The ACS
Quality Verification Program™

A QUALITY PROGRAM
of the AMERICAN COLLEGE OF SURGEONS

Optimal Resources for **Surgical Quality and Safety**

2021 ACS QVP Standards | Effective July 2021

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Highest Standards, Better Outcomes
100+*years*

American College of Surgeons

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Optimal Resources for **Surgical Quality and Safety**

2021 ACS QVP Standards

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Important Information

These standards are intended solely as qualification criteria for American College of Surgeons Quality Verification Program (ACS QVP) verification. They do not constitute a standard for care and are not intended to replace the medical judgment of the surgeon or health care professional in individual circumstances.

In addition to verifying compliance with the standards as written in this manual, the ACS QVP may consider other factors not stated herein when reviewing a hospital or hospital system for verification and reserves the right to grant or withhold verification based on its judgement of the totality of the program.

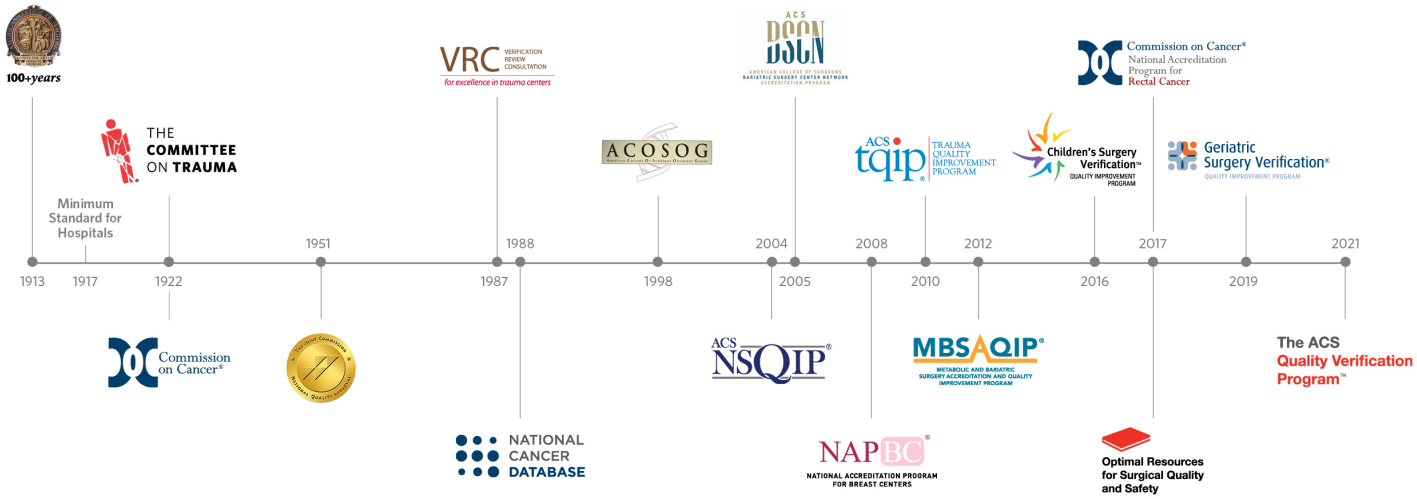
Executive Summary

Building on more than 100 years of experience developing quality improvement programs in more than 3,000 hospitals to improve care for surgical patients, the American College of Surgeons (ACS) has developed the **ACS Quality Verification Program (ACS QVP)**. It is widely known that the processes for evaluating whether or not surgical care is safe, and for improving quality of care, remain highly variable from institution to institution. Despite the best intentions of individual providers to utilize robust literature, clinical practice guidelines, high-quality outcomes data, and best practices, all too often institutional infrastructure and resources are lacking and cannot ensure consistent optimal care.

What Is the ACS QVP?

The ACS QVP is a program to verify if a hospital is appropriately positioned to improve surgical quality. It is based on the *Optimal Resources for Surgical Quality and Safety* (also known as the Red Book), the surgical quality how-to manual based on the knowledge of hundreds of content experts and the ACS' experience working with the 3,000 hospitals that participate in ACS Quality Programs, such as the ACS National Surgical Quality Improvement Program (ACS NSQIP®) and programs in trauma, bariatric and metabolic, cancer, pediatric, and geriatric surgery. The Red Book manual establishes an overarching framework to provide quality resources and infrastructure to improve care for all surgical patients.

