



American College of Surgeons National Surgical
Quality Improvement Program (ACS NSQIP®)



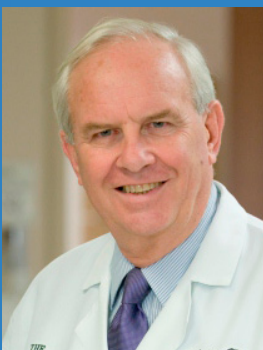
preventing complications,
reducing costs,
improving surgical care



AMERICAN COLLEGE OF SURGEONS
*Inspiring Quality:
Highest Standards, Better Outcomes*



“ACS NSQIP is one of the best programs across the country for clinical outcomes reporting. Over the next five to 10 years, we’ll increasingly need to be up front about outcomes and manage the data effectively. Doing it well now will put physicians and hospitals in good stead, providing better care, improving outcomes and reducing costs.”



Michael Henderson, MD, FACS

Cleveland Clinic, Cleveland, OH

INTRODUCTION

Every hospital wants to reduce the number of preventable surgical complications. A hospital's highest priority is to promote the safest care and best outcomes for its patients. That includes championing surgical teams to work together toward continuous improvement in the quality of care. It also means smart use of hospital resources: treating complications typically requires longer hospital stays and higher costs that cut into hospital profitability. Yet, avoidable complications following surgical procedures continue to occur all too often. When complications happen, patients also pay a price – in discomfort, potentially poorer outcomes, days lost from work and more.

At the same time, payers, including Medicare, increasingly refuse to pay for treating what they deem as preventable complications, such as surgical site infections (SSIs). In addition, there is a growing movement to tie reimbursements to outcomes – and to publicly report the results of these quality assessments.

In these challenging times, hospitals nationwide face staffing shortages and financial pressures, and must try to do more with less. If only there were an affordable way to dramatically reduce the rate of surgical complications.

There is a way: a surgical quality improvement program so effective that studies have shown that **EACH YEAR** the average participating hospital:

- Prevents 250-500 complications
- Saves 12-36 lives
- Reduces costs by millions of dollars
- Applies ongoing learning in a cycle of continuous improvement

Over time, a hospital that uses American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP®) may see those cost savings and quality improvements compound into other lasting benefits: a motivated, cohesive and self-directed workforce; a hospital culture centered on patient safety; better clinical outcomes, including reduced mortality and morbidity; improved bottom line; and enhanced reputation in national rankings and in the community.

ACS NSQIP: THE PACESETTER IN SURGICAL QUALITY IMPROVEMENT PROGRAMS

Most hospitals, even those with quality improvement programs, don't have systems in place to track patient outcomes (both in the hospital and after discharge), so they lack robust data to effectively analyze where and why complications occur, or to measure the impact of quality efforts.

To be improved, surgical quality must be measured, and quality cannot be measured without robust, valid data.

That's where ACS NSQIP comes in. ACS NSQIP is the leading nationally validated, risk-adjusted, outcomes-based program to measure and improve the quality of surgical care in the private sector. Developed by surgeons, ACS NSQIP gives surgeons evidence-based tools, such as Best Practice Guidelines, regular conference calls and Case Studies, to help them implement effective quality improvement efforts.

Are You Getting the Most from Your Quality Program?

ACS NSQIP	Other QI Programs
✓ Clinical data from the patient's medical chart	Administrative and claims data from insurance forms, with limited clinical data
✓ Risk- and case-mix-adjusted	Adjusting attempted with less-than-ideal data sources
✓ Based on 30-day patient outcomes, tracking patients from preoperative through 30-days postoperative including after discharge when a significant percentage of complications occur	Tracking stops at discharge
✓ Nationally benchmarked to compare a hospital's results to hospitals of all sizes and types across the country	May offer no benchmarking or only limited regional benchmarking of similar hospitals making comparisons difficult or impossible
✓ Includes NQF-endorsed outcome measures developed in partnership with CMS	May have no NQF-endorsed surgery outcome measures using clinical data
✓ Offers participation options and benchmarking for all hospital types – large and small, urban and rural, pediatric and those with limited resources	Often offers one-size-fits-all approach to quality
✓ Uses audited, trained data collectors to ensure the highest quality clinical data and incorporates standardized data definitions developed by expert surgeons	Data may not be audited and training may be limited
✓ Peer-reviewed studies show significant and sustained quality improvement	Evidence for sustained quality improvement may be unknown or vary
✓ National partnerships and programs with AHRQ, The Joint Commission, NQF, CMS, IHI and others, due in large part to data accuracy, validity and proven results	Limited data sources may result in limited partnership opportunities
✓ Offers Best Practice Guidelines and Case Studies developed by leading surgeons around the country for individualized adoption by surgeons	Often rely on tools and resources developed by others with few options to individualize



