

# Innovation and Impact

Thursday 18 May 2017

Oxford Health NHS FT

# Agenda

Time	Presenter (s)	Topic
16.00	Stuart Bell, Chief Executive, Oxford Health NHS FT	Introduction – the local landscape
16.10	Paul Durrands, Chief Operating Officer, Oxford AHSN	Innovation and Impact
16.25	Emma Stratful, Oxford Health BRC	The new Oxford Health NIHR Biomedical Research Centre
16.40	Luke Bowles (introduced by Sandy Evans)	Early Intervention in Psychosis: a patient's perspective Let's talk about it
16.50	Charles Vincent, Clinical Lead, AHSN Patient Safety Collaborative  Jill Bailey, Associate Clinical Director, Oxford Health	Patient safety - programmes and centres
17.15	Helen Bosley, Matron, Infection Prevention and Control, Oxford Health NHS FT  Christine Selwood, Team Leader, Bladder and Bowel Service, Oxford Health	Patient safety – reducing Catheter Associated Urinary Tract Infections (CAUTI) in the community
17.35	Closing remarks  Networking and light refreshments	

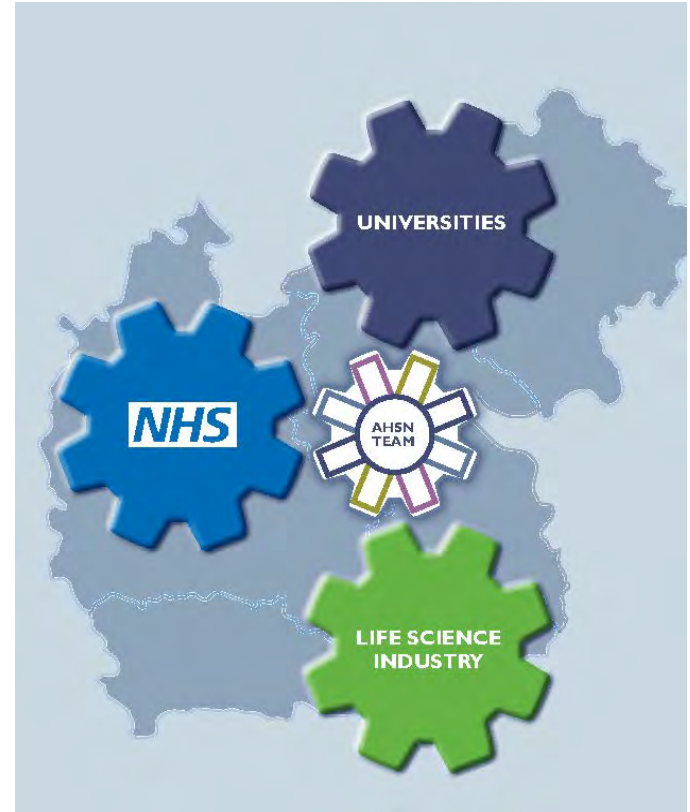
# Innovation and Impact

**Dr Paul Durrands**  
**Chief Operating Officer,**  
**Oxford AHSN**

[Paul.durrands@oxfordahsn.org](mailto:Paul.durrands@oxfordahsn.org)

Accelerating health and economic gains for our region by working together

- 7 programmes and themes
- 100+ collaborative projects
- 50+ innovations
- 30+ industry partnerships
- 3 million people
- 11 NHS Trusts
- 65,000 NHS staff
- 9 universities
- Work with 4 STPs and 3 accountable care systems
- 750 life science companies
- 1 information governance framework – all trusts signed up
- 2,020 newsletter subscribers and 2,950 Twitter followers



## ComRes independent stakeholder survey

- 563 respondents to survey (26% of those contacted) – more than 50% from NHS frontline
- 80% said network building culture of collaboration and partnership
- 64% said network adds value to their work
- *“They’re listening, identifying challenges and trying to help us solve problems”* NHS provider
- *“Without the likes of the AHSN small companies would really, really struggle to get any traction with the NHS”*

You can read the full report here: <http://bit.ly/OxfordAHSNsurvey>

# Highlight PPIEE



[leadingtogether@oxfordahsn.org](mailto:leadingtogether@oxfordahsn.org)

[Mildred.foster@oxfordahsn.org](mailto:Mildred.foster@oxfordahsn.org)

Leading Together Programme

*"What you've been doing here is the way to go: professionals and citizens working together to make health and wellbeing better. Just being in the room the patient or lay person changes the conversation."*

Jeremy Taylor, Chief Executive, National Voices



# Highlight Workforce Health and wellbeing



“Physical activity reaches the very foundation of illness and helps prevent 23 diseases including depression, diabetes and dementia. An active workforce results in 27% fewer days lost to sickness with productivity increasing by up to 15%”

Dr William Bird, Intelligent Health

“No effort is too small. Start wherever you can and keep going”

# Highlight Sustainability





# Dementia Clinical Network

Webinar programme promotes stakeholder engagement, professional development and dissemination of research

- Fortnightly webinars presented by clinicians, managers and academics, local and national
- 37 webinars run so far, mailing list of 350 people from AHSN geography and beyond
- Topics included
  - Dementia and depression
  - Role of speech and language therapist in the memory clinic
  - Safe and effective prescribing for older adults
  - A roundup of RCTs
- Post-diagnostic support in a memory assessment service
- Respondents to survey reported that more than half of the webinar attendances had resulted in change of practice

*'I just wanted to thank you very much for the particularly excellent webinar on Wednesday. The webinars are always of a consistently high standard and I very much appreciate them..... the webinar really helped me make sense of the research and reading that I have previously done .....* '