100+ Years of Quality Improvement

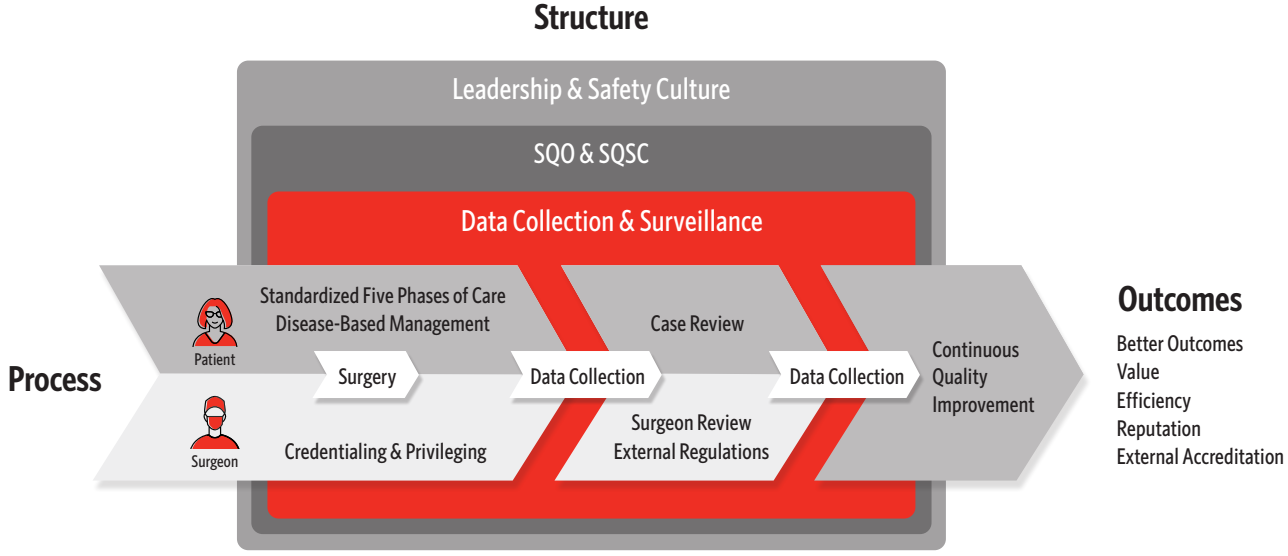


Twelve salient elements of surgical quality have been adapted from the Red Book into standards that form the foundation of the ACS QVP. These standards span all surgical specialties and provide a blueprint for hospitals and hospital systems to build a successful surgical quality program by establishing, measuring, and continuously improving their hospital's quality infrastructure. The ACS QVP Standards are:

- Leadership commitment and engagement to ensure surgical quality and safety
- A designated Surgical Quality Officer who is accountable for quality across all surgery departments and divisions
- A Surgical Quality and Safety Committee with representation from all surgical specialties and adjunctive disciplines, which serves as a forum for surgery-wide quality activities and provides an infrastructure that fosters communication throughout the institution
- A safety culture and practice of high-reliability principles that is at the core of the hospital's mission, embedded and identifiable throughout the institution
- Standardized processes and sufficient resources for collecting, analyzing, and reviewing clinically relevant data (risk-adjusted and benchmarked when possible) to monitor and identify potential surgical quality and safety issues at the hospital and individual specialty level
- Continuous quality improvement using data
- A standardized, documented process for formal retrospective case review to monitor adverse events, assess compliance with protocols, and identify opportunities for improvement and standardization
- Standardized processes to monitor and address quality and safety issues with individual surgeon practice through a formal peer-review process
- Meaningful and thorough processes for credentialing and privileging that ensure all surgeons are qualified and able to provide safe and appropriate surgical care
- Standardized and team-based processes in the five phases of care (preoperative evaluation, immediate preoperative, intraoperative, postoperative, post-discharge)
- Standardized, evidence-based, multidisciplinary management of specific diseases
- Compliance with hospital-level regulatory performance metrics

This conceptual model (Figure) demonstrates the interplay between the 12 standards in a mature and functioning surgical quality program:

Figure. ACS QVP and the Donabedian Model



ACS QVP Serves as the Foundation for Other Disease- and Population-Based Quality Verification Programs

The ACS QVP is built to both provide a foundational surgical quality infrastructure to underpin all surgical specialties and complement existing disease-based and population-based verification programs (for example, Trauma Verification, Commission on Cancer Accreditation, Metabolic and Bariatric Surgery Verification, Children's Surgery Verification, and Geriatric Surgery Verification). Whereas the ACS QVP is designed to support broader hospital-wide quality infrastructure, these disease- and population-based programs are designed to go deep into clinically specific resources, care processes, and quality metrics within a focused area. The ACS QVP serves to create a foundational infrastructure and align quality across all departments of surgery regardless of ability to participate in disease- and population-based programs.

ACS QVP and the Verification Model

The ACS QVP is designed to establish a comprehensive surgical quality program at both the hospital level and across hospital systems and networks. Participating hospitals have found this verification process invaluable in establishing and improving their hospitals' organizational infrastructure for surgical quality.

The **ACS Quality Verification Program** creates an ongoing hospital verification process that evaluates hospitals during "site visits" using standards for quality that establish a common and enduring infrastructure to encourage the provision of surgical quality across all surgical specialties. This program is designed to apply to all types of hospitals, including small and mid-sized community hospitals and large academic medical centers. The goal of the **ACS Quality Verification Program** is to address known variation in quality resources and processes across the country and raise the bar to encourage the provision of safe, high-quality care for all patients, centering surgeons as the leaders and quality champions for their patients.

The ACS QVP presents feedback to hospitals in the form of a site visit and comprehensive written report. It is proven that external review by a peer group is extremely valuable for objective evaluation of the current state of a surgical quality improvement program. The ACS QVP is designed to help a hospital at any stage of its surgical quality program development, whether just beginning or with mature processes in place. The ACS QVP is designed to be continuous, with follow-up site visits and evaluation approximately every three years.

ACS QVP Site Visit Process

Site visits are led by trained surgeons with experience in leading surgical quality within their own institutions. During the visit, ACS QVP Reviewers meet with leadership across the various surgical specialties, such as nursing, anesthesia, quality departments, and so on, in addition to frontline surgeons and C-suite representatives. There are forums for group discussion, closed meetings, and chart review that culminate in a final summation meeting where preliminary findings are shared with all participants and followed by a detailed written report. Participants can use the information garnered from the experience to serve as a roadmap to further develop and obtain the resources and infrastructure needed to build a comprehensive surgical quality infrastructure.

The Ongoing Pursuit of Quality: Phases of Surgical Quality Infrastructure Development

Hospitals in an **early phase** of building surgical quality infrastructure may still be formalizing systems and processes, obtaining data, and developing quality support resources. With much effort still focused on developing systems for recognizing problems and trends, quality issues are more likely to be handled in ad hoc fashion, with limited data or surveillance mechanisms outside of an event reporting system or electronic medical record (EMR) to benchmark, standardize, or formally improve and monitor clinical care.

