

INTERVIEW WITH

NATIONWIDE CHILDREN'S HOSPITAL

Inside Medical Liability, given its focus on patient safety, was interested in a press release from the Nationwide Children's Hospital (Columbus, Ohio) that included a novel concept, "Safety II." The release noted that, "Currently, most hospitals use Safety I, which focuses on retrospectively evaluating errors after they occur. Through Safety I, identified system problems are fixed to prevent a similar error from reoccurring. This approach does not prevent future errors unrelated to the 'fixed' problem, and does not allow for error avoidance under unusual circumstances. Units that operate using Safety II behaviors are characterized by individuals and systems that are proactive in preventing errors."

We spoke with Nationwide to get some specifics on what Safety II is, and how it improves patient safety in their facility. These responses come from Jenna Merandi, PharmD, MS, CPPS, medication safety officer at Nationwide Children's Hospital, and Thomas Bartman, MD, PhD, associate medical director of quality improvement also at Nationwide Children's Hospital.

Q: Where did the concept of "Safety II" originate? And how, in terms of focus and approaches, is it differentiated from Safety I?

A: Safety I focuses on retrospective investigation, after an error occurs, to determine root cause(s) of system or individual failures, thus leading to system redesign to eliminate future occurrences. Safety II, in contrast, focuses on prospective analysis of what goes right, recognizing that systems are complex and viewing human behavior as a source of creativity as opposed to a dangerous source of variation that requires elimination. Safety II builds on Safety I, but does not replace it. To our knowledge, we believe Hollnagel et al. were the first individuals to coin the term "Safety II."^{1,2}

Q: Which element of Safety II is most important—essential for making it work?

A: Resilience. In Safety II, it requires an ability to "adjust to functioning" in a complex system in order to avoid error.

Q: Can you explain the four domains of Safety II?

A: First, individual characteristics—staying calm and maintaining focus, taking a global perspective, experience and expertise, attention to detail, taking control, appreciating the consequences of mistakes.

Second, relationships and interactions—personal relationships, teamwork, a culture of questioning, communication, training to introduce culture values, careful examination and feedback after errors are made

Third, there are structural and environmental factors—the provider's familiarity with the unit and its proximity, the number of patients on the unit and the intensity of their conditions, and the resources available on each shift.

Finally, innovation approaches—relying on teamwork if something novel is considered, teams responding to challenging circumstances, skepticism, bringing atypical approaches from other microenvironments.

Q: The fourth domain, innovation approaches, was novel for Safety II. Can you give an example of an innovation approach that was used successfully in your facility?

A: I think the best example we've captured is one in which a nurse stopped checking a patient's blood pressure because it caused agitation to that patient and led to more medication use. This could have eventually led to patient harm. This nurse felt comfortable discussing the situation with her advanced practice nurse and physician, and suggesting an alternative to following the original guideline based on this

particular patient's situation.

Q: I was especially intrigued by the phrase, "work done versus work imagined." What does this mean, in terms of implementation of Safety II principles?

A: "Work as done," allows us to look at how frontline staff are actually completing tasks, interpreting a policy, etc. "Work as imagined" pertains to how we think a task is completed, or how a policy is interpreted. Those might differ greatly, depending on the situation, and it is important for safety leaders to understand how the work is actually done. The differences can be dramatic (as in a catastrophic event), but they can also be minor and fleeting (simply doing step B before A instead of the other way around).

Q: Do you think other facilities can adopt your approach to Safety I and Safety II?

A: Yes, especially as we continue to operationalize our interventions and measure outcomes.

Q: Do you think there will be a Safety III at some point fairly soon?

A: Great question . . . operationalizing all of the Safety II concepts might put us in a better position to understand if we think there could be a next level of safety (i.e., Safety III) in our future. **MPL**

References

- Hollnagel E, Woods D D, Leveson N G. Resilience engineering: Concepts and precepts. Aldershot, U.K., Ashgate, 2006.
- https://www.eurocontrol.int/sites/default/files/content/documents/nm/safety/safety_whitepaper_sept_2013-web.pdf