INTRODUCTION

The Manual for Anesthesia Department Organization and Management (MADOM) is a work product of the American Society of Anesthesiologists® (ASA) Committee on Quality Management and Departmental Administration (QMDA). The purpose of MADOM is to provide ASA members with resources to address the administrative requirements of anesthesia practice. These include written documents outlining best practice in Department organization as well as numerous links to ASA educational materials, Anesthesia Quality Institute (AQI) resources, and key external references. In the past, MADOM has been revised by QMDA every 2-3 years and distributed as a paper product. Beginning with this edition, MADOM will be a web-based product, and will be augmented and amended on a continuous basis. MADOM is not intended to be a peer-reviewed scholarly publication, but rather a practical guide based on the experience of QMDA members and other ASA leaders.

Comments regarding MADOM may be referred to the Editor, Richard P. Dutton, M.D., M.B.A. (r.dutton@asahq.org), to the Chair of QMDA, Donald Arnold, M.D., or ASA’s Department of Quality and Regulatory Affairs (qra@asahq.org). We are especially interested in suggestions for new materials which should be included in MADOM going forward.
ACKNOWLEDGEMENTS

ASA Committee on Quality Management and Departmental Administration (QMDA)

Members of QMDA are anesthesiologists who volunteer to serve on the committee. QMDA regularly meets to lead and support ASA members in their efforts to stimulate continuous quality improvement in the practice of anesthesiology and encourage excellence in administration of anesthesia departments. In particular, QMDA continuously reviews matters pertaining to peer review and medical staff issues that affect the specialty of anesthesiology.

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Chapter 1

Organizing the Department of Anesthesiology

1.0 ORGANIZING THE DEPARTMENT OF ANESTHESIOLOGY

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1 Chapter 1 was last reviewed and updated in February 2015.
2 Peter Dunbar, M.D. and Linda Hertzberg, M.D. were the original authors of this chapter in 2010 with special thanks to Robert E. Johnstone, M.D., J. Kent Garman, M.D., M.S., Tong J Gan, M.D., M.H.S., F.R.C.A and Scott E. Kercheville, M.D. Donald Arnold, M.D. and Richard P. Dutton, M.D., M.B.A. contributed updates to this chapters.
3 Robert Johnstone, M.D. contributed to this chapter section in 2007. Members of the ASA Committee on Quality Management & Departmental Administration (QMDA) reviewed and updated this article in 2014.
1.0 ORGANIZING THE DEPARTMENT OF ANESTHESIOLOGY

A. Mission and Overview

Anesthesia care is the practice of medicine and takes place within organized environments. The American Society of Anesthesiologists® (ASA) has produced a policy statement on the proper organization of an anesthesia department, entitled The Organization of an Anesthesia Department (2013). Policy statements and related materials may be found on the ASA Standards, Guidelines and Statements webpage.

Because of the diversity of local conditions among institutions, the policy statement emphasizes general principles. These include:

- The organization of the anesthesia department should be consistent with the organization of the other clinical departments of the hospital.
- A physician anesthesiologist must be personally responsible to each patient for the provision of anesthesia care, whether personally provided or through supervised residents, anesthesiologist assistants, or nurse anesthetists.
- The anesthesia department must develop a system to assure the availability of a member of the department to each patient.
- Anesthesia privileges should be processed through established medical channels and based on qualifications and competence.
- Department administration must monitor the quality of anesthesia care rendered throughout the hospital, develop regulations concerning anesthesia safety, and provide education to department members. In particular, the Chair of the Department of Anesthesiology is responsible under Interpretive Guidelines from the Center for Medicare & Medicaid Services (CMS) for the safe administration of sedation throughout the hospital.

B. Administrative Organization

Each Anesthesia department should have a chief or director of the department who is either elected by the members or appointed by a clearly delineated process of the medical staff or governing body of the institution. Individuals selected as departmental leaders should possess and demonstrate leadership attributes and a desire to lead. Good leaders enhance the credibility, prestige, and quality of departments. Leaders must develop and communicate the anesthesia department’s priorities, goals, and organization. The best leaders understand people and business, maintain fairness, create clear visions, build trust, and communicate effectively.

The director of the anesthesia department should serve as the hospital’s CMS-mandated Director of Anesthesia Services or may delegate this responsibility to another department member. The director of anesthesia services has the authority and responsibility for directing the administration of all anesthesia services, including anesthesia and analgesia, throughout the hospital (including all departments in all campuses and off-site locations where anesthesia services are provided), as well as responsibility for evaluating the quality and appropriateness of anesthesia patient care as part of the hospital’s Quality Assessment/Performance Improvement program. Other responsibilities of the director of anesthesia services may be found in the ASA document on The Organization of an Anesthesia Department.

A small anesthesia department may need no other administrative organization than a director of anesthesia and the department members, and may exist as a department without committee structure, acting as a whole to ensure proper privileging, quality assurance, peer review, compliance, and clinical
coverage of its patient care responsibilities. Larger departments with multiple clinical locations (i.e. full service hospital, inpatient only, ambulatory care, freestanding outpatient, imaging center, doctors office) and sub-specialties may find it advantageous to subdivide areas of responsibility into either site of service divisions (by physical location), or clinical service divisions (by subspecialty) or both.

C. Scope of Services

Scope of services should be clearly defined at each geographic location. Examples of these services include complete anesthesia services, including consultation for patients and other physicians, general anesthesia, spinal and regional anesthesia, obstetric anesthesia, sedation, management of intensive care patients, acute and chronic pain management, quality oversight only, perioperative care etc. Large departments generally have divisions that have their own division chief that cut across geographic locations such as Pain, Cardio-Thoracic, Intensive Care, and Transplant.

In addition, a larger department may find a committee structure useful for the purposes of privileging, quality assurance, peer review, compliance, and other items that may be pertinent on a local level. A large department with multiple sites, divisions, and committees should create a clear organizational chart for sites, subdivisions, committees, and personnel, so that areas of responsibility and authority of individual leaders and members are clearly delineated.

No matter what the size of the department, it is important that the department create formal liaisons and lines of communication with the other departments within its institution.

Responsibilities of department members for medical care may be found in The Organization of an Anesthesia Department. These include, but may not be limited to the following items from that document:

“Since the quality of care in anesthesia depends in large measure upon the role of the physician in rendering such care, the proper definition of the responsibilities of individual physicians in the provision of medical care is the starting point in the organization of an anesthesia department. Such definition should take into account the following principles.

A. Anesthesia care is the practice of medicine. An anesthesiologist must be personally responsible to each patient for the provision of anesthesia care. An anesthesiologist exercises the same independent medical judgment on behalf of the patient as is exercised by other physicians.

B. The anesthesiologist’ responsibilities to the patient should include responsibility for preanesthetic evaluation and care, medical management of the anesthetic procedure and of the patient during surgery, postanesthetic evaluation and care, supervision of resident physicians and medical direction of any nonphysician who assists in providing anesthesia care to the patient. The anesthesiologist should fulfill these responsibilities to the patient in accordance with the ASA Guidelines for the Ethical Practice of Anesthesiology (2013) and Guidelines for Patient Care in Anesthesiology (2011).”

Apart from clinical responsibilities, depending on the type and size of facility, anesthesiologists may also have academic, research, or administrative responsibilities. Each department should create guidance for its members as to how these responsibilities should be met. With regard to administrative responsibilities, The Organization of an Anesthesia Department states:

“The assumption and performance of medically related administrative responsibilities, though for the ultimate benefit of patients, are undertaken on behalf of, and as the agent for, the hospital.
The fact that a physician has medically related administrative responsibilities should not affect that physician’s, or any other physician’s, individual responsibilities to patients or the physician’s rights under the medical staff bylaws.

All members of the department should share in the discharge of medically related administrative responsibilities to the extent necessary or appropriate.”

D. Fundamental Elements

A process for clinical privileging must be in place for all department members who provide patient care services. Privileges should be processed through established medical staff channels, be based solely on qualifications and competence, and be conditioned upon observance of the medical staff bylaws and the rules and regulations governing the anesthesia department. Privileges should be delineated in accordance with the ASA Guidelines for Delineation of Clinical Privileges in Anesthesiology (2013).

The anesthetics administered to a patient and the reaction of the patient must be recorded as a provision of quality care. This can be written on printed forms or entered in electronic records. Documentation of anesthesia should be consistent with the ASA Statement on Documentation of Anesthesia Care (2013). Documentation should also satisfy Medicare billing requirements.

Anesthesiologists live in a compliance-intensive environment. The environment is very complex where new regulations and enforcement regimes often impact anesthesiologists. The ASA Standards, Guidelines and Statements webpage provides guidance to help members comply with regulatory mandates and suggestions. We recommend that members review this page on the website to assist with regulatory compliance.

In addition, ASA has developed templates and resources to help anesthesiologists comply with the CMS Interpretive Guidelines (IGs) for the Hospital Conditions of Participation. These IGs increase the scope of practice of anesthesiologists and reemphasize the role of the director of anesthesia services. Though these resources are ASA committee work products, they are not official ASA documents. They may provide some guidance in any necessary transitions as a result of the modifications to the Interpretive Guidelines.

All anesthetics have risks. Patients have the right to be informed about these risks and to consent or not to the administration of anesthesia. Information needed by a patient for a valid consent generally includes the nature of the anesthesia procedure, identity of the person who will administer the anesthesia, risks of the anesthesia, available alternatives to the anesthesia procedure and allowing the patient to have ample opportunity to ask questions regarding these elements of the discussion. It is controversial as to whether or not informed consent should be documented on a printed form that the patient signs. The ASA Manual on Professional Liability contains an extensive discussion of the issues surrounding informed consent in anesthesia.

The ASA Guidelines for the Ethical Practice of Anesthesiology should be used to guide decision-making in clinical practice. These guidelines also delineate anesthesiologists’ ethical responsibilities to their colleagues, health care facilities, community, and themselves. In addition the ASA has adopted a Protocol for Supporting a Member’s Right to Practice (2013) and a Statement on Economic Credentialing (2013).

There should be a program of continuing education for all personnel having anesthesia privileges. The educational program should include in-service training and be based in part on the results of an evaluation of anesthesia care. Such a program should follow the ASA Guidelines for Minimally Acceptable
Continuing Medical Education in Anesthesiology (2011). Anesthesiologists should use this document as a guide in designing their own individual program of continuing medical education. Such a program should be consistent with departmental policies and local and state regulations.

Quality assurance processes are covered in another chapter of this manual. However, departments and their members will find it useful to refer to the QMDA Quality Checklist in assessing how well a department is complying with nationally recognized standards.

The Association of Anesthesia Clinical Directors (AACD) has worked with the Association of Operating Room Nurses (AORN) to develop a Glossary of Times Used for Scheduling and Monitoring of Diagnostic and Therapeutic Procedures. This glossary has been widely adopted by the healthcare information technology industry, and by the National Anesthesia Clinical Outcomes Registry (NACOR) of the Anesthesia Quality Institute (AQI). Definitions from the Procedural Times Glossary are the basis for many of the most common metrics of operating room and practice efficiency.

New drugs, and techniques, enter practice frequently, making lifelong learning necessary to maintain competence. Demonstration of such learning is appropriate for renewal of privileges. Prior to 2000, the American Board of Anesthesiology (ABA) began a program of voluntary recertification which has subsequently evolved into a mandatory recertification program known as Maintenance of Certification in Anesthesiology (MOCA). If Board Certification is used in credentialing then adherence to MOCA requirements may be necessary for credentialing or renewal of privileges. Participation in MOCA should meet emerging state and institutional requirements for maintenance of licensure. A requirement of MOCA is participation in a simulator training course. The ASA Workgroup on Simulation Education produced a White Paper in 2006 related to this requirement. A list of ASA-certified anesthesia simulator centers may be found on the ASA website.

E. On-Line Resources on the Organization of an Anesthesia Department


American Medical Association: www.ama-assn.org

American Society of Anesthesiologists® (ASA): www.asahq.org

ASA Payment and Practice Management: https://www.asahq.org/resources/practice-management

ASA Quality and Regulatory Affairs: https://www.asahq.org/resources/quality-improvement

ASA Standards, Guidelines, Statements and Other Documents

- Guidelines for Delineation of Clinical Privileges in Anesthesiology (2013)
- Guidelines for Minimally Acceptable Continuing Medical Education in Anesthesiology (2011)
- Statement on Documentation of Anesthesia Care, Statement on (2013)
- Statement on Economic Credentialing (2013)
- Ethical Guidelines for the Anesthesia Care of Patients with Do-Not-Resuscitate Orders or Other
Directives that Limit Treatment (2013)
• Guidelines for the Ethical Practice of Anesthesiology (2013)
• The Organization of an Anesthesia Department (2013)
• Guidelines for Patient Care in Anesthesiology (2011)
• Protocol for Supporting a Member’s Right to Practice (2013)

Anesthesia Patient Safety Foundation: www.apsf.org

Anesthesia Quality Institute: www.aqihq.org

Centers for Medicare & Medicaid Services: www.cms.gov

The Joint Commission: http://www.jointcommission.org/

Medical Group Management Association: www.mgma.com

Medicare Anesthesiologists Center (Announcements, Billing and Important Links): www.cms.hhs.gov/center/anesth.asp

4 AORN requires a subscription to Perioperative Standards and Recommended Practices for access to the Glossary.
1.1 LEADERSHIP AND QUALITY CARE IN ANESTHESIA PRACTICE

Anesthesiologists should select as departmental leaders members who demonstrate leadership attributes and a desire to lead. Leaders must communicate well, judge situations fairly and commit themselves to superior patient care. In most situations, leadership responsibilities are quite demanding and are carried out in addition to clinical work. It is also incumbent upon department members to recognize the importance of department leadership and support those assuming the responsibilities, especially when leadership activities are not financially rewarded. Good leaders enhance the credibility and prestige of departments.