Hospitals at an **intermediate phase** may have some systems and processes in place, but these may be inconsistently applied across the institution. For example, they may have some meaningful data (in other words, risk-adjusted, benchmarked) and some surveillance of data, but experience inconsistent use of data and limited resources for quality improvement within various pockets of surgery. In this phase, there are typically limited resources to support systematic loop closure and ongoing monitoring of quality improvement (QI) initiatives. They may be able to use data to find and address problems but have limited ability to proactively use data for improving standardized care pathways or addressing multidisciplinary care issues. The hospital culture may need additional attention to successfully implement more standardized assessment and approaches to care. Efforts may be needed to align quality efforts, both across all surgical departments, as well as up and down chains of command to ensure frontline surgeons and providers are aware and working in alignment with overarching strategic goals at the hospital and system level.

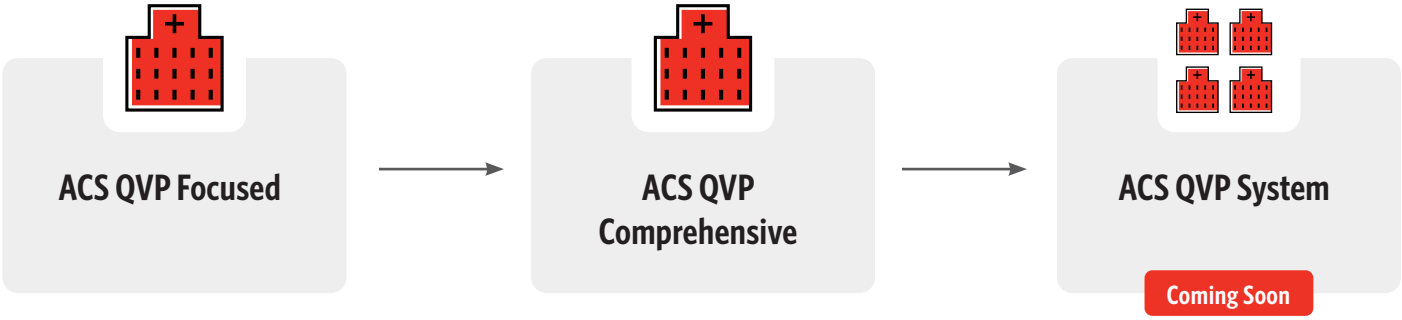
As hospitals approach a more **generative phase** of surgical quality infrastructure, standardized processes and resources will become more highly developed and aligned. There are sufficient resources to commit to quality improvement activities and loop closure, which has become embedded in hospital culture at all levels of the institution. Efforts can be shifted to address more complex quality issues such as patient reported outcomes, disparities in care, efficiency, and cost reduction. Maintenance of a generative quality model is successful due to continuous efforts and periodic reevaluation.

ACS QVP Is Intended to Provide Ongoing Support at All Phases of a Hospital's Quality Journey

Whether a hospital is in the early, intermediate, or generative phase of quality infrastructure development, the ACS QVP is designed to support continuous quality improvement for hospitals at all phases of their surgical quality improvement journey. The ACS Quality Model is firmly rooted in the value of ongoing pursuit and assessment by an external peer group to achieve highest quality and safety for surgical patients. It is designed to be continuous, with follow-up site visits and evaluation approximately every three years. The process of building and optimizing surgical quality infrastructure will be incremental, and the ACS QVP is designed to be supportive and to track progress at subsequent site visits.

ACS QVP Participation Options

There are a variety of participation options created for various hospital types. All options are designed to provide an in-depth assessment at both hospital and specialty levels, where sites will receive customized, actionable recommendations for building and improving surgical quality infrastructure through a site visit and written report. Insightful feedback will address factors beyond the typical scope of quality initiatives—including leadership, safety culture, and standardization across the five phases of care.



	Program Option Description	Site Visit Structure	Required Documentation	Preparation Timeline
ACS QVP Focused Verification	Intended for small-to-midsize hospitals that do not serve as tertiary or quaternary referral centers and specialize in a limited number of surgical specialties in addition to providing general surgery care, and that are early in the development of an overarching surgical quality infrastructure **OR** For midsize-to-large tertiary or quaternary care referral hospitals that are highly matrixed with several surgery departments or specialty divisions that are early in the development of an overarching surgical quality infrastructure ACS QVP Focused is intended to be a pre-cursor to an ACS QVP Comprehensive site visit ACS NSQIP participation is **not required** for this option	Site visit is approximately one half-day Includes meetings with hospital leadership, surgery department leadership, and frontline surgeons as well as a short chart review session Additionally, two surgical specialties will be selected for a deep-dive session to evaluate specialty-specific quality processes/resources	Hospital Pre-Review Questionnaire (PRQ) with minimal documentation of processes and protocols required Surgical Specialty Pre-Review Questionnaires (PRQs) for two selected surgical specialties A limited number of prepared patient chart files with associated quality review documentation	Recommend applying at least **three months** prior to anticipated site visit date

