INNOVATIVE HEALTH CARE SAFETY INITIATIVES EARN AWARDS

IHI/NPSF Lucian Leape Institute recognizes improvement teams from Purdue University and Memorial Rehabilitation Institute

Boston, MA – Sept. 6, 2018 – The Institute for Healthcare Improvement (IHI), a leader in health and health care improvement worldwide, has chosen the Regenstrief National Center for Medical Device Informatics and Memorial Rehabilitation Institute as recipients of this year’s IHI/NPSF Lucian Leape Institute Medtronic Safety Culture & Technology Innovator Awards. The awards will be presented on September 13 at the 2018 IHI/NPSF Lucian Leape Institute Forum & Keynote Dinner in Newton, Massachusetts.

The award program was created with an unrestricted educational grant from Medtronic, inaugural funder of the IHI/NPSF Lucian Leape Institute, to recognize teams that improve patient safety through the successful implementation of technology and culture change.

“The initiatives chosen to receive this year’s awards share a collaborative approach and improvement based in a commitment to learning,” said Tejal K. Gandhi, MD, MPH, CPPS, Chief Clinical and Safety Officer, IHI, and President of the IHI/NPSF Lucian Leape Institute. “They each demonstrate how safety cultures can improve the spirit and impact of collaboration. We are pleased to be able to recognize this work.”

The Regenstrief Center for Healthcare Engineering at Purdue University is being recognized for work to advance the safety of infusion pumps, which are commonly used in health care to administer medication or nutrients intravenously. “Smart” pumps use software that helps ensure the right dosage is being delivered at the correct rate and can also alert clinicians to adverse drug interactions. They are intended to help reduce the risk of adverse events, especially with high-risk medications, yet from 2005 to 2009, the Food and Drug Administration received 56,000 reports of adverse events associated with smart pumps, many related to device design or software flaws.

In response to this serious safety issue, a team of Regenstrief pharmacists and software engineers developed a web-based, vendor-neutral platform for sharing infusion pump data. Known as the REMEDI Collaborative, it is a free, online resource for clinicians, manufacturers, researchers, and medication safety organizations. Since 2010, membership has grown from 8 hospitals and health systems to 355 facilities in 28 US states and Costa Rica.

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“Participating organizations have embraced a culture of transparency in sharing data that, in turn, help other members learn and improve,” said Rich Zink, MBA, Team Lead. “The collaborative has become a vibrant community, giving members access to best practices and benchmarking tools and offering discussion forums and virtual conferences that connect members directly to others facing similar challenges.”

As a measure of improvement, the collaborative monitors compliance percentage and the volume of programming alerts. The higher the compliance percentage, the lower the chance of administering an overdose or underdose. Similarly, fewer alerts mean a lower risk of alert fatigue for clinicians. Data from the REMEDI collaborative show that between 2010 and 2017, user compliance with smart pump software has increased from 74 percent to 88 percent and alerts per device have been reduced from 113 to 49.

In a very different but similarly innovative initiative, staff of Memorial Rehabilitation Institute developed a multidisciplinary effort to address falls. The 89-bed adult inpatient rehabilitation program allows for family members to board with patients and to be more fully engaged as key members of the care team. Fall rates remained high, however, often because well-intended family members would attempt to assist patients with their mobility without adequate training.

In 2017, the program recorded 10 family-related falls over a 16-month period. To counter this trend, the Fall Prevention Committee developed a program in which a willing family member is partnered early in the patient’s stay with a physical therapist to receive hands-on training. Those who successfully complete the training are given a wrist band that signals to staff their competence to assist with moving the patient.

In the first eight months of the program, 101 family members enrolled and only one family-related fall occurred. Additionally, though not the focus of the program, length of stay declined during this period, and a greater number of patients were discharged to home, rather than a skilled nursing facility, compared to national benchmarks. The team believes this may be attributed to family being better prepared to care for patients at home.

“We began working on this problem by collecting real-time data on the causes of falls,” said Denise Maillet, Director of Quality and Clinical Effectiveness, Memorial Regional Hospital South. “We involved staff, patients, and family members in developing potential solutions and created standard education and communication, which was really critical to the implementation and success of this program.”

“This year’s awardees show that, whether working on a macro level or a micro level, the success of any initiative is highly dependent upon organizational culture,” said David J. Giarracco, Vice President, Global Market Development, Medtronic. “They also show how important it is to fully understand the root causes of problems in order to create lasting solutions. We congratulate these honorees for their impressive work.”

The IHI/NPSF Lucian Leape Institute (LLI) was established by the National Patient Safety Foundation (NPSF), which merged with IHI in May 2017. LLI’s members work on defining strategic paths and calls to action for the patient safety field, providing vision, context, and impetus for system-level change. Following the merger, LLI continues its work as a program within IHI.

This year’s LLI Forum & Keynote Dinner features keynote speakers Uma Kotagal, MD, MS, and Laura Delizonna, PhD. Dr. Delizonna, a consultant and executive coach, will facilitate the afternoon forum and provide a presentation on psychological safety in health care. Dr. Kotagal, Executive Lead for Community and Population Health at Cincinnati Children’s Hospital and Medical Center and Professor of Pediatrics, Obstetrics, and Gynecology at the University of Cincinnati, will provide the evening keynote, addressing social determinants of health.
To learn more about the work of the IHI/NPSF Lucian Leape Institute and this event, including the agenda and how to attend, visit the website.

About Us
The Institute for Healthcare Improvement (IHI) and the National Patient Safety Foundation (NPSF) began working together as one organization in May 2017. The newly formed entity is committed to using its combined knowledge and resources to focus and energize the patient safety agenda in order to build systems of safety across the continuum of care. To learn more about our trainings, resources, and practical applications, visit ihi.org/PatientSafety.

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