

Patient Safety Annual Report 2017

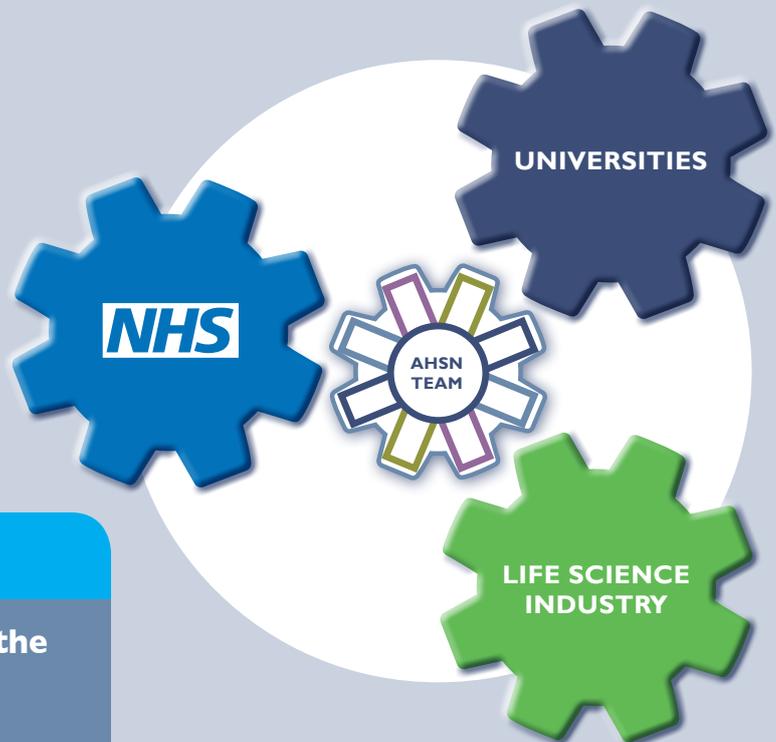


What is the Oxford AHSN?

The Oxford Academic Health Science Network brings together NHS providers, commissioners, universities and life science companies to improve health and prosperity in Bedfordshire, Berkshire, Buckinghamshire, Milton Keynes and Oxfordshire. Success comes from collaborative working by the partners and stakeholders across the region.



3 million people



Benefits of collaboration across the whole system:

- Make the region healthier
- Improve patient safety across the region
- Develop practice and expertise to improve outcomes
- Make the region more attractive for inward investment and product development
- Improve region's attractiveness for commercial research
- Scale innovation adoption
- Evaluate new innovations
- Enable data sharing, operational, patients and research – improve outcomes
- Learn from each other – clinical standards, models of care, commercial models

Our programmes and themes facilitate shared work across all partners:

- Patient Safety
- Best Care Clinical Networks
- Clinical Innovation & Adoption
- Research & Development
- Wealth Creation
- Patient and Public Involvement, Engagement and Experience
- Informatics

Accelerating health and economic gains by working together

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| Introduction

Achieving safer healthcare can bring great benefits to patients, families and all involved in the delivery of care. The impact of even small improvements in patient safety is massive, both in terms of reducing the burden of disease and in huge economic benefits. The national Patient Safety Collaborative (PSC) programme aims to create a comprehensive, effective and sustainable improvement system and a culture of continual learning and improvement in patient safety. There is a PSC for each of the 15 Academic Health Science Networks (AHSNs) in England. This report provides examples of patient safety work undertaken by the Oxford AHSN PSC and other Oxford AHSN programmes.

The Oxford AHSN PSC is an integral part of the Oxford AHSN. Patient safety also runs through the Clinical Innovation Adoption and Strategic & Industry Partnerships (Wealth Creation) programmes and the Best Care Clinical Networks. The Oxford AHSN Informatics team provides data support to all clinical projects. Key to this work is training of staff in safety improvement methods, working with national programmes such as Sign up to Safety to increase awareness of safety and the open discussion of error and harm. We are also expanding beyond the initiatives reported here. A new regional programme on the management of very sick children requiring artificial feeding is in development, and we will be going beyond quality improvement to consider how new technologies impact on safety and how frontline clinical impact is best evaluated.

