

# Health Services Transformation Bulletin

10<sup>th</sup> May 2024

## Artificial intelligence

**Artificial intelligence and machine learning for clinical pharmacology** [Ryan DK. *British Journal of Clinical Pharmacology*]

[Artificial intelligence (AI) will impact many aspects of clinical pharmacology, including drug discovery and development, clinical trials, personalized medicine, pharmacogenomics, pharmacovigilance and clinical toxicology. This review serves as an introduction to AI, highlighting current applications, aspects of model development and issues of evaluation and deployment. The aim of this article is to empower clinical pharmacologists to embrace and lead on the safe and effective use of AI.]

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**To warrant clinical adoption AI models require a multi-faceted implementation evaluation** [van de Sande D. *npj Digital Medicine*]

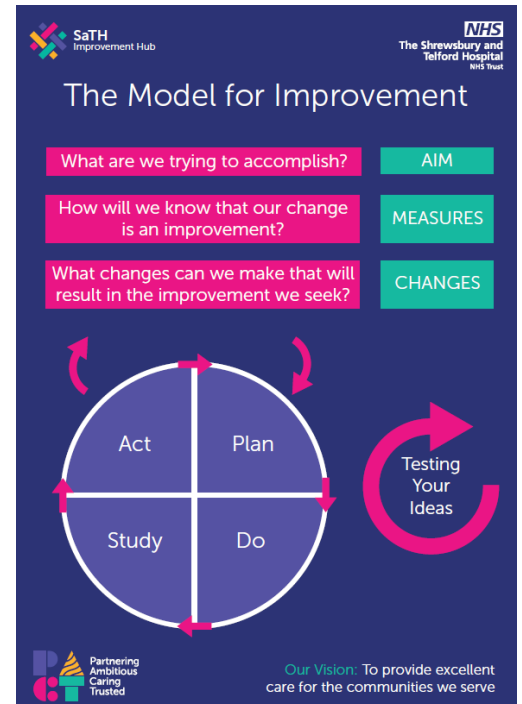
[Despite artificial intelligence (AI) technology progresses at unprecedented rate, our ability to translate these advancements into clinical value and adoption at the bedside remains comparatively limited. This paper reviews the current use of implementation outcomes in randomized controlled trials evaluating AI-based clinical decision support and found limited adoption.]

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**Artificial intelligence in healthcare** [Palmer. *British Journal of Healthcare Assistants*]

[Artificial intelligence (AI) has become a prominent feature of healthcare strategy, disease management, disease prevention, and emerging technology to offer novel treatments of the future for a vast range of conditions on the health and disease spectrum. This article will cover just some of the ways AI has an impact on the patients we care for, and the people in our own lives who are most likely maintaining their health thanks to the assistance of AI in some form or another.]

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## Design of care pathways

### **Admission avoidance hospital at home** [Edgar K. *Cochrane Database of Systematic Reviews*]

[Admission avoidance hospital at home provides active treatment by healthcare professionals in the patient's home for a condition that would otherwise require acute hospital inpatient care, and always for a limited time period. This is the fourth update of this review.]

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## Digital healthcare

### **Inclusive digital health care: what you need to know** [NHS Confederation]

[This briefing provides a summary and analysis of recent policy on inclusive digital health care.]

Available [here](#)

### **Improving availability and accuracy of the junior doctors' on-call handover through digitalisation**

[Haysom A. *BMJ Open Quality*]

[Clinical handover is a well-recognised point of vulnerability for patient safety and care. Electronic handovers are recommended but can have training and technical obstacles to implementation. This project has demonstrated that digitalisation and centralisation of the handover document using cost-free, familiar software improves performance and is easy to use. The model outlined in this project is simple, affordable and effective and therefore provides a ready system for implementation elsewhere]

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### **Making the future a reality: harnessing the potential of patient-facing tech in healthcare** [NHS Confederation]

[Technology is advancing at a fast pace and holds significant promise for the future of healthcare and the NHS. Yet there is a gap in practical guidance for healthcare stakeholders on how best to take this agenda forward, and what key roles are required. Systems are now in a place where people can take a large-scale view and make connections across the system to advance the technology agenda. To support them, the NHS Confederation and Google Health have developed this guide.]