Webinar participant

## Wide range of clinical areas and technologies examples

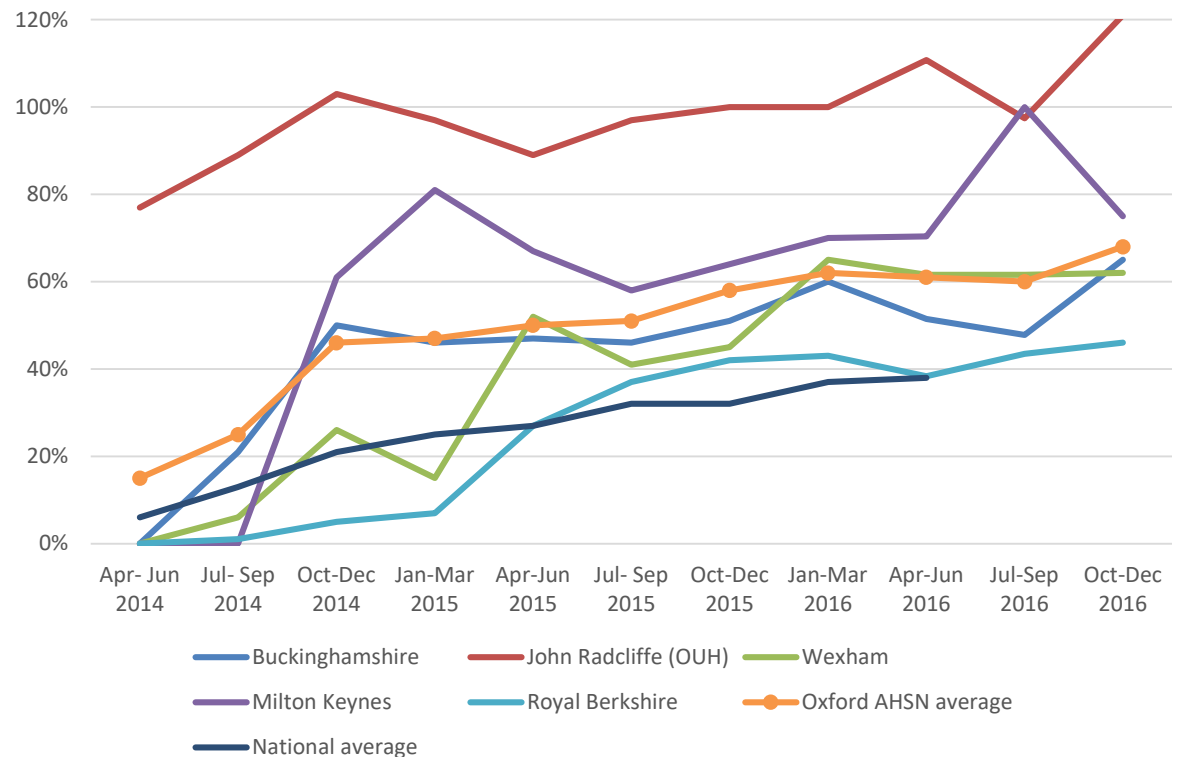
Clinical Area	Medicines	Medical Devices	Digital Health	Diagnostics
Stroke	<ul style="list-style-type: none"> <li>NOACs</li> </ul>	<ul style="list-style-type: none"> <li>Intermittent Pneumatic Compression Sleeves</li> </ul>		<ul style="list-style-type: none"> <li>Point of care</li> </ul>
Diabetes			<ul style="list-style-type: none"> <li>Gestational Diabetes Monitoring</li> </ul>	
Sepsis				<ul style="list-style-type: none"> <li>Curetis Unyvero™ system</li> </ul>
Safety		<ul style="list-style-type: none"> <li>PneuX</li> <li>WireSafe</li> <li>Non-injectable connectors</li> </ul>	<ul style="list-style-type: none"> <li>Intelligent Ultrasound</li> </ul>	
Respiratory				<ul style="list-style-type: none"> <li>Circassia NIOX® FeNo Point of Care (PoC)</li> </ul>
Patient mobility		<ul style="list-style-type: none"> <li>Gyroset</li> </ul>		
Ambulatory care			<ul style="list-style-type: none"> <li>Isansys patient monitoring</li> </ul>	
Prevention				<ul style="list-style-type: none"> <li>Somascan</li> </ul>

# Adoption example

## Intermittent Pneumatic Compression Sleeves

% IPC Sleeve utilisation in the immobile patient cohort

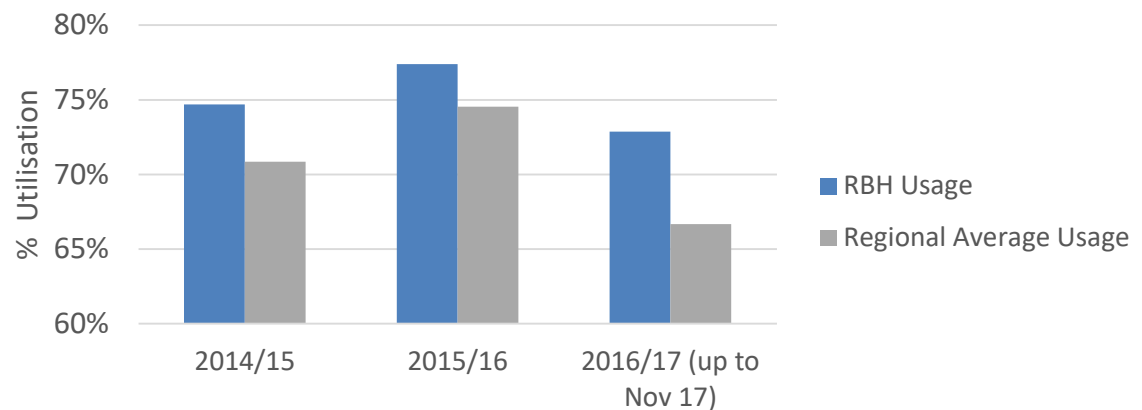
- AHSN approach has significantly increased IPC sleeve utilisation rates compared to the rest of the country.
- Over 16/17 performance across the region remained steady, increasing to an average of 68% for Oct-Dec 2016
- OHE independent study found that driving adoption beyond national average prevented an additional 22 DVTs, 2 PE's and 12 deaths over first 18 months of project
- Assuming utilisation maintained by end of AHSN licence, 2500 patients across the region will have received IPC sleeves. This represents the potential for 125 fewer DVTs, 75 fewer deaths and 13 fewer PE's over the lifetime of the project.



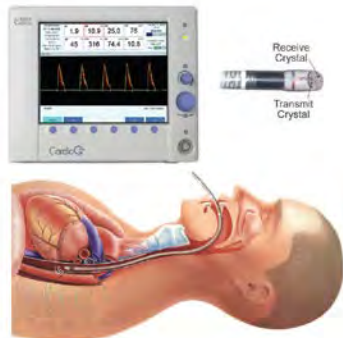
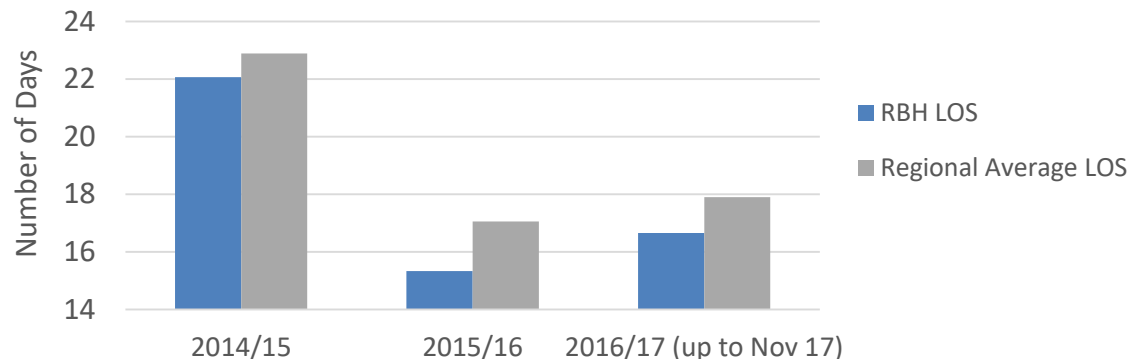
## Intra-Operative Fluid Management (IOFM)

- Use of IOFM Technology enables anaesthetists to monitor patient's hydration status during major and high-risk surgery
- Utilisation of IOFM at RBH in emergency laparotomies has been higher than the regional average over last 3 years of project
- RBH achieves one of the lowest LOS for emergency laparotomy procedures in the region which could be linked to IOFM usage

Utilisation of IOFM as a percentage of total emergency laparotomy cases



Average Length of Stay for emergency laparotomies



# Examples of innovation – latest projects to improve patient safety

- Read more in our Patient Safety annual report – copies available here today

## Non-injectable arterial connector



This improves safety for all patients requiring an arterial line in operating theatres and intensive care by preventing drug administration via the wrong route, bacterial contamination of the arterial line and blood spillages.