All members of a group should know who leads the group and have mechanisms to communicate with the leader.

Those chosen for leadership positions should have a talent for and a commitment to development in the following areas:

Priorities
Anesthesiology leaders should recognize that anesthesia practice is the practice of medicine and that patient safety is the highest priority of anesthesiologists. They should support both individual members of the department and the group as a whole.

Department Goals
As an initial step in developing a direction or theme for a department, leaders must establish realistic departmental goals that should be consistently pursued. Specific goals for areas such as patient care, quality improvement, career development, research and education and financial management should be developed. Successful leaders revise department goals as circumstances change, and openly and consistently communicate them.

The leader must have the vision and foresight to delay immediate gain in order to attain carefully planned development. An individual department member who can function as the leader should be identified. If such a person is not presently on staff, one should be recruited.

Organization and Delegation of Authority
Leaders should give and expect authority, and command respect among peers within and outside the department. Leaders should organize the department in a manner that maximizes the realization of goals set up by the department. Departmental leaders must be able to identify fellow department members who are able and willing to carry out designated tasks. The department leader should undertake steps to groom these department members for tasks both within the department and in the larger hospital or medical community. Recognition of strengths and weaknesses of department members is necessary for the assignment of the appropriate member to the relevant task. Moreover, the leader must have confidence in the abilities of those delegated authority and allow them to complete their tasks.

Business
The department leader must have a working knowledge of finances, human resource management, governance dynamics, planning, risk management and professional responsibilities. Leaders understand the requirements of accreditation organizations and payers.

The leader must use fair techniques to allocate resources and ensure compliance with department rules, and ensure department members know these allocations and rules. Optimum patient care standards must be maintained and not compromised by monetary conflicts.
Communication
The department leader must be an objective, thoughtful and consistent arbiter in settling both intra- and interdepartmental conflicts. Leaders must be able to maintain confidentiality when indicated. Assignments should be allocated based upon a system designed to maximize the overall performance of department members and, thereby, enhance the function of the department as a whole.

Communication must also extend beyond the department’s boundaries. An anesthesiologist leader should be visible, well known among and respected by leaders of other medical disciplines. Maintaining the standards of the department in dealings with institutional administrators is of paramount importance. The leader should establish and maintain a presence for the department in institutional affairs. These include participation on hospital service committees and with other departments in such areas as continuing quality improvement, educational seminars and research.

Credibility
A leader must be reliable and trustworthy. A leader should refrain from making promises that cannot be kept and not make snap judgments that have to be reverted. Leaders should seek, manage, and share information.

Intellectual Pursuits
The department leader must recognize the importance of lifelong learning and other intellectual endeavors. The leader should encourage and support intellectual curiosity by all department members. The department leader should assist members by allocating the necessary time and resources for the completion of educational and investigational work and recognize its satisfactory achievement.

Separation from Personal Gratification
Advancement and accomplishment of the department must take precedence over personal gain. A successful leader of a good department must be personally and closely involved with the daily functioning of that department. The leader must see that the department responds to the recommendations of The Joint Commission as well as to professional, societal and legal pressures to assure quality in the delivery of health care.

It is the duty of physicians to appoint leaders who will define and achieve superior patient care standards. With the ever increasing involvement of governmental and other bureaucratic agencies in medical affairs, the role of these leaders will only increase in importance.

Style
Leaders interact with people. The emotional style that leaders use for these interactions can be as important as the content of their communications. Leaders who are positive, open, sensitive, balanced, calm and good listeners are likely to succeed. The values leaders display and espouse are important. Values frequently used to describe successful leaders include strength, integrity, respect, creativity, faith, courage, love, trust and humility.

Leadership is evolving from traditional notions of transactional direction, involving chains of command and institutional authority, to transformational agents who create clear visions and inspire others to do their best, while creating new opportunities and building trust and commitment into mission and purpose. Leaders are professionals who work at improving their leadership as well as clinical competencies.

Continuous Improvement
Leaders seek evaluations of their styles and effects, and continuously improve them. Business education
can improve the knowledge and effectiveness of leaders. The ASA offers courses that will help you effectively manage and lead your anesthesia practice.
1.2 ANESTHESIA INFORMATION MANAGEMENT SYSTEM (AIMS)

An Anesthesia Information Management System, or AIMS, is an information system that is used as an automated electronic anesthesia record keeper (connection to patient physiologic monitors and/or the anesthetic machine) which allows the collection and analysis of anesthesia-related perioperative data gathered from monitors, the anesthesia machine, and data input by clinicians. The anesthesia record has undergone radical change in the last decade. Our documentation has gone from handwritten scrawls to sophisticated computer interfaces. No one can argue that the anesthesiologist's time is much better spent in actual patient care rather than acting as a vital-sign 'scribe.' AIMS can enable institutions to more easily meet a variety of increasing regulatory reporting requirements (i.e. pay for performance, ‘meaningful use’). Departments can also ensure compliance with best practices around billing, safety, quality, and facilitate participation in the Anesthesia Quality Institute (AQI).

A. Benefits to Using an AIMS

Most groups and institutions have moved to, or are considering, some form of AIMS. While there are often significant costs involved to implement AIMS, anesthesiologists and institutions are finding many avenues, including monetary, to obtain a return on the investment (ROI). Several articles have detailed how using AIMS helps practices realize these ROIs:

**Benchmarking, Identification of Best Practice and Translational Research**

An AIMS helps to develop evidence-based medicine guidelines from data sets of empirical clinical practice. AIMS also have the ability to link intraoperative data to outcomes data, such as through the National Surgical Quality Improvement Program (NSQIP) and to share data through national research consortia and registries such as the Anesthesia Quality Institute and the Multicenter Perioperative Outcomes Group.


Compliance (Regulatory)
Different layers of legal, regulatory and accreditation requirements should be considered by anesthesia professionals. AIMS systems may be used to practices and anesthesia professionals up-to-date on regulatory, accrediting and compliance issues.


Cost Containment
AIMS is a tool for controlling resource management in the operating room and has the ability to decrease drug cost and utilization and allow for more accurate accounting of anesthesia supplies and medications.

- Coleman RL, Sanderson IC, Lubarsky DA. Anesthesia information management systems as a cost containment tool. *CRNA* 1997;8:77-83.


Documentation
Ensuring proper documentation through an AIMS has the benefit of capturing more accurate clinical data, notifying the user of missing documentation and reducing incidence of illegible notes. AIMS supports risk management activities and enhances legal fortification.


**Operations Management**

Implementing an AIMS has the ability to improve the anesthesia department’s administrative role in the perioperative setting, generate a real-time surgical whiteboard to improve situation awareness and lead to operating room modeling for administrative decision support. For staffing, AIMS may facilitate reductions in staffing costs, improve staff scheduling and decrease the workload on billing personnel when reviewing anesthesia records.


Quality of Care
At a minimum, AIMS can facilitate implementation and adherence to departmental protocols, support anesthesiologists implementing evidence-based medicine, and be used as a tool for providing point-of-care clinical decision support. AIMS may also provide timely clinical feedback to impact clinical behavior, automatically conducting risk calculation and providing anesthetic management recommendations. AIMS may also be one of many tools used by practitioners to prevent adverse intraoperative events.


**Reimbursement**

Using AIMS allows for a merging of financial systems with clinical documentation leading to greater efficiency. AIMS will enhance anesthesia billing and charge capture and has the potential to increase hospital reimbursement.


**Safety**

AIMS allows for the anesthesiology department to implement drug diversion surveillance, be notified of location errors and enhance situational awareness in the operating room.


B. AIMS Features

Automated and computerized systems are among the most rapidly evolving areas of healthcare. There are many options now and more on the horizon. When evaluating a system for purchase, there are many considerations:

- Assessment of current infrastructure
- Capability of supporting a system
- Cost of the project and maintenance
- How best to implement the system
- Education of staff (both initial and on-going)
- What support will the vendor supply
- Who will provide long-term troubleshooting and upgrades

C. AIMS Vendors

These deliberations distill to the primary consideration - that of choosing a vendor. There are many options available. The following list is not complete and is, in no way, an endorsement of any specific vendor. It is only offered as a starting point for your research. The list below is alphabetic by company.

- **Cerner** – SurgiNet
- **Drager** – Innovian® Anesthesia
- **Epic** – Epic Anesthesia Information Management System

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While AIMS has great potential value (as cited above), it requires investment in both monetary and human capital. The initial and on-going cost will depend on the size of your institution and is so individualized that providing an estimate here would only be misleading. However, one can expect to spend, at a minimum, several hundred thousand dollars. In addition, it will require someone’s time and concerted effort to troubleshoot, maintain, and up-grade the system. One cannot rely on the vendor for this/these individual(s). This person must be on-site and act as a liaison to the vendor and conduit for information and updates.

Lastly, the three most important pieces of advice when considering and evaluating a vendor:
1. View as many systems as possible.
2. Evaluate the stability of the vendor – are they positioned to provide long-term support and are they well capitalized?
3. Visit institutions that are actually using the AIMS in patient care. Speak with those who daily input information, talk with the quality officer, make sure it’s a good fit for you and your practice prior to purchase. Believe it or not, vendors often paint an idyllic picture of their operating system. Talking with those who actually use the system provides a realistic filter of vendor claims.

This short primer is only a starting point for evaluating and possible purchase of an AIMS. While a system can provide great benefit, it requires major political and financial investments. Because of this commitment, pre-purchase evaluation must receive an equally thorough commitment of time and money to ensure a system that will work for you and your intuition.

D. General Resources and Articles on AIMS


Chapter 2

Practice Management

2.0 PRACTICE MANAGEMENT
2.1 DOCUMENTING COMPLIANCE WITH MEDICARE REQUIREMENTS
2.2 THE AACD PROCEDUREAL TIMES GLOSSARY
2.3 THE ANESTHESIOLOGY CONSULTATION PROGRAM

5 Chapter 2 was last reviewed and updated in May 2015 by members of the ASA Committee on Practice Management.
2.0 PRACTICE MANAGEMENT

There are a number of ways to define “Practice Management” as it relates to anesthesiology. On one level, practice management is defined as any economic, regulatory or legislative issue that affects the practice of anesthesiology. Another way to define practice management is to imagine the anesthesiology practice as a business – How would you divide up your practice into different divisions, all of which must run well for your practice to prosper and grow?

This chapter will address the second approach, defining key areas in Practice Management and provide sources of additional information. The key areas of Practice Management covered in this chapter include: quality, operating and procedure room management, resource utilization, financial data, anesthesiologist roles within organizations and healthcare reform. Throughout the chapter, links will provide you with additional American Society of Anesthesiologists® (ASA) and non-ASA resources and practice management tools.

A. Quality

The United States healthcare industry began its focus on quality care and patient safety during the managed care era, generally identifies as from 1972 to 2010. The Institute of Medicine provided two classic articles on the status of healthcare in the United States. The first article published in 1999, *To Err is Human*, highlighted system failures that resulted in 100,000 preventable deaths in American hospitals. The second article, published in 2001, *Crossing the Quality Chasm*, provided a framework for improving the quality of care and patient safety within our healthcare industry. After those landmark articles by the Institute of Medicine, several federal, state, non-profit and private institutions have advanced patient safety and quality care.

Within the practice of anesthesiology, many organizations have had a direct impact on improving patient safety and quality care. The Anesthesia Patient Safety Foundation (APSF) and the ASA’s Anesthesia Quality Institute (AQI) are two of the most prominent quality management and patient safety programs within the specialty.

The Anesthesia Patient Safety Foundation is an independent nonprofit organization whose mission is to

“Increase continually the safety of patients during anesthesia care by encouraging and conducting:
- Safety research and education;
- Patient safety programs and campaigns;
- National and international exchange of information and ideas”

APSF initiatives include fire safety, medication safety, opioid induced ventilatory impairment, and perioperative visual loss, to name a few. Each of these patient safety initiatives and their tools are readily available on the APSF homepage [http://www.apsf.org](http://www.apsf.org/).

