

EAHP ACADEMY SEMINAR

11-13 September 2015

from Medicines Reconciliation to Medicines Optimisation

**Improving and Maintaining
Medicines Reconciliation
on Admission at
North Bristol NHS Trust (NBT) (UK)**

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Development & Governance
NBT Medication Safety Officer (MSO)**

Disclosure Statement

"Conflict of interest: nothing to disclose"

Learning Objectives



Participants should be able:

- To describe the importance of Medication Reconciliation process
- To present the principles and strategies to spread and measure the improvements in Medication Reconciliation beyond pilot unit
- To recognise the pharmacist and pharmacy technician's role in this process

Meds Rec on Admission: Definition:

Medicines reconciliation ensures that the medicines prescribed on patients admission correspond to those taken before admission.

This process involves discussion with patients and/or carers and using primary care records

... as well as Patients' Own Drugs (PODs)




Who are we ?

NBT – North Bristol

Patient Safety: Medicines Management work



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North Bristol 
NHS Trust



Who are we ?

NBT –

Patient Safety: Medicines Management work stream



- SPI2 project team
- SWQPSI project team
- Medicines Governance Group – Patients
- NBT staff – Consultants; Other Doctors; Pharmacists; Nurses; Ward receptionists; Clinical Audit; etc.

NBT Team



Why is this important ?

Globally

- WHO High 5s (2006)
- IHI Saving Lives Campaign (2006)


UK: Nationally/Regionally

- SPI1 and SPI2 (2006 – 2009)
- SWQPSI / Safer Care Southwest (2009 – now)

Patient Safety

- Reduced harm
- Reduce length of stay

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World Alliance for Patient Safety
Alianza Mundial para la Seguridad del Paciente

Assuring Medication Accuracy at Transitions in Care

The problem
Inaccurate or incomplete patient medication information at transitions in care can lead to harmful medication errors

The solution
The Standard Operating Protocol recommends to:

- Obtain a complete list of patient home medications at time of admission
- Identify discrepancies in medication orders during hospitalization
- Reconcile discrepancies before medicating the patient
- Provide a list of medicines to the patient and caregivers on discharge

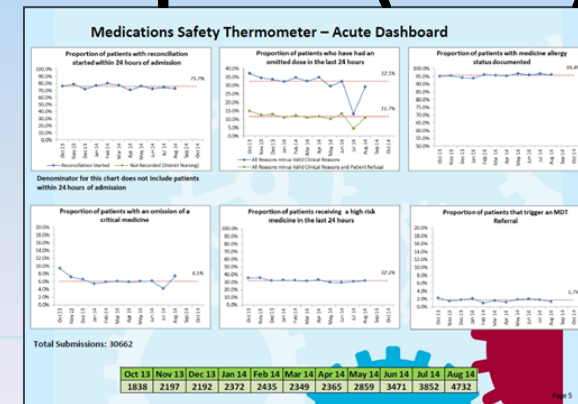
High 5s
WORLD ALLIANCE FOR PATIENT SAFETY

Indian Commission International
The Indian Commission
World Health Organization

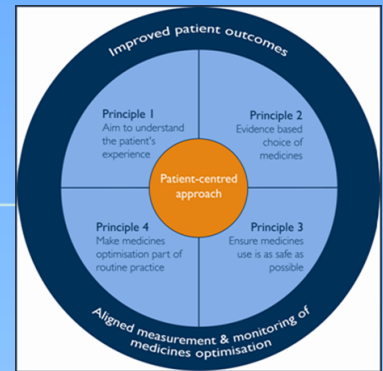
Key Drivers (1)

UK: Nationally

- NPSA/NICE – Medicines Reconciliation guidance (2007)
- NPSA/2010/RRR009: “Reducing harm from omitted and delayed medicines in hospital” (2010)
- Francis Report: (February 2013)
- Medication Safety Thermometer (July 2013)



Key Drivers (2)

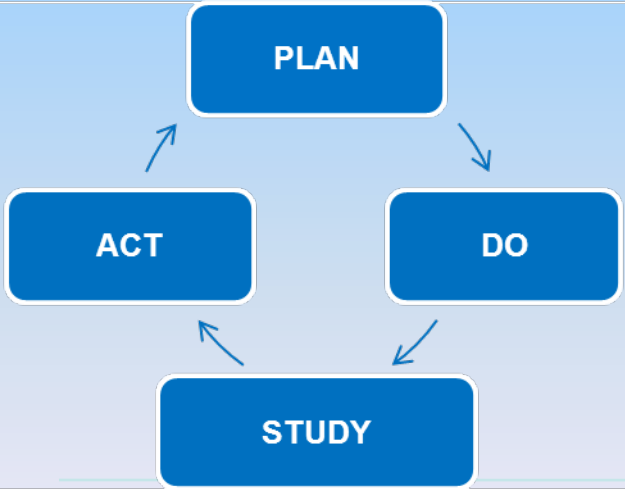


UK: Nationally

- **Medicines Optimisation Dashboard (June 2014)**
- **Sign up to Safety (June 2014)**
- **PSA 014: “Risks arising from breakdown and failure to act on communication during handover at the time of discharge from secondary care (August 2014)**
- **NHSBN: Pharmacy: Acute Trusts (November 2014)**

