

# Innovation and Quality Improvement

## Current Awareness Bulletin

### May 2024

Our Current Awareness Bulletins provide details of recently published articles in a given subject. They are a quick and easy way to keep up to date.

Please contact the Academy Library to request any articles:

 [ruh-tr.library@nhs.net](mailto:ruh-tr.library@nhs.net)

 01225 82 4897/4898



Carry out basic searches using the Knowledge and Library Hub.



Sign up to NHS OpenAthens to access our subscriptions.



Contact us to receive our bulletins via email each month.



Get personalised alerts via our KnowledgeShare service.

[ruh.nhs.uk/library](http://ruh.nhs.uk/library)

## **NHS Clinical Entrepreneur Programme is offering a free ‘CEP Prep Programme’**

Would you like to know more about...

### **WHY INNOVATION IN HEALTHCARE IS IMPORTANT?**

10th June 2024, 6pm -7.30pm

### **RESEARCHING YOUR INNOVATION**

18th June 2024, 6pm – 7.30pm

### **LEAN CANVAS**

25th June 2024, 6pm – 7.30pm

### **HOW TO PITCH YOUR IDEA**

2nd July 2024, 6pm – 7.30pm

...are you considering in applying to cohort 9 of the NHS Clinical Entrepreneurs Programme in October? (<https://www.youtube.com/watch?v=KGemgokqlj0>)

**The NHS Clinical Entrepreneur Programme is offering a free ‘CEP Prep Programme’** which aims to engage and inspire NHS staff and healthcare students to innovate and look for creative solutions to the problems facing healthcare. It provides a valuable foundation to those thinking about applying to the NHS Clinical Entrepreneur Programme. **For further details and to register, please see <https://nhscep.com/cep-prep-sessions/>**

The four free learning sessions will take place online via Zoom from the 10th of June – 2nd July 2024. The programme will be CPD accredited with a certificate of completion issued for those who attend all sessions.

**Who can apply?** The CEP Prep sessions are open to all NHS staff interested in innovation and interested in applying for the NHS Clinical Entrepreneur Programme in October. Healthcare students studying a course that could lead to eventually working in the NHS are also welcome to register.

A number of RUH staff are already benefitting from the NHS Clinical Entrepreneur Programme which aims to support the healthcare workforce to develop and scale innovative ideas for the benefit of patients, staff and the wider NHS.

RUH staff - If you have any queries, please do not hesitate to get in contact with **Darren Hart**.

---

### **Using active learning strategies during a quality improvement collaborative: exploring educational games to enhance learning among healthcare professionals.**

da Silva ML. *BMJ Open Quality* 2024;13(2):e002427.

The participants perceived the various pedagogical strategies positively, which shows the value of a broad and diverse educational approach, customised to local settings and including game-based activities, to enhance learning among healthcare professionals.

## **Calculating the cost of medication errors: A systematic review of approaches and cost variables.**

Ranasinghe S. *BMJ Open Quality* 2024;13(2):e002570.

Variables used to calculate the cost of medication errors were not uniform across studies. Almost a decade after systematic reviews previously reporting on this area, a validated methodology to calculate the cost of medication errors has still not been reported to date and highlights the still pending necessity of a standard method to be established.

## **Siloed, unsupported and hindered – the reality of innovation in the NHS and social care**

The King's Fund

Why is it so hard to innovate in the NHS and social care? Pritesh Mistry, Toby Lindsay and Mark Patterson explore the learnings from a series of workshops held in 2023

## **A guide for leaders implementing NHS impact.**

NHS Providers; 2024.

NHS IMPACT articulates a detailed vision for quality improvement across the NHS. The task of mobilising that vision, however, falls to leaders. As a result, leaders at many of England's health system's 200+ trusts are looking for help — a partner organisation to guide the transformations in culture, management practice and improvement capabilities that are necessary to bring NHS IMPACT to life.