AQI is a separate 501(c)(3) that works closely with the American Society of Anesthesiologists (ASA), and its goal is to be the premiere anesthesia registry for patient safety and quality improvements. AQI has

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6 Institute of Medicine, Nov 1999. “To Err is Human, Building a Safer Health System.”
7 Institute of Medicine, March 2001. “Crossing the Quality Chasm, A New Health System for the 21st Century.”
an affiliation as a Patient Safety Organization with the Department of Health and Human Services. The AQI works with anesthesia practices nationally to collect data for their many clinical data registries:9

- The National Anesthesia Clinical Outcomes Registry (NACOR)
- The Anesthesia Incident Reporting System (AIRS)
- National Pain Registry (NPS)
- The AQI Anesthesia Closed Claims Project
- The Neurologic Injury After Non-supine Shoulder Surgery Registry (NINS)
- The Postoperative Visual Loss Registry
- The Anesthesia Awareness Registry
- Obstructive Sleep Apnea (OSA) Death and Near Miss Registry
- The MOCA Practice Performance and Assessment and Improvement Registry (PPAI)

AQI uses data and information gathered by the registry to support evidence-based anesthesia care and provides analysis to its members for benchmarking, quality improvement and patient safety initiatives.

Similarly, the American College of Surgeons’ National Surgical Quality Improvement Program (NSQIP)10 program is intended to improve surgical quality of care and patient safety. The American College of Surgeons and their NSQIP program are National Quality Partners with CMS and their Surgical Care Improvement Program (SCIP). The administration of antibiotics an hour before surgery is perhaps the most familiar SCIP measure known to anesthesiologists.

Quality care and patient safety are extremely important anesthesia practice management issues and they are now directly linked to reimbursement. In 2007 CMS implemented the Physician Quality Reporting System (PQRS).11 Although the program is voluntary, anesthesiologists participating either individually or as a group, must satisfactorily report quality data on designated measures to avoid a payment adjustment. Specific PQRS quality indicators for anesthesiologists in the past have included administration of prophylactic parenteral antibiotics, preoperative administration of beta blockers in CABG patients, preventing catheter related blood stream infections with central lines and perioperative temperature management. If anesthesiologists fail to report specific PQRS measures to CMS, there are direct financial penalties for not reporting or failure to satisfactorily report. A Value-Based Modifier has been added to the reimbursement equation to capture outcome performance measures and emphasize the evolution from the volume to value of care model. For additional information on PQRS, please refer to Chapter Four.

Practices should adopt a strong quality program due to the increasing need to demonstrate ‘quality’ to regulators, payers, employers and patients. Practice leaders should be able to measure the practice’s performance by different mechanisms and provide feedback to both physicians and other interested parties on that performance.

Practices might consider a variety of methods to improve quality:
- Collecting outcomes data for every anesthetic encounter.
- Conducting patient and/or surgeon satisfaction surveys
- Performing peer review evaluations of its anesthesiologists

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9 Anesthesia Quality Institute Data Registries available on the AQI homepage http://www.aqihq.org/about-us.aspx
10 American College of Surgeons, National Surgical Quality Improvement Program. http://site.acsnsqip.org/
• Establishing a culture of safety by encouraging reporting of adverse events and near misses
• Joining the AQI and submitting practice data to the NACOR

In the past several years, the Anesthesia Quality Institute (AQI) has worked with the ASA Committee on Performance and Outcomes Measurement, the Committee on Quality Management and Departmental Administration and other stakeholders to produce multiple resources and measures that practices may use when establishing a quality measurement program. The AQI has also collaborated with the Multicenter Perioperative Outcomes Group (MPOG) to produce “Outcomes of Anesthesia: Core Measures” – a document that provides guidance for collecting uniform and comparable data as well as identifying future measurement needs.

Risk management is an important aspect of patient safety for practices to consider. Every anesthesia or pain medicine practice should see the importance of using risk management to identify and mitigate risk to patient care. The airway classification system is a risk management tool used to identify patients with risky airways prior to surgery. Risk management is also a quality assurance tool and is utilized at the individual, department and hospital level. The Anesthesia Closed Claims Project is an excellent practice and risk management resource for anesthesiologists to engage for their studies and publications.

There are many different quality management tools available to assist practices in conducting patient safety or quality care improvement projects. Lean Six Sigma is a quality management tool that is systematic in its approach to defining, measuring, analyzing and improving quality of care. Continuous Quality Improvement (CQI) is another quality management tool used to create an inclusive workplace culture that aggressively identifies and constantly strives to improve the quality of patient care. At practice and facility levels, Quality Assurance and Process Improvement teams also use Root Cause Analysis and Failure Effects Modes Analysis to dissect system and process problems to improve patient safety and quality care.

B. Operating and Procedural Room Management

Operating room management is both an art and a science and requires the coordination of people, resources and space. The ultimate goal of any operating room management team is to be as efficient and effective as possible. Practice leaders must understand the intricacies of operating room management, anesthesia staffing models, operating room staffing models, equipment, medication shortages, cost of anesthesia care, operating room design and infection control.

Operating room efficiency and effectiveness are the primary focus of all operating room management committees. Operating room efficiency involves the relationship between inputs and outputs with a keen focus on saving time, conserving resources, standardization and cost reductions. Several different parameters are used to measure operating room efficiency such as, but not limited to, case numbers, utilization rates, cost and turnover times. Operating room efficiency parameters may not be linked to outcomes. Operating room effectiveness, however, is a term that concentrates on increasing the value of care or improving outcomes and decreasing costs.

Anesthesia staffing models and anesthesia scheduling systems are critical and used extensively in day-to-day operations of the operating room as well as by the hospital administration. Hospital administrations, in particular, evaluate the hospital’s capability and capacity to support all procedural based areas with anesthesia providers. Matching the right anesthesiologist with the right surgical case requires a delicate balance between the supply of anesthesiologist and the demand for their use. Anesthesia staffing models
should strive to match the requirements of the operating rooms and non-operating sites in an efficient and cost-effective manner.

In addition to staffing models, equipment, medication shortages, cost of anesthesia care, operating room design, infection control and personnel management directly impact the daily operation of an anesthesia practice. Some of the goals of practice management for each of these areas are highlighted in the table below.

<table>
<thead>
<tr>
<th>Operational issue</th>
<th>Practice Management Goals</th>
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<tbody>
<tr>
<td><strong>Equipment</strong></td>
<td>1. Standardization of equipment.</td>
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<td></td>
<td>2. Maintain service contracts to keep the equipment functional and provide routine safety checks.</td>
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<td></td>
<td>3. Ensure modern anesthesia delivery machines, advance airway devices, ultrasound equipment and other standard systems.</td>
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<td>4. Control the cost of consumables.</td>
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<td>5. Strict infection control precautions to prevent blood borne and aerosolized pathogens from spreading.</td>
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<tr>
<td><strong>Medication shortages</strong></td>
<td>1. Monitor the FDA and the ASA for medication shortage notifications.</td>
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<td></td>
<td>2. Provide readily available comparable alternatives during medication shortages.</td>
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<tr>
<td><strong>Cost of Anesthesia Care</strong></td>
<td>1. Monitor the cost of anesthetics.</td>
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<td></td>
<td>2. Analyze data and look for cost saving opportunities.</td>
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<td></td>
<td>3. Chose cost savings and/or cost avoidance strategy to lower the cost of anesthesia care.</td>
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<td></td>
<td>4. Consider practice standardization to eliminate the costs associated with inconsistent medication use among anesthesiologists.</td>
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<tr>
<td><strong>Operating room design</strong></td>
<td>1. Patient flow patterns should be examined. Eliminate redundancies and inefficiencies.</td>
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<tr>
<td><strong>Infection control</strong></td>
<td>1. Ensure compliance with all infection control policies, regulations and standards</td>
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<tr>
<td><strong>Personnel</strong></td>
<td>1. Ensure coverage and availability of anesthesiologists for each of the procedural areas.</td>
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<td>2. Confirm that each anesthesiologist is credentialed and privileged.</td>
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<td></td>
<td>3. Encourage Peer Review,</td>
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<td></td>
<td>4. Establish a communication strategy that promotes efficient and safe patient care.</td>
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C. Resource Utilization
Practice leaders should know the costs of running an anesthesiology practice and constantly seek and demonstrate ways to deliver greater value to stakeholders (defined as quality over cost). As payments for anesthesiology services shift from volume to value-based, anesthesiologists must identify areas where they deliver increased value to their organization and to patients throughout the entire perioperative course.

Practice leaders should familiarize themselves with the Perioperative Surgical Home (PSH) as a patient-centered model of care designed to improve resource utilization, patient care, patient satisfaction and patient safety as well as reducing the cost of care. In the PSH model, the entire perioperative care is provided by a physician-led team in which each member of the team has a well-defined role. The ASA has dedicated tremendous effort into the development of the PSH and is an excellent resource for this topic.

In addition, practices should familiarize themselves with Alternative Payment Models (APMs). In early 2015, the Centers for Medicare & Medicaid Services (CMS) established two goals for payment delivery reform:

1. 30% of Medicare payments are tied to quality or value through APMs by the end of 2016, and 50% by the end of 2018.
2. 85% of Medicare fee-for-service payments are tied to quality or value by the end of 2016, and 90% by the end of 2018.

Demonstrating your practice’s value to organizations and payers and exploring other models in delivering quality care will be integral to future reducing costs and receiving fair reimbursements.

D. Financial Data

Practice leaders must understand how to interpret financial data in order to know whether their practice is functioning efficiently and profitably. This concept applies to the group’s revenue (amounts, payer mix, etc.) and its expenses (personnel, supplies, etc.).

Coding and billing are key components of practice management. ASA has produced a number of online references on its practice management website: http://www.asahq.org/resources/practice-management/coding-and-billing.

Other critically important financially related topics for practice leaders include:

- ICD 10 Updates http://www.asahq.org/resources/practice-management/icd-10-cm-pcs

E. Anesthesiologist Roles within Organizations

Practice leaders must realize that anesthesia practices and departments are often businesses within a business. If we expand the range of practice management issues to include hospital operations, it becomes...
necessary to understand the hospital’s organizational design and behavior. Where do anesthesiologists fit within the larger organization?

The organizational structure delineates several relationships important to anesthesiologists in their day-to-day practice. A Hospital’s Board of Directors (BOD), led by a Chairman, is often composed of ten to twenty members that vary in their background and relationship to the hospital. The BOD is responsible for determining the future vision and mission of the hospital and frequently has several oversight committees that monitor hospital performance.

The Chief Executive Officer (CEO) or President of the hospital frequently serves as a member of the BOD and is the liaison between the BOD and hospital operations. The CEO is responsible for the day-to-day operations and the annual performance of the hospital. The CEO frequently has a C-level (Chief officer-level) staff to assist him/her. The composition of the C-level staff varies but is usually composed of a Chief Medical Officer (CMO), Chief Nurse Executive, Chief Financial Officer (CFO) and a Chief Administrative Officer. The BOD, CEO and the C-level staff are hospital leaders with primarily administrative functions. The Executive Staff and the Department Chiefs have leadership roles as well, but their primary focus is in support of clinical care and day-to-day operations within the hospital.

Practice leaders should understand the hospital's governance structure and the role of medical staff to interact effectively and constructively with them. The President of the medical staff and the Medical Executive Committee have oversight over many of the hospital’s clinical functions and act to monitor and represent the physicians that practice within the hospital. The President of the medical staff and the CMO have some overlapping functions but hold different roles within hospital structure. The President of the medical staff is elected by the hospital’s medical staff and focuses on the delivery of high quality clinical care while the CMO typically champions the hospital’s performance and quality initiatives.

Tackling the day-to-day challenges of clinical care will always be of paramount importance but practice leaders must position themselves to meet additional challenges. As the future of healthcare evolves, practice managers must adjust to allow for anesthesiologists participation in "nonclinical time" activities that promote a practice’s culture, value and mission. For example, addressing patient satisfaction and outcomes requires anesthesiologists to become involved with refining and improving practice patterns. Anesthesiologists and their practices may also wish to engage hospitals and payers on a variety of issues that include, but are not limited to, payment models, clinical informatics, anesthesia information management systems (AIMS), process improvement, peer review, cultural change, healthcare mergers, scope of practice and quality assurance.

As noted in a January 2015 ASA Newsletter article, Dr. "Successful practices likely will be those that identify the needs of patients and the organizations, and build an infrastructure that supports, on a group level, ‘nonclinical’ work that measures and delivers value. Regardless of your practice's size and model, it is a good time to take a fresh look at how you support activities that add value and to ask yourself, ‘What's in your infrastructure?'”

F. Healthcare Reform

The Affordable Care Act (2010) further encouraged practices and the healthcare industry in general to begin the transition from managed care models to accountable care models will introduce significant changes in anesthesia practice management. Accountable Care Organizations require a new relationship

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between hospitals, specialists and primary care physicians based on the value of care. The accountable care model emphasizes improved patient outcomes and quality of care as well as a reduction in the cost of care. Resiliency and innovation are two key leadership traits that will lead anesthesiologists in their transition to the accountable care model and its plethora of practice management challenges.

Over the next few years, practice management challenges faced by anesthesiologists will require a deeper contemplation of larger healthcare industry changes. These include an increasing emphasis on patient-centered outcomes, patient satisfaction, patient communication and an assessment of patient experience with anesthesia. In addition, practices should learn about patient-centered medical homes and alternative payment models as well as the continued development of the perioperative surgical home. Last, anesthesiologists will need to further understand the role of AIMS and Electronic Health Records (EHRs) in delivering and documenting care.