Future challenges

The healthcare of the future requires a new and expanded vision of patient safety. An ageing population, increasing complexity and the presence of more than one disease in a patient, continual innovation, the ambition for unfettered access to care and the demands on professionals contrast sharply with the limited capacity of healthcare systems and the realities of financial austerity. This tension will inevitably bring new and potentially serious hazards for patients and require more sophisticated approaches to managing risk.

Patients and their families will need to have greater involvement in their care and a greater understanding of the risks involved. People are living longer, have many intertwined periods of care, and are becoming partners in the management of that care. The cumulative effects of poor care, such as long-term overuse of corticosteroids for dermatitis or delayed diagnosis and treatment of depression, are becoming a significant source of severe health problems. The patient and family are best placed to identify cumulative poor care and their voice is critical to detecting and analysing such problems. For instance, our programmes to improve the detection and treatment of sepsis and acute kidney injury cover the full patient pathway from home to community care and hospital.

The Oxford AHSN has highlighted and embedded safety across many of its region-wide projects; more than 30 programmes address safety issues across multiple clinical contexts. Safety needs to be addressed differently in different clinical contexts, and our approach needs to evolve as our healthcare systems address new challenges. In the following pages, we describe a range of physical and mental health patient safety improvement programmes spanning hospitals, the community and care in the home.

| Safety in mental health

Improving return rates to psychiatric wards

Absconding, or absence from a mental health facility without permission, includes both leaving the ward without permission and failure to return at an agreed time. This is a significant safety issue that can have a range of negative consequences for patients, their relatives and staff. The consequences of absconding include an increased suicide rate, a greater risk of self-harm, self-neglect, missed medication and interruptions to treatment plans. In many cases, there is a considerable impact on police resources as they are also involved in the search for the missing patient.

The programme aims to reduce the number of informal and detained patients who do not return to the ward at the agreed time following leave or time away. The focus was on changing patient perceptions of the leave planning and management process from seeing it as restrictive to a compassionate part of their care. All acute psychiatric wards aimed to improve their return-on-time rates by 50% in one year.

Impact at Oxford Health NHS Foundation Trust

The project began at Oxford Health NHS Foundation Trust with a pilot on one ward. The ward team were educated in Institute for Healthcare Improvement (IHI) quality improvement methodologies by a trained quality improvement coach. Five sequential tests of change were implemented to improve return rates. Tests of change were designed with service users and staff in community meetings on the ward. Data was collected on a weekly basis. Return rates improved from a baseline of 30% to 92% and the improvement has been sustained. The project has been adopted by a further six adult acute and recovery wards.

Regional adoption

Berkshire Healthcare NHS Foundation Trust has also achieved and sustained the same results on a pilot ward and is expanding the project to a further three wards. Central and North West London NHS Foundation Trust has launched the project on two wards at Milton Keynes and one at Gordon Hospital in central London where it is being adapted to reflect the local context.



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.

| Acute kidney injury

Hydration improves in care homes and GPs get better support

The introduction of structured drinks rounds is helping to reduce urinary tract infections in care homes.

The hydration of people living in residential and nursing homes is improving thanks to a partnership between the Oxford AHSN PSC and Windsor, Ascot and Maidenhead Clinical Commissioning Group (CCG).

On average the frequency of urinary tract infections (UTI) requiring antibiotics has dropped from one every four days to one every 30 days.

Changes included introducing structured drinks rounds and diaries recording fluid intake and diet, and training for staff and residents.

One resident who previously had recurrent UTIs has now gone more than four months without one. This resident learned how little they were drinking by completing a diary. This motivated them to increase their fluid intake. The resident has also started to engage in more activities and become more mobile, using a stick rather than a wheelchair.



More than 50 members of staff have been trained in the importance of hydration and the consequences of dehydration. The changes have been welcomed in the care homes with improvements noted by residents and staff. One member of staff reflected that the training has “given us understanding of why it is important to ensure that residents have enough fluids, it’s looking at the whole system, not just a drink”.

Care homes have started to make their drinks rounds appealing to residents. This includes having a ‘drink of the week’, music playing during drinks rounds and themed trolleys – for example, one for St Patrick’s Day, see image above. Plans are underway to spread this work in East Berkshire.