## WireSafe



This is an engineered solution to prevent retention of the central line guidewires that are used when inserting large catheters into central veins.

## PneuX System



A cuffed ventilation tube and an electronic cuff monitoring and inflating device that prevents leakage of bacteria-laden oral and stomach contents to the lung.

# Impact



**47,000**

Patients recovered  
or avoided harm



**200**

Lives saved



**£31m**

New investment and savings  
brought into the economy



Return = **2.5** times the  
cost of the Oxford AHSN



**100s**

of projects



**2,500**

networked clinicians



**300+**

innovations assessed



**33**

innovations implemented across  
medicines, devices, digital and diagnostics



**2,500**

people attended events organised  
by or sponsored by Oxford AHSN



Sector	Indication	Product	Setting
Diagnostics	Range of markers	iStat (PoC)	Out of Hours
Diagnostics	Infection	FBC, CRP Microsemi	Acute
Diagnostics	Cardiovascular	SomaScan CV	Primary
Diagnostics	Stroke	PoC	Ambulance
Diagnostics	IBD	Calprotectin	Acute
Diagnostics	Pre-eclampsia	Elecsys	Acute
Diagnostics	Asthma/COPD	NIOX FeNo	Primary
Digital	Oncology	Digital stratification tool	Primary/Acute
Digital	Digital audit	Ultrasound	Secondary
Digital	Vital signs	Patient Status Engine	Ambulatory
Medtech	Wheelchair control	Gyroset for quadraplegics	Rehab/Home



# Examples of Diagnostic Projects

In Progress



- Extension from using point of care diagnostics in the EMUs to Out of Hours GP vehicles for use in the community sponsored by a health foundation grant
- Study will assess the benefits of PoC in an Out of Hours setting using Abbott iStat

**HORIBA**



- Evaluation of Horiba Microsemi<sup>CRP\*</sup> in Oxford University Hospitals NHS FT, Stoke Mandeville Hospital and Wexham Park
- Testing of a CRP and whole blood assay in emergency departments to better diagnose those children with severe infection and to reduce unnecessary admissions

In Planning



- Assessment of proteomic profiles using SOMAScan<sup>®</sup> of NHS Health Check participants in collaboration with GP practices in Bucks
- Develop a model of risk across the study population that assesses the impact of pharmacological and lifestyle interventions

 **curetis**



- Offers a single protocol for sample preparation with potential to assess a 100 analytes within a few hours in a PoC setting
- Assessment of Unyvero system in infectious diseases in Oxford University Hospitals NHS FT and Royal Berkshire Hospital about to start

## Evaluation example

### Fractional Exhaled Nitric Oxide testing in Primary Care

- FeNO testing allows GPs to determine whether a patient's asthma is "inflammatory" and likely to respond to inhaled corticosteroids
- AHSN are working with Circassia and University of Oxford to drive adoption of FeNO diagnostic devices across the region
- Currently working with a number of evaluative practices to generate real world evidence of cost savings to CCGs



Introducing the  
NIOX VERO<sup>®</sup>

**FeNO TESTING NOW  
QUICK AND EASY**



## Examples of projects you are leading/involved with:

Programme	Example
Best Care	Dementia and accreditation of memory clinics and webinars Early intervention in Psychosis Anxiety & Depression - IAPT
Clinical Innovation Adoption	Work on the Fallsafe project within community settings CAUTI in the community services
Industry Partnerships	App development road map Bicester Healthy New Town
Patient Safety	Reducing incidence of pressure ulcers  Absent Without Leave (AWOL) Nokuthula Ndimande, the most prominent nurse leader on this work at Oxford Health won 'Mental Health Nurse of the Year' by the British Journal of Nursing. This project was a critical part of the commendation made by Oxford Health.  Reducing incidence of Acute Kidney Injury CAUTI

# Bicester Healthy New Town Partnership



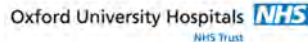
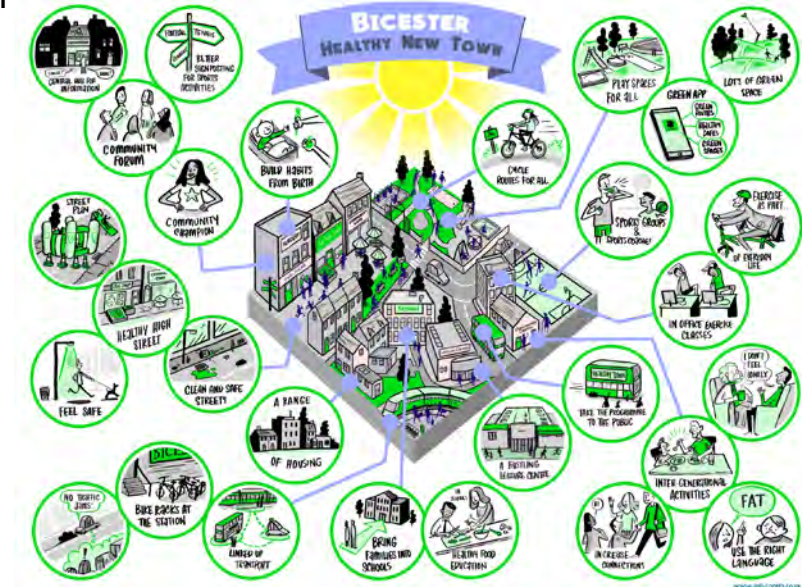
- 1<sup>st</sup> wave 393 new homes
- 6,500 homes NW Bicester development
- Obesity & social isolation

Cherwell  
District  
Council

Oxford  
Academic  
Health  
Science  
Network

A2  
Dominion

Oxfordshire  
Clinical  
Commissioning  
Group



North Oxfordshire  
Community  
Partnership Network



Bicester Locality  
Patient Forum,

# Future

- Innovations need to get into the NHS more quickly and cheaply
- The AAR identified AHSNs as playing a key role in identifying and adopting new transformative products
- Oxford AHSN focus on Innovation Adoption, Industry Partnerships and Patient Safety
- Innovation – medicines, medical devices, digital technology and diagnostics
- Different challenges to adoption even for innovation with strong case for adoption – eg need for pathway changes, funding changes, affordability, clinical leadership capacity



## Accelerated Access Review: Final Report

Review of innovative medicines and medical technologies  
An independently chaired report, supported by the Wellcome Trust