	Program Option Description	Site Visit Structure	Required Documentation	Preparation Timeline
ACS NSQIP QVP Focused Verification	Site visits are similar to the ACS QVP Focused Verification visits described above; however, areas of focus will be driven by the hospital's ACS NSQIP data and there will be specific discussion and emphasis on how ACS NSQIP data can be used to drive improvement ACS QVP Focused for ACS NSQIP Hospitals is intended to be a pre-cursor to an ACS QVP Comprehensive site visit **ACS NSQIP participation is required for this option**	Site visit is approximately one half-day Includes meetings with hospital leadership, surgery department leadership, and frontline surgeons as well as a short chart review session Additionally, two surgical specialties will be selected through review of ACS NSQIP data for a deep-dive session to evaluate specialty-specific quality processes/ resources	Hospital Pre-Review Questionnaire (PRQ) with minimal documentation of processes and protocols required Surgical Specialty Pre-Review Questionnaires (PRQs) for two selected surgical specialties, based on the review of ACS NSQIP data A limited number of prepared patient chart files with associated quality review documentation	Recommend applying at least **three months** prior to anticipated site visit date
ACS QVP Comprehensive Verification (For NSQIP and Non-NSQIP Hospitals)	For midsize-to-large tertiary or quaternary referral hospitals that are highly matrixed with several departments or specialty divisions that have already begun development of an overarching surgical quality infrastructure; these sites are ready to have a deep-dive assessment into each of the surgical specialties to evaluate for both vertical and horizontal integration of the model for surgical quality ACS NSQIP participation is **not required** for this option	Site visit is a full day (split across two days) Includes meetings with hospital leadership, surgery department leadership, and frontline surgeons as well as a chart review session Includes individual meetings with **each of the surgical specialties** offered to evaluate specialty-specific quality processes/resources	Hospital Pre-Review Questionnaire (PRQ) and associated documentation of established processes/protocols Surgical Specialty Pre-Review Questionnaires (PRQs) for **all** surgical specialties offered at the facility. Prepared patient chart files with associated quality review documentation	Recommend applying at least **six to 12 months*** prior to anticipated site visit date **May be shorter timeframe if already completed ACS QVP Focused Verification*

	Program Option Description	Site Visit Structure	Required Documentation	Preparation Timeline
ACS QVP for Hospital Systems	For hospital systems that have begun (or intend) to organize and align elements of the surgical quality infrastructure across the entire hospital system; this visit includes meetings with system-level leadership in addition to individual hospital site visits (ACS QVP Focused Verification or ACS QVP Comprehensive Verification, as applicable) Each participating hospital will be verified individually in addition to evaluation of system-level surgical quality infrastructure, processes, and resources ACS NSQIP participation is **not required** for this option	Site visit includes an additional half-day for system-level discussion and feedback in addition to individual hospital visits (see above descriptions)	System Pre-Review Questionnaire (PRQ) and associated documentation of established system-level processes/ protocols. **In addition to:** ACS QVP Comprehensive Materials and/or ACS QVP Focused Materials	Recommend applying at least **six to 12 months** prior to anticipated site visit date

Acknowledgments

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Institutional Administrative Commitment (IAC)

IAC.1 Leadership Commitment and Engagement to Surgical Quality and Safety

Definition and Requirements

Hospital administrators demonstrate commitment through engaged leadership and financial resources to support surgical quality and ensure alignment with hospital strategic priorities.

There is top-level leadership commitment to surgical quality and safety and alignment with surgical departments regarding quality and safety priorities, and appropriate allocation of resources through demonstration of the following:

- Hospital leadership has demonstrated commitment to supporting quality and safety through resource allocation to and engagement with quality and safety priorities.
- There is effective communication regarding quality and safety priorities/initiatives to mid-level leadership and clinicians.
- There are mechanisms for feedback from ongoing initiatives to hospital-level leadership.

Documentation

- HOSPITAL ATTACHMENT IAC.1.1: Provide a letter from hospital leadership (for example, a CEO) demonstrating the commitment to the "Surgical Quality and Safety Program," which includes:
  a. A high-level description of the "Surgical Quality and Safety Program"
  b. All hospital-wide quality improvement initiatives in the past 12 months in surgery or surgery-related disciplines
  c. Hospital leadership's involvement in surgical quality and safety efforts
  d. Current and future financial investment in surgical quality and safety
  e. Commitment to team-and evidence-based care
- HOSPITAL ATTACHMENT IAC.1.2: Attach an organizational chart (for example, a wiring diagram) that illustrates your hospital's infrastructure, including all departments and their relationship to each other and hospital administration
- HOSPITAL ATTACHMENT IAC.1.3: Provide an organizational diagram, including the different committees/governing bodies throughout the organization that support surgical quality and safety functions/initiatives, their leaders, and the connections between them and hospital administrative leadership

Resources

Ashley SW, Ellison EC, Moffatt-Bruce SD. Chapter 3: Surgical Quality Officer, Figure 4: General organizational chart. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety*. American College of Surgeons; 2017: 47.

Hoyt DB, Ko CY. Chapter 1: An introduction. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety*. American College of Surgeons; 2017: 17-24.

Hu QL, et al. Evidence Review for the American College of Surgeons Quality Verification Part I: Building Quality and Safety Resources and Infrastructure. *J Am Coll Surg*. November 2020;231(5):557-569.e1.

IAC.2 Culture of Patient Safety and High-Reliability

Definition and Requirements

There is an organizational dedication to creating a hospital-wide culture of patient safety and high reliability with systems in place to evaluate and continuously improve culture.

A hospital's culture reflects the aggregate attitude and values of its leaders and members and sets the climate for how patient safety is perceived and reinforced. The culture of a hospital has been described as a five-step ladder model, including the following five designations:

Passive: Adverse events are expected or considered unavoidable
Reactive: Presence of systems to address sentinel events when they occur, without active surveillance
Calculative: Presence of systems to prevent problems and actively surveil for sentinel events
Proactive: Presence of systems to proactively anticipate both sentinel events and morbidities
Generative: Quality and safety at the core of every aspect of infrastructure

Actively pursuing a generative safety culture and practice of high-reliability principles is core to the hospital's mission, embedded and identifiable throughout the institution. There is training and regular, formal assessment of the hospital's safety culture at all levels of the institution—from frontline providers to hospital administration—and results drive tailored improvement initiatives and ongoing safety culture education.