What have we done (1)

- 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

What have we done (2)

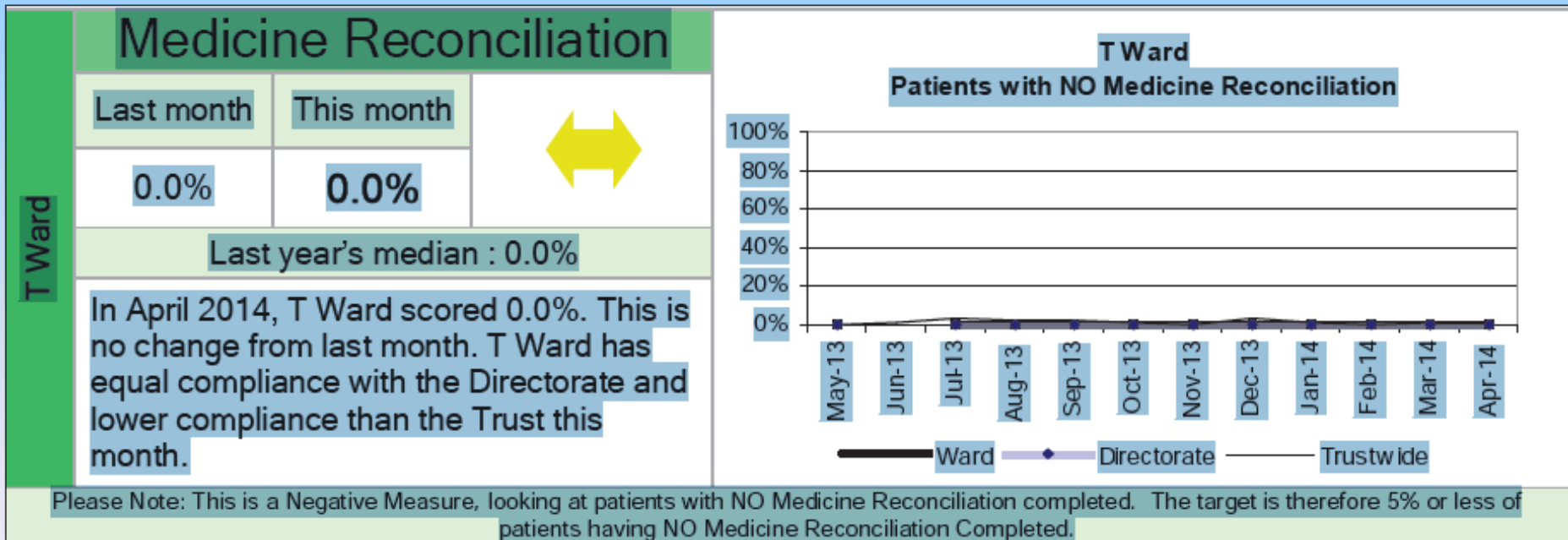
- Phase 1: Feb 2007–July 2008: (1 - 8 wards)
Introduced a Medicines Admissions Proforma
Developed an e-audit tool
- Phase 2: Aug 2008–Jul 2009 (8 - 11 wards)
Training DVD was designed
Analysed admissions data
- Phase 3: Aug 2009–Feb 2011: SWQPSI (11–30 wards)
New Pharmacist post enabled increased spread
Tests of change on accuracy of Medicines Reconciliation

What have we done (2)

- Phase 4: Feb 2011-Feb 2013: SWQPSI (31-20 wards)
Audited Sunday admissions
Surgical Pharmacist funding agreed
- Phase 5: Feb 2013 -now: SWQPSI (20-15 wards)
Reviewed NBT cost avoidance savings
Piloted “Connecting Care”
Extended clinical services to the emergency zone
Publicising work to spread good practice

What have we done (3)

- Review data
- Display results
- Record Pharmacist Interventions



Medicines Reconciliation Process



Medicines Reconciliation Process

Patient admitted

Clerked by Doctor (one source for medication history)

Seen by MMT - if trained (2nd source used)

- Discrepancies highlighted to Pharmacist

Seen by Pharmacist (2nd source used)

- Discrepancies highlighted, documented and Doctor informed
- Chart clinically signed off

Audited by Medicines Management Technician

Role of Pharmacist



- All pharmacists
- Priority target
- Drug history - at least two sources
- Discrepancies highlighted to the doctor
- Training of nurses and doctors

Aiding Medicines Reconciliation

- Medicines proforma designed - admissions booklet
- Procedure written for doctors/ MMTs
- Pharmacy intervention slips

