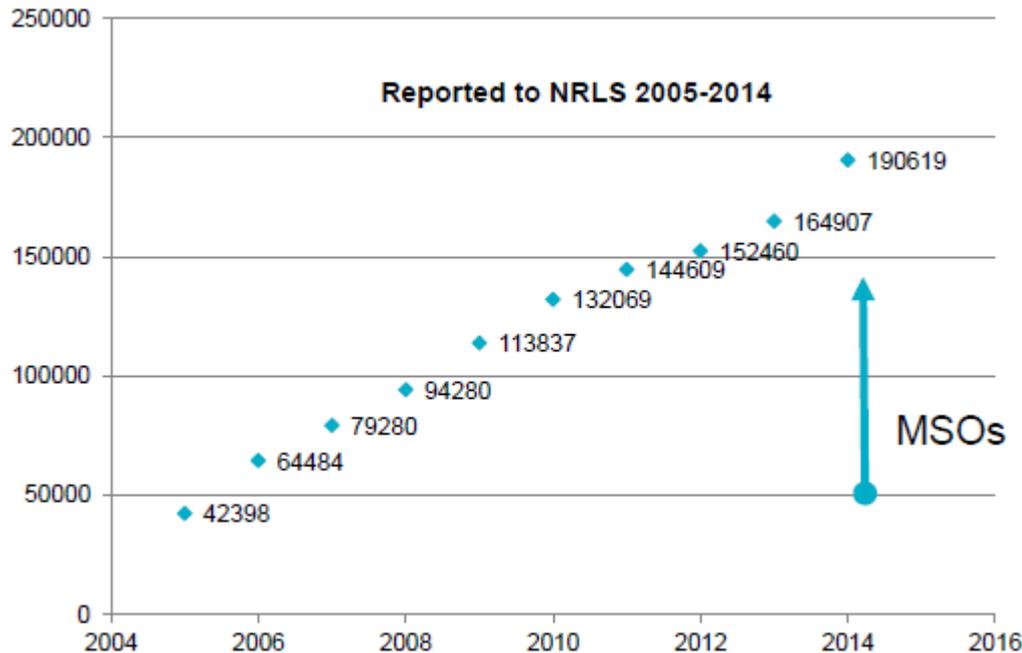
- sharing incident data between MHRA and NHS England reducing the need for duplicate data entry by frontline staff;
- providing new types of feedback from the National Reporting and Learning System (NRLS) and MHRA to improve learning at local level;
- clarifying medication safety roles and identifying key safety contacts to allow better communication between local and national levels; and,
- setting up a National Medication Safety Network as a new forum for discussing potential and recognised safety issues, identifying trends and actions to improve the safe use of medicines. The network will also work with new Patient Safety Improvement Collaboratives that will be set up during 2014.

The **Yellow Card Scheme** for reporting suspected adverse drug reactions to the MHRA will continue to operate as normal.

Actions (Target date for completion 19 September 2014)

- All *large** healthcare providers including NHS Trusts, community pharmacy multiples, home healthcare companies and those in the independent sector should:
- 1 identify a board level director (medical or nursing supported by the chief pharmacist) or in community pharmacy and home health care, the superintendent pharmacist, to have the responsibility to oversee medication error incident reporting and learning;
 - 2 identify a Medication Safety Officer (MSO) and email their contact details to the Central Alerting System (CAS) team. This person will be a member of a new National Medication Safety Network, support local medication error reporting and learning and act as the main contact for NHS England and MHRA; and,
 - 3 identify an existing or new multi-professional group to regularly review medication error incident reports, improve reporting and learning and take local action to improve medication safety.
- Small** healthcare providers including general practices, dental practices, community pharmacies and those in the independent sector should:
- 4 continue to report medication error incidents to the NRLS using the e-form on the NRLS website, or other methods and take action to improve reporting and medication safety locally, supported by medication safety champions in local professional committees, networks, multi-professional groups and commissioners.
 - 5 identify a MSO and email their contact details to the CAS team. This person will be a member of the National Medication Safety network, support reporting and learning and take local actions to improve medication safety. The MSO can also use learning to influence policy, planning and commissioning as part of clinical governance in the commissioning organisation; and,
 - 6 regularly review information from the NRLS and the MHRA to support improvements in reporting and learning and to take local action to improve medication safety. This should be done by working with medication safety champions in local professional committees and networks, and with a new or existing multi-professional group.
- Healthcare commissioners including Area Teams, and Clinical Commissioning Groups are invited to:**
- Supporting information**
 *More detailed information to support the implementation of this guidance is available at:
www.england.nhs.uk/patientsafety/PSA

NHS – MSO impact and role



1. gather evidence of a local learning culture
2. incrementally improve reporting and learning
3. implement better, safer medication practice locally and nationally
4. work together as discrete groups on common topics
5. be the formal conduit between NHS England Patient Safety and practice for medication safety issues

NHS – MSO impact and role

And coming up – implementation of....