This is demonstrated by the following:

- Ongoing measurement of hospital's safety culture with feedback to frontline staff and demonstrated effort to act on the basis of results.
- Results of the safety culture surveys are communicated to hospital staff.
- Training on hospital safety culture as part of onboarding process for new staff and ongoing maintenance of training for existing staff.
- Robust mechanisms in place for monitoring and management of safety events, including regular and robust monitoring of event reporting data such as the capture and education of near misses, hospital-wide safety huddles, and broadly distributed safety dashboards.
- Continuous effort to improve the hospital's safety culture with the goal creating a generative culture, where quality and safety are at the core of every aspect of the hospital's infrastructure.

Documentation

- HOSPITAL ATTACHMENT IAC.2.1: Reports from safety culture assessments conducted either at the hospital or department level over the past three years (for example, SAQ, HSOPS, and so on)
- HOSPITAL ATTACHMENT IAC.2.2: Hospital's quality dashboard
- HOSPITAL ATTACHMENT IAC.2.3: Listing of recent training/education initiatives for the surgical team on safety culture/safety attitudes, including dates of training and participant list (for example, TeamSTEPPS)

Resources

Clarke JR, Shabot MM. Chapter 8: Patient safety and high reliability: Establishing the infrastructure. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety.* American College of Surgeons; 2017: 97-106.

Elster EA, Makary MA, Saldinger PF, Schumacher MG. Chapter 7: Creating a culture that is focused on safety and high reliability. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety.* American College of Surgeons; 2017: 85-96.

Hu QL, et al. Evidence Review for the American College of Surgeons Quality Verification Part I: Building Quality and Safety Resources and Infrastructure. *J Am Coll Surg*. November 2020;231(5):557-569.e1.

Hudson P. Implementing a safety culture in a major multi-national. *Safety Science*. 2007;45(6):697-722.

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Program Scope and Governance (PSG)

PSG.1 Surgical Quality Officer (SQO)

Definition and Requirements

The Surgical Quality Officer (SQO) is a designated, experienced, qualified surgeon leader who maintains oversight and accountability for quality across all surgery departments and divisions, including the following:

- Reviews mortality and adverse event rates, including subsequent distribution of review findings
- Addresses clinical practice variation
- Establishes quality and safety standards and guidelines
- Monitors primary clinical outcomes data to identify consistent, cross-cutting surgical issues
- Develops and implements surgery-specific QI initiatives
- Provides strategic leadership and prioritization of surgical quality initiatives and goals
- Assembles quarterly report detailing progress on the ACS QVP standards and other internally identified surgical quality and efficiency metrics across surgery and within each surgical specialty; report to be shared with hospital leadership and surgical specialties/divisions

There is an appointed Surgical Quality Officer who is a surgeon serving as the hospital's surgical champion for quality and safety, ensuring that there is a designated leader for surgical quality. The individual should be adequately supported by the hospital leadership and positioned to maintain authority within the hospital's administration/governance infrastructure.

In larger hospitals where SQO responsibilities may be split across multiple leaders within the institution, it is imperative that there are formal lines of communication back to the SQO, who is ultimately accountable for ensuring alignment and oversight of quality initiatives across all departments of surgery. Additionally, there may be leadership over surgical quality at the system level, but this is not to supersede the need for leadership and oversight by the SQO at the hospital level.

Documentation

- HOSPITAL ATTACHMENT PSG.1.1: Provide a formal job description that details the responsibilities, reporting relationships, programmatic authority, and experience required of the individual(s) serving as the SQO
- HOSPITAL ATTACHMENT PSG.1.2: Curriculum vitae for individual(s) serving as the SQO
- HOSPITAL ATTACHMENT PSG.1.3: SQO reporting structure through a wiring diagram

Resources

Ashley SW, Ellison EC, Moffatt-Bruce SD. Chapter 3: Surgical Quality Officer. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety*. American College of Surgeons; 2017: 37-50.

Hu QL, et al. Evidence Review for the American College of Surgeons Quality Verification Part I: Building Quality and Safety Resources and Infrastructure. *J Am Coll Surg*. November 2020;231(5):557-569.e1.

PSG.2 Surgical Quality and Safety Committee (SQSC)

Definition and Requirements

Committee Makeup
The Surgical Quality and Safety Committee (SQSC) has representation from all surgical specialties and adjunctive disciplines, serves as a forum for surgery-wide quality activities, and is led by the Surgical Quality Officer (SQO). This committee provides infrastructure that fosters communication across and up and down the institution.

This committee also will require administrative/project management, QI/performance improvement (PI) project management, and data analysis support to ensure the committee is active and able to achieve goals.

Committee Function
The SQSC oversees and facilitates surgical quality improvement efforts in the hospital, ensuring that there is a multidisciplinary committee that is responsible for overseeing and guiding the cross-cutting surgical quality issues.

The SQSC addresses the following areas:

1. Cross-cutting administrative issues in the departments of surgery
2. Operating room operations
3. Perioperative processes
4. Surgical quality improvement
5. Cost reduction in surgery
6. Operating room communication and culture

In larger hospitals where SQSC functions are split across multiple committees within the institution, it is imperative there is coordination, alignment, and communication between committees and to the SQO, who is ultimately accountable for ensuring alignment and oversight of initiatives across all departments of surgery.