Department of Pharmacy North Bristol NHS Trust

Dear Dr _____ Date _____

With regards to your patient _____

Problem / Suggestion / Information _____

Days left _____

Thank you _____ (Clinical Pharmacist) Bleep No: _____

PLEASE DO NOT REMOVE No. 47601

Outcome: _____

Ward _____ Unit No _____

Consultant _____ Prescriber _____

Diagnosis _____

Clinical Significance	Outcome	Type of Intervention
MAJOR <input type="checkbox"/>	<input type="checkbox"/> Required action taken	Ambiguous/illegible <input type="checkbox"/>
MODERATE <input type="checkbox"/>	<input type="checkbox"/> Information given	Formula'y <input type="checkbox"/>
MINOR <input type="checkbox"/>	<input type="checkbox"/> Pharmacist dealt with problem	Dose query <input type="checkbox"/>
	<input type="checkbox"/> Advice ignored	Frequency/timing <input type="checkbox"/>
	<input type="checkbox"/> No action taken/therapy justified	Age factors <input type="checkbox"/>
	<input type="checkbox"/> Not known	Length of therapy <input type="checkbox"/>
		Previous medication <input type="checkbox"/>
		Pregnant/breastfeeding <input type="checkbox"/>
		Renal/hepatic failure <input type="checkbox"/>
		Interaction <input type="checkbox"/>
		Pharmaceutical <input type="checkbox"/>
		Check with GP <input type="checkbox"/>
		Choice of drug <input type="checkbox"/>
		Rewrite <input type="checkbox"/>
		Administration <input type="checkbox"/>
		Adverse effect <input type="checkbox"/>
		TTO problems <input type="checkbox"/>
		TDM <input type="checkbox"/>
		Antibiotics <input type="checkbox"/>
		Other _____ <input type="checkbox"/>


LGD

Data collection form

Week Commencing: Ward:

				Patient Name	MRN Number	NHS Number	DHx Completed & Date	Patient from AAU (Yes/No)
Monday	07/09/2015	Thursday	03/09/2015					
Monday	07/09/2015	Friday	04/09/2015					
Monday	07/09/2015	Saturday	05/09/2015					
Tuesday	08/09/2015	Sunday	06/09/2015					
Wednesday	09/09/2015	Monday	07/09/2015					
Thursday	10/09/2015	Tuesday	08/09/2015					
Friday	11/09/2015	Wednesday	09/09/2015					

e-Audit tool

North Bristol NHS Trust **SAFER PATIENT INITIATIVE** **Quality Improvement & Audit** 

MEDICINE MANAGEMENT
MEDICINE RECONCILIATION
BRUNEL VERSION

Please review 5 random sets of notes of patients 1 working day after admission.
If Gate is not listed please specify Other in Level/Non-Brunel

Auditor: Date: Level/Non-Brunel:

Directorate:

Number	Patient Number	Medicine Reconciliation within 1 working day of admission		Sunday audit?	
		Yes	No	Yes	No
1	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Please press 'Submit' below to send your data to Quality Improvement & Audit

Improving quality of Medicines Reconciliation



- DVD - for junior doctors
- Admission pharmacist teaching junior doctors
- Junior doctors shadowing admissions pharmacist
- Pre-op clinic nurses training
- Audit of quality of process

Role of MM tech

- **Obtaining information:**
 - Summary Care Record
 - Connecting care
 - GP faxes
- **PODs – recording/assessing**
- **Obtaining compliance device information**
- **Patient interaction**
- **Accuracy check against drug chart**
- **Referral to pharmacist**
- **Accreditation**