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### **Problems and Barriers Related to the Use of mHealth Apps From the Perspective of Patients: Focus Group and Interview Study** [Giebel GD. *Journal of Medical Internet Research*]

[Guided focus groups and individual interviews were conducted with patients with a disease for which an approved mHealth app was available at the time of the interviews. There are essentially 3 different areas of problems in the context of mHealth apps that could be addressed to improve care: quality of the respective mHealth app, its integration into health care, and the expandable digital literacy of patients.]

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## Education and Training

### **Fostering belongingness: strategies to enhance learner retention in NHS healthcare education** [Bodey D. *British Journal of Nursing*]

[Despite its status as the world's largest employer of highly skilled professionals, the NHS has struggled to align its workforce growth with the escalating demand for healthcare services (NHS England/NHS Improvement, 2019). The ageing population, presenting with increasing complex clinical needs and multi-morbidities (McKee et al, 2021), combined with unsustainable staffing vacancies and reduced staffing stability (Buchan et al, 2019), is creating profound pressures on the entire health sector.]

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## Health records and data

### **ProKnow cloud-based system for radiotherapy data storage, communication and management: early value assessment** [National Institute for Health and Care Excellence]

[Early value assessment (EVA) guidance on the ProKnow cloud-based system for radiotherapy data storage, communication and management. Health technology evaluation HTE5. Last updated 14 March 2024]

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## Improvement

### **Effective use of interdisciplinary approaches in healthcare quality: drawing on operations and visual management. [Editorial]** [Bateman N. *BMJ Quality & Safety*]

[Explores the use of methods and findings from operations management and quality management to inform quality improvement initiatives within healthcare, particularly focusing on the use of 'Visual Management' techniques as an example. The value of these fields is exemplified by Woodward in another paper in this issue, Woodward M et al . How to Co-design a prototype of a clinical practice tool: a framework with practical guidance and a case study. *BMJ Qual Saf* 2024;33:258–70]

Available [here](#)

### **Fostering an Improvement Culture: Learning from East London NHS Foundation Trust's Improvement Journey Over 10 Years** [Institute for Healthcare Improvement]

[This publication describes East London NHS Foundation Trust's 10 years of experience with learning how to apply quality improvement throughout the organization and embed a culture of improvement, in partnership with the Institute for Healthcare Improvement.]

Available [here](#) [requires free registration]

### **Using quality improvement to pursue equity: lessons from healthcare** [Aurelio M. *British Journal of Healthcare Management*]

[Quality improvement offers those closest to the delivery of care a way of systematically making improvements in equity. Further opportunities for the field include the use of experimental designs to test combinations of interventions and potential scalability of quality improvement methods across systems with multiple partners.]

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### **Enhancing capability for continuous organisational improvement and learning in healthcare organisations: a systematic review of the literature 2013-2022** [Löfqvist N. *BMJ Open Quality*]

[This review provides insights into the intervention attributes that are associated with increasing COIL capability in healthcare organisations as well as factors that can have hindering or facilitating effects. Strategic management, external support, structured processes and empowered teams emerged as key elements for enhancing COIL capability.]

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## Integrated care

### **How to embed action on health inequalities into integrated care systems: A practical guide to inform spending on health inequalities** [NHS Confederation]

[This toolkit is a practical guide for system leaders that will help to inform future spending on health inequalities (HI) and support implementation of high-impact changes within integrated care boards]

(ICBs) to address HI. It aims to build system leaders' confidence in their ability to tackle inequalities in their organisations and is accompanied by a research report that looks at the approaches systems took to spending health inequalities money.]

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### **Six ways to create a culture for integration: benchmarking tool** [NHS Employers]

[In partnership with Skills for Care, NHS Employers has developed a benchmarking tool to help health and care systems audit their organisations when working towards building an integrated culture. The tool encourages organisations to think about their approach across six ways to create a culture for integration, and has been developed to help systems understand how they can create an environment where integrated working can thrive.]

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## **Patient flow**

### **Implementation of Step-Down Intermediate Care (IC) in Buckinghamshire, UK: A Qualitative Evaluation Study of Healthcare Professionals' Experiences and Perspectives** [Liapi F. *Health and Social Care in the Community*]

[Step-down intermediate care aims to offer short-term care for people who are medically optimised for discharge but needing a period for further assessment and/or rehabilitation. The aim of this study, which was nested in a larger evaluation project, was to explore the experiences and perspectives of healthcare professionals to understand the implementation of a step-down IC service in Buckinghamshire, UK.]