Documentation

- HOSPITAL ATTACHMENT PSG.2.1: Formal SQSC charter and/or mission statement
- HOSPITAL ATTACHMENT PSG.2.2: Provide a committee roster for the SQSC that names all members and the specialties they represent
- HOSPITAL ATTACHMENT PSG.2.3: Organizational diagram representing the SQSC's position within the organizational framework of the hospital
- HOSPITAL ATTACHMENT PSG.2.4: Annual SQSC goals and progress tracker
- HOSPITAL ATTACHMENT PSG.2.5: Job descriptions for QI/PI practitioner(s), data analyst(s), and administrative/project management personnel
- HOSPITAL ATTACHMENT PSG.2.6: Agendas and meeting minutes (including attendance record) from SQSC committee meetings over the last 12 months

Resources

Hoyt DB, Ko CY. Chapter 5: The Surgical Quality and Safety Committee: Providing the operational infrastructure to ensure quality, safety, and reliability. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety.* American College of Surgeons; 2017: 61-68.

Hu QL, et al. Evidence Review for the American College of Surgeons Quality Verification Part I: Building Quality and Safety Resources and Infrastructure. *J Am Coll Surg.* November 2020;231(5):557-569.e1.

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Patient Care: Expectations and Protocols (PC)

PC.1 Standardized and Team-Based Processes in the Five Phases of Care

Definition and Requirements

There are standardized, team-based processes to ensure surgical quality, safety, and reliability in all five phases of care of the primary morbid condition requiring surgery. The five phases of care are defined as:

1. Preoperative phase
2. Immediate preoperative phase
3. Intraoperative phase
4. Postoperative phase
5. Post-discharge phase

Standardized processes across all surgical specialties and phases of care may include, but are not limited to:

- Standardized preoperative evaluation and risk assessment process
- Preoperative optimization/surgery readiness protocols for high-risk patients, such as Strong for Surgery or centralized perioperative care clinic to assess:
  - Nutrition
  - Smoking Cessation
  - Glycemic Control
  - Medication Use
  - Delirium
  - Prehabilitation
  - Safe and Effective Pain Control
  - Patient Directives
- Standardized perioperative care protocols (in other words, Enhanced Recovery)
  - At a minimum, hospitals should have standardized protocols for operations performed in the following areas:
    - Colon and rectal surgery
    - Joint replacement
    - Hip fracture
    - Gynecologic surgery
    - Emergency general surgery (appendectomies, cholecystectomies, major abdominal surgery)
- Geriatric-specific protocols, such as:
  - Delirium detection and therapy
  - Frailty assessment
  - Patient-centered decision making/goals of care alignment
  - Polypharmacy
  - Discharge planning and post-acute care
- Intra-operative procedures such as timeouts, hand-offs, debriefs, and so on
- Discharge and post-discharge protocols to ensure safe pain and wound management, appropriate follow-up, and continuity of care is provided postoperatively

Exemplary hospitals will have standardized processes for surgical patients across all five phases of care and regularly measure compliance with protocols. Additionally, there will be mechanisms in place to ensure appropriate education, review, maintenance, and identification of new opportunities for protocol development and standardization.

Documentation

- HOSPITAL & SPECIALTY ATTACHMENTS PC.1.1: Pathways and protocols such as Pre-Anesthesia Testing/ Evaluation, Patient Optimization, Enhanced Recovery, Geriatric Surgery, Opioid Sparing Surgery, and so on
- CHART REVIEW: Provide patient chart and case review documentation for a sampling of charts that were identified by the hospital for review (see *Chart/ Documentation Preparation Guide* for details)

Resources

ACS Geriatric Surgery Verification Program. Available at: https://www.facs.org/quality-programs/geriatric-surgery. Accessed June 28, 2021.

AHRQ Improving Surgical Care and Recovery. Available at: https://www.facs.org/quality-programs/iscr. Accessed June 28, 2021.

Hoyt DB, Ko CY. Chapter 2: Team-based care: The surgeon as leader in each phase of surgical care. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety*. American College of Surgeons; 2017: 25-36.

Strong for Surgery. Available at: https://www.facs.org/quality-programs/strong-for-surgery. Accessed June 28, 2021.

PC.2 Disease-Based Management Programs and Integrated Practice Units

Definition and Requirements

There is standardized, evidence-based, multidisciplinary management of specific diseases, patient populations, or procedures. Often referred to as integrated practice units, these may include multidisciplinary care bundles for cancer care, joint replacement, colorectal surgery, bariatric surgery, inflammatory bowel disease, and so on.

The purpose of this standard is to ensure that the surgical management of diseases, procedures, and patient populations requiring multispecialty care is integrated, organized, and standardized, which may be achieved through internally developed disease centers (for example, integrated practice units, procedure bundles, and so on) or participation in established external programs (for example, accreditation/verification programs or collaborative at a system, regional, or national level).

Exemplary hospitals will have a disease-based management or integrated practice unit approach to surgery within all applicable surgical specialties. Additionally, for locally developed disease-centers that do not have an external verification component there will be mechanisms in place to ensure appropriate education, review, maintenance, and compliance measurement with established disease-based pathways and protocols.

Documentation

- SPECIALTY ATTACHMENTS PC.2.1: Provide specialty-specific pathways/protocols for programmatic disease management that have been adopted and verified locally within a disease-based unit

Resource

Hoyt DB, Ko CY. Chapter 9: Disease management and multidisciplinary patient care. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety*. American College of Surgeons; 2017: 107-196.

