

# HEALTHCARE SCIENCE WEEK DAY 3: PATIENT SAFETY

## Welcome to Day 3 of Healthcare Science Week!

On this day, we will be focussing on Patient Safety and its importance. Patient safety is at the heart of everything we do in Healthcare Science. From cutting-edge diagnostics to innovative treatments, healthcare scientists play a crucial role in ensuring safe, effective, and high-quality care for all patients.

Today we welcome colleagues to share quotes, comments and articles centered around the importance of patient safety and protecting patients.

We look forward to following the celebrations on Social Media. Check in to our website each day for new content!

Tomorrow, we focus on Regulation in Healthcare Science.

#### IN TODAY'S CONTENT:

- The importance of patient safety -Peter Bill, Regional Chief Healthcare Scientist for the West Midlands and Consultant Clinical Scientist in neurophysiology
- The importance of the LSI Register in protecting patients - Dr Amit Aggarwal, Executive Director Medical Affairs & Strategic Partnerships, ABPI
- Patient Safety Learning top blog picks
- Discover the AHCS Healthcare Science Leadership Journal
  - Highlight "Safer medical device use: What do we need to do?"



#### PETER BILL

## REGIONAL CHIEF HEALTHCARE SCIENTIST FOR THE WEST MIDLANDS AND CONSULTANT CLINICAL SCIENTIST IN NEUROPHYSIOLOGY

"Patient safety is a cornerstone of the NHS, ensuring that individuals receive high-quality, reliable care without harm. It encompasses a wide range of practices, from preventing medical errors and infections to ensuring that treatments and medications are administered correctly. Healthcare scientists play a critical role in maintaining patient safety through their expertise in diagnostics, laboratory services, and medical technologies.



By conducting accurate tests, analysing complex data, and ensuring that medical equipment functions properly, healthcare scientists help detect potential issues early, improve treatment outcomes, and reduce the risk of complications. HCS contributions are essential in making informed decisions that directly impact patient care, ultimately enhancing the safety and well-being of patients and service users.

Regulation of healthcare scientists ensures they adhere to high professional standards and good scientific practice which serve as a framework to protect patients from unacceptable or suboptimal clinical practice."

#### THE AHCS LSI REGISTER

Today we hear from Dr. Amit Aggarwal, Executive Director Medical Affairs & Strategic Partnerships at ABPI, on the importance of the AHCS LSI Register in ensuring patient and public saftey:

"The Academy's Life Sciences Industry Register provides a strong accredited mechanism for NHS Trusts to verify the identity, credentials, and training of industry professionals on their sites, thereby helping to ensure patient and public safety."

"Standardising the verification process can help reduce variability across the NHS and support a safer, more consistent approach to industry engagement."

DR AMIT AGGARWAL
EXECUTIVE DIRECTOR MEDICAL AFFAIRS &
STRATEGIC PARTNERSHIPS, ABPI



## TOP PICKS FROM PATIENT SAFETY LEARNING



Healthcare Science Week, 10-16 March 2025, brings together over 50 scientific specialisms and professional groups to celebrate and raise awareness of this diverse NHS workforce. These experts play a crucial role in diagnosing diseases, developing treatments, and ensuring the effectiveness of medical technologies. Their work is essential for patient care.

To celebrate Healthcare Science Week, Patient Safety Learning has pulled together 12 blogs and interviews published on the hub showcasing the important work healthcare professionals, scientists and researchers are doing to improve patient safety.

#### 1. <u>Decoding diabetes research – an innovative approach that makes scientific knowledge accessible to everyone</u>

D-Coded is an online resource that presents easy-to-understand summaries of diabetes research studies. It aims to make the latest knowledge and developments accessible to people who don't have a medical or scientific background. In this blog, Jazz Sethi, Founder and Director of the Diabesties Foundation and part of the global team that developed D-Coded, discusses the need for the resource and outlines how it will help people living with diabetes to better understand and manage their condition.