Reducing acute kidney injury in primary care

Care bundles designed to support GPs’ decision-making when caring for patients who have a blood test that suggests the possibility of an acute kidney injury have been developed in collaboration with Oxfordshire Clinical Commissioning Group. Around 65% of people within our region develop acute kidney injury in the community. These care bundles aim to reduce the burden of acute kidney injury in the community and admissions to hospital. Work is being undertaken to implement these in Milton Keynes, Swindon and Wiltshire.

| Sepsis

Standardised regional sepsis management established

Sepsis management pathways have been adopted by all six acute trusts within the Oxford AHSN region – and shared with other AHSNs.

This is a major step towards standardising sepsis management across the whole care pathway in the region including community hospitals, out-of-hours GP services and nursing homes.

Prof Charles Vincent, Oxford AHSN's Patient Safety Lead, said: "A coordinated regional approach enhances patient safety, reduces workload and makes data more consistent. This is an important step in the drive to reduce sepsis and produce sustained improvement across the region."

The Oxford AHSN PSC has defined and measured a broad range of infection presentations associated with a "suspicion of sepsis" based on regional routine coding data. Results have been shared with regional trusts and CCGs as well as national stakeholders. This work has attracted interest from other AHSNs, the Sepsis Trust UK and NHS England.

'Working Together' event

A 'Sepsis: Working Together' event on 19 September 2016 was attended by around 100 delegates. 71% were from community settings and 29% from hospital care including the private sector. There were speakers from community and hospital settings. Dr Celia Ingam-Clark (NHS England) gave a national update and Sue Morrish (mother and sepsis campaigner) shared the very moving story of her son Sam's illness and death from sepsis.



Feedback

More than nine of out ten delegates who completed an evaluation form said that the event was either very good or excellent. This day has been a catalyst for future working with other agencies.

"The day has gone so quickly but the messages and what are learnt will be kept forever"

"A really enjoyable day, thank you. It has inspired me to go back and make improvements in my area"

"Sue's talk made me think about being more clear and specific in giving instructions to patients in the future"



Next steps include:

- focusing on the interfaces between primary care, the ambulance service and acute trusts
- exploring the role of point-of-care tests
- continuing to improve sepsis coding and measurement.

| Safety in maternity

Maternity services reach more than 600 days free from swab retentions

NHS England publishes an annual report on 'never events'. These are "serious incidents that are wholly preventable, each never event has the potential to cause serious patient harm or death" (NHS England 2015). NHS England's Never Event report 2014/15 contained 39 reports of retained vaginal swabs/packs/cotton wool compared to 47 incidents in 2013/14.

Oxford University Hospitals NHS Foundation Trust commenced a patient safety quality improvement project in 2015. It included:

- developing and introducing an updated swab counting policy
- adding a paper bag for swabs into delivery packs (for swabs to be transferred to operating theatre).

From February to May 2016 there were five incidents of near misses where a swab was placed in the woman and this was not communicated to theatre staff but was noted by them. These were reported and followed up on an individual basis with staff locally.

Since 16 May 2016, when an email to delivery suite and theatre staff clarified the process of handover when there is a known swab in the patient, adherence to the swab policy has risen to 96%. In addition, completed swab-related handovers from delivery suite to theatre improved significantly with verbal handovers up from 26% to 81% and written handovers increasing from 4% to 75%.

A second project began on 5 December 2016. This looked at handover of a known vaginal pack from delivery suite to observation area. A "VP" sticker indicating that a woman has a vaginal pack was included in the handover. Feedback from the women concerned confirmed that they found having a sticker on their hand reassuring.



Referral to specialist unit for extremely premature babies saves lives

Research has shown that severely premature babies (born before 27 weeks) have significantly better outcomes if they are born in a hospital with a level 3 neonatal care intensive care unit, where a wider range of medical and neonatal care can be provided. The Oxford AHSN Maternity Clinical Network identified, through a region-wide audit, that around 50% of these babies were being born outside a Level 3 unit.