“We joined ACS NSQIP in 2007, and the data immediately showed us we had too many urinary tract infections (UTI). We formed a multi-disciplinary committee and used ACS NSQIP Best Practices Guidelines to develop our own, very intense, protocol. By 2010, we achieved significant reduction in UTIs from 2.6 percent to 1.5 percent – a 62 percent reduction in catheter-associated UTIs that has resulted in lives saved and significant cost savings for our hospital.”



Scott J. Ellner, DO, MPH, FACS

Saint Francis Hospital and Medical Center, Hartford, CT



“One thing more important than our reputation is the care and well-being of our patients. Participating in ACS NSQIP is an important way to safeguard both by significantly improving the quality of our care.”



Bob Brigham

Chief Administrative Officer, Mayo Clinic, Jacksonville, FL

FEATURES AND BENEFITS OF ACS NSQIP

Since ACS NSQIP was developed and is supported by surgeons, the program promotes the confidence and engagement of medical teams. That enhances the effectiveness of the program – and it's good for patients, too.

Beyond this, ACS NSQIP provides many features and benefits to participating hospitals.

ACS NSQIP provides hospitals and clinicians with the necessary tools, reports, analysis and support to collect data and implement quality improvement initiatives, such as:

1. **Benchmarking** via hospital-specific reports and comparative national data
2. **Best practices**, including evidence-based guidelines, primers and case studies that have been developed by leading surgeons throughout the United States
3. **Reporting software** developed by a vendor that includes HIPAA-compliant, web-based data entry, monitoring and reporting system with data verification and encryption
4. **Site audits** to ensure data reliability

ACS NSQIP hospitals also receive:

- Real-time access to their own hospital's clinical data that allows them to "drill down" to identify specific areas for quality improvement
- Regular conference calls for surgeons and surgical clinical reviewers
- A risk-calculator tool that can be used in pre-surgical consultation to inform patients about their individual risk of a postoperative complication for a variety of procedures
- The ability to work collaboratively with other hospitals toward quality improvement goals
- The possibility of using the savings generated from reduced complications to pay for the cost of the program
- Market differentiation and enhanced reputation

Participating sites have continuous access to their data for download through a secure website.

INDUSTRY RECOGNITION

ACS NSQIP is widely recognized as an industry leader.

- Named “Best in the Nation” by the Institute of Medicine.
- The National Quality Forum has endorsed measures developed by ACS NSQIP.
- Meets requirements under CMS General Surgery Rule.
- CMS is expected to adopt key ACS NSQIP outcomes measures as soon as 2015.
- The Joint Commission provides merit badges on its Quality Check website for hospitals that participate in ACS NSQIP, and its OPPE requirements are met by participation in ACS NSQIP.
- Part 4 of the American Board of Surgery’s Maintenance of Certification requirements are satisfied by participation in ACS NSQIP.

**Top hospitals on the
U.S. News & World Report’s
America’s Best Hospitals
rankings participate in
ACS NSQIP**

THE BUSINESS CASE FOR ACS NSQIP: SAVING LIVES AND MONEY

Hospitals face unprecedented challenges amid declining reimbursement levels, higher costs and a growing number of uninsured or underinsured patients. In future years, pressure to improve quality and reduce costs will continue to rise, as regulators increasingly look to outcomes measures to judge the quality of care in hospitals.