# Oxford Health Biomedical Research Centre



**A partnership between Oxford Health NHS Foundation Trust and the University of Oxford**

**Emma Stratful, R & D Manager Oxford Health and Manager, Oxford Health BRC**

**[Emma.Stratful@oxfordhealth.nhs.uk](mailto:Emma.Stratful@oxfordhealth.nhs.uk)**

**Improving brain health: the future in mind**



# Oxford Health Biomedical Research Centre



## Path to Success

- 2011: Unsuccessful BRU application
- 2011: CRF developed within Trust
- 2012 – 2017: NIHR CRF successful funding application, hosted by OUH
- 2013 – 2017: NIHR DEC
- 2013 – 2018: NIHR CLAHRC
- 2017 – 2022: NIHR BRC
- 2017 – 2022: NIHR CRF, hosted by OUH



# Oxford Health Biomedical Research Centre



- World's best University for clinical, pre-clinical and health subjects
- Ranked top in Research Excellence Framework (REF) in 2014 for research quality in Psychology, Psychiatry and Neuroscience
- Ranked top mental health Trust in NIHR RAND report

# Oxford Health Biomedical Research Centre



CEO



Theme Leaders



Training & PPI



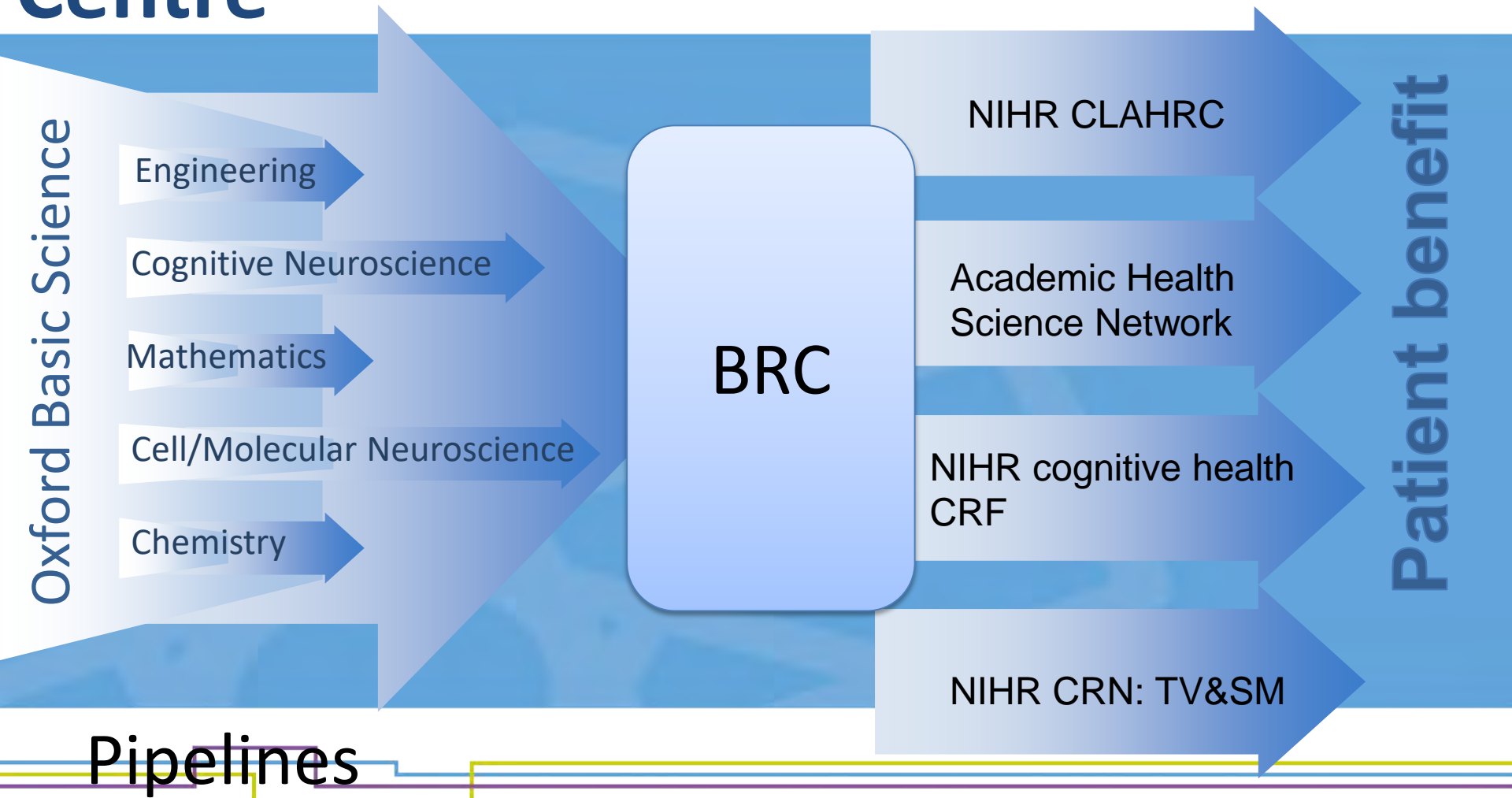
Director



UNIVERSITY OF  
**OXFORD**

**Oxford Health**  
NHS Foundation Trust

# Oxford Health Biomedical Research Centre



# Oxford Health Biomedical Research Centre



 Oxford Health <b>NHS</b> NHS Foundation Trust UNIVERSITY OF OXFORD	<i>Ethics &amp; PPI Training</i>		
	Adult Mental Health	Ageing and Dementia	Psychological Treatments
Imaging & Cognitive Neuroscience			
Experimental medicine			
Informatics			





# Oxford Health Biomedical Research Centre



**NHS**

*National Institute for  
Health Research*

Email: [enquiries.ohbrc@nihr.ac.uk](mailto:enquiries.ohbrc@nihr.ac.uk)  
<https://oxfordhealthbrc.nihr.ac.uk>

# Early Intervention in Psychosis

- Sandra Evans, Oxford AHSN and EIP Clinical Network patient engagement

[sandra.evans@earlyintervention.oxfordahsn.org](mailto:sandra.evans@earlyintervention.oxfordahsn.org)



# Let's **TALK** **ABOUT** it

Share your experiences and have your voice heard.





# Patient Safety: Programmes and Centres

Jill Bailey

Associate Clinical Director  
Oxford Health NHSFT

[Jill.bailey@oxfordhealth.nhs.uk](mailto:Jill.bailey@oxfordhealth.nhs.uk)

Charles Vincent

AHSN Patient Safety Collaborative Clinical Lead

Professor of Psychology

University of Oxford

[Charles.Vincent@psych.ox.ac.uk](mailto:Charles.Vincent@psych.ox.ac.uk)

# Patient safety – a very, very brief history

- 25 years ago – the dark ages
- 20 years ago – risk management, incident reporting & analysis
- 15 years ago – epidemiology, the scale of harm
- 10 years ago – process change, teamwork, culture, organisational change
- 5 years ago – prioritisation of interventions, evaluation, strategy

THE MID STAFFORDSHIRE  
NHS FOUNDATION TRUST  
PUBLIC INQUIRY

Chaired by Robert Francis QC

**Report of  
the Mid Staffordshire  
NHS Foundation Trust  
Public Inquiry**

**Volume 1:  
Analysis of evidence and  
lessons learned (part 1)**

**A promise to learn  
– a commitment to act**



**Improving the Safety of Patients  
in England**

National Advisory Group on the  
Safety of Patients in England

August 2013

The most important single change in the NHS in response to this report would be for it to become, more than ever before, a system devoted to continual learning and improvement of patient care, top to bottom and end to end.