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Data Surveillance and Systems (DSS)

DSS.1 Data Collection and Surveillance

Definition and Requirements

There are data available for use in quality and safety. This data should be of high quality, ideally accurate, clinically meaningful, with risk-adjusted outcomes, ability to benchmark against peers, and compliance metrics for process measures. It should be frequently used, coordinated with quality improvement initiatives, and fed back to frontline staff. Data should be accompanied by resources for collection (for example, EHR extraction, surgical clinical reviewer), analysis, and generation of reports.

Exemplary hospitals have standardized processes and sufficient resources for collecting, analyzing, and reviewing clinically relevant data (risk-adjusted and benchmarked when available) to monitor and identify potential surgical quality and safety issues and support quality improvement initiatives at the hospital (for example, EHR data, safety event reporting system, ACS NSQIP, et al) and individual specialty level (for example, ACS NSQIP, TQIP, VQI, STS Database, et al). Data are shared regularly with hospital leadership, frontline surgeons, and staff.

Documentation

- HOSPITAL AND SPECIALTY ATTACHMENTS DSS.1.1: Provide most recent (patient de-identified) data reports from each registry or data source you monitor for quality improvement purposes, including patient experience data, hospital-wide event reporting and outcomes data, and specialty-specific data
- HOSPITAL ATTACHMENT DSS.1.2: Hospital policy/ training on reporting quality and safety events

Resources

Cima RR, Hall BL, Michelassi F, Sultan ST. Chapter 11: Data analytics: An overview of systems used to improve health care quality and safety. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety*. American College of Surgeons; 2017: 211-236.

Fischer CP, et al. Evidence Review for the American College of Surgeons Quality Verification Part II: Processes for Reliable Quality Improvement. *J Am Coll Surg*. April 2021. 10.1016/j.jamcollsurg.2021.03.028.

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Quality Improvement (QI)

QI.1 Case Review

Definition and Requirements

There is a standardized, documented process for formal retrospective case review both within individual surgical specialties and broadly across surgical departments to monitor adverse events, assess compliance with protocols, and identify opportunities for improvement and standardization.

There are established and standardized processes for formal case review that include, but are not limited to, the following:

1. Establishment of a set of defined criteria to identify possible cases for review (for example, individual reporting, reporting system, registry, and so on)
2. Selection of cases for review based on standardized criteria
3. Use of a standardized process for case reviews/evaluation and documentation of review and resolution
4. Integration of findings and resolutions with clinical care and quality improvement activities
5. Maintenance of surveillance of identified issues

The case review process should ensure that the hospital has standardized processes for identifying problems (for example, surveillance mechanisms), reviewing the problems and identifying underlying system-level causes (for example, quality conferences), and preventing similar problems in the future (for example, feedback and education).

Documentation

- HOSPITAL AND SPECIALTY ATTACHMENTS QI.1.1: Provide diagram/process flow map(s) for case review process that includes criteria for case review selection both at the specialty/department level and the hospital level, data source(s) used to identify cases, institutional bodies that review cases, and feedback loop for case review findings
- HOSPITAL AND SPECIALTY ATTACHMENTS QI.1.2: If applicable, provide the form/template(s) used for case review write-ups
- HOSPITAL AND SPECIALTY DOCUMENTATION: Provide agendas and meeting minutes (including meeting attendance records) from case review conferences held within the last 12 months
- CHART REVIEW: Provide patient chart and case review documentation for a sampling of charts that were identified by the hospital for review (see *Chart/Documentation Preparation Guide* for details)

Resources

Hyman NH, Lillemoe KD, Shackford SR. Chapter 4: Case review and peer review: Forums for quality improvement. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety*. American College of Surgeons; 2017: 51-60.

Fischer CP, et al. Evidence Review for the American College of Surgeons Quality Verification Part II: Processes for Reliable Quality Improvement. *J Am Coll Surg*. April 2021. 10.1016/j.jamcollsurg.2021.03.028.

QI.2 Surgeon Review

Definition and Requirements

There are established and standardized processes to monitor and address quality and safety issues with individual surgeons through a formal peer-review process that respects the patient, the institution, and the individual surgeon.

The purpose of this standard is to ensure that the hospital has standardized processes for identifying and remediating individual surgeons who may be struggling or need help at any point in their tenure.

Exemplary hospitals will have evidence of a robust surgeon review process using data to evaluate individual surgeon performance by benchmarking to accepted standards and peer performance. Review should occur on a regular cadence to ensure favorable patient outcomes and compliance with standard protocols and pathways. When an issue with individual surgeon performance is identified, there are timely procedures in place to ensure both patient safety and respectful remediation of the surgeon through either mentorship, proctoring, or additional education. There are also policies and procedures in place to address the following:

- Safe transition out of practice for aging surgeons
- Management of disruptive surgeon behavior
- Surgeon/provider wellness programs
- Second victim support for surgeons and other providers who have experienced a sentinel event

Documentation

- HOSPITAL AND SPECIALTY ATTACHMENT QI.2.1: Provide all policies and procedures pertaining to the peer-review processes
- HOSPITAL ATTACHMENT QI.2.2: Hospital policy/process for addressing disruptive behavior, aging surgeons, surgeon wellness programs (for example, second victim program), and so on
- CHART REVIEW: Provide examples of charts that peer review and include peer review documentation (see *Chart/Documentation Preparation Guide* for details)

Resources

Hyman NH, Lillemoe KD, Shackford SR. Chapter 4: Case review and peer review: Forums for quality improvement. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety.* American College of Surgeons; 2017: 51-60.

Fischer CP, et al. Evidence Review for the American College of Surgeons Quality Verification Part II: Processes for Reliable Quality Improvement. *J Am Coll Surg.* April 2021. 10.1016/j.jamcollsurg.2021.03.028.