One of the hallmarks of ACS NSQIP is to prevent the preventable. A study in the *Annals of Surgery* involving 118 ACS NSQIP hospitals concluded that the program helped each hospital prevent 250 to 500 complications per year.¹ In addition, 82 percent of these ACS NSQIP hospitals saw improvement in morbidity levels and 66 percent saw improvement in mortality levels.

**Complications Mean Hospitals, Payers and
Patients Pay More**

Total Cost of Care Increases 54%
when a complication occurs

Preventable complications cause poorer quality patient care, longer time in the hospital and higher costs. One study using ACS NSQIP data concludes that, on average, each SSI added total excess cost of \$10,497 and 4.3 additional days in the hospital.²

More than one-half of complications occur after the patient leaves the hospital including more than one-half of cardiac arrests and two-thirds of infection complications from colectomies.³ Hospital-acquired infections remain a significant challenge. ACS NSQIP helps to significantly reduce these preventable complications. For instance, Surrey Memorial Hospital in Vancouver, British Columbia, reduced its general and vascular surgery surgical site infection (SSI) rate by 5.7 percent and its breast surgery SSI rate by 13.3 percent over two years, saving more than \$2.7 million. Meanwhile, Baptist Hospital of Miami used ACS NSQIP to reduce SSIs for general and vascular procedures, cutting its mortality index for those surgeries in half and saving about \$1.6 million over three years.

Preventing complications not only protects health and saves lives, it also saves money. Recent studies have shown that surgical complications are associated with excess costs and, ultimately, lower profit margins for hospitals. Specifically, complications can raise the median cost of hospitalization for major surgical procedures up to five-fold,⁴ and a major surgical complication generates \$11,626 in average extra costs.⁵

At the same time, complications significantly reduce a hospital's profit margin. A study in the *Journal of the American College of Surgeons* showed that a hospital's average profit margin for a surgical patient without complications was 23 percent, while for a patient with complications, its profit margin was only 3.4 percent.⁶

COMPLICATIONS DROP HOSPITALS' AVERAGE PROFIT FROM 23 PERCENT TO 3.4 PERCENT

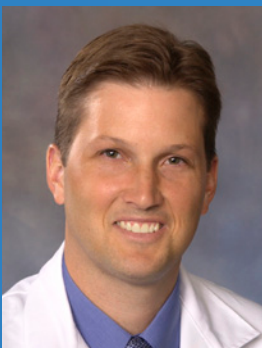
	Patient without complications	Patient with complications
Average reimbursement	\$14,266	\$21,911
Average cost of treating	\$10,978	\$21,156
Average profit/patient	\$3,288	\$755
Average profit margin	23%	3.4%

Case Study: Using ACS NSQIP Can Save Millions

Surrey Memorial Hospital in Vancouver, British Columbia, reduced its general and vascular surgery surgical site infection (SSI) rate by 5.7 percent and its breast surgery SSI rate by 13.3 percent over two years, saving more than \$2.7 million. Meanwhile, Baptist Hospital of Miami used ACS NSQIP to reduce SSIs for general and vascular procedures, cutting its mortality index for those surgeries in half and saving about \$1.6 million over three years.



“ACS NSQIP is the best tool that we’ve ever had to analyze institution-level quality data. Previous institution-level programs have usually been very specific to surgeons or procedures. Now, we have independent nurse reviewers and standardized definitions that allow us to fairly compare ourselves to other institutions and to take the next step to improve quality within our hospital.”



Tom Aloia, MD, FACS

MD Anderson Cancer Center, Houston, TX

Hospitals around the country have seen significant cost savings by using the ACS NSQIP program to reduce complications. Henry Ford Hospital in Detroit, Michigan saved \$2 million a year by reducing its average length of stay by 1.54 days, while increasing general surgery billings by \$2.25 million a year.

ACS NSQIP also identifies potential significant under-billings or incorrect case assessment and improves the accuracy of billing and revenue through clinically pertinent review of CPT codes.

It is clear that changes have come to our healthcare system and have placed a greater focus on quality. Payers are refusing to pay for care that they deem was the result of a preventable complication, as part of a trend to base pay on the quality of outcomes not the volume of services. And there is a movement, spurred by payers and patients, to publicly report the quality of outcomes at individual hospitals and even individual physicians.

