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# Leveraging the robust framework of the American College of Surgeons National Safety and Quality Improvement Program

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System Improvement

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## Summary

At Children's Health Queensland we are deeply committed to the continuous improvement of patient care, and have championed a transformative Quality Improvement Program within our hospital,

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leveraging the robust framework of the American College of Surgeons (ACS) National Safety and Quality Improvement Program (NSQIP). Our initiative focused on meticulous analysis and iterative enhancements, embracing the philosophy of marginal gains. Our results speak volumes: a staggering 44% reduction in surgical site infections, a 33% decrease in readmission rates, and a 29% reduction in the necessity for reoperations. These improvements are not just numbers; they represent enhanced patient experiences, safer surgical outcomes, and a more efficient use of healthcare resources. Our journey underscores the power of the ACS NSQIP's data-driven approach, enabling us to identify specific areas for improvement and to monitor the impact of our interventions in real-time. This program has not only improved patient outcomes but has also fostered a culture of excellence and accountability within our teams. We have shown successful implementation of the NSQIP program at Queensland Children's Hospital. This has allowed collaboration between multiple departments such as pharmacy, anaesthetics, nursing leadership, executive and of course the division of surgery. This showcases what we can achieve with accurate data and benchmarking.

### Key dates

Jul 2022

### Implementation sites

Children's Hospital Queensland

### Partnerships

Clinical Excellence Queensland

## Key Contacts

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## **Aim**

Reduce rate of surgical site infections across multiple surgical specialties at Queensland Children's Hospital.

## **Benefits**

This methodology has enabled us to identify specific areas for improvement and to monitor the impact of our interventions in real-time.

## **Background**

As surgeons we should be deeply committed to the continuous improvement of patient care, and explore avenues to improve Quality Improvement Programs within our hospitals.

## **Solutions Implemented**

A quality improvement bundle incorporating a number of small changes in preoperative preparation, communication and education, intraoperative care and postoperative troubleshooting, communication and education.

## **Evaluation and Results**

A multi-step approach and accurate data capture of a select representative cohort of patients, with phone follow up 30 days after discharge. These data were risk adjusted and compared with 160 other children's hospitals with the same rigorous data capture to establish a benchmark for achievement. Our surgical site infection rate was well above the appropriate level for our institution, (5.2% observed vs 2.8% expected). After implementation of the quality improvement bundle we are

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now at comparable levels (2.9% observed vs 2.5% expected) and no longer fall outside statistically significant parameters.

## **Lessons Learnt**

There are differences between the American and Australian health systems that need to be addressed when implementing the program throughout the state. This is an important step towards establishing an Australian Collaborative for quality improvement.

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