On the regulatory side, anesthesiologists should become familiar with recent CMS initiatives and changes aimed at reducing cost and improving the quality of care patients receive. In particular, the implementation of the Medicare Access and CHIP Reauthorization Act (MACRA) will have significant ramifications for assessing the care anesthesiologists provide over the next several years.

G. Practice Management Education

Practice leaders should stay abreast of changes in payment methodologies, billing and coding changes, compliance issues and state and Federal rules and regulations. ASA provides a number of resources for this purpose on its Practice Management website, in the ASA Newsletter and at the annual Conference on Practice Management every January. Practices and anesthesiologists should also visit the CMS Anesthesiologist Center website.
2.1 DOCUMENTING COMPLIANCE WITH MEDICARE REQUIREMENTS

In addition to documentation that will contribute to the quality of patient care, as outlined above, it is important that documentation satisfy Medicare requirements. Correct documentation serves to ensure appropriate billing and to establish the anesthesia group’s good faith efforts at compliance with applicable – if sometimes unintelligible – rules.

To help its members implement the many changes in these IGs, ASA has prepared a set of policy templates and forms. These 2014 Policy Templates and Resources may be accessed on the ASA Website or in Chapter 5. In addition, CMS has provided several resources related to documentation and payment on their Anesthesiology Center website. In particular, practices should review “Payment for Anesthesiology Services Chapter 12 - Physicians/Nonphysician Practitioners” – a document that contains the amount physicians and other providers will receive when providing services to a Medicare beneficiary.

Documenting medical direction

Documenting medical direction of anesthesia assistants (AAs), nurse anesthetists and residents has posed some of the greatest challenges for anesthesiologists and their billers probably because compliance with the medical direction billing rules themselves do not always have much to do with the provision of excellent patient care. In order to bill Medicare for medical direction, the anesthesiologist must perform the following seven tasks:

1. Perform a pre-anesthesia examination and evaluation;
2. Prescribe the anesthesia plan;
3. Personally participate in the most demanding procedures of the anesthesia plan, including, if applicable, induction and emergence;
4. Ensure that any procedures in the anesthesia plan that he or she does not perform are performed by a qualified anesthetist;
5. Monitor the course of anesthesia administration at intervals;
6. Remain physically present and available for immediate diagnosis and treatment of emergencies;
7. Provide indicated postanesthesia care.

ASA sought to define a clear way of documenting satisfaction of the above requirements and asked the Health Care Financing Administration (now the Center for Medicare & Medicaid Services), in 1998, whether it would suffice for the anesthesiologist to state in the medical record that the requirements had been met without enumerating each. HCFA (now CMS) responded by amending the applicable regulation (42 C.F.R. § 415.110) to read:

(3)(b) Medical Documentation. The physician alone inclusively documents in the patient’s medical record that the [seven conditions of medical direction] have been satisfied, specifically documenting that he or she performed the pre-anesthetic evaluation, provided the indicated post-anesthesia care, and was present during the most demanding procedures, including induction and emergence where applicable.

CMS does not indicate exactly what must appear on the medical record. Must the anesthesiologist write out all of the language starting with the word “performed” and include a global statement about having fulfilled all of the seven conditions of medical direction? That would appear to be the gold standard for the most conservative practices. It may be burdensome, however, and few anesthesiologists find it possible or meaningful to copy direct language out by hand. Many practices have satisfied themselves by...
including a compliance section on their anesthesia record requiring the anesthesiologist to sign (or even just initial) a preprinted statement similar to the following:

“I (we) certify that I (we) participated in induction, emergence, other critical periods, remained immediately available, and monitored the patient at frequent intervals, or was (were) present for the entire anesthetic.”

Any handwritten notation of unusual occurrences would be helpful. Use of a simple time line section on the anesthesia record would also demonstrate that the anesthesiologist had been present at frequent intervals and critical moments. In addition, it would meet the requirement of documentation of hand-offs between anesthesiologists or between nurse anesthetists (never between different types of professionals). As more departments transition to Anesthesia Information Management Systems (AIMS) to document care, compliance statements and attestations are commonly built in to the electronic record, often with ‘hard stops’ that prevent the record from closing without being in compliance with CMS standards.

**Documenting the medical service provided**

Beyond proving compliance with the medical direction requirements, the medical record should substantiate fully the services provided. According to the [Compliance Guidance for Individual and Small Group Physician Practices](https://www.cms.gov/mi/cig/mi-cig-section4/cig-4-3.html) published by the HHS Office of the Inspector General in the 5 October 2000 Federal Register, the record “may be used to validate: (a) the site of the service; (b) the appropriateness of the services provided; (c) the accuracy of the billing; and (d) the identity of the care giver (service provider).” Anesthesiologists should be particularly careful about (b) in the case of consultations or pain management services. Requests from the surgeon must be noted in the record, as well as the basis for the assignment of a given CPT® Code or ICD-9 code (note: ICD-10 is scheduled to begin in late 2015). The relevant text from the Compliance Guidance follows:

1. **Documentation.** Timely, accurate and complete documentation is important to clinical patient care. This same documentation serves a second function when a bill is submitted for payment, namely, as verification that the bill is accurate as submitted. Therefore, one of the most important physician practice compliance issues is the appropriate documentation of diagnosis and treatment. Physician documentation is necessary to determine the appropriate medical treatment for the patient and is the basis for coding and billing determinations. Thorough and accurate documentation also helps to ensure accurate recording and timely transmission of information.¹³

2. **Medical Record Documentation.** In addition to facilitating high quality patient care, a properly documented medical record verifies and documents precisely what services were actually provided. The medical record may be used to validate: (a) the site of the service; (b) the appropriateness of the services provided; (c) the accuracy of the billing; and (d) the identity of the care giver (service provider). Examples of internal documentation guidelines a practice might use to ensure accurate medical record documentation include the following:

   - The medical record is complete and legible;
   - The documentation of each patient encounter includes the reason for the encounter; any relevant history; physical examination findings; prior diagnostic test results; assessment, clinical impression, or diagnosis; plan of care; and date and legible identity of the observer;

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• If not documented, the rationale for ordering diagnostic and other ancillary services can be easily inferred by an independent reviewer or third party who has appropriate medical training;
• CPT and ICD-9-CM codes used for claims submission are supported by documentation and the medical record; and
• Appropriate health risk factors are identified. The patient’s progress, his or her response to, and any changes in treatment, any revision in diagnosis are documented.

The CPT and ICD-9-CM codes reported on the health insurance claims form should be supported by documentation in the medical record and the medical chart should contain all necessary information. Additionally, CMS and the local carriers should be able to determine the person who provided the services. These issues can be the root of investigations of inappropriate or erroneous conduct, and have been identified by CMS and the OIG as a leading cause of improper payments.

One method for improving quality in documentation is for a physician practice to compare the practice’s claim denial rate to the rates of other practices in the same specialty to the extent that the practice can obtain that information from the carrier. Physician coding and diagnosis distribution can be compared for each physician within the same specialty to identify variances.

3. CMS 1500 Form. Another documentation area for physician practices to monitor closely is the proper completion of the CMS form. The following practices will help ensure that the form has been properly completed:
• Link the diagnosis code with the reason for the visit or services;
• Use modifiers appropriately;
• Provide Medicare with all information about a beneficiary’s other insurance coverage under the Medicare Secondary Payor (MSP) policy, if the practice is aware of a beneficiary’s additional coverage.14

Intraoperative care
Medicare describes in the Interpretive Guidelines of its Operations Manual, 42 C.F.R. §482.52(b)(2), the minimum requirements for an intraoperative anesthesia record:

• Name and hospital identification number of the patient;
• Name(s) of practitioner(s) who administered anesthesia, and as applicable, the name and profession of the supervising anesthesiologist or operating practitioner;
• Name, dosage, route and time of administration of drugs and anesthesia agents;
• Techniques(s) used and patient position(s), including the insertion/use of any intravascular or airway devices;
• Name and amounts of IV fluids, including blood or blood products if applicable;
• Timed-based documentation of vital signs as well as oxygenation and ventilation parameters;
• Any complications, adverse reactions, or problems occurring during anesthesia, including time and description of symptoms, vital signs, treatments rendered, and patient’s response to treatment.

Documenting postanesthesia follow-up

Medicare regulations require postanesthesia follow-up visits and notes. For inpatients, 42 C.F.R. §482.52(b)(3) states that policies must ensure that each patient be provided with:

A postanesthesia evaluation completed and documented by an individual qualified to administer anesthesia no later than 48 hours after surgery or a procedure requiring anesthesia services. The post anesthesia evaluation for anesthesia recovery must be completed in accordance with State law and with hospital policies and procedures that have been approved by the medical staff and that reflect current standards of anesthesia care.
2.2 THE Aacd PROCEDURAL TIMES GLOSSARY

The Association of Anesthesia Clinical Directors (Aacd) has worked with the Association of Operating Room Nurses (AORN) to develop the Glossary of Times Used for Scheduling and Monitoring of Diagnostic and Therapeutic Procedures. This glossary has been widely adopted by the healthcare information technology industry and by the National Anesthesia Clinical Outcomes Registry (NACOR) of the Anesthesia Quality Institute (AQI). Definitions from the Procedural Times Glossary are the basis for many of the most common metrics of operating room and practice efficiency.
2.3 ASA ANESTHESIA CONSULTATION PROGRAM

Why a consultation program?
As hospitals have faced increasing demands by government, insurance carriers and the The Joint Commission (TJC), physicians have been called upon to provide a variety of medico-administrative services in such areas as quality measurement and documentation, privileging, delineation of continuing education and the management of a department.

Economic pressures also have been a major problem for both hospitals and physicians as government and third-party payers struggle to cope with ever increasing demands for high-quality health care. In addition, medical staffs are changing as our educational institutions continue to produce younger physicians who introduce into seek to practice, newer techniques based on their recent experience and training.

These and many other issues present continuing challenges to anesthesiology departments and groups and ASA can bring to them the power of aggregated data from practices across the nation, and the expertise of over 30 years of assisting anesthesiologists and their hospitals achieve their highest potential.

History of the Consultation Program
The ASA Anesthesia Consultation Program came into existence in 1981 as a result of medical staffs concerned with the quality of anesthetic care in their hospitals. Accordingly, the ASA Committee on Quality Management & Departmental Administration (QMDA) developed an innovative national program whereby it would make available experienced, practicing anesthesiologists to conduct on-site consultations at requesting hospitals.

Since its inception, QMDA has been asked to assist more than 180 U.S. hospitals, and their medical staffs, and departments of anesthesiology to improve their quality of anesthetic care. Participants reported excellent satisfaction with the consultations performed. The establishment of the Anesthesia Quality Institute (AQI) in 2009 and the enormous amount of information on anesthesia practice that has been analyzed since then, has augmented the value of ASA consultations by allowing national comparisons and benchmarking.

In 2013, QMDA and AQI collaborated to offer a new program: the Anesthesia Quality Verification Consultation, which is intended for high-functioning anesthesia practices seeking an objective expert assessment of their performance in the areas of care delivery, patient experience, and continuous improvement and stakeholder engagement.

What is the Anesthesia Consultation Program?
The ASA Anesthesia Consultation Program utilizes the expertise of a group of Board-certified anesthesiologists who are past or present members of the QMDA. They represent a wide variety of practice environments and sub-specialization, in academic and community practices across the United States. Many of these consultants are well known as speakers at anesthesia meetings and each is actively involved in patient care. All are thoughtful, experienced clinicians who bring years of experience to the program. Two individuals are appointed as an Ad Hoc Subcommittee to perform an Anesthesia Consultation. The potential for a conflict of interest is carefully avoided when selecting our consultants.

Demonstration of Quality
The Anesthesia Quality Verification Consultation leverages the AQI’s National Anesthesia Clinical Outcomes Registry (NACOR) database to deliver a comprehensive, confidential report, which summarizes the group's work in these areas, benchmarks them to similar practices in other parts of the
country and suggests goals for future improvement. The report includes an executive summary, which is suitable for sharing with external stakeholders such as hospital administrators, payers, and surgical and procedural practice partners. The consultants will provide the practice with a template for the review, based on the best practices outlined in the ASA Manual for Anesthesia Department Organization and Management (MADOM) and the Anesthesia Department Quality Checklist.

Consultations begin with a series of conference calls between practice leaders and the consultants, to define specific needs of the requesting institution or anesthesiology practice.

**How does the program work?**

Usually, a consultation begins as an informal query by letter or telephone to the ASA office. ASA staff officials describe the mechanics of the program to the interested parties, and refer them to the Consultation Program Director, a physician member of the QMDA. Further discussions regarding the program take place, and if it appears that a consultation is appropriate, a written request from both the hospital administrator and either the chief of the medical staff or the chair of the Department of Anesthesiology is forwarded to the ASA office. The Consultation Program Director then selects an Ad Hoc Subcommittee of two consultants who are particularly suited to addressing the inquiring hospital’s needs and who are able to schedule a consultation visit in a timely manner.

Prior to an Anesthesia Consultation, the requesting parties must enter into a formal, written agreement with ASA, provide payment of the program fees and expenses, and indemnify ASA and the members of the Ad Hoc Subcommittee. In turn, the Society agrees to perform a careful, unbiased on-site evaluation of the quality of anesthesia care rendered in the hospital and to hold confidential any information obtained in the course of the consultation.