ACS NSQIP helps hospitals not only respond to change, but to get out in front of it.

82 percent
of ACS NSQIP hospitals saw
improvement in morbidity levels
and **66 percent** saw
improvement in mortality levels.
Hospitals prevented
250-500 complications
per hospital, per year, according
to a September 2009 study in
the *Annals of Surgery*.



THE CLINICAL CASE: DATA AND SUPPORT YOU CAN COUNT ON

ACS NSQIP data enhances a hospital's ability to zero in on preventable complications. The first step to reduce a hospital's rate of preventable complications is to know its rate today. Because it was developed by surgeons who understand the realities of the operating room, ACS NSQIP helps hospitals gauge the quality of their surgical programs with unrivalled precision. ACS NSQIP has been found to identify 40 percent more complications than leading claims-based programs. In a survey of participating hospitals by ACS NSQIP, 59 percent of sites were unaware of their hospital's surgical complication rates before they enrolled in ACS NSQIP.⁷ Moreover, ACS NSQIP offers a valid basis for comparing hospitals. As payers turn to outcomes-based reimbursement, it is critical that healthcare providers have access to detailed benchmarks against national rates to identify specific areas for improvement.

National Benchmarking

Participating hospitals have access to their data at any time, and also receive semiannual, risk-adjusted reports that provide meaningful, time-tested benchmarks for hospitals to understand where they stand against peers.

Best Practices Guidelines

ACS NSQIP offers hospitals Best Practices Guidelines for some of the most frequent preventable complications. For example, SSIs are a major cause of postoperative morbidity, with the mortality rate of patients with SSI between two and 12 times higher than for patients without SSI. In addition to the more than 8,000 annual deaths that one study attributed to SSI, it is estimated that SSIs accounted for more than \$3 billion (and potentially up to \$10 billion) in direct costs in one year, according to the Centers for Disease Control and Prevention (CDC).⁸ The evidence-based guidelines list patient risk factors for SSI, and pre, intra and postoperative strategies to help prevent the development of an SSI in a surgical patient.



Better Information Flows and Collaboration

Hospitals that use ACS NSQIP empower their surgical care teams to work effectively together to improve the quality of care. The information sharing and close attention to data can raise awareness about issues and trends that might otherwise go unnoticed, and provide proven best practices for effecting change.



Case Study: Reducing UTI by 62 Percent with ACS NSQIP

Urinary tract infection (UTI) after urethral catheterization can lead to longer hospital stays and further complications such as bacteremia. CMS has named UTI a “never” occurrence, and has stated that in the future, payments to hospitals where a UTI occurs may be reduced or even eliminated. Saint Francis Hospital and Medical Center, a 600-bed regional hospital in Hartford, CT, reviewed the hospital’s 74 UTI cases over four years, finding that its 41 inpatient cases resulted in five deaths and an average additional cost per case of more than \$52,000, while each of the 33 outpatient cases cost an additional \$758, on average, and resulted in two readmissions and four visits to the emergency department. By using the information it learned from its ACS NSQIP data, Saint Francis was able to reduce its rate of post-surgical UTIs by 62 percent over three years (from 2.6 percent in 2008 to 1.5 percent in 2011).

Case Study: Florida Surgical Care Initiative

To combat perceptions of Florida as a higher cost, lower quality state, the American College of Surgeons partnered with the Florida Hospital Association to introduce a focused version of ACS NSQIP, using four measures targeted to a state with an older, higher-risk patient population. To date, 67 hospitals have joined the Florida Surgical Care Initiative (FSCI), making it the largest statewide surgical quality initiative in the nation. The program has gained prominent endorsements, including the National Patient Safety Foundation and Institute for Healthcare Improvement, and also secured more than \$900,000 in grant support from Florida Blue.