#### 2. WireSafe®: Designing a new patient safety solution

WireSafe® is an innovative solution designed to prevent retained guidewires during central venous catheter (CVC) insertion. Retained guidewires are never events that require urgent removal if accidentally left in. They occur in about 1 in 300,000 procedures. We interviewed Maryanne, who developed the WireSafe®, on the innovation, the human factor considerations in designing it and the difficulties she faced getting a new product into the NHS.

#### 3. <u>Using barcode scanning technology to improve blood group testing in unborn babies</u>

In this blog, the NHS Blood and Transfusion (NHSBT) and the Scan4Safety Team in the NHS England National Patient Safety Team explore how barcode scanning technology has improved testing for the D blood group in unborn babies. This technology has made the process more efficient, reduced errors and improved patient experience.

#### 4. <u>Patient Safety Spotlight interview with Chidiebere Ibe, medical illustrator and medical student</u>

Chidiebere lbe is passionate about increasing representation of Black people in all forms of medical literature. In this interview, he explains how lack of representation at all levels of the healthcare system leads to disparities in healthcare experiences and outcomes. He outlines the importance of speaking openly about how racial bias affects patient safety, and argues that dispelling damaging myths about particular patient groups starts with equipping people with accurate health knowledge from a young age.

#### 5. Applying a robust approach to digital clinical safety in diagnosis

Diagnostics and digital go hand in hand. Digital healthcare has brought so many advancements in diagnostics and we are at the point of another paradigm shift with the advancements in artificial intelligence (AI), with some early and convincing diagnostic-use cases. New things also bring (new) risks. Some we can predict and plan for, perhaps some we haven't, and some we can't yet. In this blog, Ben Jeeves, Associate Chief Clinical Information Officer and Clinical Safety Officer, looks at the digital clinical safety aspects in relation to diagnostic safety.

#### 6. Lost tissue samples a thing of the past with new innovative tracking system?

The stress and anxiety felt by patients awaiting a potential cancer diagnosis can be made much worse if they are told their sample has been lost. Delays can impact treatment options and patient outcomes. Dil Rathore is a Biomedical Scientist and Pathology Innovation Lead at Leeds Teaching Hospitals NHS Trust. In this interview, he tells us about a new tracking system he's developed to reduce the number of patient tissue samples going missing.

#### 7. Medical device safety: effective testing is key

In this blog, University of Sheffield based researcher Dr Nicholas Farr explains why investing in the development of testing methods is key to ensuring medical devices are safe to use. Nicholas and colleagues at the University of Sheffield have developed innovative testing methods that mimic key features of the human body within the lab. He believes this will improve our understanding of the materials being used in the development of medical devices at an early stage in the process – saving time and money, and reducing the risk of patient harm.

#### 8. <u>"Our message about public involvement is don't be afraid to start." Interview with Barbara Molony-Oates from the NHS Health Research Authority</u>

In this interview, we speak to Barbara Molony-Oates, public involvement manager at the Health Research Authority about why it's important to involve patients and members of the public in health research. Barbara tells us about the Shared Commitment to Public Involvement, a partnership of research organisations working together to promote, support and improve public involvement in health and social care research. She describes how the Shared Commitment was developed and how it is helping researchers involve individuals and communities who have never before considered taking part in research.

#### 9. Coil procedures: Exploring negative experiences through qualitative research

Trainee Clinical Psychologist, Sabrina Pilav tells us about her latest research project exploring negative experiences of coil/intrauterine device (IUD) procedures. Sabrina explains how their in-depth qualitative methodology could contribute to improvements in the future.

#### 10. <u>Patient Safety Spotlight interview with Mark Sujan, Chartered Ergonomist and Human Factors Specialist</u>

Mark talks to us about how he came to work in healthcare, the vital role of safety scientists and human factors specialists in improving patient safety, and the challenges involved in integrating new technologies into the health system.

#### 11. Improving diagnostic safety in surgery: A blog by Anna Paisley

Safe diagnosis requires the gathering of information from multiple sources, including clinical history, examination, and laboratory and radiological tests. This information must then be distilled and interpreted to form a working diagnosis for treatment or further investigation. In this blog, Anna Paisley, a Consultant Upper GI Surgeon, talks about the challenges to safe surgical diagnosis and shares some of the strategies available to mitigate these challenges and aid safer, more timely diagnosis.