<https://nhsproviders.org/navigating-partnerships>

---

## **1. Patient and family engagement interventions for hospitalized patient safety: A scoping review**

**Authors:** Cai, Yan;Liu, Yuan;Wang, Cong;Liu, Shanshan;Zhang, Mingming and Jiang, Yan

**Publication Date:** 2024

**Journal:** *Journal of Clinical Nursing* 33(6), pp. 2099-2111

**Abstract:** Aim: To summarize existing studies that focused on improving hospitalized patient safety through patient and family engagement interventions to identify priorities and gaps.; Design: A scoping review.; Methods: Eight databases and citations of important reviews were searched on 30 September 2022. Two researchers independently screened the records. Then, two researchers extracted the data and cross-checked. The results were synthesized narratively, and a comparison was performed for studies from China and those from other countries.; Results: Ninety-eight studies were included. The results indicated that patient and family engagement interventions were applied to decrease the incidence of patient safety incidents, and to improve the healthcare providers' and patients' knowledge, attitude or practice of patient safety. Most studies only engaged patients and families at the direct care level, and the engagement strategies at the organization and health system levels were insufficient. For stakeholders, many studies failed to consider patients' perspectives in

intervention design and report taking staff training as a supportive strategy. Healthcare providers, especially nurses, were the main implementers of current interventions. Certain differences were observed between studies from China and those from other countries in the above aspects.; Conclusions: International interest in engaging patient and family for patient safety is growing. Future studies should enhance the patient and family engagement as a partner in various patient safety at the direct care level, and further explore the engagement at the organization and health system levels.; Relevance to Clinical Practice: Nurses, as the main formal caregivers for patients, should promote patient and family engagement in patient safety, especially at direct care level. Nurse should also incorporate the perspectives of patients in the design and implementation of interventions.; Reporting Method: PRISMA-ScR Checklist. (© 2024 John Wiley & Sons Ltd.)

---

## **2. Associations between patient safety culture and workplace safety culture in hospital settings**

**Authors:** Hesgrove, Brandon;Zebrak, Katarzyna;Yount, Naomi;Sorra, Joann and Ginsberg, Caren

**Publication Date:** 2024

**Journal:** BMC Health Services Research 24(1), pp. 568

**Abstract:** Background: Strong cultures of workplace safety and patient safety are both critical for advancing safety in healthcare and eliminating harm to both the healthcare workforce and patients. However, there is currently minimal published empirical evidence about the relationship between the perceptions of providers and staff on workplace safety culture and patient safety culture.; Methods: This study examined cross-sectional relationships between the core Surveys on Patient Safety Culture™ (SOPS®) Hospital Survey 2.0 patient safety culture measures and supplemental workplace safety culture measures. We used data from a pilot test in 2021 of the Workplace Safety Supplemental Item Set, which consisted of 6,684 respondents from 28 hospitals in 16 states. We performed multiple regressions to examine the relationships between the 11 patient safety culture measures and the 10 workplace safety culture measures.; Results: Sixty-nine (69) of 110 associations were statistically significant (mean standardized  $\beta = 0.5$ ;  $0.58 < \text{standardized } \beta < 0.95$ ). The largest number of associations for the workplace safety culture measures with the patient safety culture measures were: (1) overall support from hospital leaders to ensure workplace safety; (2) being able to report workplace safety problems without negative consequences; and, (3) overall rating on workplace safety. The two associations with the strongest magnitude were between the overall rating on workplace safety and hospital management support for patient safety (standardized  $\beta = 0.95$ ) and hospital management support for workplace safety and hospital management support for patient safety (standardized  $\beta = 0.93$ ).; Conclusions: Study results provide evidence that workplace safety culture and patient safety culture are fundamentally linked and both are vital to a strong and healthy culture of safety. (© 2024. The Author(s).)