We have made specific recommendations around this point, including the need for improve training and education, and for NHS England to support a network of safety improvement collaboratives to identify and spread safety improvement approaches across the NHS.

High quality care for all,  
now and for future generations



## 15 Patient Safety Collaboratives Hosted by Academic Health Science Networks

[Home](#) [About us](#) [Our work](#) [News](#) [Events](#) [Publications](#) [Resources](#) [Statistics](#) [Contact us](#)

[The NHS Five Year Forward View](#)  
[Improving patient experience](#)  
[Commissioning](#)  
[Technology, systems and data](#)  
[Partnerships and relationships](#)  
[Direct commissioning](#)  
[Quality improvement and clinical leadership](#)  
[Our governing frameworks](#)  
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[Patient Safety Alerts](#)  
[Never events](#)  
[Patient safety expert groups and steering group](#)

[Home](#) > [Our work](#) > [Patient Safety](#) > Patient Safety Collaboratives

### Patient Safety Collaboratives

The Patient Safety Collaboratives are a new programme to improve the safety of patients and ensure continual patient safety learning sits at the heart of healthcare in England. The programme will officially launch in autumn 2014, and work is already underway to develop the 15 local collaboratives and provide support through national resources and networks.

The Patient Safety Collaboratives are borne out of Professor Don Berwick's report into the safety of patients in England published in August 2014. The report, *A Promise to Learn – a commitment to act*, made a series of recommendations to improve patient safety; and called for the NHS "to become, more than ever before, a system devoted to continual learning and improvement of patient care, top to bottom and end to end."

#### How the Patient Safety Collaboratives will work

The programme, coordinated by NHS England and NHS Improving Quality (NHS IQ), will provide safety improvements across all healthcare settings, and become the largest and most comprehensive of its kind in the world.

search the site

Visit NHS Choices for patient information

Latest news

Diagnosing dementia: any appropriately skilled clinician can make the diagnosis and brain scanning not always needed  
17 November, 2014

GP and Practice Team bulletin: October 2014  
17 November, 2014

NHS England publishes latest 'Assuring Transformation' data  
14 November, 2014

- Focus on improvement
- Menu of national priorities
- Capacity and capability building
- Measurement
- Leadership
- Evaluation



Submitted from

**BMJ** Quality

# Absconding: reducing failure to return in adult mental health wards

Jill Bailey, Bethan Page, Nokuthula Ndimande, Julie Connell, Charles Vincent

**To cite:** Bailey J, Page B, Ndimande N, *et al*. Absconding: reducing failure to return in adult mental health wards. *BMJ Quality Improvement Reports* 2016;5:u209837.w5117. doi:10.1136/bmjquality.u209837.w5117

## ABSTRACT

Failing to return from leave from acute psychiatric wards can have a range of negative consequences for patients, relatives and staff. This study used quality improvement methodology to improve the processes around patient leave and time away from the ward. The aim of this study was to improve rates of on-time return from leave by detained and informal patients by 50%.

relatives and staff much distress and anxiety,<sup>3 4</sup> can lead to a deterioration in the relationship between staff and patients' relatives, and distract nurses from other responsibilities. In many cases the police are also engaged in the search for the missing patient which has a considerable impact on police resources.<sup>5 6</sup>



Oxford Health Modern Matron Nokuthula Ndimande received the 2017 Mental Health Nurse of the Year award from the British Journal of Nursing for her work on this project.

## Measuring outcomes for sepsis

### A GUIDE FOR IDENTIFYING SUSPICION OF SEPSIS USING HOSPITAL EPISODE STATISTICS

The lack of suitable outcome measures for sepsis have hampered evaluation of local and national campaigns and improvement programs. In a recent paper we developed a methodology for identifying patients with 'suspicion of sepsis' who are the critical target group both for clinical intervention and for sepsis detection and improvement programmes. The accompanying paper (Inada Kim et al, BMJ Open 2017) describes our approach and findings but contains only a limited account of the coding and analysis. This brief guide complements the paper and provides a full description of our coding strategy to allow others to identify suspicion of sepsis patients in their own organisation or region.

- Results have been shared with regional trusts, CCGs and national stakeholders.
- The work has attracted interest from other AHSNs, the Sepsis Trust UK & NHS England.

## Generic Sepsis Screening & Assessment

To be applied to all non-pregnant adults and young people over 16 years old  
or who are clearly unwell with any abnormal observations

## Sepsis Six Pathway

To be applied to all adults and young people over 16 years of age with suspected or confirmed Red Flag sepsis

Time zone: \_\_\_\_\_ Consultant informed? (tick) ☐ Initials: \_\_\_\_\_

Make treatment escalation plan; review CPR status  
Inform SpR/Consultant (*use SBAR*) patient has Sepsis

Action (complete ALL within 1 hour)	Time complete	Initials	Reason not done/variance
<b>1. Oxygen</b>  Aim to keep saturations 94-98% (88-92% if at risk of CO <sub>2</sub> retention e.g. COPD)			
<b>2. Blood (± other) cultures</b>  At least 1x peripheral blood ± urine cultures. CXR & urinalysis (± CSF, urine culture, etc) <i>Source control</i> – call surgeon/radiologist?			
<b>3. IV antibiotics</b>  According to Trust protocol Consider allergies prior to administration			
<b>4. IV fluids</b>  Consider 500ml stat if low BP or lactate >2mmol/L. Repeat if clinically indicated – max 30ml/kg			
<b>5. Check serial lactates</b>  If lactate >4mmol/l consider referral to Critical Care and recheck after each “10ml/kg challenge”			Not applicable – initial lactate <2 <input type="checkbox"/>
<b>6. Monitor urine output</b>  Consider if urinary catheter required Commence hourly fluid balance chart			

If after delivering Sepsis Six there is:

- further clinical deterioration
- persistent systolic BP <90 mmHg
- lactate not reducing

*or if patient critically ill at any time*

**Discuss with Critical Care / Outreach team**

Patient details (affix label):