QI.3 Credentialing, Privileging, and Onboarding

Definition and Requirements

There are thorough processes for credentialing and privileging that ensure all surgeons are qualified and able to provide safe and appropriate surgical care. This includes a formal onboarding process with surgeon leadership involvement in development and approval of specific privileging criteria for complex procedures. Formal onboarding should include practices such as direct observation, backup call during initial transition to practice, mentorship programs, and review of initial and historical case logs.

The purpose of this standard is to ensure that all surgeons at the hospital practice within the scope of their training, experience, and ability. Credentialing, privileging, and core onboarding procedures are specific to their specialty to ensure that all surgeons are qualified and able to provide safe and appropriate surgical care for each of these scenarios:

1. New surgeons (either recent grads or new to the hospital) requesting privileges
2. Established surgeons renewing existing privileges
3. Established surgeons requesting new privileges or new technologies
4. Established surgeons re-establishing privileges following a break in practice
5. Safe introduction of innovative procedures and technologies (for example, robotic operations, POEM, and so on)

Documentation

- HOSPITAL ATTACHMENT QI.3.1: Provide all policies and procedures pertaining to the credentialing, privileging, and onboarding processes
- SPECIALTY ATTACHMENTS QI.3.2: Provide privileging document that outlines "core privileges" and "special privileges"
- SPECIALTY ATTACHMENTS QI.3.3: Provide privileging criteria and evaluation/onboarding process for each surgical specialty/department, as applicable

Resources

Bass BL, Stain SC. Chapter 6: Surgical credentialing and privileging: Ensuring that surgeons are capable of providing optimal care. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety*. American College of Surgeons; 2017: 69-84.

Fischer CP, et al. Evidence Review for the American College of Surgeons Quality Verification Part II: Processes for Reliable Quality Improvement. *J Am Coll Surg*. April 2021. 10.1016/j.jamcollsurg.2021.03.028.

QI.4 Continuous Quality Improvement Using Data

Definition and Requirements

There are dedicated and sufficient resources to support formal quality and process improvement on the basis of high-quality, reliable data at both the hospital and individual specialty level.

There are established processes for using objective, risk-adjusted, and externally benchmarked data to drive quality improvement efforts. Formal quality improvement initiatives must include and document the following:

- Identification of a problem using case review, registry information, and so on
- Propose an intervention using standardized QI methodology and tools (such as Lean Six Sigma, and so on)
- Implement an intervention using objective data to monitor progress
- Share findings and results of the QI initiative with stakeholders
- Continue active surveillance to sustain improvement

Surgeons in individual specialties engage in quality improvement initiatives continuously, and are able to demonstrate at least one quality improvement initiative annually based on a need or issue identified in their specialty.

Documentation

- HOSPITAL AND SPECIALTY ATTACHMENTS QI.4.1: Provide examples of recent data-driven quality improvement initiatives within the last 12 months.

Resources

Cima RR, Hall BL, Michelassi F, Sultan ST. Chapter 12: Putting the data to work: Using databases for quality improvement and patient safety. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety*. American College of Surgeons; 2017: 237-250.

Fischer CP, et al. Evidence Review for the American College of Surgeons Quality Verification Part II: Processes for Reliable Quality Improvement. *J Am Coll Surg*. April 2021. 10.1016/j.jamcollsurg.2021.03.028.

QI.5 Compliance with Hospital-Level Regulatory Performance Metrics

Definition and Requirements

There is established participation and compliance with hospital-level regulatory and accreditation programs. There should be purposeful organization to ensure findings and initiatives resulting from external regulatory review are appropriately prioritized, aligned/coordinated with quality improvement efforts within surgery departments, and communicated broadly to surgical staff.

Documentation

- HOSPITAL ATTACHMENT QI.5.1: Provide recent copies of accreditation/certification reports from the various regulatory programs that designate your hospital, including, but not limited to, The Joint Commission, DNV, CMS, Leapfrog, U.S. News and World Report, et al.

Resource

Groman R, Henderson JM, Jasak RS, McKee A, Opelka FG, Sanchez JA. Chapter 10: External regulation of quality and patient safety. In: Hoyt DB, Ko CY, eds. *Optimal Resources for Surgical Quality and Safety.* American College of Surgeons; 2017: 197-210.

Appendix A: ACS QVP Standards Evaluation Table

The ACS QVP assesses surgical quality infrastructure across all surgical departments, as well as within individual surgical departments, to determine strengths within departments that can be leveraged across other departments and opportunities to align or improve.

The 12 ACS QVP Standards are assessed at different levels of the institution.

ACS QVP 12 Standards	System-Level	Hospital-Level	Specialty-Level
Institutional Administrative Commitment (IAC)			
IAC.1 Leadership Commitment and Engagement to Surgical Quality and Safety	✓	✓	
IAC.2 Culture of Patient Safety and High Reliability	✓	✓	
Program Scope and Governance (PSG)			
PSG.1 Surgical Quality Officer	✓	✓	
PSG.2 Surgical Quality and Safety Committee	✓	✓	
Patient Care: Expectations and Protocols (PC)			
PC.1 Standardized and Team-Based Processes in the Five Phases of Care	✓	✓	✓
PC.2 Disease-Based Management	✓		✓
Data Surveillance and Systems (DSS)			
DSS.1 Data Collection and Surveillance	✓	✓	✓
Quality Improvement (QI)			
QI.1 Case Review	✓	✓	✓
QI.2 Surgeon Review	✓	✓	
QI.3 Credentialing, Privileging, and Onboarding	✓	✓	✓
QI.4 Continuous Quality Improvement Using Data	✓	✓	✓
QI.5 Compliance with Regulatory Performance Metrics	✓	✓	

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