#### 12. CardMedic: Empowering staff and patients to communicate across any barrier

In this interview, anaesthetist Rachael Grimaldi tells us about CardMedic, the organisation she founded to empower staff and patients to communicate across any barrier. Rachael explains how their tools can be used to support vulnerable groups and reduce inequalities.

#### Can we help you with your research?

Can we help you? Where the topic is relevant to patient safety, we can work with researchers in a number of ways:

- To help recruit participants
- To share links to published papers via the hub and through our social media.
- To create content (blogs, interviews, videos) that help provide context around findings or research projects.

Contact the hub team at <a href="mailto:cotent@pslhub.org">cotent@pslhub.org</a> to discuss further.

### **DISCOVER THE**



## THE HEALTHCARE SCIENCE LEADERSHIP JOURNAL

Leadership in Healthcare Science is more vital than ever. The Healthcare Science Leadership Journal, supported by the Academy for Healthcare Science, provides a platform for discussions on healthcare policy, scientific leadership, and innovation.

#### **WHY READ?**

- Explore real-world leadership examples that enhance patient care
- Stay informed on healthcare policy and future challenges
- Gain insights from top leaders shaping scientific and system-wide change

Are you looking to pursue leadership in Healthcare Science or take advice from leaders making their mark in Healthcare Science?

By reading the Journal, you can gain leadership insight from good leadership techniques. You will discover how leaders have successfully navigated challenging situations and learn about their journeys to becoming leaders in their respective fields.

#### **HOW TO READ?**

You can find all editions of the AHCS Healthcare Science Leadership Journal on our Website. Click below to read!

Read the <u>Healthcare Science</u> <u>Leadership Journal</u>

BE PART OF THE CONVERSATION AND READ THE LATEST ISSUE TODAY! OUR NEXT EDITION IS COMING SOON.

From early-career professionals to senior leaders, this journal inspires, informs, and supports leadership at all levels.

The Journal was first published in 2021 and is published twice a year. Each edition contains fantastic peer-reviewed articles from Healthcare Science leaders and professionals working in the four countries of the UK.

To contribute to a future edition of the Journal, please contact: <a href="mailto:leadershipjournal@ahcs.ac.uk">leadershipjournal@ahcs.ac.uk</a>

## AHSC HEALTHCARE SCIENCE LEADERSHIP JOURNAL HIGHLIGHT

## SARAH JENNINGS - "SAFER MEDICAL DEVICE USE: WHAT DO WE NEED TO DO?"

#### My background

I am a registered graduate nurse with interests in safety and medical devices. After working in A&E and primary care/NHS 111 service posts, I became a medical equipment sister, a role linking equipment purchasing, clinical users and device management. I worked within my hospital's clinical engineering department helping to resolve equipment problems and support device procurement. I realised that kit was not always managed properly by clinical users, so I also supported medical equipment education and training across the trust. In addition, I completed training to be an NHS decontamination lead and learnt about point of care testing. I then moved to my current post in NHS England's National Patient Safety Team.

#### My role

The National Patient Safety Team receives over two million incident reports a year, as local incident reports are automatically uploaded into the national database. All incidents reported as causing severe harm or death are reviewed for evidence of new and unrecognised patient safety issues. Once identified, similar incidents at all harm levels are identified and undergo a thematic review. Insights from other sources such as coroners' reports and from professional bodies and Royal Colleges are also reviewed, to decide whether system wide action is needed.

I provide patient safety-related advice and guidance for medical devices across the NHS in England. Where incidents involve a medical device, I look at the equipment involved to see what it does and how it works. I then review who the users are, what support they get in terms of training and manufacturer instructions and seek to understand how they use the device. Consideration is given to the patient groups it is used with and the pathways and environments it features in. It is also important to take account of what else is happening when the device is being used. Understanding safety science and human factors is an important aspect and the majority of the team have relevant post-graduate qualifications to support this.

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