**What type of hospital requests an anesthesia consultation?**

ASA has consulted for all types of hospitals, ranging from small rural institutions to large urban medical centers. The smallest hospital to date was forty beds, the largest more than 1,200.

Approximately 45 percent of the requests come from medium-sized institutions with between 250 and 500 beds. About 35 percent of the requests are made by hospitals with less than 250 beds, and 20 percent by large institutions. About half of the hospitals give less than 5,000 anesthetics per year and one quarter give more than 10,000. Institutions with less than 400 beds account for the majority of the total on-site consultation visits conducted since the program began.

**What are the duties of the consultants?**

Consultants observe, review, interview, draw conclusions, and provide recommendations. They interview administrators, all anesthesia staff, as many surgeons and operating room nurses as possible, and any other persons who wish to speak with them. They inspect randomly and specifically selected anesthesia charts and patient records, contracts, correspondence, quality committee minutes, and other relevant institutional and departmental documents. They quietly observe the work of anesthesiology department members in operating rooms, delivery suites, postanesthesia care units and intensive care units. They constantly question those they meet, and make it a priority to interview people with a variety of viewpoints. They are particularly careful to try to understand conflicting views of any controversy.

Following their visit, the members of the Ad Hoc Subcommittee draft a report. This report is then reviewed by the Director of the Consultation Program, the Society's legal counsel, and ASA staff to ensure that the final document addresses the concerns raised by the hospital and its staff and clearly reports the Subcommittee's findings, as well as the basis for these findings. Most importantly, the report includes feasible recommendations on how to address any deficiencies identified. In keeping with ASA's
pledge of confidentiality, copies of the final report are furnished only to those who sign the official request from the hospital, i.e., a representative of the hospital corporation, usually the administrator, and a representative of the hospital medical staff, usually the Medical Staff President. The ASA recommends that whenever possible, the Chair of the Anesthesiology Department be the physician signatory, since it is only the signatories that receive copies of the final report. These officials may elect to share all or parts of the Consultation Report with their colleagues. ASA furnishes an electronic copy of the report in addition, so that portions may be shared with appropriate parties more easily.

**What has been found in previous consultations?**

Usually, the process discovers good anesthesiologists working in hospitals that are providing high-quality care to patients across the country. It is very rare to find an institution where everything is negative. When weaknesses are found in one area, they are often offset by strengths in other areas.

The consultants have encountered a variety of problems relating to the practice of anesthesiology. Sometimes these problems center on issues of competence:

- Are the anesthesiologists practicing with appropriate, up-to-date knowledge?
- Are there issues of an anesthesiologist's ability to perform various technical procedures?
- Are there problems with the preoperative evaluation of patients or with the provision of postoperative care?
- What is the appropriate coverage for anesthesia needs of patients?

Sometimes it appears that obstetric anesthesia is not given proper coverage or that epidural anesthesia is not available. Occasionally, there are problems with night, weekend, holiday or in-hospital emergency coverage. Insufficient or inadequate department leadership is frequently found, specifically in such areas as competency evaluation, delineation of clinical privileges or a Chief's ability to lead the department in providing contemporary anesthesia practice. Leadership issues may involve the chief's ability to deal effectively with issues of safety, quality assurance and continuing education, and the provision of the appropriate resources for a department. Issues about the use of non-physician anesthetists to provide technical assistance in an anesthesiologist's practice often arise. Common issues include the adequacy of medical direction, the ratio of physicians to non-physician anesthetists and the use of anesthetists to perform functions that are more properly the practice of medicine.

A major problem continues to be quality assurance. Indeed, only 15 to 20 percent of the time is it found that a department has an effective quality management program. Sometimes there is no program, or there may be one in name only.

**How long is the overall process for a consultation, and what does it cost?**

It is customary for the complete process of an Anesthesia Consultation to take approximately twelve weeks. The Ad Hoc Subcommittee usually visits the requesting hospital within six weeks of the receipt of the request, and the confidential written report is forwarded approximately six weeks later.

The cost of an Anesthesia Consultation is intended to cover ASA’s time and effort in providing this service. If you are interested in ASA Consultation Services or would like more information, please contact the Consultations Team at [quality@asahq.org](mailto:quality@asahq.org).
Chapter 3

Key Policies and Procedures

3.0 KEY POLICIES AND PROCEDURES

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3.2 INFORMED CONSENT

3.2.1 INFORMED CONSENT FORM (SAMPLE A)

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3.3 ENDOTRACHEAL TUBE STORAGE (SAMPLE POLICY)

3.4 TRAINING ANESTHESIA PROFESSIONALS TO USE ADVANCED MEDICAL TECHNOLOGY

15 Chapter 3 was last reviewed and updated in February 2015.
16 Section 3.3 was drafted by Jeffrey Feldman, M.D., and represents the consensus of the Anesthesia Patient Safety Foundation Consensus Conference on this topic, held in September 2013.
3.0  KEY POLICIES AND PROCEDURES

Every Department of Anesthesiology should maintain a file of currently approved policies and procedures, ideally as an online resource on the department’s web page. Many of the included policies will be “inherited” from higher levels of the organization, including the healthcare system, the medical school or the central administration of the practice. Other policies will be unique to the department. Recommended practices for management of the Policy and Procedure Manual include the following:

- The Manual should be reviewed and updated on a scheduled basis, ideally at least once each year.
- The Manual should be organized in a consistent fashion and should include a Table of Contents and an index to facilitate its use as a reference by members of the department.
- All policies and procedures should be time-limited to 3-5 years, and should be reviewed by the department when outdated. Each document in the Manual should include the date on which it was last reviewed and approved.
- Policies and procedures that specify action by department members should be periodically reviewed by appropriate experts; e.g. the informed consent policy should be reviewed by the corporate or hospital attorney; the billing documentation policy should be reviewed by a trained compliance officer.
- Every member of the department should know where the Manual can be found and how to access material within it. This is a common question encountered during Joint Commission and other external surveys.

MADOM is not intended to provide an exhaustive list of recommended policies and procedures. A few examples are included to cover common needs, and more will be added over time. We have also included the Table of Contents of the Policy and Procedure Manual of one large private practice, as an illustration of what the contents of a manual may include.

Resources
The ASA has produced dozens of Standards, Guidelines, Statements and Other Documents and Sample Policies and Procedures that may be helpful in developing policies and procedures. Several of these valuable documents are listed below:

- Guidelines for Ambulatory Anesthesia and Surgery (2013)
- American Society of Anesthesiologists® Quality Checklist
- Anesthesia Machine Preoperative Checkout – Sample Procedures
- Anesthesia Machine Obsolescence
- Standards for Basic Anesthetic Monitoring (2011)
- Continuum of Depth of Sedation: Definition of General Anesthesia and Levels of Sedation/Analgesia (2014)
- Statement on Documentation of Anesthesia Care (2013)
- Guidelines for Office-Based Anesthesia (2014)
- Guidelines for Patient Care in Anesthesiology (2011)
- Standards for Postanesthesia Care (2014)
- Basic Standards for Preanesthesia Care (2010)
- Statement on Security of Medications in the Operating Room (2013)
3.0.1 POLICY AND PROCEDURE TABLE OF CONTENTS (SAMPLE)

Common Homepage Structure

Welcome to the online Department of Anesthesiology Policy and Procedure Manual. This resource provides nursing personnel with 24-hour access to current policies and procedures for St. John’s Mercy Medical Center. Hard copies of these materials are available in the Department of Anesthesiology Office.

Policies may be viewed alphabetically or by policy number. You may also run a keyword search on all policies and attachments by clicking on the word "Search" below. For questions or assistance with the online policies, please contact the Department of Anesthesiology Office.

View Policies Alphabetically

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**AN 304 ANESTHESIA TECHNICIAN POLICY & PROCEDURES MANUAL**

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- Other procedures identified in the sample homepage structure (identified on page 1 as AN 400, AN 500, AN 600, AN 700 and AN 1000 levels), have not been included.
3.1 DIRECTOR OF ANESTHESIA SERVICES (DAS) AND MANAGEMENT OF SEDATION SERVICES

Centers for Medicare and Medicaid Services (CMS) regulations call for every facility to designate a Director of Anesthesia Services (DAS) with responsibility for oversight of all anesthesia and sedation within the facility. In most facilities the DAS is the Chief or Chairman of the Anesthesia Department. The DAS is responsible for establishing policies for anesthesia and sedation in all locations in the facility, for credentialing providers to administer anesthesia and sedation, and for quality management of all sedation and anesthesia services.

Recognizing that sedation is a continuum, the DAS has the unique responsibility of allocating privileges for moderate and deep sedation. Privileges for mild and moderate sedation may be extended to non-physicians and non-anesthesiologist physicians with evidence of appropriate training and experience. Because deep sedation can easily become general anesthesia, privileges for intentional deep sedation should be restricted to anesthesia professionals and non-anesthesiologist physicians with substantial training in resuscitation and airway management such as emergency medicine physicians, intensivists and oral-maxillo-facial surgeons. Non-anesthesiologist physicians granted privileges for deep sedation should be restricted to practice only in their own specialty location and patient population (e.g. the emergency department; dental patients).

The criteria for granting sedation privileges for non-anesthesiologist providers should address the following:

1. Evidence of procedure specific training, which includes documentation of completed requirements through an ACGME-approved program (when appropriate)
2. A method of objective assessment of knowledge concepts (knowledge test)
3. ACLS and licensure requirements
4. Evidence of participation in a quality assurance process tracking adverse outcomes or unusual events with established oversight by the DAS. Quality metrics should be collected monthly and should address at a minimum core metrics (volume and outcome measures). Suggested quality metrics for sedation services have been provided as part of MADOM
5. Compliance with CMS Conditions of Participation (regulations and interpretative guidelines pertaining to deep sedation)
6. Oversight by the DAS of initial and ongoing performance (i.e. Joint Commission OPPE and FPPE) should have a clearly delineated process and include recommendation letters or data from department directors for the initial evaluation and a process for competency evaluation for ongoing privileging.
7. Oversight by the DAS of the performance improvement process (CME requirements) or participation in the Deep Sedation Education program.
8. Separate privileging may be necessary for pediatric deep sedation procedures.

More information on the role of the DAS, including ASA policy statements related to sedation services, may be found on the ASA Standards, Guidelines, Statements and Other Documents webpage.

Related ASA Resources

- Advisory on Granting Privileges for Deep Sedation to Non-Anesthesiologist Sedation Practitioners (2010)
- Position on Monitored Anesthesia Care (2013)

17 Section 3.1 was updated on December 23, 2014.
• Distinguishing Monitored Anesthesia Care From Moderate Sedation/Analgesia (Conscious Sedation) (2013)
• Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists (2002)
• Statement on Granting Privileges for Administration of Moderate Sedation to Practitioners Who Are Not Anesthesia Professionals (2011)
• Statement on Granting Privileges to Nonanesthesiologist Physicians for Personally Administering or Supervising Deep Sedation (2012)
3.1.1. PROCEDURAL SEDATION METRICS (AQI)

Quality Metrics for Procedural Sedation

AQI consensus recommendations for the Director of Anesthesia Services charged with initiating a quality management program in procedural sedation. Data must be gathered each month from each unit where patients receive sedation. Data gathering should be modified as necessary to fit the information technology available and the patient population served.

Core Elements

Volume Metrics
- Type and number of procedures performed
- Number of patients receiving light or moderate sedation
  - Number receiving sedation via Computer-Assisted Personalized Sedation (CAPS)
- Number of patients receiving deep sedation
- Number of patients cared for by an anesthesia team

Outcomes
- Cases completed as planned, without complication versus:
- Cases cancelled due to patient discomfort or anxiety
- Cases with unplanned escalation in the continuum of sedation
- Patients receiving rescue medication: flumazenil or naloxone
- Unplanned respiratory support required in light or moderate sedation cases
  - Placement of nasal trumpet or oral airway
  - Placement of supraglottic airway (e.g. LMA) or endotracheal tube
  - Assisted ventilation with bag-valve-mask
  - Oxygen saturation < 85% for greater than 3 minutes
- Patients experiencing a serious adverse event (e.g. perforation, anaphylaxis, cardiac arrest)
- Unplanned admission of an outpatient within 24 hours
- Unplanned patient transfer to an Emergency Department

Optional Elements

As the quality program matures and information technology capabilities advance, these data will enable further improvements in patient care:
- Patient demographics: age, sex, ASA Physical Status
- Procedure duration
- Medications used: doses and times
- PACU and facility length of stay
- Patient satisfaction: at PACU discharge and at 48 hours post-procedure
- Provider satisfaction: proceduralist and nursing staff

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3.1.1.2 PROCTORING FORM (SAMPLE)

MEDICAL STAFF PROCTORING EVALUATION REPORT
For Department of Anesthesiology

Anesthesiologist _____________________________ Date: ____________

Patient Medical Record #: _____________________ Age: (circle) Adult ____________
ASA Status: ________ Child >2 ________
Procedure _____________________________ Child <2 ________
Location: (circle) OR OSS MIS Other _____________________________ (specify)

Please comment on the nature and quality of the procedure/activity performed:
1) Pre-operative management:
________________________________________________________________________
________________________________________________________________________

2) Operative management:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3) Immediate post-operative management:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4) Other Remarks: (technique/judgment/knowledge)
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Satisfactory / Unsatisfactory

Proctor: _____________________________ Date: ____________
(print name)

Signature: _____________________________

Note: Completed evaluation forms are to be immediately forwarded to Medical Staff Administration ________
where they will be placed in the physician’s or ________ Professional’s confidential credential file. They must not be left in the patient’s chart at any time.
3.2 INFORMED CONSENT

The doctrine of Informed Consent is based on the premise that a patient has the “right to determine what shall be done with his (or her) own body.” Under this doctrine, a physician may be held legally liable if he or she performs a procedure without authorization from the patient, even if the procedure benefits the patient.