Collaboratives: Working Together to Improve Care

Some ACS NSQIP participants have joined forces in collaboratives, which may be regional (e.g., Tennessee Surgical Quality Collaborative, Connecticut Surgical Quality Collaborative, Florida Surgical Care Initiative), procedure-specific (e.g., colectomy) or environment-specific (e.g., small and rural hospitals). Working together, hospitals share best practices and challenges, and learn from the experience of peers through regular conference calls, educational webinars and in-person networking events to review data results in a cooperative environment.

An ACS NSQIP collaborative allows hospitals to:

- Compare results and experiences
- Learn from other hospitals
- Share best practices
- Network

STAY AHEAD OF THE CURVE: CMS GENERAL SURGERY REGISTRY RULE

CMS announced a new measure to encourage participation in a general surgery registry and expressed its intention to move toward reporting clinical data and outcome measures. Hospitals that begin planning now stand to gain the most from their participation. Not all quality programs are the same. ACS NSQIP is one of the few that ensures the data hospitals collect are actionable and proven to help improve care and save lives.

New CMS Rule: Participation in a General Surgery Registry

In its final Inpatient Prospective Payment System (IPPS) rule announced in 2011, CMS outlined quality measures to be included in its value-based purchasing program. New quality measures will be implemented in 2014, including a new surgical measure: *Participation in a Systematic Clinical Database Registry for General Surgery (NQF #0493)*. To comply with the measure, hospitals must indicate whether they participate in a general surgery registry and which registry they have joined. Hospitals participating in a general surgery registry will receive additional reimbursement under value-based purchasing. In the rule, CMS also indicated its intention to move to clinical, risk-adjusted, and case-mix-adjusted outcome measures as early as 2015, including three from ACS NSQIP.

THE PATIENT CASE: THE ASSURANCE OF QUALITY CARE

Americans are increasingly sophisticated healthcare consumers, with many online resources, patient education and advocacy organizations, and materials at their disposal. They can weigh various credentials, awards, rankings, adverse events reports and accreditations in deciding where to have a procedure. More broadly, these indicators inform a community's perception of a hospital's quality. When life or health is at stake, patients and their families seek assurance that they or their loved one will receive the best quality care. And they will share with others their perception of the quality of care received.

Participating in ACS NSQIP demonstrates a hospital's dedication to quality improvement. Danbury Hospital in Connecticut publishes its aggregate quarterly ACS NSQIP results for some common complications on its website. While that level of transparency is commendable – and something each hospital chooses to disclose (as ACS NSQIP data are not shared publicly by ACS) – just the fact that a hospital is an ACS NSQIP hospital speaks volumes about its commitment to continuous improvement of surgical outcomes.

Case Study: Value of Robust Data

At Danbury Hospital, a 370-bed academic hospital in Danbury, Conn., the surgical clinical reviewer (SCR) who was responsible for collecting ACS NSQIP data noticed certain surgical issues were not meeting internal and external regulatory standards. Working with the chair of the surgery department, the SCR alerted hospital staff to inconsistencies in ASA and wound classification, and certain other measures. These issues had not previously been identified. The SCR, surgeons, hospital administration and nurses developed a system to address similar issues and coding discrepancies, and to pass along unsolicited patient feedback, which had not been systematically captured before, through regular channels in service to improve quality.

Risk Calculator

In the past, surgeons have assessed the risks of surgery through the lens of their own knowledge and experience, on a case-by-case basis. In the next generation of evidence-based surgery, ACS NSQIP data have been analyzed and compiled into risk calculator tools that allow clinicians to use an individual patient's risk factors, such as age, sex and BMI, to make more informed decisions about that patient's risk of experiencing various surgical outcomes. **The tool is an effective aid for the surgeon to discuss risk with the patient, empowers the patient to make a more informed decision about a given procedure and helps the surgeon set reasonable expectations.**

Risk calculators have been developed for common procedures such as pancreatectomy, colorectal and bariatric surgeries, and calculators for additional procedures are being developed. They provide better predictive ability than most other models across a range of outcomes, including morbidity, serious morbidity and mortality. By comparing a given patient's condition to outcomes from ACS NSQIP's extensive database, the calculators provide surgeons with an easy-to-understand chart that compares their patient's risks for a given procedure, such as colorectal surgery, to those of composite sick and healthy patients.