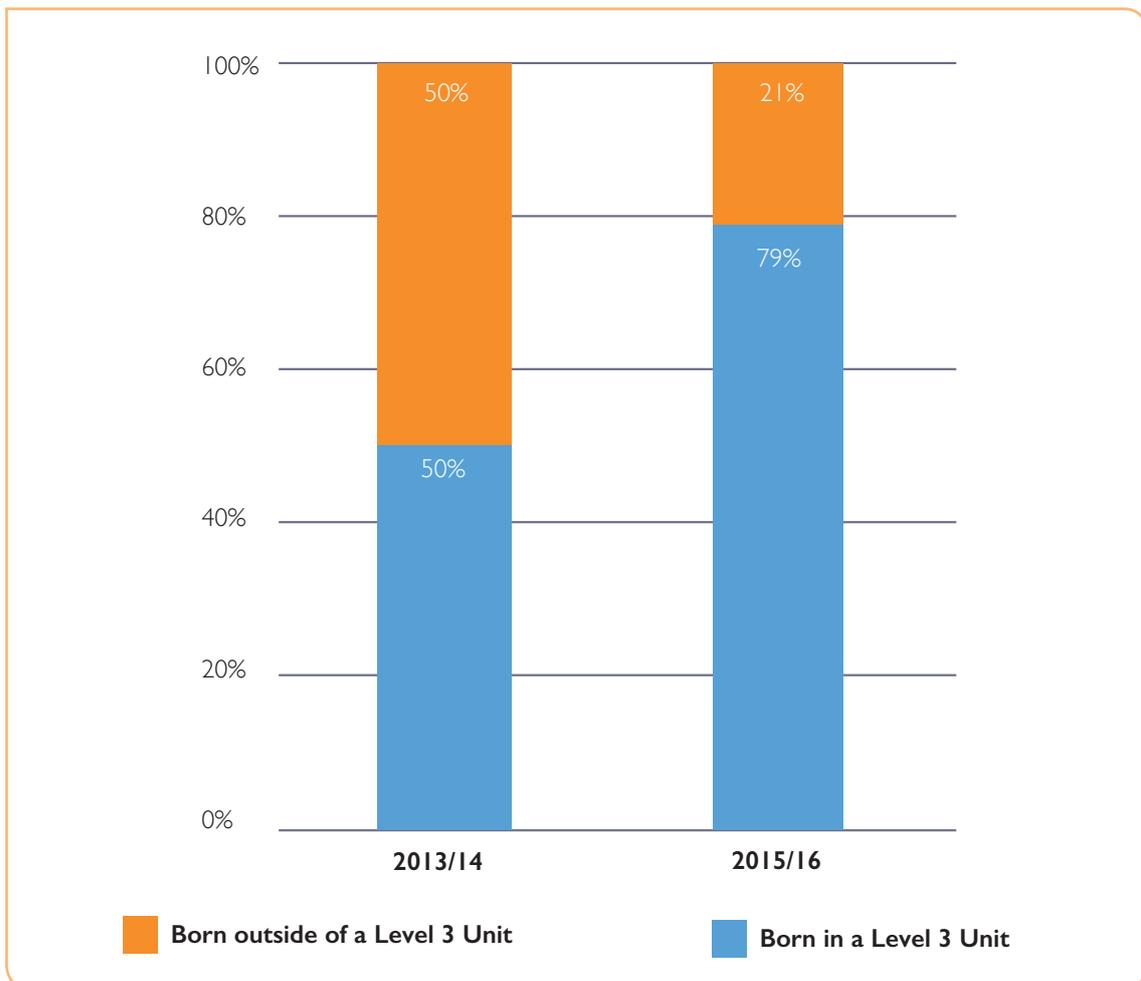
Trusts across the Oxford AHSN region agreed to:

- revise the referral pathway for in utero transfer
- ratify and embed region-wide guidelines
- carry out a rolling audit and root cause analysis of cases where transfer was not successful
- continue monitoring any barriers to transfer:

One year on the proportion of extremely preterm babies born in the safest place in our region has risen to 79% and is being maintained, see bar chart below. An independent health economics study showed that this improvement project is likely to have saved the lives of at least four additional extremely premature babies in the Oxford AHSN region.