The doctrine is also applied to cases in which a patient authorizes treatment, but does so without a full understanding of the risks associated with it. In this circumstance, the physician who fails to provide complete information may be held liable under a negligence theory for the breach of duty to fully inform the patient and obtain the patient’s informed consent. To succeed on such a theory, however, the patient must establish that had the risks been disclosed, a reasonable person in his or her position would not have consented to the treatment.

The actual legal requirements for informed consent are based on individual state law and will consequently vary depending on the state where the anesthesiologist practices. Additionally, many states have adopted statutes that require physicians to obtain informed consent and in some cases spell out the information that must be provided. It is imperative that anesthesiologists be aware of the current legal requirements in the state where they practice.

Most states now require the physician to disclose information that a reasonable patient under similar circumstances would want to know in order to make an informed decision. The “reasonable patient” standard has largely supplanted the old standard that was based on what a “reasonable physician” would disclose. Under this standard, a physician need not disclose every risk, but only those that are "material." A risk would be deemed “material” when "a reasonable person, in what the physician knows or should know to be the patient's position, would be likely to attach significance to the risk or cluster of risks in deciding whether or not to forego the proposed therapy." In procedures involving general anesthesia, for example, the possibility of death or paralysis would be considered material risks which must be disclosed, even though the incidence of risk is extremely low. Injuries to teeth are not uncommon and although not of life-threatening significance, are among the anesthesia risks that the informed consent process should discuss.

A genuine emergency will override the requirement to obtain consent. In addition, some courts have recognized a "therapeutic privilege" exception, under which a physician may withhold disclosure if he or she believes it will prevent the patient from making a rational decision or will cause psychological damage to the patient. Anesthesiologists should be wary of relying on the therapeutic privilege unless the patient is extremely agitated. Physicians proceeding without consent under either the emergency or therapeutic privilege exception should also thoroughly and contemporaneously document the facts supporting their reasoning. Additionally, if the patient states he or she does not want to receive the relevant information on risk, this fact should be documented.

Physicians, including anesthesiologists, should secure written informed consent from patients, or from their representatives if they are legally incompetent (e.g., minors), for the anesthesia procedure.

19 Some states apply a "subjective" standard and will impose liability if it is proven that the specific patient would not have undergone the procedure if he or she had known the risks involved. See, e.g., Scott v. Branford, 606 P. 2d 554 (Okla.1979).
20 Canterbury, supra, at 787.
Professional liability defense attorneys also recommend – and many malpractice carriers require – that the anesthesia consent form be separate from any other consent forms the patient may sign and that it contain the following information:

1. The nature of the anesthesia procedure and the method of administration;
2. The identity of the person who will administer the anesthesia, especially if the attending anesthesiologist is not the person obtaining the consent;
3. The risks, complications or dangers of anesthesia; and

Legal experts also agree that it is advisable for the anesthesiologist to thoroughly explain the information above to the patient to ensure that he or she understands the nature of the consent. The fact that the anesthesiologist has explained the necessary information should also be documented, as well as the fact that the patient has been given an opportunity to ask questions to his or her satisfaction. Obviously, the information must be provided before the patient signs the consent form.

Hospitals are required, as a condition of their participation in the Medicare program, to make sure that the anesthesia service has a written policy addressing patient consent. The anesthesia section of the Medicare surveyors’ instructions does not elaborate on consent, but the surgery section provides, by analogy, a valuable guide to the views of the Centers for Medicare & Medicaid Services (CMS) and its hospital survey agent, The Joint Commission.

Many physicians view the informed consent requirement as another burden complicating the rendering of medical service. A better view would be to regard it as the best opportunity to involve the patient in the decision-making process. The true objective is to allow patients to make an informed decision about the choice of treatment. To fulfill this objective, the patient must receive appropriate information that will allow him or her to make an educated and objective evaluation of the risks and benefits associated with the procedure in question. Patients who have given properly informed consent are fully aware of the potential risks of a procedure and are less likely to bring legal action even if the results are not what they desired.

MADOM includes two copies of anesthesia informed consent statements in use in large urban hospitals in two different states. These forms differ in their approach and specificity; in any event, readers are cautioned that the legal requirements may vary from state to state, and counsel should be consulted before a particular form is put to use.

Anesthesiologists should consider who is present before beginning a discussion for consent for a planned anesthetic. Such a discussion necessarily includes personal health information, and the patient has the general right to limit distribution of that information.

Additional Resources:


3.2.1 INFORMED CONSENT FORM (SAMPLE A)

INFORMED CONSENT AND AUTHORIZATION FOR ANESTHESIA

1. I, ________________, for ______________________ as Parent = Guardian = Representative (acting on his/her behalf), am asking to receive anesthesia during my pending procedure/operation/treatment. I want to have anesthesia in order to lessen the pain I would otherwise experience.

2. I understand that regardless of the type of anesthesia used there are a number of common foreseeable risks and consequences which may occur. The following are some but not all of the common foreseeable risks and consequences which have been told can occur: sore throat and hoarseness, nausea and vomiting, muscle soreness, injury to the eyes. Further, I understand instrumentation in the mouth to maintain an open airway during anesthesia might unexpectedly result in dental damage including fracture or loss of teeth, bridge work, dentures, crowns and fillings, abrasion of the gums and lips.

3. I understand the medications that I am taking may cause complications with anesthesia or surgery. I understand that it is in my best interest to inform any doctors about the nature of my medications. I am taking, including, but not limited to, aspirin, cold medicines, narcotics, PCP, marijuana, and cocaine.

4. I understand that the more serious potential risks and consequences of anesthesia include, but are not limited to, changes in blood pressure, drug reactions, cardiac arrest, brain damage, paralysis or death.

5. I acknowledge that Dr. _______________ has told me that in his/her medical judgment the type(s) of anesthesia I could receive are (check all that apply):
   - General Anesthesia
   - Spinal Anesthesia
   - MAC (Monitored Anesthesia Care)
   - Epidural Anesthesia
   - Other regional Anesthesia

6. I understand that during my procedure/operation/treatment invasive monitoring may be necessary. I understand the risks and benefits associated with this type of monitoring which have been fully explained to me.

7. I understand that while I am receiving anesthesia, conditions may develop which require modifying or extending the consent. I therefore authorize modifications or extensions of this consent that professional judgment indicates to be necessary under the circumstances.

8. Should the need arise during my operation or immediate postoperative period, I also consent to the administration of blood and/or blood products. Further, I understand that despite careful testing and screening of blood and blood products by collecting agencies, I may still be subject to ill effects as a result of receiving a blood transfusion and/or blood products. The following are some, but not all, of the potential risks that I can tell can occur: fever and allergic, hemolytic reactions, transmission of disease such as hepatitis, AIDS, and cytomegalovirus (CMV), and fluid overload.

9. I understand that I must not eat or drink anything, not even water after 12 midnight the day prior to surgery unless directly permitted by the anesthesia staff.

10. I consent to appropriate tests and treatments which may better evaluate my risk and prepare me for surgery as part of my medical care associated with this procedure/operation/treatment.

11. I understand that any anesthesia care will be given to me by and/or under the supervision of a Medical Center anesthesiologist. Knowing that Medical Center is a teaching institution, I understand that along with my attending anesthesiologist and his/her assistants and designees, other medical personnel such as certified registered nurse anesthetists, technicians, interns, residents and trainees may be involved in my anesthesia care.

12. I understand the University’s teaching mission and agree to the presence of appropriate observers during my procedure/operation/treatment for the advancement of medical education and care.

PATIENT INFORMATION

By signing this request form, I am indicating that I understand the contents of this document, agree to its provisions, and consent to the administration of anesthesia during my procedure/operation/treatment. I know that if I have concerns or would like more detailed information, I can ask more questions and get more information from my attending physician. I also acknowledge that the practice of anesthesia, medicine and surgery is not an exact science and that no one has given me any promises or guarantees about the administration of anesthesia to its results.

I fully understand what I am now signing of my own free will.

Witness to Affirmation and Signature

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>Patient Signature</th>
<th>DATE</th>
</tr>
</thead>
</table>

PHYSICIAN ATTESTATION

Dr. _______________ attest that this patient or the representative named above has been informed about the common foreseeable risks and benefits of undergoing operation/treatment as well as its reasonable alternative(s), if any. Further, questions with regard to this procedure have been answered to his/her apparent satisfaction.

Physician Signature

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3.2.2 INFORMED CONSENT FORM (SAMPLE B)

CONSENT FOR SURGERY, ANESTHESIA
AND OTHER MEDICAL SERVICES

DATE _________ TIME _________ AM/PM

1. I consent to the performance upon _________________________________ (Myself or Name of Patient)

   the following surgery or other medical procedure _________________________________ (State Nature and Extent of Operation)

   I understand that this surgery procedure is to be performed under the direction of Dr. _________________________________

2. I understand that during the course of the surgery or other procedure the doctor named in paragraph 1 or his associates may consider it necessary or advisable to perform procedures or to render medical treatment in addition to that named in paragraph 1) because of conditions which may not be presently foreseeable. Therefore consent to the performance of such additional surgery or treatments and procedures as are deemed necessary or advisable.

3. I consent to the administration of such anesthesia as may be considered necessary or advisable by the person authorized to administer anesthesia. (Cross out if no anesthesia to be used).

4. I consent that tissues or parts of my body removed at surgery, body fluids, x-ray films, and other materials, as well medical information concerning me, may be used in research studies, in publications of results, and in teaching.

5. The nature and purpose of the surgery, treatment or procedure and the reasonable (1) alternative methods of treatment, (2) risks, and (3) possibility of complications have been fully explained to me. No guarantee or assurance has been given by anyone as to the result that may be obtained.

6. I have read and understand the above authorization and the reasons why the surgery, treatment or procedure is necessary.

_____________________________ (Witness for) _______________________________ (Patient or Person authorized to consent for patient)

_____________________________ (Witness) _______________________________ (Relationship to Patient)

(If consent received by telephone, signature of monitoring Switchboard Operator) (If consent received by telephone, signature of Staff Member, his Authorized Representative or other Official)

AFFIRMATION OF INFORMED CONSENT BY ATTENDING PHYSICIAN

I, _______________________________ have informed the above named patient or the person authorized to extend consent on the patient’s behalf, of the medical conditions requiring surgical treatment or the further diagnostic procedures referred to above. I have explained, consistent with accepted medical judgment, the nature and purpose of the treatment or procedures, the reasonable (1) possible alternatives, (2) risks, and (3) complications in the treatment or procedure consented to.

_____________________________ M.D.

DATE __________________________

AFFIRMATION BY ATTENDING ANESTHESIOLOGIST
(CROSS OUT IF NO ANESTHESIA REQUIRED)

I, _______________________________ have informed the above patient or the person authorized to extend the patient’s consent of the methods of anesthetics proposed for the procedure referred to above. I have explained consistent with accepted medical judgment the nature and purpose of the anesthetics, the reasonable (1) alternative anesthetics methods, (2) risks involved and (3) possibility of complication. In addition I have explained that the anesthetic but that an alternative form of anesthetics may be used if required by unexpected conditions arising before or during the procedure.

_____________________________ M.D.

DATE __________________________
3.3 ENDOTRACHEAL TUBE STORAGE (SAMPLE POLICY)

[ NAME OF PRATICE / MEDICAL FACILITY ]

[ OFFICIAL NAME OF ANESTHESIOLOGY DEPARTMENT ]

Policy and Procedures Manual

Endotracheal Tube Storage

Devices such as endotracheal tubes (ETT’s) may be exposed to potentially infectious material during indicated use, and can become contaminated through direct contact with the patient's skin, mucous membranes, secretions and blood. An ETT interferes with normal patient defenses allowing pathogens direct access to the lung.

To reduce the risk of infection, the importance of standardizing the process of reprocessing as indicated, with a minimum high level disinfection or sterilization (if a single use device is not used and manufacturer’s instructions for use is adhered to), and storage is emphasized.

Single Use Device

ETT’s are commonly obtained as sterile single use devices. As defined, single use devices are intended for one time use, on a single patient, during a single procedure.

Storage

- ETT’s should be kept free from contamination until the time of use. Once opened, there is potential for microorganisms to settle on the device the longer it remains open and unused. Increased handling of the opened unused device increases the chances of contamination. Ensure that the storage area provides protection from dust, moisture, temperature and humidity extremes. Refer to the CDC and Healthcare Infection Control Practices Advisory Committee (HICPAC) document entitled Guidelines for Disinfection and Sterilization in Healthcare Facilities, 2008.

