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Pediatric cancer experts at The Alabama Center for Childhood Cancer and Blood Disorders at Children's of Alabama have reported findings from a study that represent a major advance in efforts to improve quality of chemotherapy practices for children with cancer.

The study, which was authored by Raymond G. Watts, M.D., and Kerry Parsons, Pharm.D., and recently pre-published online in the journal Pediatric Blood and Cancer, followed a four-year quality improvement project. Previously published studies from other cancer treatment facilities have documented chemotherapy medication error rates ranging from 4 to 18 percent, with 85 percent of those errors reaching patients.

Watts and Parsons found that the use of a series of standardized chemotherapy prescribing, dispensing and administration processes with multi-provider cross checks at each point resulted in a chemotherapy error rate of 0.18 percent. Importantly, 92 percent of the errors were intercepted before reaching the patient. No error caused patient harm.

"By working shoulder-to-shoulder with our physicians, nurses, nurse practitioners and pharmacists, we were able to accomplish the lowest chemotherapy error rate yet reported," said Watts, lead author of the study and director of the University of Alabama at Birmingham (UAB) Division of Pediatric Hematology Oncology. "Our job is not yet done, and our efforts continue. Our goal remains zero errors. We published our results, successes and techniques with the hope that other cancer treatment centers will follow our lead and see similar success."

Children’s of Alabama, the nation’s third largest pediatric medical center, is home to The Alabama Center for Childhood Cancer and Blood Disorders. Specialized pediatric services offer hope and healing for all forms of childhood cancer, leukemia, brain and spinal cord tumors, hemophilia and other bleeding disorders and sickle cell diseases. The program, which treats more than 90 percent of all Alabama children diagnosed with cancer or blood disorders, is a partnership between Children’s of Alabama, the UAB Division of Pediatric Hematology Oncology and the UAB Comprehensive Cancer Center, and is ranked among the nation’s Top 50 pediatric cancer programs by US News & World Report.

The UAB Comprehensive Cancer Center is among the 41 cancer centers in the nation to meet the stringent criteria for the National Cancer Institute's comprehensive designation. The center is a leader in groundbreaking research and patient care, and in reducing cancer disparities.