ACS NSQIP OPTIONS: WHICH IS RIGHT FOR YOUR HOSPITAL?

Quality is not one-size-fits all. A small or rural hospital will have a different patient population from a large academic medical center, as well as different staffing levels available to collect data, and different types of complications to study. That's why ACS NSQIP offers participation options for every hospital size and type. The "Essentials," "Small & Rural," "Procedure Targeted" and "Measures" share a core set of variables, enabling all hospitals participating in ACS NSQIP to benchmark against one another. In addition, the ACS NSQIP Pediatric option is the first and only nationally benchmarked, risk-adjusted, clinical outcomes-based program for pediatric surgery in the nation.

"Essentials" is tailored to meet the needs of medium to large hospitals. Hospitals collect a reduced set of variables from a minimum of 1,680 cases each year.

"Procedure Targeted" allows larger and specialty hospitals to focus their efforts on high-volume, high-risk procedures. Hospitals collect 46 core clinical variables and variables pertinent to any of 30+ procedures identified by ACS as common, highly complex and with a significant complication/mortality rate.

"Small & Rural" is designed for hospitals in rural areas and smaller hospitals that perform fewer than 1,680 eligible surgical cases per year. This version requires that the hospital collect the core set of variables for 100 percent of eligible cases across specialties.

"Measures" focuses on surgical site infection, urinary tract infection, colorectal outcomes, lower-extremity bypass and elderly surgical outcomes. These measures are broadly applicable to all hospitals and are associated with high mortality and morbidity rates.

"Pediatric" is tailored to children's hospitals and general hospitals with a pediatric wing. This version collects approximately 120 data points, including about 80 clinical variables, modified from the adult program to measure surgical outcomes pertinent to most subspecialties within pediatric surgery.

Case Study: ACS NSQIP for Small & Rural Hospitals

Cuyuna Regional Medical Center, a 140-bed rural hospital in Crosby, Minn., was experiencing a higher incidence of stroke compared with the national average (0.5 percent vs. 0.2 percent). Through ACS NSQIP, it was determined that there were a greater number of occurrences related to orthopedic cases compared to the national average. Also, nearly all were inpatient cases. The improvement strategy included changing the anesthesia plan and standardizing anticoagulation orders and protocols. Within one year, stroke incidence fell to below the national average (0.1 percent vs. 0.2 percent).

ACS NSQIP'S DISTINCTION IS ITS DATA

The quality of the data collected and analyzed is what sets ACS NSQIP apart from the many other quality programs out there. ACS NSQIP uses data that are:

- **From the patient's medical chart, not insurance claims.** ACS NSQIP relies on data from patients' medical charts that are gathered by skilled reviewers, not from the administrative claims and billing information used by most quality improvement programs. Studies have shown that clinical data are more detailed, robust and informative than administrative claims and billing data, which are collected for a different purpose (billing), but are limited, inconsistent and subject to misinterpretation when used to measure performance.⁹

For example, a study from Ohio State University Medical Center comparing clinical data to administrative data found that a program using claims data missed 61 percent of total complications captured by ACS NSQIP – including 97 percent of surgical site infections and 100 percent of urinary tract infections.¹⁰

Similarly, a study in *The New England Journal of Medicine* concluded that administrative data have limited “ability to account fully for illness severity” and may “result in an inaccurate ascertainment of postoperative complications.”¹¹

Improving surgical quality is like any other scientific inquiry – the better the data, the better the results. Insurance bills should not be used to chart a course of patient care nor to assess the quality of care.