Case study: swift referral saves pre-term baby

Shortly after implementation, a pregnant woman presented at a level 2 hospital in the region. She was extremely preterm (25 weeks) and in threatened preterm labour with intact membranes. The woman was swiftly transferred to the level 3 unit where she appeared to be clinically well, but in fact had a severe infection of the membranes surrounding the foetus. This can quickly develop into overwhelming sepsis and is life-threatening to both the mother and baby. She was treated with intravenous antibiotics and the baby was safely delivered. Both mother and baby are doing well.



| Pressure damage prevention programme

Results of 17 projects will be used to reduce pressure ulcers

Pressure ulcers cause patients much distress and suffering and can seriously affect quality of life; they cause pain and infection and, in extreme cases, can result in a need for plastic surgery, amputation and even death.

Patients in all healthcare settings are potentially at risk of pressure damage in one form or another. Harm can occur during hospitalisation, in nursing homes or in patients' homes.

Pressure ulcers are also a huge drain on NHS resources. At least 700,000 people are affected by them each year, while 95% of them are preventable. Each pressure ulcer adds £4,000 to NHS costs, and the total annual bill for UK health services is £1.4-£2.1 billion - or 4% of total NHS expenditure. Most of this cost is nursing time.

Pressure damage happens when an area of skin and the underlying tissues are placed under sufficient pressure to impair blood supply. This commonly occurs after prolonged periods of low pressure to parts of the body such as heels and hips. All sorts of equipment being used to monitor or treat an individual (for example, catheters, oxygen tubing, lithotomy stirrups) can also cause pressure damage.

National Institute for Health and Care Excellence (NICE) evidence suggests that most harm associated with pressure is avoidable with good care. Our programme seeks to develop a regional plan to reduce and minimise occurrence across all sectors of the healthcare economy.

Our programme supports projects in a range of hospital, palliative care and community settings with many different types of patients and carers. We are looking to learn from each other about what works well in different settings, why sometimes they don't work and how we can change what we do to improve outcomes for our patients.

Case study: specialist acute spinal injuries ward

One of our projects is running on a specialist readmission/surgical ward for patients with spinal injuries. Pressure damage is a major problem for these patients due to immobility.

At the start, our project demonstrated that current systems for assessing the risks to patients from pressure damage and applying appropriate care bundles were not working. Documentation to keep patients safe from pressure damage was not being completed and patients were not getting the care they needed. As a result they were developing avoidable pressure damage. Working with the improvement team, staff identified a number of barriers to giving the standard of care they intended and a variety of solutions.

We ran training sessions so everyone was aware of what was needed to keep patients safe from pressure damage. We collected data about the impact these changes had on the reliable completion of risk and care tools, and on giving patients the right care based on their needs. We started in one bay on one ward, proved it worked, then rolled it out – first to other bays, then to the whole ward. The changes will soon be implemented across the whole unit. Since the project started there have been no new cases of avoidable pressure damage.

| New devices remove risk of human error in intensive care

Three innovative devices will enhance patient safety

Poorly designed equipment, whether at home or in hospital, increases the chance of error. Innovative designs have made some areas of healthcare much safer. For instance, a number of safety features have been designed into anaesthetic gas systems. Lines for oxygen and nitrous oxide attach to a special port set in the wall or ceiling. These lines are colour coded (in Britain oxygen is white, nitrous oxide is blue) and each pipe has a specific connector and collar that makes it impossible to attach an oxygen pipe to a nitrous oxide port and vice versa.

However, many areas of healthcare are still plagued by poorly designed equipment and confusing monitors and interfaces.

In 2017/18 the Oxford AHSN is supporting the spread and adoption of three devices that will enhance patient safety in critical care. They have been designed and developed by innovators supported by the NHS Innovation Accelerator programme. Their impact will be measured and evaluated.

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.

| Building capability in safety and quality improvement

More than 100 staff are taking part in safety improvement programmes

The 2013 Berwick report into patient safety said that the NHS had very little knowledge or capacity in quality and safety improvement. The NHS needs to develop people with both understanding and experience of improvement. Our regional approach has been to provide longer term support and coaching in quality improvement. Each of the clinical programmes is supported by quality improvement coaches from the Oxford AHSN PSC working with teams to diagnose problems, set aims, design tests of change and analyse data.

