

NCPS Mission: To continuously improve the safety and quality of healthcare delivery in the region.

NCPS Update: August 2023

A Message from the Patient Safety

Program Director

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Artificial Intelligence (AI) is a wide-ranging tool that allows us to rethink how we integrate information, analyze data, and utilize the resulting insights to improve decision making. Its adoption in healthcare settings has been slower to be realized than in many



other business sectors (e.g., finance, marketing, etc.). A 2018 *Harvard Business Review* article, "<u>10 Promising Al Applications That Could Change Health Care</u>", identified 10 potential Al applications for healthcare; none included clinical decisions or improving clinical outcomes. The authors suggested that these applications would help frontline clinicians be more productive and back-end processes more efficient and estimated a \$150 billion in annual savings for U.S. by 2026.

"Artificial Intelligence in the U.S. Health Care Delivery." was just published in the July 2023 issue of the *New England Journal of Medicine*. Its authors cite the emerging uses of A1 in healthcare delivery which includes the process of image analysis in specialties such as radiology, pathology, dermatology, and cardiology. Nine healthcare domains (i.e., consumer, continuity of care, networks and market insights, clinical operations, clinical analysis, quality and safety, value-based care, reimbursement, and corporate functions) were reviewed to gauge the adoption of AI technology in each. Noted in their review was the limited adoption of AI in the Quality and Safety domain and two potential uses for AI within this domain, patient safety and patient experience. The reduction of major adverse events (adverse drug events, decompensation, and diagnostic errors) was identified as a potential for AI impactful use. To support this theory, they cited the case of a hospital's impressive reduction of sepsis via the use of an AI algorithm for early sepsis identification.

The July 2023 edition of *Nursing Inquiry* includes an article, "<u>When to err is inhuman: An</u> <u>examination of the influence of artificial intelligence-driven nursing care on patient</u> <u>safety</u>", Al's impact on the provision of nursing care and patient safety is examined. This paper provides an overview of artificial intelligence and its application in healthcare. Discussed within the paper are the implications of AI that affect nursing as a profession and includes perspectives on nursing education and training recommendations. The risk of clinical errors and safety issues are also discussed.

NCPS Shared Learning Resources

This month's Learning Resource is a literature review of best practices for engaging patients and their family in the patient's care. Evidence shows that patients who are involved in their

care [i,ii,iii] are better able to manage complex chronic conditions,[iv] seek appropriate assistance, have reduced anxiety and stress, and [v] have shorter lengths of stay in the hospital. This Patient Safety Brief may be found on the NCPS website in the Education Resources on the <u>Members pages [t.e2ma.net]</u>.

i. Coleman K, Austin B, Brach C, Wagner E. Evidence on the Chronic Care Model in the new millennium. *Health Affairs*. 2009;28:75-85.

ii. Huang E. The cost effectiveness of improving diabetes care in US federally qualified community health centers. *Health Services Research*. 2007;42(6):2174-2193.

iii. Epstein R, Fiscella K, Lesser C, Stange K. Why the nation needs a policy push on patient-centered care. *Health Affairs*. 2010 Aug;29(8):1489-1495.

iv. Anderson RM, Funnell MM, Butler PM, Arnold MS, Fitzgerald JT, Feste CC. Patient empowerment: Results of a randomized controlled trial. *Diabetes Care*. 1995;18:943-949.

v. Charmel P, Frampton S. Building the business case for patient-centered care. *Healthcare Financial Management*. March I-V 2008.

Learning Opportunities for NCPS Members

National Action Alliance Webinar Series: Engaging Boards and Executive Leadership in

Safety

Tuesday, August 22nd from 12:00 - 1pm Register here.

Patient Safety & Quality Healthcare Webinar: Preventing Failure to Rescue

Tuesday, August 29th from 12:00 - 1pm

Dr. Kathleen Mau, Senior Director of Nursing Education at Cleveland Clinic, will discuss causes of failure to rescue, barriers to timely recognition and intervention for early signs of deterioration, and an enhanced early-warning system that alerts nurses to subtle changes in patient conditions and supports patient assessment, contextual evaluation of clinical data, provider notification, interdisciplinary collaboration and timely intervention. Register <u>here</u>

AHRQ's Patient Safety Network (PSNet)

PSNet offers an unparalleled set of resources for patient safety training and education. In this section, you will have the opportunity to read WebM&M (Morbidity & Mortality) Spotlight Cases and complete the interactive learning modules for continuing medical education (CME) and maintenance of certification (MOC) credit through the American Board of Internal Medicine (ABIM) at no charge. You will also be able to search the PSNet Training Catalog, updated monthly with inperson and online training programs, events, and meetings. Check out the various offerings <u>here</u>.

Patient Safety Resources

Interdisciplinary and interprofessional communication intervention: How psychological

safety fosters communication and increases patient safety.

Good communication within a team has repeatedly been shown to increase patient safety and team performance perception. Psychological safety is recognized as being needed for effective interpersonal communication. This study utilized several interventions in their training of team members to speak up to gauge whether their use would improve psychological safety.

Interventions included training how to address authority gradients and how to deal and communicate errors in a psychologically safe simulation. The paper is available at: <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10310961/pdf/fpsyg-14-1164288.pdf</u>

Adverse Events Toolkit: Medical Record Review Methodology

Medical record review is a primary tactic to identify health care actions that contribute to patient harm. This report discusses the review process used in the 2018 report Adverse Events in Hospitals: A Quarter of Medicare Patients Experienced Harm <u>m</u> to illustrate a Successful review process for use by clinicians and researchers. This resource may be found <u>here</u>.

COVID Resources

Long COVID & Vaccines: Separating Facts vs Falsehoods

This recent Medscape article summarizes findings from several studies which looked at the association between long COVID and vaccines. In a March 2023 study published in *JAMA Internal*, it was found that vaccination reduced the risk of long COVID by about 25%. You can find the article <u>here</u>.

For more information about NCPS and the services we offer, please contact Carla Snyder MT(ASCP)SBB, MHA, Patient Safety Program Director at: <u>carlasnyder@unmc.edu</u>

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