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### **The challenges and potential of intermediate care** [The Health Foundation]

[Intermediate care is short-term care aimed at maximising people's independence. It can reduce pressure on acute services by providing a pathway to timely discharge from hospital or by preventing admission altogether. This briefing estimates that around 125,000 people enter intermediate care services each month. It outlines how expanding intermediate care services could prevent hospital admissions and help people in hospital move into more appropriate settings.]

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### **Streamlining patient flow and enhancing operational efficiency through case management implementation** [Al Harbi S. *BMJ Open Quality*]

[Implementing a well-structured case management programme can enhance care coordination, streamline transitions, boost patient outcomes, and increase revenues within hospital settings.]

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## **Remote and telehealth service provision**

### **Experiences of 'virtual' occupational therapy service delivery in Wales** [Ingham L. *British Journal of Occupational Therapy*]

[COVID-19 accelerated the implementation of virtual working at pace, which carries the risk of missed opportunities for shared learning across organisations and services. This study investigated the experiences of 'virtual working' among OT staff and students in Wales. The objectives were to establish the meaning of virtual working for OTs, identify the perceived advantages and disadvantages of the technologies used and explore the specific contextual factors that impact on service delivery.]

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## Virtual wards

### **What do virtual wards look like in England?** [The Health Foundation]

[This working paper analyses aggregate national data on virtual wards to describe what virtual wards currently look like across England and discuss the effects of virtual wards on patients, staff and hospital capacity, as well as the gaps in the evidence.]

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## Workforce

### **Atypical working: Guidance for employers** [Chartered Institute of Personnel and Development]

[Increasing attention is being paid to people occupying jobs that don't fit the traditional model of permanent, regular-hours employment. At the same time there's a clear appetite for well-managed atypical working arrangements from both employers and individuals. This guide aims to help organisations manage atypical workforces responsibly, and sets out practical steps to improve the quality of work so that atypical working benefits both individual and organisation.]

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### **University Hospitals Birmingham - listening to retain** [NHS Employers]

[This case study shares learning from the approach to retention at University Hospitals Birmingham. In particular it highlights how the trust adopted a new approach to organisational culture and staff engagement which has had a positive impact on staff retention. Effective use of data is a key element and has played a key role in making progress. The trust still faces challenges but has improved retention and is moving in right direction.]

Available [here](#)

### **Perceived barriers and opportunities to improve working conditions and staff retention in emergency departments: a qualitative study** [Daniels J. *Emergency Medicine Journal*]

[This study identified four key themes related to workplace concerns and their associated barriers and opportunities for change. Culture, working environment and need for support echoed current narratives across healthcare settings. Leadership emerged more prominently than in prior studies as both a barrier and opportunity for well-being and retention in the EM workplace.]

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### **Volume recruitment events for health care support workers** [NHS Employers]

[Case study. Find out how North Cumbria Integrated Care NHS Foundation Trust is recruiting candidates in large numbers using a new to care approach. Recruitment is concentrated on suitable values and behaviours of individuals rather than prioritising skills and experience.]

Available [here](#)

### **The organisational harm, economic cost and workforce waste of unnecessary disciplinary investigations** [Cooper A. *British Journal of Healthcare Management*]

[Highlights the harm, cost and waste that can be caused by unnecessary and poorly managed employee investigations and highlights areas that need to be addressed to improve this area of human resources practice.]

Available [here](#)

## The psychological contract [Chartered Institute of Personnel and Development]

[How is the modern employment relationship evolving? This factsheet explores the psychological contract in the context of the employment relationship, how managers can support it, and its impact on broader organisational strategy.]

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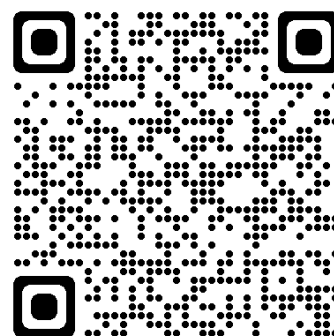
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