

National Surgical Quality Improvement Program - Ontario

NSQIP-ON

Benefits for Patients

- **Fewer complications:** For patients at Surrey Memorial Hospital in Vancouver, British Columbia, the rate of surgical site infections after breast surgery dropped significantly after joining NSQIP. An estimated 75 infections were averted over the course of two years. Similarly, the Ottawa Hospital has had a 20% overall reduction in surgical site infections over 15 months. Since joining NSQIP in 2010, The Ottawa Hospital has had a sustained 53% reduction in urinary tract infections (UTI).
- **Better outcomes:** Eighty-two percent of American College of Surgeons-National Surgical Quality Improvement Program (ACS-NSQIP) hospitals saw improvement in post-operative morbidity levels and 66% improved mortality levels.¹
- **Shorter hospital stays:** At Decatur General Hospital in Decatur, Alabama, the hospital length-of-stay for patients with urinary tract infections (UTI) was twice as long for patients without UTI at the beginning of ACS-NSQIP implementation. Within one year, length-of-stay was the same for patients whether or not they had UTI, and the rate of post-surgical UTI fell from 3.1% to 0.8%.²
- **Improved satisfaction**

Benefits for Surgeons

NSQIP promotes confidence and clinical engagement amongst surgical teams. Surgeons who participate in NSQIP-ON also receive:

- Better data for more targeted decision-making:
 - Peer-controlled, validated data from patients' medical charts lets surgeons quantify 30-day, risk-adjusted surgical outcomes – including post-discharge, when nearly 50% of complications occur.³
 - A variety of program options tailored to the hospital's size and quality improvement interests.
- Robust reports that provide performance information to guide surgical care and identify areas for improvement for the greatest return and highest impact:
 - Continuously updated hospital performance reports and benchmarking analyses
 - Nationally benchmarked and risk-adjusted reports (provided semi-annually).
- Best practices tools and resources, including case studies and evidence-based guidelines developed by the ACS.
- Opportunities to participate in provincial, national (Canadian) and virtual collaboratives with other hospitals.
- Pre-operative risk calculator:
 - Online tool helps clinicians make evidence-based decisions and helps set reasonable patient expectations.
 - Takes into account multiple patient risk factors including age, sex and BMI for a growing number of common surgical procedures.
 - Better predictive ability than most other models.

¹ Hall, BL et al. "Does Surgical Quality Improve in the American College of Surgeons National Surgical Quality Improvement Program." *Annals of Surgery*. 205 (3):363-376; Sept.2009.

² "ACS-NSQIP Benefits" *American College of Surgeons National Surgical Quality Improvement Program*. Retrieved from: <http://site.acsnsqip.org/about/acs-nsqip-benefits/>

³ Ibid

Benefits for Hospitals

- Sustained reduction disparities of care and post-operative mortality and complication rates
- Enhanced community reputation through improved patient outcomes:
 - Ability to lead on issues, such as greater transparency, public reporting and pay-for-performance programs.
- Participation in NSQIP prevents 250 to 500 complications per hospital per year.⁴
- All hospital types – large and small, urban and rural, teaching and non-teaching – are able to improve.
- Lower costs of care. Complications can raise the cost of hospitalization for major surgical procedures by up to five times, with the average additional cost for a major surgical complication is \$11,626.⁵

Benefits for Ontario

- Provides a platform for a concerted and focused effort on quality improvement in surgery, using an established and proven methodology.
- Leveraging an established program provides a means for surgeons to compare their performance to, and benchmark against, other major hospitals in the US and Canada. The ACS has many years of experience in developing the kind of supports that will enable effective quality improvement that will benefit Ontario. In addition, it will allow HQO to assess how programs like NSQIP could be used more generally for quality improvement across Ontario.
- Identify where NSQIP methodology and best practices can support improvements in other areas, such as the implementation of quality based procedures (QBPs) in hospitals and other surgical quality improvement initiatives (e.g., use of the surgical safety checklist)
- When appropriate, consider options for how methods such as Quality Improvement plans and/or reporting may assist in adoption of quality improvement in surgery
- Ability to understand what aspects of the model of NSQIP and the ON collaborative might be applied to other areas of quality improvement in Ontario

Please visit ACS-NSQIP [Case Studies](#) page that show how hospitals have used the NSQIP to achieve measurable improvements in quality of care.

This document was adapted from the ACS NSQIP Benefits page on the [website](#) of the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP)

⁴ Hall, BL et al. "Does Surgical Quality Improve in the American College of Surgeons National Surgical Quality Improvement Program."

⁵ Dimick, J.B., et al., "Who Pays for Poor Surgical Quality? Building a Business Case for Quality Improvement," *Journal of the American College of Surgeons*. 202. 202(6):933-7; June, 2006.