Pre-opening of Endotracheal tubes (ETT)

- The physician anesthesiologist or nurse anesthetist may (with proper hand hygiene):
  - Open the packaging and conduct a risk assessment of the ETT; checking ETT and balloon
  - They may stylet the ETT with a clean stylet
  - Following inspection and/or stylet placement, the ETT will be returned to the packaging and placed in a clean storage location until use.

* The anesthesia tech’s will remove any opened/styleted ETT’s weekly (usually on Mondays). In this way, no ETT will be open for more than 7 days. Therefore there is no need for dating any opened ETT package.

[DATE ENACTED]

Approved by:

[ Name of Department Chair / Leader ], [Credentials], [Department Title]
Reviewed and accepted as amended:

Date  Initials
______  _____
______  _____
______  _____

REFERENCES

The Standards FAQs for Endotracheal Tubes – How to clean, disinfect and store this device:


The Standards FAQs for Laryngoscopes – Blades and Handles – How to clean, disinfect and store these devices:

Posted: Oct 11, 2013 - CAMAC – Ambulatory Health Care – Laryngoscopes – Blades and Handles – How to clean, disinfect and store these devices

Posted: Oct 11, 2013 - CAMH – Hospitals – Laryngoscopes – Blades and Handles – How to clean, disinfect and store these devices

Posted: Oct 11, 2013 - CAMOBS – Office Based Surgery – Laryngoscopes – Blades and Handles – How to clean, disinfect, and store these devices
3.4 TRAINING ANESTHESIA PROFESSIONALS TO USE ADVANCED MEDICAL TECHNOLOGY

Advanced Medical Technology (AMT) includes all of the devices required to care for anesthetized patients safely. Anesthesia delivery systems, infusion pumps, airway management devices, ultrasound machines, cardiopulmonary bypass pumps and even information management systems need to be used properly to avoid patient injury. Although designs have become increasingly user friendly, and safety is an underlying priority in the design process, it is still not possible to use advanced medical technology safely without training.

The Anesthesia Patient Safety Foundation (APSF) recommends that anesthesia professionals receive training to use AMT safely and effectively before using the technology to care for patients. Implementation of an effective training program requires cooperation between anesthesia professionals, healthcare organizations and technology manufacturers. The specific considerations below were developed by APSF and are intended to guide development of educational programs that insure that anesthesia professionals are competent to use AMT.

Considerations for Anesthesia Professionals
- Understand the setup, function, operation, and information necessary to provide safe and effective patient care when using the device.
- Consistently use the device safely and effectively.
- Consistently use a device’s safety features and take appropriate measures to avoid known potential for patient harm.
- Identify when each device is not functioning as intended and be able to perform basic troubleshooting and respond appropriately to maintain the highest level of patient safety.
- Have competence assessed by various mechanisms, including but not limited to, written or oral examinations, demonstrating safe use to a skilled observer, and using the device in simulations of relevant clinical situations.

Considerations for Health Care Organizations
- Require appropriate advanced medical technology training and demonstrated competence before an anesthesia professional is permitted to use a (new or existing) device to care for patients unless a person with demonstrated competence is present throughout the procedure.
- Provide formal advanced medical technology training programs for every anesthesia professional including a mechanism to ensure that anesthesia professionals who are new to the institution receive this training before they begin delivering patient care.
- Document an individual’s participation in technology training, education, and assessment.
- Create a mechanism to ensure that the advanced medical technology training program is meeting its goals.
- Establish a schedule for periodic reassessment of anesthesia professionals’ continued competence. Allocate time for training and assessment within the regular workday.

Considerations for the Technology Manufacturer
- Utilize a rigorous, user-centered, human factors design process to create devices that are easy to learn to use, easy to use, easy to remember how to use, and that fail safely and gracefully.
- Develop effective training materials and instructions for use (IFU) using the same rigorous engineering processes applied to other aspects of the device.
• Create standardized user training and recommended competency assessment materials, based on user-centered design and validation methods, which can be used by institutions to comply with these recommendations.
• Assist customers in the implementation of user training and competency assessment materials and procedures.

Technology manufacturers are best positioned to develop training programs, but these programs will only be effective if training is considered a priority and time allotted during the workday for professionals to develop competence.

It is important to note that APSF does not intend for these recommendations to be standards, guidelines, practice parameters, or clinical requirements, nor does application of these recommendations guarantee any specific outcome. Furthermore, these recommendations may be adopted, modified, or rejected according to clinical needs and restraints. APSF recognizes that these recommendations are subject to revision as warranted by the evolution of medical knowledge, technology, and practice.
Chapter 4

Quality Improvement and Peer Review

4.0 QUALITY IMPROVEMENT AND PEER REVIEW IN ANESTHESIOLOGY

A. Definitions of Quality and Quality Improvement
B. Quality Management and Regulation
C. Principles to Guide Quality Improvement Programs
D. Quality Improvement in an Anesthesiology Department
E. How to Work With the Joint Commission

4.1 PEER REVIEW

4.2 ANESTHESIA QUALITY INSTITUTE (AQI)

4.2.1 QUALITY CAPTURE FORM (SAMPLE)

4.3 MEDICARE QUALITY REPORTING PROGRAMS (2015)

4.3.1 EHR INCENTIVE PROGRAM

4.3.2 PHYSICIAN COMPARE

4.3.3 PHYSICIAN QUALITY REPORTING PROGRAM (PQRS)

4.3.4 VALUE-BASED PAYMENT MODIFIER (VM)

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21 Chapter 4 was last reviewed and updated in February 2015.
22 James Hicks, M.D., John Allyn, M.D., Linda Herzberg, M.D., Jerry Cohen, M.D. and Robert Lagasse, M.D. were the original authors of this chapter in 2010. This chapter was last reviewed by QMDA members in September 2014.
23 ASA Department of Quality and Regulatory Affairs Department updates the Medicare Quality Reporting Programs section each year after CMS has released the Physician Fee Schedule Final Rule and when necessary. Section 4.3 was last updated February 23, 2015.
4.0 QUALITY IMPROVEMENT AND PEER REVIEW IN ANESTHESIOLOGY

A. Definitions of Quality and Quality Improvement

Quality
Walter A. Shewhart, who originally described a Plan-Do-Study-Act (PDSA) quality improvement process for industry, defined the quality of a thing as *that which is inherent in it so that we cannot alter the quality without altering the thing*. There could be a group of characteristics (variables) making up the thing, and also responsible for its quality.\(^{24}\) In fact, the quality of an anesthetic might be described as a sum of certain (weighted) variables describing the outcome of the anesthetic. These might include patient satisfaction and the degree to which the patient is alert, free of pain, warm, and hemodynamically stable after the anesthetic. The *Institute of Medicine (IOM)* defines quality as *the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge*.\(^{25}\) The IOM notes that the two most frequent quality measurement approaches are assessing the appropriateness of care and adherence to professional standards (use of quality indicators).

Quality Improvement (QI)
Previously, quality assurance was used to assess a process. If the average occurrence of an unwanted event was above a predetermined threshold, then action was taken. When the process average fell below the threshold, there was complacency. Today, the QI approach dictates that the entire output of a process provide the basis for action. Improvement may be realized by reducing the variability in the process or by shifting the process’ outcome in the desired direction.\(^{26}\). The *Joint Commission’s (TJC)* Performance Improvement Chapter defines standards which stress the importance of using data to inform positive change. The JC also notes that leaders have ultimate responsibility for performance improvement.\(^{4}\)

B. Quality Management and Regulation

Existing Regulatory Requirements for Quality Improvement
At present, four organizations have deeming authority from the *Centers for Medicare & Medicaid Services (CMS)* to accredit hospitals: The *Joint Commission (TJC)*, Det Norske Veritas (DNV), the *Center for Improvement in Healthcare Quality (CIHQ)* and the *Healthcare Facilities Accreditation Program (HFAP)* of the *American Osteopathic Association (AOA)*. Any of these organizations may provide accreditation for a hospital to receive payment from CMS.\(^{2}\) All have requirements for quality improvement (QI) work. In the ambulatory setting, the *Accreditation Association for Ambulatory Health Care (AAAHC)* and the *American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF)* require a QI process. There are also state and hospital bylaws and regulations requiring QI work. In addition to TJC performance improvement chapter, TJC’s medical staff and leadership chapters include QI requirements.

DNV incorporates *ISO 9001*, the International Organization for Standardization’s standard that

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defines the requirements for a Quality Management System. These ISO standards are relatively new to health care, but have been used by other industries worldwide. CMS directly influences QI efforts with its adoption of “never pay” or “never events.” The term “never event” was first used by the National Quality Forum (NQF) in 2001. In 2007, CMS announced the adoption of this principle, and in late 2008 stopped paying hospitals for certain conditions.

On July 31, 2008, in the Inpatient Prospective Payment System (IPPS) Fiscal Year 2009 Final Rule, CMS included 10 categories of conditions that were selected for the Hospital-Acquired Conditions (HAC) payment provision. The list has been expanded over time and now includes Surgical Site Infection Following Cardiac Implantable Electronic Device (CIED) and Iatrogenic Pneumothorax with Venous Catheterization.

Finally, the Office of Inspector General (OIG), in its work to prevent fraud, also requires that patient care meet certain standards. The mission of the OIG is to protect the integrity of Department of Health and Human Services programs, as well as the health and welfare of the beneficiaries of these programs.

C. Principles to Guide Quality Improvement Programs

1. Weeding out the “bad apple” does very little to improve system performance

2. 94% of the potential for improvement resides in system performance, only 6% is special (one machine or human error) – W. Edwards Deming

The above two principles remind us that the majority of an anesthesiology department’s QI focus should be on system performance. When examining a specific process or outcome of care, the department’s (or system’s) overall performance will be little improved if a few “poor” performers are removed. Occasionally, there may be special causes of variation in system performance which will manifest themselves, in Shewhart’s terms, by a measure of the process being more than three standard deviations from the mean (Six Sigma). Although Shewhart felt that variation within three standard deviations need not be investigated in the manufacturing process, the healthcare system might wish to investigate variation that exceeds two standard deviations from the mean.

3. Use of QI data for public measurement may destroy the QI process -- Agency for Healthcare Research and Quality (AHRQ)

The design of the anesthesiology department’s QI improvement program must support confidential dialogue about system and individual provider performance. Providers may be unwilling to report errors or near miss events if they feel the data provided will be used to assess performance relative to their peers. However, this data is very important for system improvement. Some hospitals have instituted "near miss registries" allowing the confidential reporting of potentially adverse events which evaded all but the final safety check, or by which random action did not proceed to completion. Such a system over time can provide collective data, which can be used to change system standards and avoid similar future error. The Anesthesia Incident Reporting System (AIRS) is maintained by the Anesthesia Quality Institute (AQI), a federally

designated Patient Safety Organization (PSO). AIRS collects and analyses anesthesia incidents for the purpose of improving the quality of anesthesia care nationwide.

4. Reporting systems without adequate resources for analysis and follow-up action are not useful -- Institute of Medicine (IOM)\textsuperscript{29}

A strong QI program would require ongoing efforts to identify problems and improve performance. This work would likely require a PDSA cycle or a review of critical incidents. Without adequate resources a QI program might only collect data, neglecting analysis and feedback. Measurement alone will not lead to improved performance; resources must be allocated to support data analysis to inform system redesign, implementation and reassessment.\textsuperscript{30}

**Classification of Quality Improvement Measurements**

In the late 1970s, Donabedian presented a classification system for use in quality assessment using the elements of structure, process and outcome, which is still used today.\textsuperscript{31} Donabedian also described two methods for combining process and outcome measures to assess system performance. The first, “trajectories”, followed a patient through the system from his or her initial presentation through the system to the end of care. He used the example of patients presenting to the emergency room with gastrointestinal symptoms. In this example the system had a 60% failure rate (patients did not show for their tests, tests were not interpreted correctly, etc.). The second, “tracers”, used a diagnosis or a condition as an indicator. For this example, he discussed the vision of young children. The system did not provide glasses to all children that needed them; in addition, some children with glasses either didn’t need them or the glasses made their vision worse.

**Outcome Measures**

Outcome measures are desired by both consumers and payors as a measurement of health care quality. The problem is that there are several factors, other than quality, which influence the outcome measurement. Variance in an outcome measure between two providers may reflect a difference in the quality of care provided; however, the measure may also reflect differences in data quality or definitions, patient factors, or chance.

Some reviewers have recommended that outcome measures be avoided as a means to judge the quality of care.\textsuperscript{32} When mortality is used as the outcome measure, the health system will need to decide whether zero mortality is actually the goal since public reporting of such a measure may result in the unintended consequence of sicker patients not receiving the care they need.\textsuperscript{33} In addition, even when three years of data are used in aggregate, use of mortality rate as a measure to discriminate between the quality of care


provided by two hospitals may only be valid for surgeries, such as coronary artery bypass grafting, for which robust risk adjustment methodologies are available.34

Finally, hospitals that perform a specific procedure relatively infrequently will have a higher standard error of the mean, and a higher likelihood of ranking at the top or bottom relative to other hospitals. A zero mortality rate for a procedure rarely performed at a hospital does not predict above average performance the following year. Similar challenges are encountered when individual provider outcomes are considered.