Article 107a(5) of Directive 2001/83/EC outlines the key responsibilities of national competent authorities (MHRA) in relation to the reporting of ADRs associated with medication error:

- *Member States shall ensure that reports of **suspected adverse reactions arising from an error** associated with the use of a medicinal product that are brought to their attention are made available to the **Eudravigilance** database and to any authorities, bodies, organisations and/or institutions, responsible for patient safety within that Member State. They shall also ensure that the authorities responsible for medicinal products within that Member State are informed of any suspected adverse reactions brought to the attention of any other authority within that Member State. These reports shall be appropriately identified in the forms referred to in Article 25 of Regulation (EC) No 726/2004.*

Role of MSO – NBT actions:

Medication Safety Subgroup

- ***Nurse / Doctor / Patient / Risk manager / MSO***

Incidents reports

- ***Numbers of reports causing harm : Total number of reports***

Actions – internal alerts / SOPs / safety work streams

- ***Work through Medicines Governance Group***

RCAs – pharmacy input

- ***For all serious incidents – externally reported***

How are we sharing ?

Presentations and Workshops

- European Association of Hospital Pharmacists (EAHP) Academy Seminar Zagreb (September 2015)
- EAHP Congress, Hamburg (March 2015)
- West of England Academic Health Science Network Annual Conference (October 2014)
- National Pharmacy Management Forum (London: Nov 2013 and Nov 2014)



Achievements UK Awards: Shortlisted

- “HSJ Value Awards” (2016)
- “I love my Pharmacist”!! (2015)
- Pharmaceutical Care Awards (2015)
- HSJ Awards (2014)
- HQIP Awards (2014)
- LEAN Healthcare Academy Awards (2014)
- HSJ Patient Safety Award (2013)
- APTUK Awards (2014) - Winner
- Clinical Pharmacy Congress (2014) Winner



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Key Learning points

- SPI2 - support from experts/peers - improvement methodology; “learn from others”; “share success” and “steal shamelessly”!!
- Continuous Measurement is ESSENTIAL
 - “*In God we Trust – all others bring data!*”
- “Buy-in” of staff // start with enthusiasts // leave laggards.
- Tempting to spread too quickly. Plan, continue to embed and gain support as the project evolves.

SUMMARY QUESTIONS:

Linked with the learning Objectives for today:

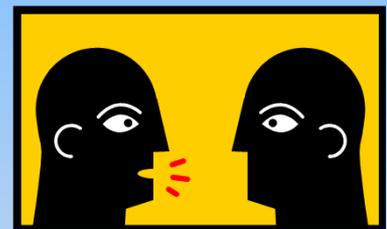
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-

FOR HEALTHCARE LEADERS
HSJ | VALUE IN
HEALTHCARE
AWARDS
FINALIST

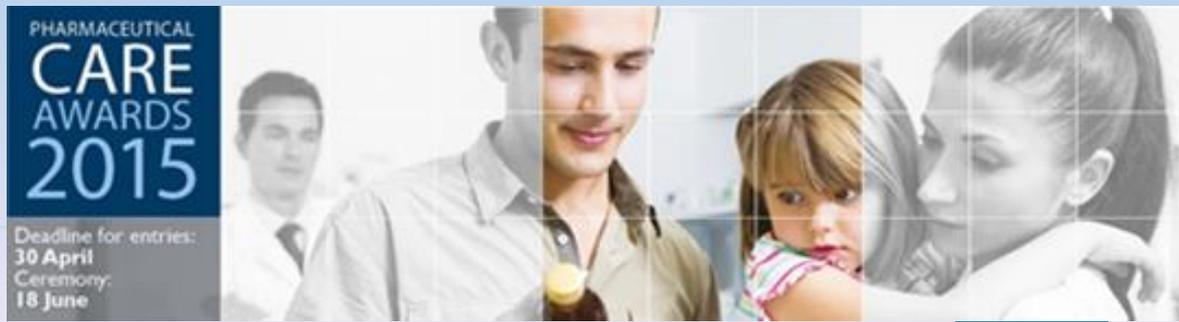
FOR HEALTHCARE LEADERS
HSJ | **2014**
AWARDS
In partnership with celesio
FINALIST



Thank you - Any Questions ?
Jane.smith@nbt.nhs.uk



6 JULY 2015, BIRMINGHAM
**PATIENT
SAFETY** 
AWARDS
SHORTLISTED



PHARMACEUTICAL
**CARE
AWARDS
2015**
Deadline for entries:
30 April
Ceremony:
18 June

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