More than 100 people are actively participating in safety improvement programmes. We are also helping to coach 100 GP trainees in improvement skills. The PSC will design a quality improvement toolkit for a wide range of staff. Our work with the Royal College of Physicians mortality review will produce more people trained in medical record review and related methods.

Regional improvement strategy for increasing capability and capacity

We hosted a workshop in February 2016 to agree a strategy for improvement in quality and safety across the Oxford AHSN region. The workshop's 24 participants included senior NHS leaders, healthcare professionals, academic partners and Oxford AHSN staff. We subsequently carried out a survey of 100 people in the region, identifying those with experience in leadership of improvement programmes and training others in improvement skills.

We are using this information and the people we are bringing together to:

- help us develop our strategy for building regional improvement capability and capacity
- create a community of people involved and skilled in quality and patient safety improvement in order to share learning.

Improving understanding of the contribution of clinical human factors in serious incident investigations

We are working with three integrated healthcare trusts to improve the current approach to serious incident investigation. The project is led by Dr Jane Carthey, Human Factors and Patient Safety Consultant. Sixty serious incident investigation reports have been analysed and themes drawn to highlight strengths and weaknesses and ways of deepening understanding of human factors. We now plan a series of localised clinical human factors training for Investigating Officers and a shared learning event to bring together collective intelligence and learning in our integrated trusts.

Sign up to Safety – getting under the surface of the implementation gap



From the outset the Oxford AHSN PSC has supported the Sign up to Safety campaign. We joined the Beneath the Surface event in London which explored the hidden threats to patient safety in routine clinical practice. The event was based on the assumption that there are things that are going on in our practice that we do not see or hear, but influence our actions. The intention was to work beneath the surface to try to illuminate what is really going on. Once known it would be clearer how to make a successful change and enhance our practice. Participants shared, listened and observed patient safety improvement stories. This encouraged new insights, surprises and reflections.

| The Health Foundation Q initiative

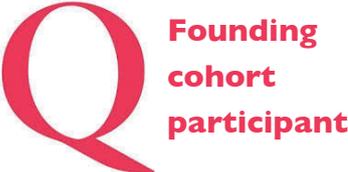
The Oxford AHSN PSC worked with the Health Foundation in designing the Q initiative

Q creates opportunities for people to come together as an improvement community – sharing ideas, enhancing skills and collaborating to make health and care better to benefit members' organisations and the populations they serve.

Its mission is to foster continuous and sustainable improvement in health and care, by connecting people with improvement expertise across the UK. The Q community is made up of a diverse range of people, including those at the frontline of health and social care, patient leaders, commissioners, managers, researchers, policymakers and others. This diversity boosts the power of Q as a source of innovation and practical problem-solving. It is being led by the Health Foundation and supported and co-funded by NHS Improvement.

The Oxford AHSN PSC established a group of founding members with extensive improvement experience.

Q founding members in the Oxford AHSN PSC region

<p>Emma Vaux Royal Berkshire NHS Foundation Trust Consultant Nephrologist & Physician and Programme Director of Quality Improvement</p>	<p>Jill Bailey Oxford Academic Health Science Network Head of Patient Safety & Consultant Nurse Patient Safety, Oxford Health NHS Foundation Trust</p>
<p>Pepe Mullerat Buckinghamshire Hospitals NHS Trust Consultant surgeon</p>	<p>Julie Connell Oxford Health NHS Foundation Trust Safer Care Programme Manager</p>
<p>Ian Holt Programmes Lead for Nursing Oxford Brookes University</p>	<p>Roz Young Bedford Hospital NHS Trust Associate Director of Nursing</p>
<p>Marion Lynch Deputy Medical Director NHS England (South Central) Programmes Lead for Quality Improvement and for Patient Leadership, Thames Valley and Wessex Leadership Academy</p>	

Growing the Q community

We will continue to work with the Health Foundation in the fourth wave of the Q initiative from August 2017. The PSC is increasing its membership in Q in order to share best practice and to support our regional community of quality improvers. A bid for funding from the Health Foundation has been made to support the recruitment process. The PSC and its regional partners will promote Q locally.

| The Oxford AHSN Patient Safety Collaborative second annual conference

'Patient Safety: Strategies for the Real World'

A one-day conference was held in April 2016 and attended by 90 professionals from the patient safety community.