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Staff member: \_\_\_\_\_

Date (dd/mm/yyyy): \_\_\_\_\_

Name (print): \_\_\_\_\_

Designation: \_\_\_\_\_

Signature: \_\_\_\_\_

**Important:** Is survival of life pathways in place? Yes ☐ No ☐ (describe below, include responsibilities?) Yes ☐ No ☐

**Does patient look sick?**

# NEWS 23 (Impaired GCS or single parameter ≥2)? ☐ Yes ☐ No ☐

**Could this be due to an infection?**

Tick ☐ Yes ☐ No ☐

Is there source of infection present?  
☐ respiratory    ☐ skin wounds/injury  
☐ urinary tract infection    ☐ dental abscess  
☐ abdominal/pelvic or deep wound    ☐ recent blood transfusion  
☐ flu/viral/septic arthritis infected wound    ☐ TB, HIV/AIDS, COPD  
☐ co-existing infection    ☐ All clinical scores (including time critical)  
☐ meningitis    ☐ Consider other cause  
 Other specify: \_\_\_\_\_ ☐ Trust already being treated

**ANY red flag criteria?**

Tick ☐ Yes ☐ No ☐

Rapidly evolving or new altered mental state

SpO<sub>2</sub> rate < 94 per cent

SBP ≤ 90mmHg (or diastolic < 60mmHg)