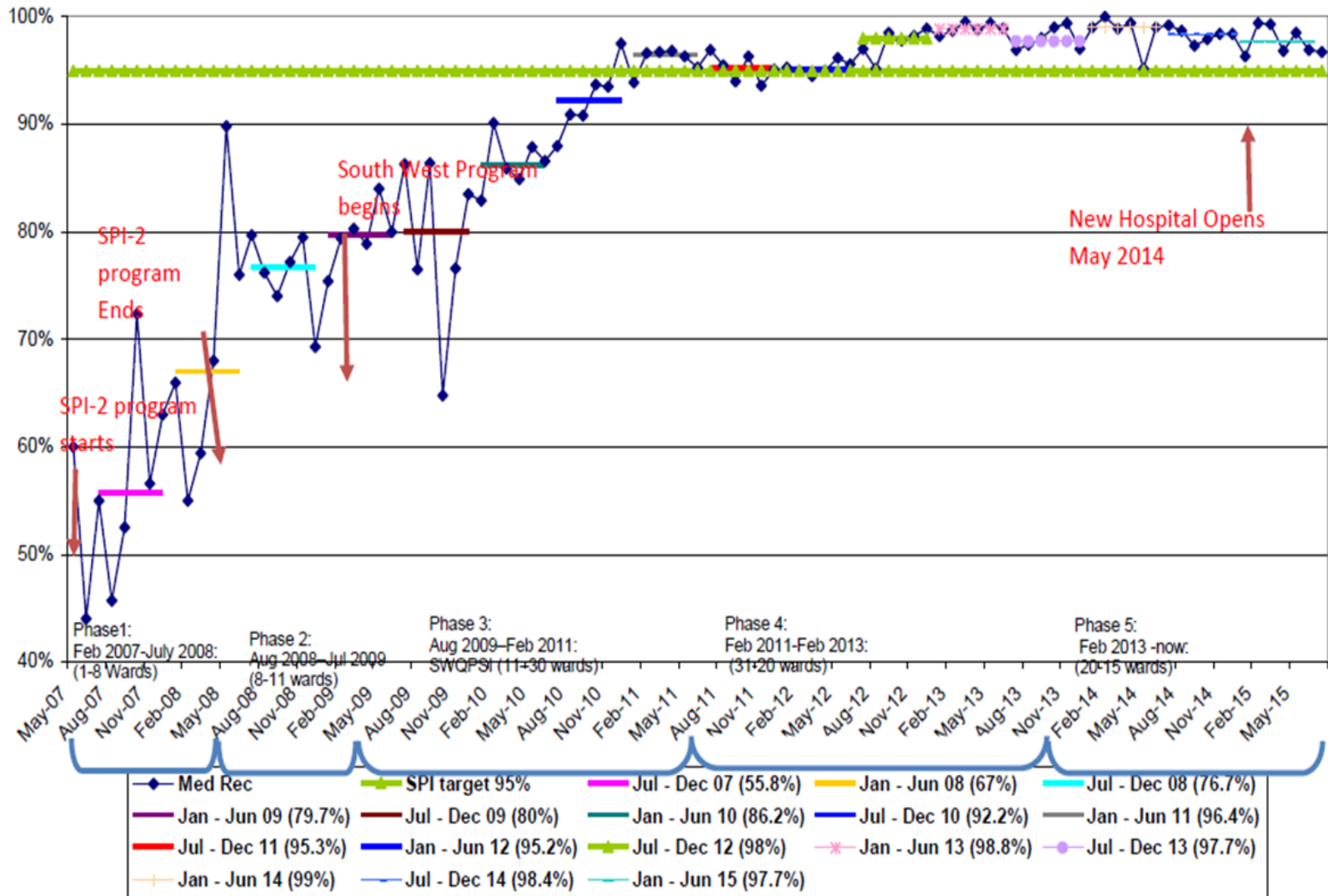




Data collection process

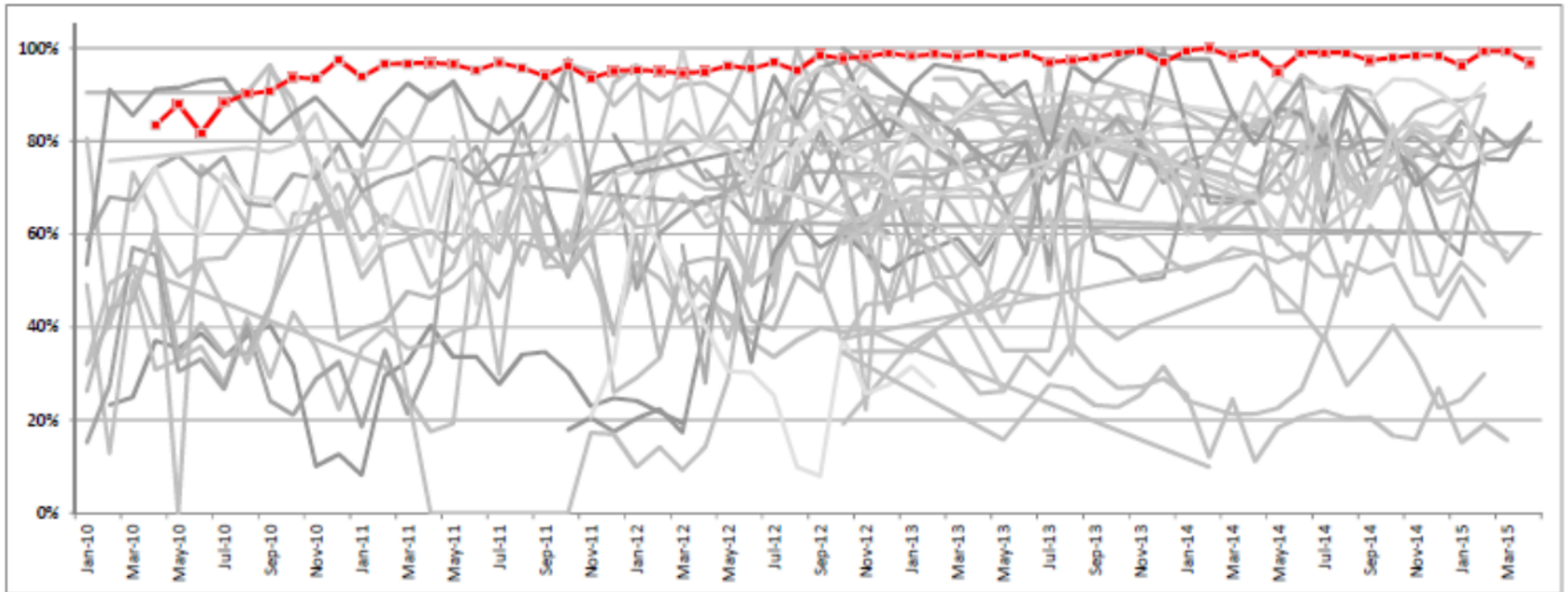
- % of emergency and elective admissions >2%
 - 5 patients per week (20 per month)
 - Random data collection
 - Completed by MM technician - part of ward visit
 - Uploaded on to e-tool
 - Monthly report shared
-
- Currently auditing 15 wards (300 patients)