The aims of the conference were to connect people, to celebrate progress, to learn from the experience of improving safety in other health systems and industries and to explore some of the challenges and strategies for future patient safety work.

The conference opened with a keynote presentation from Professor Charles Vincent: 'Strategies for the real world', followed by guest speakers Dr Brian Robson, executive clinical director, Healthcare Improvement Scotland, on 'Stories from Scotland: improving patient safety at scale', and Penny Pereira, deputy director of improvement, the Health Foundation, on 'Q: connecting improvers across the UK'.

In the afternoon, Dr David Naylor, senior consultant, leadership development, the Kings Fund and Sign up to Safety campaign team, gave an interactive session 'Developing your awkward side'. It was followed by two sessions outlining current PSC projects. The final keynote presentation 'Global collaboration: frontline results' was delivered by Gretchen Haskins, chief executive, HeliOffshore.



Feedback

More than nine out of ten of delegates who completed an evaluation said the content met their expectations very well or excellently.

In relation to 'what would improve their own practice?' a delegate said:

"Thinking about what would make a difference rather than what caused the issue"

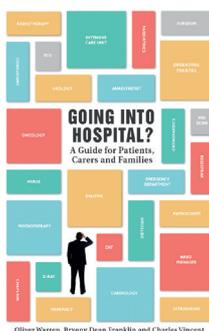
Another said that the conference was:

"The most motivating and inspiring day I've had in a long time"



Recent publications and presentations

- Reducing failure to return from leave or time away from adult acute wards. Bailey, J., Page, B., Ndimande, N., Connell, J., & Vincent, C. (2016). *BMJ Quality*
<http://www.patientsafetyoxford.org/wp-content/uploads/2017/01/BMJ-Qual-Improv-Report-2016-Bailey-.pdf>
- Haidrani, L. (2016). Project reduces self-harm in children and adolescents. **Mental Health Practice**. 19(6), 8-9. (Project coached by Jill Bailey)
- Vincent, C., & Amalberti, R. (2016) **Safer Healthcare. Strategies for the real world.** Springer Open. <https://link.springer.com/book/10.1007/978-3-319-25559-0>
- Warren, O., Dean Franklin, B., & Vincent, C. (2015). **Going into hospital? A guide for patients, carers and families.** UK. Eastdown Publishing.
- Gillies, K (2016). Acute Kidney Injury, InnovAit, December 2016,
<http://www.patientsafetyoxford.org/wp-content/uploads/2017/01/InnovAiT-2016-Gillies-AKI.pdf>



The safety in mental health project was:

- published in *BMJ Quality Improvement* November 2016, see above.
- documented as one of four high impact case studies featured in the national PSCs report 'Making care safer for all', June 2016 <http://www.ahsnnetwork.com/wp-content/uploads/2016/06/FINAL-PSC-Making-Care-Safer-for-All.pdf>
- presented to Pan-London Suicide Prevention conference, 2016
- highlighted as an exemplar of improvement by Dr Rosie Bennyworth and Dr Suzette Woodward at the Patient First conference, November 2016.
- Nokuthula Ndimande of Oxford Health NHS Foundation Trust won British Journal of Nursing Mental Health nurse of the year in recognition of her dedication to patient care and her leadership of this improvement programme.

Pressure damage

- "Developing an intersectoral program of research to prevent pressure injury: the OxPIP collaboration Experience" Presented at RCN International nursing research conference in Edinburgh April 2016.

Sepsis

- The 'suspicion of sepsis' coding work was presented at Sepsis Unplugged, Brighton, October 2016. This has also been submitted to *BMJ Open* as a paper for publication.

Acute kidney injury

- Gillies, K (2016). Acute Kidney Injury, InnovAit, December 2016
<http://www.patientsafetyoxford.org/wp-content/uploads/2017/01/InnovAiT-2016-Gillies-AKI.pdf>
- British Renal Society, April 2017 poster "A regional approach to AKI"

Maternity

- Swab project presented at Best Care clinical network event [October 2016]
- A poster and presentation at the Thames Valley GP fellows quality improvement day [February 2016]
- A poster presented at the IHI international quality conference [April 2017]

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