HR ≥ 120/min

Lactate rate > 2.5 per minute

Urea > 7mmol/L or creatinine > 260µmol/L

AKI or severe CKD

Infection signs

Consider to make pressure dressing  
Treat all bacterial

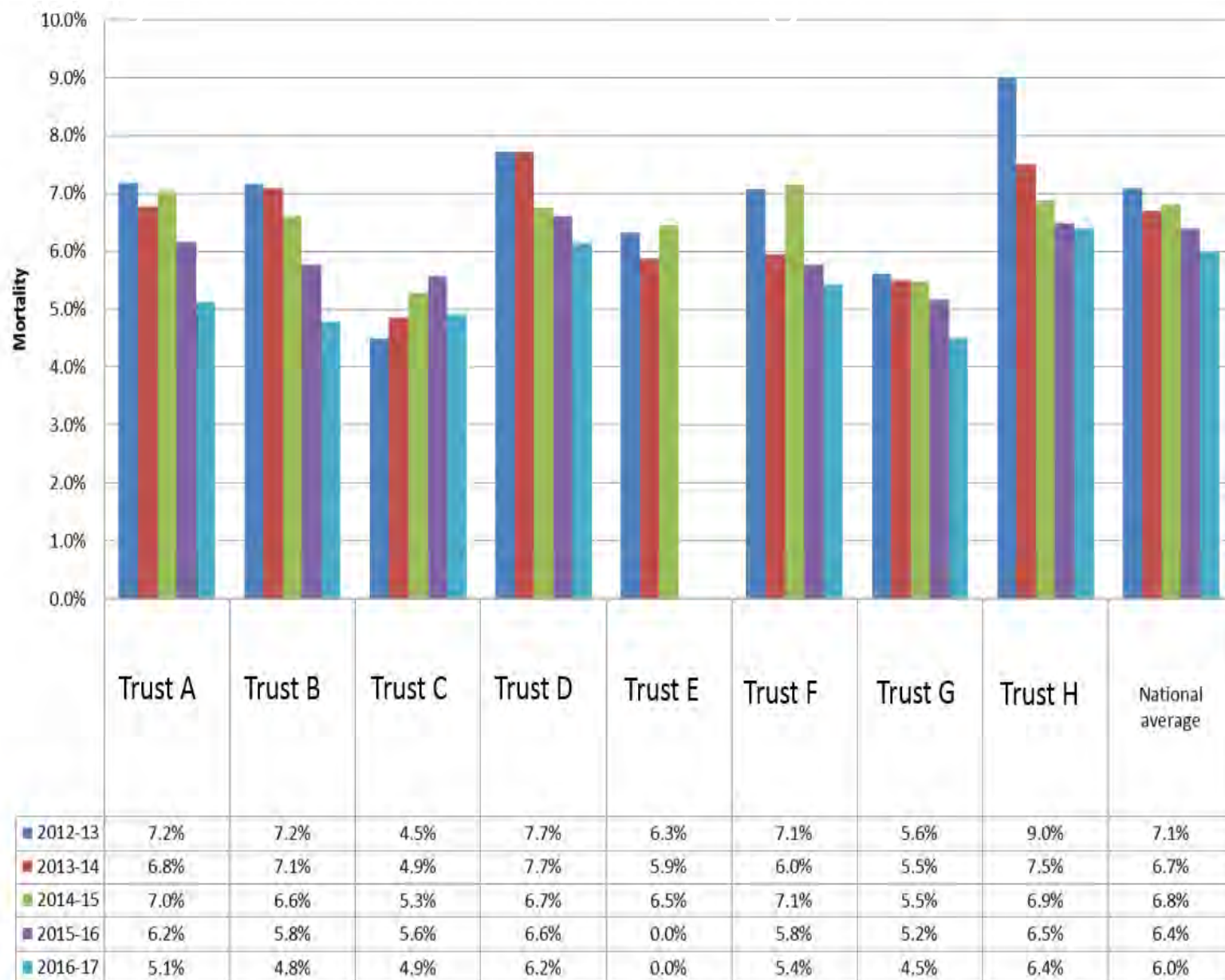
If senior clinician with appropriate

Treat Urgently for Sepsis NOW

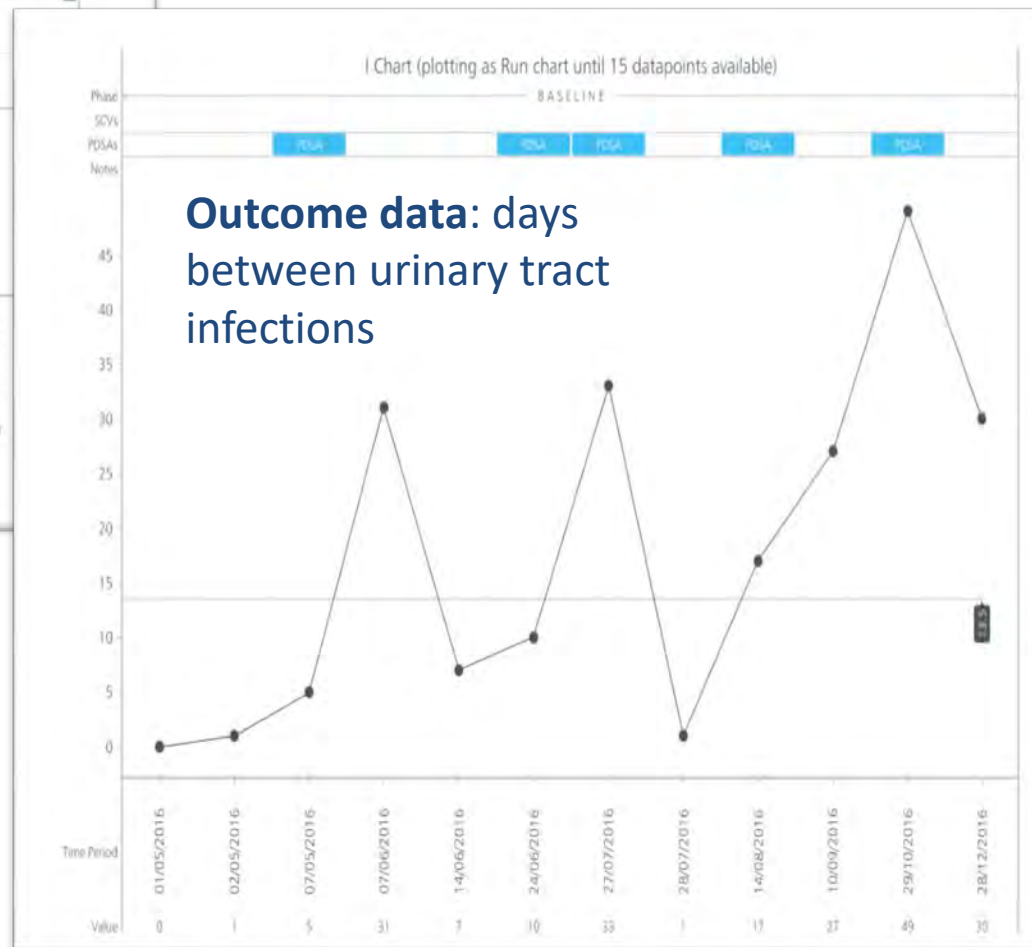
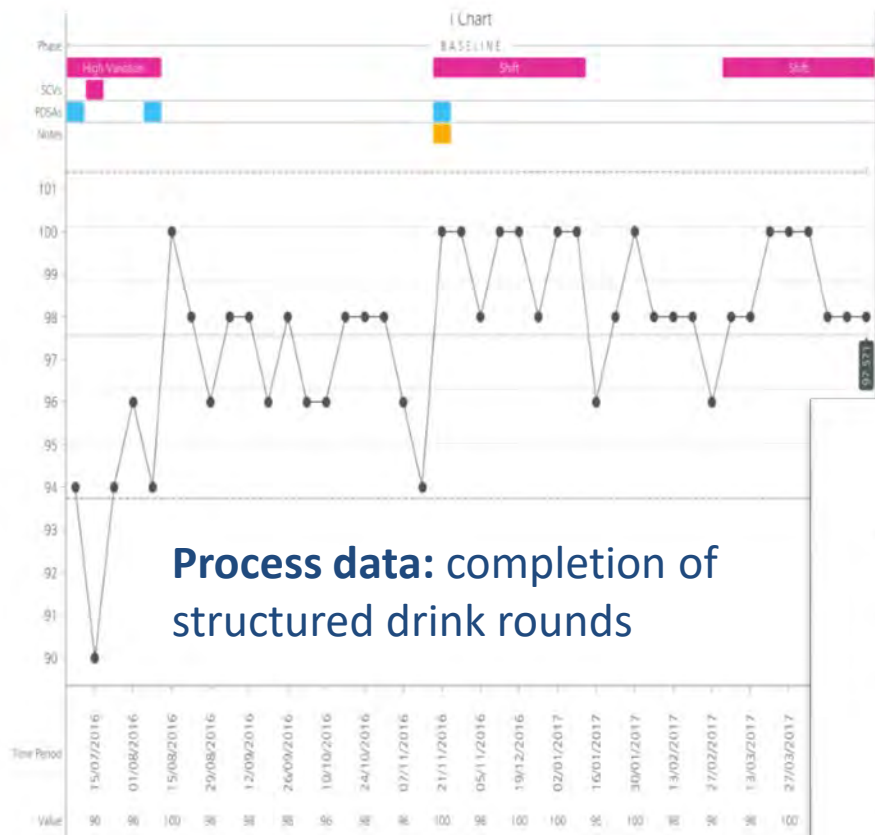
This is time critical, immediate action is required

Sepsis Six Pathway is copyright © The UK Sepsis Trust. Reproduction without permission is prohibited.









## Non-injectable arterial connector



This improves safety for all patients requiring an arterial line in operating theatres and intensive care by preventing drug administration via the wrong route, bacterial contamination of the arterial line and blood spillages.

## WireSafe



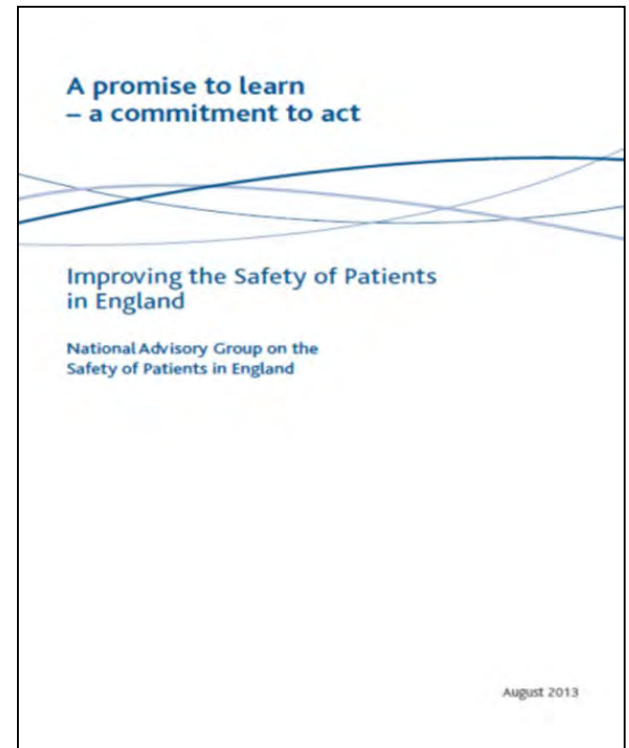
This is an engineered solution to prevent retention of the central line guidewires that are used when inserting large catheters into central veins.

## PneuX System



A cuffed ventilation tube and an electronic cuff monitoring and inflating device that prevents leakage of bacteria-laden oral and stomach contents to the lung.

*Improvement requires a system of support: that is considered, resourced and a driven agenda of capability-building in order to deliver continuous improvement.*



*The most important single change in the NHS in response to this report would be for it to become, more than ever before, a system devoted to continual learning and improvement of patient care, top to bottom and end to end.*





HOSPITAL ISRAELITA  
ALBERT EINSTEIN





# Successful International Centres



## **Qulturum, Sweden**

Our focus is developing improvement knowledge concerning patients, involving patients, co-operation and flow, inter professional teams, leadership and management.

## **The Dartmouth Institute Microsystem Academy**

Clinical microsystems do the real, hands-on, value-added work within an organization. They are living units that change over time and always have a patient at their centre. Clinical microsystems must find ways to improve and innovate on a day-to-day basis if they are to thrive in a changing environment (*Value by Design*, p. 315).