---

## **3. Sustaining e-health innovations in a complex hospital environment: learning through evidence**

**Authors:** Jaana, Mirou;MacPhee, Erika;Sherrard, Heather and Walker, Mark

**Publication Date:** 2024

**Journal:** Frontiers in Digital Health 6, pp. 1346085

**Abstract:** Implementing and sustaining technological innovations in healthcare is a complex process. Commonly, innovations are abandoned due to unsuccessful attempts to sustain and scale-up post implementation. Limited information is available on what characterizes successful e-health innovations and the enabling factors that can lead to their sustainability in complex hospital environments. We present a successful implementation, sustainability and scale-up of a virtual care program consisting of three e-health applications (telemedicine, telehome monitoring, and interactive voice response) in a major cardiac care hospital in Canada. We describe their evolution and adaptation over time, present the innovative approach for their "business case" and funding that supported their implementation, and identify key factors that enabled their sustainability and success, which may inform future research and serve as a benchmark for other health care organizations. Despite resource constraints, e-health innovations can be deployed and successfully sustained in complex healthcare settings contingent key considerations: simplifying technology to make it intuitive for patients; providing significant value proposition that is research supported to influence policy changes; involving early supporters of adoption from administrative and clinical staff; engaging patients throughout the innovation cycle; and partnering with industry/technology providers.;  
**Competing Interests:** Two of the authors (HS and EM) have current affiliation with the University of Ottawa Heart Institute. The remaining authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest. (© 2024 Jaana, MacPhee, Sherrard and Walker.)

---

#### **4. The promises and limitations of artificial intelligence for quality improvement, patient safety, and research in hospital medicine**

**Authors:** Ma, Stephen P.;Rohatgi, Nidhi and Chen, Jonathan H.

**Publication Date:** 2024

**Journal:** Journal of Hospital Medicine

---

#### **5. Virtual hospital and artificial intelligence: a first step towards the application of an innovative health system for the care of rare cerebrovascular diseases**

**Authors:** Rifino, Nicola;Bersano, Anna;Padovani, Alessandro;Conti, Giancarlo Maria;Cavallini, Anna;Colombo, Luca;Priori, Alberto;Pianese, Raffaella;Gammone, Maria Rosaria;Erbeta, Alessandra;Ciceri, Elisa Francesca;Sattin, Davide;Varvello, Riccardo;Parati, Eugenio Agostino and Scelzo, Emma

**Publication Date:** 2024

**Journal:** Neurological Sciences : Official Journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology 45(5), pp. 2087-2095

**Abstract:** The development of virtual care options, including virtual hospital platforms, is

rapidly changing the healthcare, mostly in the pandemic period, due to difficulties in in-person consultations. For this purpose, in 2020, a neurological Virtual Hospital (NOVHO) pilot study has been implemented, in order to experiment a multidisciplinary second opinion evaluation system for neurological diseases. Cerebrovascular diseases represent a preponderant part of neurological disorders. However, more than 30% of strokes remain of undetermined source, and rare CVD (rCVD) are often misdiagnosed. The lack of data on phenotype and clinical course of rCVD patients makes the diagnosis and the development of therapies challenging. Since the diagnosis and care of rCVDs require adequate expertise and instrumental tools, their management is mostly allocated to a few experienced hospitals, making difficult equity in access to care. Therefore, strategies for virtual consultations are increasingly applied with some advantage for patient management also in peripheral areas. Moreover, health data are becoming increasingly complex and require new technologies to be managed. The use of Artificial Intelligence is beginning to be applied to the healthcare system and together with the Internet of Things will enable the creation of virtual models with predictive abilities, bringing healthcare one step closer to personalized medicine. Herein, we will report on the preliminary results of the NOVHO project and present the methodology of a new project aimed at developing an innovative multidisciplinary and multicentre virtual care model, specific for rCVD (NOVHO-rCVD), which combines the virtual hospital approach and the deep-learning machine system. (© 2023. Fondazione Società Italiana di Neurologia.)

### **Sources Used:**

A number of different databases and websites are used in the creation of this bulletin.

### **Disclaimer:**

The results of your literature search are based on the request that you made, and consist of a list of references, some with abstracts. Royal United Hospital Bath Healthcare Library will endeavour to use the best, most appropriate and most recent sources available to it, but accepts no liability for the information retrieved, which is subject to the content and accuracy of databases, and the limitations of the search process. The library assumes no liability for the interpretation or application of these results, which are not intended to provide advice or recommendations on patient care.