Number of Patients with Reconciliation (Six Month Medians)



QIPP: % reconciliation: all Trusts

Red plot shows result for selected Trust with non-selected Trusts indicated by grey plots



QIPP: Cost Avoidance

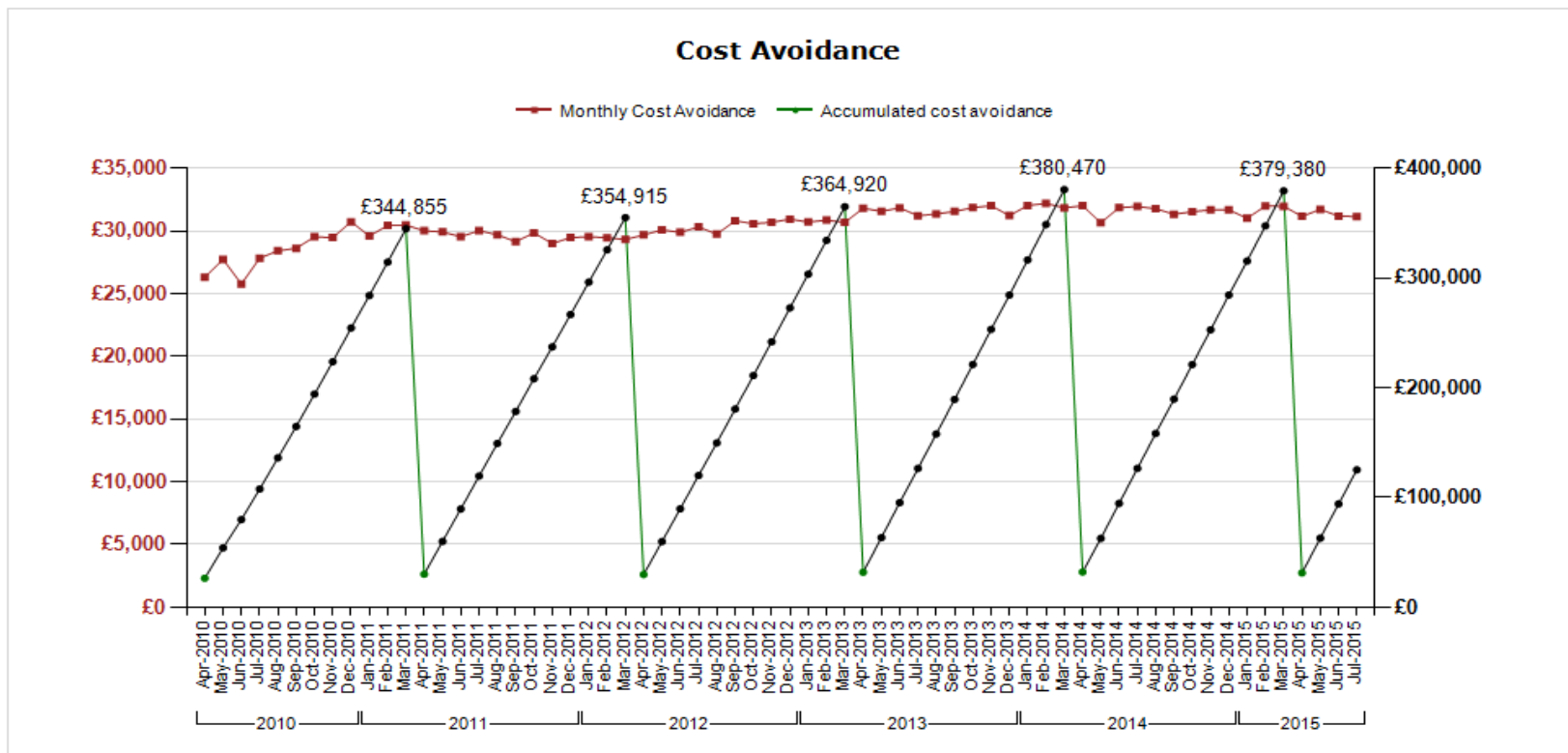
—■— Monthly cost avoidance

—▲— Accumulated cost avoidance

North Bristol NHS Trust

Region: BRISTOL, N SOM, SOM & S GLOS

Total Records: 64



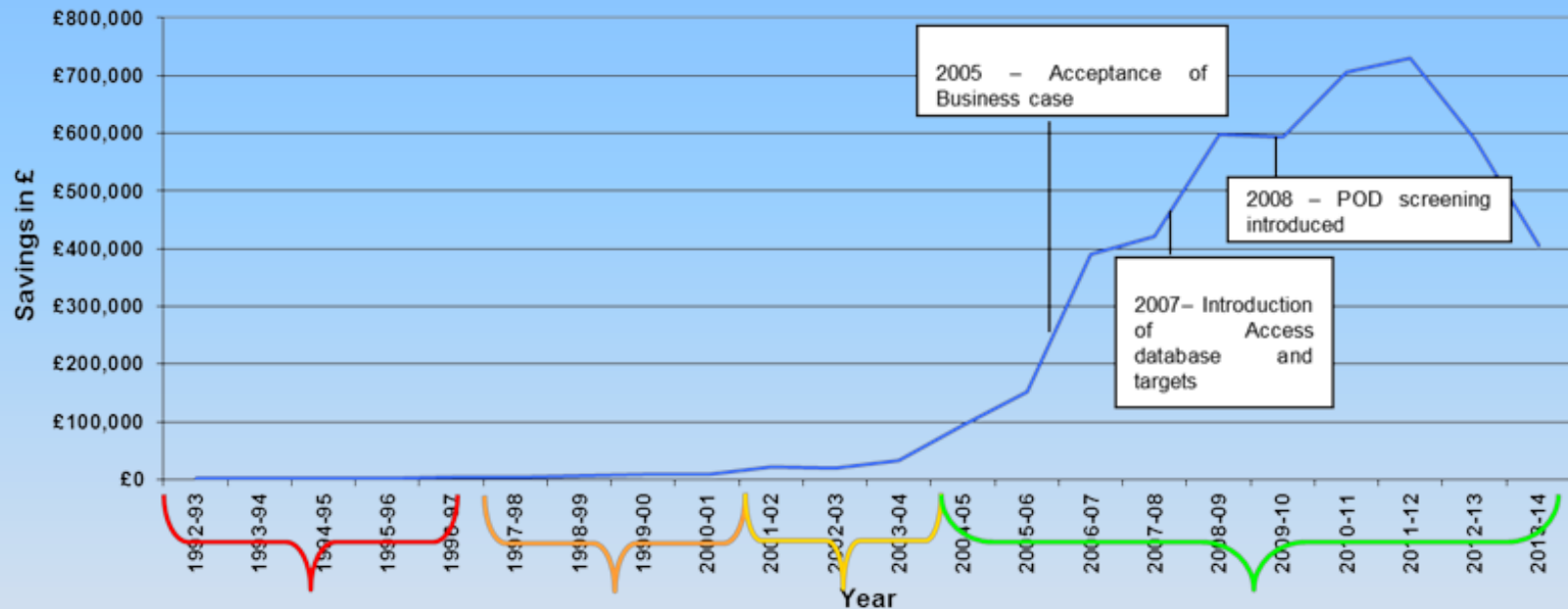
£125,195

£261,145

■ Costs avoided in 2015-2016
■ Costs avoidable in 2015-2016

Patient's Own Drugs

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

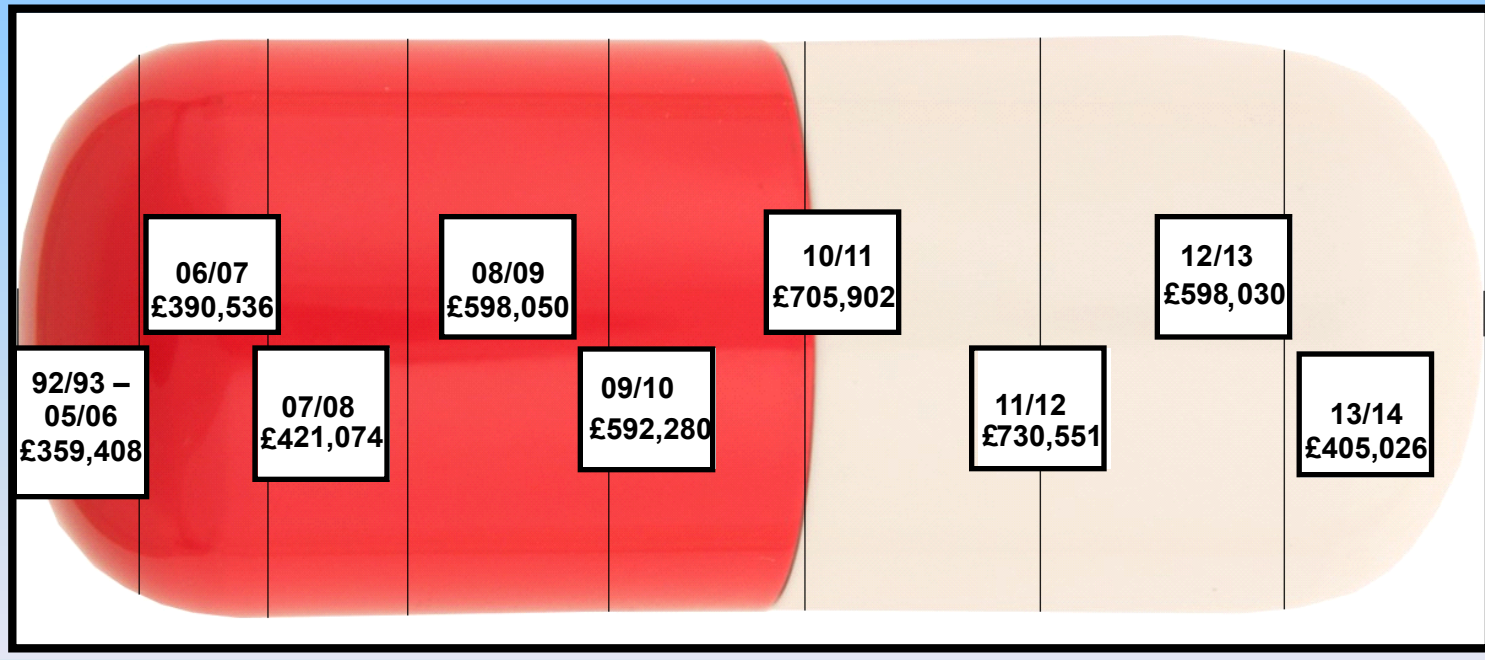


Phase 1: 1992 – 1996 – POD: Pharmacy processed (SMH only)	Phase 2: 1997 – 2000 – POD: Ward processed (SMH only)	Phase 3: 2001 – 2004 – MM: trials (SMH)	Phase 4: 2005 – present time – MM: service spread (SMH + FR)
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Patient's Own Drugs

Patient Own Drugs Savings – North Bristol NHS Trust