Clinical vs. Administrative Data: Clinical Data tells us more

	ACS NSQIP	Admin	% Missed by Admin
Total Complications	28%	11%	61%
SSI	13%	1%	97%
Wound Disruption	6%	1%	83%
UTI	6%	0%	100%
Mortality	3%	3%	0%

- **Based on 30-day postoperative outcomes.** Most quality improvement programs based on claims data do not account for postoperative complications despite the fact that **more than half of complications occur after the patient leaves the hospital.** For example more than one-half of cardiac arrests and two-thirds of infection complications occur after the patient leaves the hospital.
- **Risk- and case-mix-adjusted.** To fairly measure a hospital's performance, any assessment must consider the health risks posed by the condition of each individual patient, and the case mix the hospital faces. A given hospital may take on more complex surgical cases; ACS NSQIP allows its outcomes to be meaningfully calibrated against other similar hospitals. Likewise, the age, presence of chronic conditions and other risk factors of patients are taken into account. ACS NSQIP data are patient risk-adjusted and case-mix-adjusted, based on models that have been in use for more than 20 years and are regularly reviewed and updated by surgical quality experts. Risk-adjusted data help surgeons do a better job prescribing, preparing for and following up on specific procedures for individual patients.

ACS NSQIP Risk-Adjustment: How It Works

Risk-adjusted, 30-day morbidity and mortality outcomes are computed for each participating hospital and reported as odds ratios that represent the odds of a complication or event happening in a specific hospital, compared to the odds of that event happening in all hospitals in ACS NSQIP.

Since the odds ratio is based on a sample of cases at each site, a confidence interval (CI) is calculated for the odds ratio within which a site's "true" odds ratio lies. As the number of submitted cases increases, the CI generally narrows. As long as a site abides by the ACS-validated sampling system, however, the odds ratio estimates remain valid.

If the odds ratio and the upper bound of the odds ratio confidence interval are below 1.0, the hospital's outcomes are statistically better than expected – or "exemplary." Conversely, if the odds ratio and the lower bound of the odds ratio confidence interval are above 1.0, the hospital's outcomes are statistically worse than expected and "needs improvement."

Hospital Results:

ACS NSQIP hospitals have data presented to them in two kinds of quantitative reports, and can also download raw data:

- **Semiannual Reports** – A comprehensive report is prepared twice a year for administrators and surgical staff to compare their risk-adjusted surgical outcomes to other participating sites. To supplement the Semiannual Reports (SAR), hospitals are provided with an Individual Site Summary Report and a PowerPoint presentation, each with pre-populated site-specific data.
- **Online Reports** – Authorized users can view real-time, non-risk-adjusted, center-specific reports, as well as those comparing their metrics to national averages. These allow hospitals to monitor their continuous improvement between the more formal risk-adjusted report cycles. Online reports are tailored to the specific measures of each program option.
- **Raw Data** – Participating hospitals may download their raw data to create additional quality reports to fit their needs.

Data Reliability and Auditing

ACS goes to great lengths to ensure data reliability. SCRs receive consistent, detailed initial training prior to starting data collection and participate in continuing education modules, regular conference calls and an annual conference to discuss and review aspects of the program and the data collection process.

To ensure the data collected are of the highest quality, ACS conducts Inter-Rater Reliability (IRR) audits of participating sites on a random basis. In addition, hospitals flagged by ACS internal diagnostics will be audited based on a review of up to 20 charts, some selected randomly and others designed to identify potential reporting errors. For example, cases in which risk factors seem at odds with outcomes will be selected for chart review. Operating room logs are also audited to ensure correct sampling of cases.

Clearly, patient care does not stop at the hospital door and efforts to measure quality should not stop there either. ACS NSQIP helps evaluate and improve the quality of surgical care by identifying problems and complications before, during and after an operation. A crucial component of the program is assessing patient outcomes 30 days after the operation. By capturing the often unreported post-discharge complications, ACS NSQIP provides a more complete picture of surgical care and greater insight into needed steps to affect quality improvement.

JOIN ACS NSQIP

The American College of Surgeons invites you to learn more about ACS NSQIP.

Visit www.acsnsqip.org for more information, or to speak with one of our program staff, please call 312-202-5607 or 312-202-5441 to talk with an ACS NSQIP representative.

1 in 4 colon surgery patients is readmitted with complications.

1/2 of cardiac arrests and **2/3** of infections occur **AFTER** hospital discharge.

(Endnotes)

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⁵ Dimick JB, et al. "Who Pays for Poor Surgical Quality? Building a Business Case for Quality Improvement." *Journal of the American College of Surgeons* 202. (2006):933-937.

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