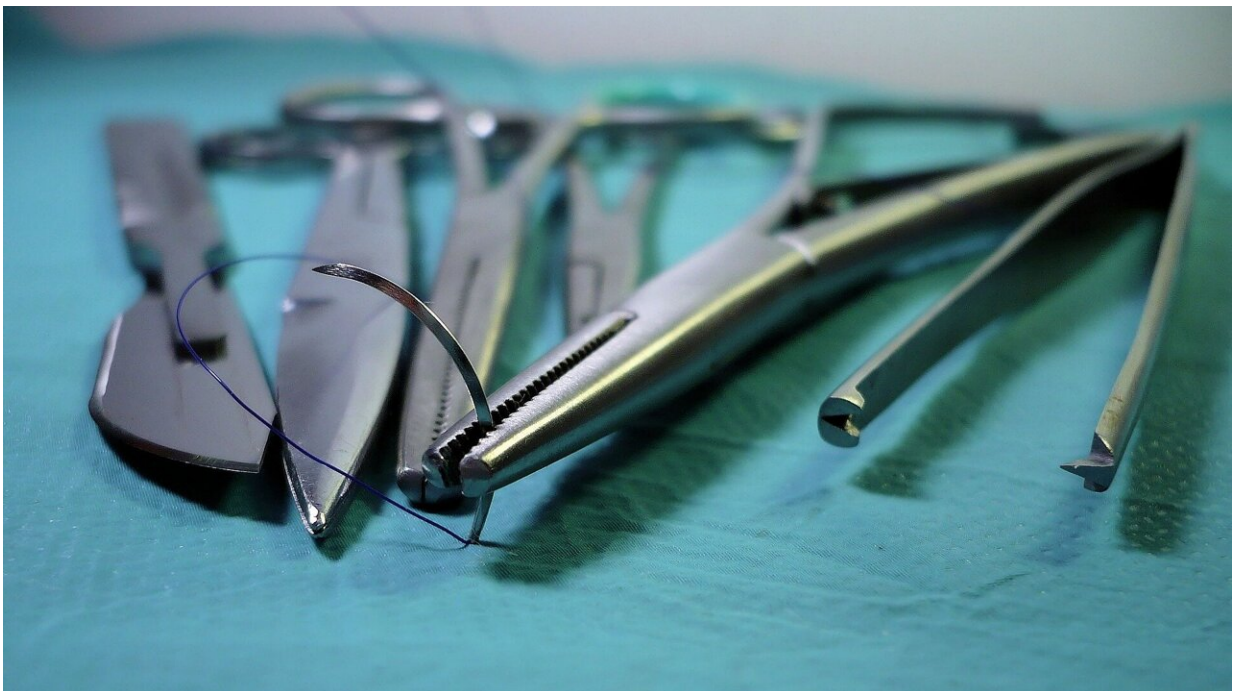


Quality Improvement Program improves efficiency in treating children with traumatic injuries

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An American College of Surgeons (ACS) quality improvement program designed to specifically improve pediatric surgical care in U.S. hospitals reduced surgical wait times, cut hospital stays by more than a day, and significantly curbed narcotics use in children who had major operations

for traumatic femur fractures, according to research published online as an "article in press" in the *Journal of the American College of Surgeons (JACS)*.

The researchers looked at metrics for pediatric traumatic femur fractures before and after the adoption of the quality improvement initiative, known as the Children's Surgery Verification (CSV) Quality Improvement Program, at the University of California Davis Children's Hospital, Sacramento. The ACS introduced and piloted the CSV program in 2015; the UC Davis Children's Hospital was verified with a Level I CSV designation by the program in 2016. From 2005 to present, the hospital has maintained its status as an ACS Level 1 pediatric trauma center.

"There was a significant decrease in admission-to-operating room time by approximately 25% as well as total length of stay, an approximate 31% reduction," said lead study author Carter White, MS, a fourth-year medical student at UC Davis. "There was also a decrease in narcotics administration in both the preoperative and postoperative periods—in the preoperative period, about a 42% reduction and in the postoperative period, about a 64% reduction."

The researchers also found that when pediatric patients with traumatic femur fractures were treated by only pediatric subspecialists rather than surgeons and care teams that also treat adults, they received about 43% fewer narcotics overall.

To be verified as a Level I CSV program, a hospital system must meet pediatric-specific care patient standards set by the ACS. These standards include 24-hour, seven-days a week coverage by pediatric surgical subspecialties, pediatric anesthesiologists, pediatric nursing teams, pediatric intensive care beds, and children's surgical quality improvement programs.

Senior study author Brian M. Haus, MD, an [orthopedic surgeon](#) at UC Davis Children's Hospital, said requirements also include operating rooms dedicated to pediatric surgery. The CSV requirement for personnel dedicated to pediatrics applied even though UC Davis Children's is a children's hospital within an adult hospital, with age 18 years being the demarcation between pediatric and adult specialists, Dr. Haus said. Before the CSV designation, both adult and pediatric surgeons performed needed operations for pediatric patients. Dr. Haus is also on faculty at the UC Davis School of Medicine.

"In addition, CSV standards provide for a formalized perioperative infrastructure within the hospital specific to [pediatric patients](#). This framework includes a commitment to human resources, and there's even a structured performance improvement process surrounding that," Dr. Haus explained.

Key study findings

The researchers analyzed 185 traumatic femur fractures, 80 before the level I CSV criteria were attained and 105 afterwards. Among the key study findings:

- The mean wait time from admission to surgery declined from 16.64 hours pre-CSV to 12.52 hours after (*p*

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