Apr 1992 – Mar 2014

Total Savings - £4,800,859



Results: What have we done ?

1) We have improved the quality of the service NBT provides to all patients by:

- Achieving our 95% target
- Maintaining/Improving 95% target on up to 30 wards



Results: What have we done ?

**2) We are the best acute Trust
as shown by (QIPP) benchmarking**

...and possibly one of the best in the world

Frank Federico: Executive Director: IHI:

**“Your efforts inform us that, as difficult as
medication reconciliation may be worldwide,
it is possible to succeed”**

Results: What have we done ?

3) We are successful in carrying out Medicines Reconciliation, and demonstrating savings

Clare Howard, Deputy Chief Pharmaceutical Officer: NHS England

“North Bristol Trust are to be congratulated on their impressive journey to improve medicines reconciliation rates”

How are we sharing ?

UK: Posters

- Bristol Patient Safety Congress (Bristol: May 2015)
- Patient Safety Congress (Birmingham: May 2013)
- European Hospital Pharmacy Congress (Paris: March 2013)
- National Pharmacy Management Forum (London: Nov 2012)



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)



How are we sharing ?

Journal Articles

- NICE's Local Practice Collection (March 2015)
<http://www.nice.org.uk/savingsandproductivityandlocalpracticeresource>
- “Improving medicines reconciliation on admission”
Hospital Pharmacy Europe (v. 074: Summer 2014)
- “Medicines Reconciliation on Admission – other issues - at North Bristol NHS Trust (NBT)”
Hospital Pharmacy Europe (v. 075: Autumn 2014)

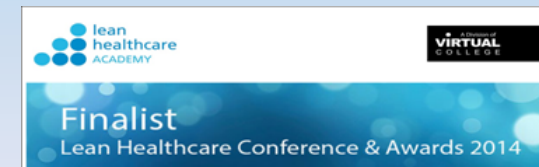


Achievements

UK Awards: Shortlisted Finalists

- “I love my Pharmacist”!! (Oct 2015)
- Pharmaceutical Care Awards (Jul 2015)
- HSJ Awards (Nov 2014)
- HQIP Awards (Nov 2014)
- LEAN Healthcare Academy Awards (Feb 2014)
- HSJ Patient Safety Award (July 2013)

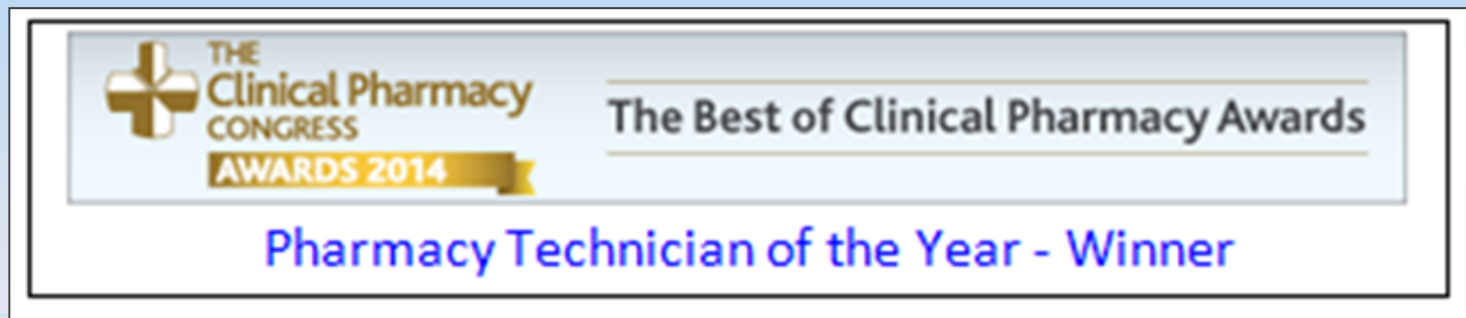
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Achievements