Paul Batalden



# Safety Centres: multiple components

- **IMPROVEMENT**

- Focus on scalable initiatives
- System-wide processes
- Culture change

- **LEADERSHIP**

- Clinical leadership
- Academic leadership

- **RESEARCH**

- In conjunction with local/regional providers
- National/international

- **EDUCATION**

- Postgraduate education
- Research fellowships
- Clinical fellowships

- **TRAINING**

- For local/regional partners – front line & executive level
- National/international training
  - Online learning hubs
  - Study visits

# Questions to address

- What do you have already?
- What is the long term vision?
- What range of disciplines?
- What kind of base and partnerships?
- What is the value to partners and patients?
- Core funding and stability. How to achieve?
- Where is it locating within structure?

The importance of cross-disciplinary work

## Multidisciplinary centres for safety and quality improvement: learning from climate change science

Charles Vincent,<sup>1</sup> Paul Batalden,<sup>2</sup> Frank Davidoff<sup>3</sup>

<sup>1</sup>Imperial Centre for Patient Safety & Service Quality, Imperial College London, London, UK

<sup>2</sup>The Dartmouth Institute for Health Policy & Clinical Practice, Dartmouth Medical School, Hanover, New Hampshire, USA

<sup>3</sup>Institute for Healthcare Improvement, Boston, Massachusetts, USA

### ABSTRACT

Effective improvement and research rely on sustained multidisciplinary collaboration, but few examples are available of centres with the broad range of disciplines and practical experience that are needed to sustain long-term improvement in healthcare quality and safety. In a number of respects, the parlous state of the quality and safety of medical care resembles the problem of climate change. Both constitute a profoundly serious man-made threat to the public good which has until recently been both ignored and

psychologically and in cultural terms. Healthcare is the largest industry in the world, and its problems are deeply embedded within the care delivery systems, the systems of health professional formation and development, and the inertia and resistance to change inherent in huge complex systems. Despite these daunting prospects, optimism is growing that, with a concentrated effort of the right kind, the safety and

# Oxford Centre for Patient Safety & Quality

## Aims:

- To design, deliver & evaluate improvement architecture and an improvement programme within OHNHSFT
- To develop the ethos of co-design and production
- To design and implement a measurement and monitoring strategy
- To develop safety from the narrow focus of acute to the interfaces of settings and pathways of mental health and home care
- To collaborate with international partners on the science and practice of improvement
- To develop an international research programme
- To provide consultancy & training

# The Centre Faculty

- Permanent Base – open to all
- Hub / Spoke / Network approach
- Chair, Director, Associate Director
- Multidisciplinary, patients and carers
  - Co-design, co-production
- Develop partnerships, association, affiliations
- Coach and support improvement programmes
- Translate research findings for practice
- Support the achievement of CQC ‘outstanding’

# Reducing Catheter Acquired Urinary Tract infections (CAUTI)

Helen Bosley, Infection Prevention & Control Matron  
Christine Selwood, Team Leader, Bladder & Bowel Service

[Helen.Bosley@oxfordhealth.nhs.uk](mailto:Helen.Bosley@oxfordhealth.nhs.uk)

[Christines.Selwood@oxfordhealth.nhs.uk](mailto:Christines.Selwood@oxfordhealth.nhs.uk)



# Burden of CAUTI

- CAUTI represents a significant source of avoidable harm for patients
- For every 5000 inpatient admissions:
  - 1000 catheterisations
  - 75 CAUTI
  - 3 Urinary sepsis
  - 1 death
- CAUTI is a risk in the community as well as in hospital – many patients have catheters inserted and/or managed in the community
- Many catheterisations are clinically unnecessary
- CAUTI is a significant financial burden – NHS England estimate that each CAUTI costs £2523 to treat

# Project stages

- Stage 1 – baseline review

Review of:

- Staff knowledge
- Number of bladder scanners
- Formulary
- Continence and catheterisation protocols
- Training programmes
- Communication between care settings

## Findings:

- Staff knowledge and awareness around continence, catheterisation and CAUTI was variable
- Protocols and procedures needed updating
- Many staff had not received training on catheterisation since qualifying
- Community staff had poor access to bladder scanners – leading to over-reliance on specialist teams to carry out basic scans
- No formal communication between community and acute when patients with catheters moved between care settings

# What did we do?

- Improved the procedures and protocols relating to catheterisation and continence and made these more accessible to staff
- Ensured policies and procedures aligned with OUH
- Reviewed patient pathway across health economy
- Streamlined the continence products on offer on the formulary
- Reviewed the training programme and offered more sessions to community staff
- Developed a catheter passport in collaboration with OUH
- Developed an e-learning package (in development) funded by Health Education England and the Oxford AHSN
- Developed a business case for additional bladder scanners

# Tackling CAUTI – 4 key factors

1. Avoid catheterising –study found significant rates of inappropriate urinary catheter use and a trend toward longer duration of hospitalisation with inappropriate catheter use (Tiwari et al 2012)
2. Use correct technique – aseptic non-touch technique
3. Remove as soon as no longer required – duration is the dominant factor for CAUTI
4. Communicate – ensure other staff, patient and carer are aware why the catheter is in, how to care for the catheter and when it is due to be removed

## Catheter Passport

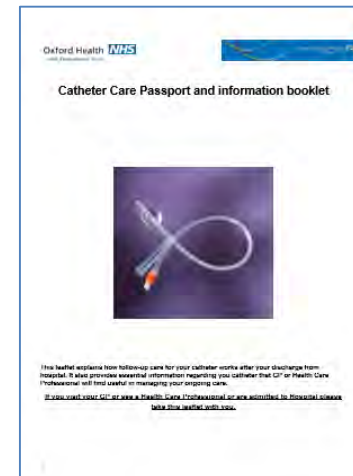
Joint work between acute and community Trusts.

Allows exchange of information between health professionals at different stages of the pathway.

Includes:

- Reason for catheterisation
- Type of catheter
- Duration of catheterisation
- Plan for review and removal

The passport also doubles as a patient information guide providing patients with advice on catheter care, handwashing, changing, how to deal with common problems, when to seek medical advice and how to access practical or emotional support.





# Project summary

- Reviewed all aspects of catheter and continence care
- Reviewed staff knowledge and understanding
- Developed a tool-kit of protocols and procedures that are being rolled out across Oxfordshire and can be spread to other Trusts
- Close collaboration with Oxford University Hospitals NHS Foundation Trust and the AHSN

# Key learning 1

- Staff knowledge and awareness around general continence care is variable – cannot try and improve CAUTI rates in isolation
- Gaps in knowledge around indications for catheterisation, catheterisation technique and catheter care
- Bladder scanning often not given sufficient priority
- Particular issues around assessing competence in a community setting

## Key learning 2

- Communication when transferring between care settings is a key issue
- Unnecessary dip-sticking - lack of understanding of bacteruria vs CAUTI and when to treat
- Staff turnover is a barrier to education
- Recording of catheter insertion and catheter care is poor
- Monitoring CAUTI rates is very challenging in the community!

## Next steps

- Finalise and launch e-learning resource for staff
- Repeat staff knowledge survey
- Development of competencies and assessment process

## Acknowledgements

- Thanks to all our staff and colleagues
- Special thanks to Hannah Oatley from the AHSN for supporting this project

# Thank you for your attention

Any  
Questions



## References

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