Simulation Training Helps Parents of Children with Cancer Improve Central-Line Care in Home

New Study in May 2017 Issue of The Joint Commission Journal on Quality and Patient Safety

(OAKBROOK TERRACE, Illinois, April 20, 2017) – Infections from a central line in children with cancer can be life-threatening. Today, with most cancer care taking place in the home, it is critical for parents to learn to care for central lines and prevent central line-associated bloodstream infections (CLABSIs). A new study in the May 2017 issue of The Joint Commission Journal on Quality and Patient Safety describes how simulation training for parents of children with cancer improved their knowledge and psychomotor skills regarding central-line care.

Most pediatric oncology patients require a central venous catheter, also called a central line—a long, thin, flexible tube inserted in the arm or chest through the skin into a large vein for delivering medicines, fluids, nutrients or blood products over a long period of time. In the study, “Becoming Parent and Nurse: High-Fidelity Simulation in Teaching Ambulatory Central Line Infection Prevention to Parents of Children with Cancer,” by Carol E. Heiser Rosenberg, ND, DNP, RN, and co-authors, one parent of each of 17 children with cancer at Johns Hopkins Children’s Center, Baltimore, Maryland, had received typical central-line education but still showed many gaps in understanding essential medication safety practices and the signs and symptoms of a CLABSI.

For the study, each parent then practiced central-line care in a session with a life-sized “high-fidelity” simulator—child or infant models were used, depending on the patient’s actual size. Following simulation, parents’ knowledge and psychomotor skills increased significantly. Median knowledge scores increased from pre- to post-test, from 10 to 15 of 16 points possible, and median psychomotor skills scores increased from 8 to 12 of 12 points possible. All
participants also strongly agreed or agreed that simulation was meaningful for learning central-line care.

The study suggests that simulation, as an adjunct to the usual education provided, may be an effective strategy for preparing parents to use evidence-based central-line practices at home. Just as simulation has enriched the training of nursing and medical students, it also has the potential to follow suit in parent and patient education—for patients of all ages and conditions.

Also featured in the May 2017 issue:

- “Measuring to Improve Medication Reconciliation in a Large Subspecialty Outpatient Practice”
- “Exploring How to Better Measure and Improve the Quality of Medication Reconciliation”
- “Creating a Pediatric Joint Council to Promote Patient Safety and Quality, Governance, and Accountability Across Johns Hopkins Medicine”
- “System Changes for Tracking Performance Measures in Tobacco Control: Can Health Information Technology Serve as an Accelerant for Moonshot Success in Cancer?”
- “System Changes to Implement The Joint Commission Tobacco Treatment (TOB) Performance Measures for Improving the Treatment of Tobacco Use Among Hospitalized Patients”
- “Relationship Between State Malpractice Environment and Quality of Health Care in the United States”
- “Performance Measurement in Rural Communities: The Low-Volume, Large Measurement Challenge”
- “The Journal Welcomes Three Associate Editors”

For more information, please visit The Joint Commission Journal on Quality and Patient Safety website.

###

Note for editors
The article is "Becoming Parent and Nurse: High-Fidelity Simulation in Teaching Ambulatory Central Line Infection Prevention to Parents of Children with Cancer," by Carol E. Heiser Rosenberg, ND, DNP, RN; Mary F. Terhaar, DNSc, RN, FAAN; Judith A. Ascenzi, DNP, RN; Anna Walbert, RN; K. Michelle Kokoszka, BSN, RN; Julianne S. Perretta, MSEd, RRT-NPS; Marlene R. Miller, MD, MSc. The article appears in The Joint Commission Quality and Patient Safety, volume 43, number 5 (May 2017), published by Elsevier.

The Joint Commission Journal on Quality and Patient Safety (JQPS) is a peer-reviewed journal providing health care professionals with innovative thinking, strategies and practices in improving quality and safety in health care. JQPS is the official journal of The
Joint Commission and Joint Commission Resources, Inc. Original case studies, program or project reports, reports of new methodologies or the new application of methodologies, research studies, and commentaries on issues and practices are all considered.