UK Awards: Winners

- APTUK Awards (June 2014)
- Clinical Pharmacy Congress (March 2014)

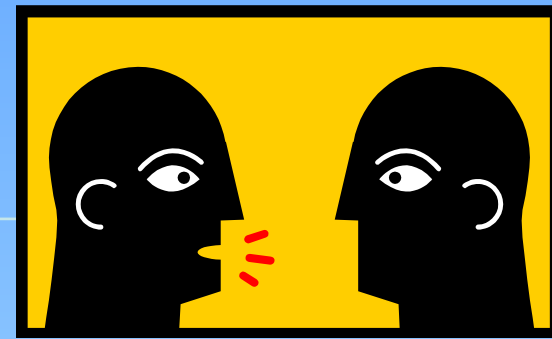




Key Learning points

- 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.

Discussion points



- **Ongoing vs snapshot data collection**
- **Improvement methodology vs Safety Thermometer**
- **Benchmarking – need clear definitions**

Other / Future work



Medicines Reconciliation on Admission

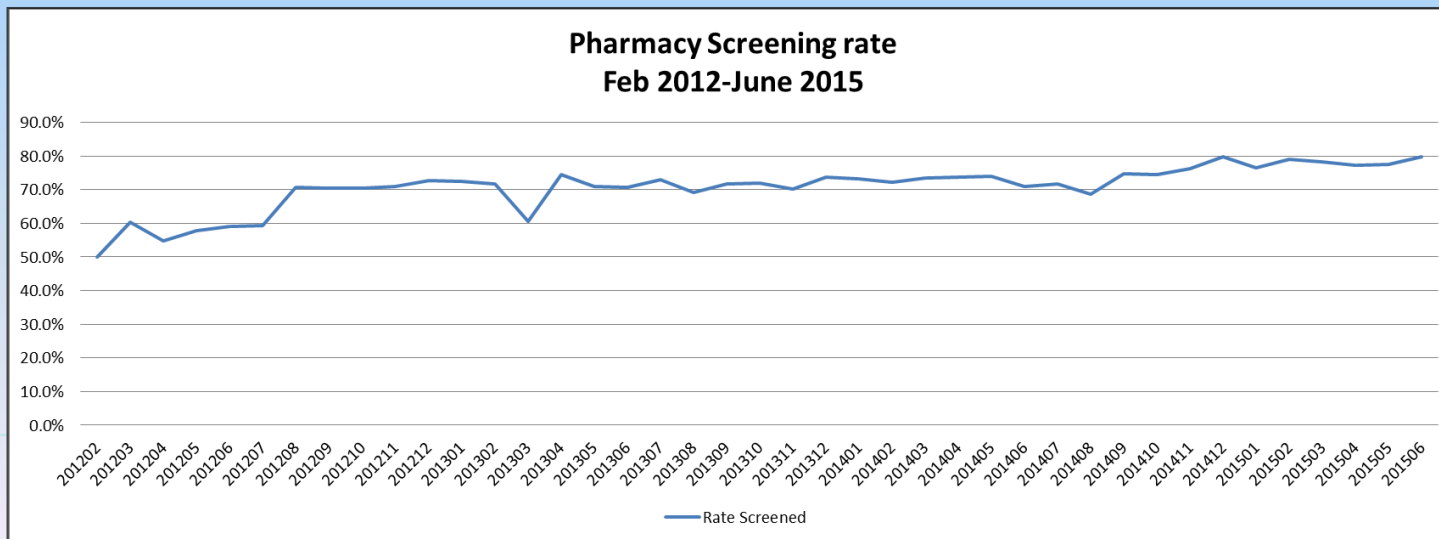
- Working / Potential working with:
 - AHSN Medicines Optimisation work stream
 - Professor Tamasine Grimes, Associate Professor in Practice of Pharmacy, Trinity College, Dublin
 - NICE: Quality and Productivity Case Study
- Discussions with Mike Durkin, Director of Patient Safety, NHS England
- Hosting a Meds Rec conference at NBT

Other / Future work



Medicines Reconciliation on Discharge

- Working with
 - CCGs
 - GP practice Pharmacists
 - Community Pharmacists



SUMMARY

Learning Objectives for today:

- Importance of Medication Reconciliation process
- Principles/strategies to spread/measure improvements
- Pharmacist and pharmacy technician's role

Learning for NBT from ongoing measurement:


- We have improved the quality of the service NBT provides to all patients
- We are the best acute Trust (QIPP data)
- We are successful in carrying out Medicines Reconciliation, and demonstrating savings



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



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