**Process Measures**
Process measures have the advantage of being more sensitive to differences in quality of care. If the appropriate evidenced-based process measure exists, then many fewer measures of the process are necessary to distinguish differences in quality between providers than would be required if an outcome measure were used (i.e. measuring a provider’s compliance with a checklist and sterile technique for central line insertion versus measuring the provider’s rate of catheter-related blood stream infection).

Process measures are also easy to interpret (i.e. use of forced air warming device during surgery). The problem is that anesthesiology presently lacks sufficient evidence-based process measures that are linked by evidence to relevant patient outcomes. More recently other types of measurement have been proposed to assess quality. In 2001, the IOM introduced six aims for health care of safe, effective, patient-centered, timely, efficient (avoid waste), and equitable.36 Peter Pronovost, a leader in patient safety, has supported these categories for quality measurement and believes it is imperative that the measures of quality be important, scientifically sound, usable across settings, and feasible.37

**D. Quality Improvement in an Anesthesiology Department**

**Composition of a QI committee**
The anesthesiology QI committee should be composed of members of the entire perioperative pathway, that is, a representative sample of the anesthesiologists in the department and others providing care to anesthetized patients. In very small departments, it may be a committee of the whole; in larger departments, it should comprise a cross section of the specialty capabilities of the department. If appropriate for the institution, a CRNA and/or anesthesiology resident should be included. Representatives from perioperative nursing should be members of the committee, especially recovery room nurses if they are helping to collect quality data for the department. A member of the department’s workroom staff (anesthesia tech) can be especially helpful as a member of the committee. Finally, a patient representative could be considered as a lay member of the committee.

**Examples of how resources are allocated for a QI program**
Most departments consider service on the QI committee to be a part of an anesthesiologist's duties and included in compensation. Some larger departments compensate members for any committee service to

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36 Idem, Institute of Medicine, 39.

incent participation; this is an admirable but rare practice. Paid medical staff (or anesthesiology department support staff) assistance is essential, however, as is training for these support staff members. Adequate time needs to be provided the chairperson of the department’s QI committee. This time is necessary to review the accuracy and completeness of data entry and to review all text comments reported to the system. The chairperson is responsible for developing the QI committee agendas and reviewing anesthesiology and quality literature so that the appropriate questions are asked in a timely manner and the department’s outcomes and processes of care are monitored and continually improved. Occasional educational sessions for the department should be organized as new pathways of care are implemented; the chair should also organize the department’s morbidity and mortality conferences. Departments may also choose to have the QI committee evaluate the equipment and pharmacy needs for the anesthesia care provided to patients. Finally, the department’s QI chairperson should be responsible for communication with peers from other departments’ QI committees to advance the quality of patient care.

Administrative support for the department’s QI work needs to include:

1. Distributing on a yearly basis, QI committee’s membership to the hospital’s Chief Medical Officer.
2. Scheduling QI committee meetings and distributing meeting agendas.
3. Recording and storing QI committee meeting minutes.
4. Assisting and monitoring the data collection process used by the department.
5. Analyzing and presenting feedback of QI data.
6. Assuring the QI committee work product is in compliance with hospital bylaws and state/federal statutes.
7. Assisting the QI chairperson with work that involves interfaces of the department’s QI committee and other quality and safety work of the hospital or other departments (e.g., review of a sentinel event).
8. Orientating new providers to the department’s QI program, reviewing data definitions and ensuring proper data entry into the department’s QI reports.

Financial resources are necessary for the creation of QI forms and their revisions if the department uses a paper record. Alternatively, electronic submission forms/fields should be occasionally revised and providers (re)educated about definitions for data fields. Resources are also needed for data collection, analysis, and feedback which may involve hardware, software, and time.

**Examples of how data might be collected, and methods for analysis and feedback**

Because anesthesiologists generally view the delivery of anesthesia as part of a pathway with a beginning, middle and a discrete end, the data collected are limited in time. Also, the activities of anesthesiologists are frequently reproducible, with well-defined and expected end-points. Ongoing measurement can drive improvement when action and outcome are very tightly coupled, as they are in anesthesiology. Measurement along the anesthesia care pathway is, therefore, more likely to expose opportunities for improvement and strategic change, than in specialties with much longer pathways. Still an organized mechanism for gathering data is essential to support all of the activities referred to above.

Computerized data entry and analysis greatly benefits expedient production of aggregate data that is divided into meaningful cohorts, that are cross-tabulated to show trends, and normalized to provide a platform for valid statistical inference. Some computerized systems are appropriate for individual departments and are inexpensive to operate totally from within the department. This is desirable because hospitals often are unable to provide accurate data from chart reviews.

One must observe the following essential steps in aggregating quality data:
1. Use a form to collect the data, such as that in 4.2.1 Quality Capture Form Sample, and make sure that staff clearly understands the data field definitions – for example, if there is a check box for smoking, does that mean the patient presently smokes, smoked or stopped smoking within the last year?
2. Make sure the form is easy to complete (takes less than one minute) and follows the anesthetic care of the patient – for example, if a provider is asked to check the induction agent used, does this data field should follow the field for premedication?
3. Attach the form to the anesthesia record so that it is always easy to find and make sure it is completed for each case – providers should have the completeness of their data entry reported back to them and perhaps measured against their peers or a department standard.
4. Transfer available denominator data (e.g. from a billing database) to a computerized database. Using existing demographic data saves considerable time.
5. Enter new quality data for each case. A data entry field should be present for “no untoward events”. For ease of data entry, the form may include a list of indicators the department wishes to measure. These indicators will need clear definitions (e.g. difficult intubation). Items to be entered should include staff, the event(s), an assessment of the event’s preventability, evaluation of its outcome, location, and effect on outcome, and need for further review. Include additional space for a brief summary and recommendations.
6. Generate reports from the database that will serve as a basis for the deliberations of the QI committee. Computerized systems that require staff to volunteer data are just as prone to underreporting as paper systems. Much of this fact is derived from the fear that reporting will negatively impact credentials. Using the quality program primarily to drive organizational change and improvement, and publicizing this improvement, is helpful in improving participation. Using self-reported data for the assessment of individual performance may discourage providers from participating and reporting events or concerns. Ultimately, the value of quality measurement rests on its accuracy. Automated systems that derive data from the computerized anesthesia record are more likely to provide accurate data than voluntary systems.

Protection of the Quality Improvement Program: The Patient Safety and Quality Improvement Act of 2005 was enacted in response to growing concern about patient safety in the United States. The goal of the Act is to improve patient safety by encouraging voluntary and confidential reporting of events that adversely affect patients. This Act authorized the establishment of Patient Safety Organizations (PSO) and the Agency for Healthcare Quality and Research maintains a list of current PSOs.

E. How to work with the Joint Commission (TJC)

The Joint Commission has taken a steadfast interest in the importance of quality improvement. It surveys for the effectiveness of QI by looking for evidence of performance improvement mechanisms and compliance with specific standards.

What Preparations Should Be Made For a Joint Commission Survey? Passing a TJC survey requires a good understanding of TJC standards that apply to the institution/department under review. The Joint Commission has established several pages of Frequently Asked Questions that may help your organization and department prepare for a survey. The Joint Commission also provides documents related to its ORYX initiative. The ORYX initiative integrates performance measurement into the accreditation process. The survey proceeds from a review of documented performance and improvement, to a review with the executive leadership, to a series of hospital site visits, and concludes with a review of problems with specialty groups and a final wrap-up. To do well, all hospital staff must have a basic understanding of the process.
Those in administrative positions must understand the regulations, how they are usually interpreted, how they will be scored, and how to demonstrate compliance with the standards. Those in positions of leadership should also know how departments work together to assure quality in problem prone activities that cross departmental boundaries, such as safety and moderate sedation.
4.1 PEER REVIEW

The interface between quality improvement, patient safety and privileging

Understanding that all work within the department’s quality improvement program should be protected from outside review, there are some areas designed to meet the institution’s QI goals and state or federal regulatory requirements for reporting of events and privileging of providers. As previously mentioned, the department’s QI chairperson or a designated member of the committee may be asked to participate on an institutional QI committee to review care of a specific patient or a care process. In addition, the department’s QI chairperson will also need to help the institution review sentinel events and near misses and ensure the department’s participation in root cause analyses (RCA) and engagement in the action plans resulting from the RCAs. Provider-specific measures are now required to justify re-privileging for both the Joint Commission (TJC) and Det Norske Veritas (DNV). In the case of TJC, measures for both the Ongoing Professional Practice Evaluation (OPPE) and a Focused Professional Practice Evaluation (FPPE) are required. Both organizations offer examples of possible measures that could be used. Care should be taken to protect the QI program when provider-specific measures are developed for privileging. Departments are especially discouraged from using measures that are self-reported or lack risk adjustment (most QI measures).

The peer review process in current quality improvement programs

A shift in emphasis has occurred in pursuit of quality improvement in recent years, with the primary critical examination of the individual practitioner largely giving way to the examination of systems and their design. Nevertheless, both the perception and reality of the need to examine the individual practitioner remains an element in any QI program. Licensing agencies almost exclusively employ this modality and rarely, if ever, examine systems for evidence of faulty design or implementation. Recurrent episodes of sentinel events (with root cause analyses indicating individual knowledge base deficits or technical skill deficits) or overwhelming evidence of behavioral problems require an examination of the individual practitioner. Such behavior on the part of an individual should most likely trigger a FPPE.

Regulatory protection of the peer reviewer

State peer review statutes generally have provisions for immunity of good faith participants in peer review and protection of records and information from subpoena. The scope of the protection under such laws, the settings in which they apply, and the processes required to invoke that protection vary widely from state to state. Most state statutes protect only “good faith” conduct within peer review, leaving much room for argument in court. Fortunately, the federal Health Care Quality Improvement Act (HCQIA) of 1986 and more recently, the Patient Safety and Quality Improvement Act (PSQIA) of 2005 offer immunity in most federal and state lawsuits brought by physicians and dentists unhappy with peer review activities and outcomes if proper process has been followed. It does not apply in those cases brought by other types of practitioners or for any case involving civil rights claims (including ADA, age, sex and other forms of prohibited discrimination). Further, protection from discovery is limited to specified types of peer review settings, including hospitals, professional societies and some types of managed care entities which actually provide, rather than merely arrange, health care services and have formal peer review processes. The federal laws offer no protection of the records and information, and federal courts generally do not honor the protections against discovery found in state law if the action is premised on a federal statute and brought in federal court.

Because of the limitations of such peer review laws, most hospitals have obtained insurance covering peer review conducted on their behalf, and others specifically commit to defend bona fide participants in their peer review processes in legal actions by the practitioner under review, as well as to pay any resulting
judgment. It is important to assure that the hospital does, indeed, offer this protection to the physicians acting on its behalf (i.e., in official medical staff processes).

The various statutes (state and federal) generally give greater protection to witnesses and other information sources than to the participants on the peer review committees. The HCQIA, for example, gives peer review witness’s near-absolute immunity unless they have knowingly provided false information. Thus, a practitioner asked to participate in peer review of another practitioner or any peer review on behalf of an office-based facility or ambulatory surgical facility would want to be sure of the scope of statutory protection insurance provisions and indemnification through the entity requesting his/her participation. This is especially true if the practitioner will serve as a committee or panel member rather than a reviewer or factual witness.

Confidentiality, peer review and peer assistance
Increasingly, the importance of federal statutes and cases, and the accompanying lack of protection of peer review information in actions on those statutes in federal court is seriously eroding the assurance of confidentiality. In addition, such factors as TJC insistence on potentially unprotected reporting of sentinel event related to peer review information, current Congressional promotion of patient-rights acts, provisions within the Medicare Conditions of Participation requiring use of a grievance process (in which patients participate and receive information about the analyses and outcomes), and federal labor law regarding the rights of co-workers are all inconsistent with traditional peer review privilege because they require at least some types of matters to be handled outside protected peer review processes.

Some state statutes allow discovery in any litigation other than physician practice; others protect only hospital or professional society proceedings. Most allow some access by the disciplined practitioner himself/herself. Generally, however, opinions expressed during the covered process cannot be used as evidence in a state based malpractice claim. Peer review by practitioners associated with the Veterans Administrations and other governmental entities has less certainty of protection from discovery, as does that performed for managed care organizations.

From a theoretical aspect, peer review is not merely a retrospective review of care. We actually participate in a form of peer review every time we informally discuss with a colleague in the coffee room how a case could be (or was) managed, or when we telephone someone on the local medical school's faculty to informally discuss a case and receive input. In order to avoid confusion about which activities are and are not protected by legal immunity and discovery restrictions, it is helpful to think of this kind of peer interaction as "informal peer assistance" rather than actual "peer review." This simple form of peer assistance is referred to in the quality literature as an "informal consultation," and should neither be thought of as official peer review nor recorded in the anesthesia record. It does not meet formal definitions of a consultation and may inadvertently cause someone who provided only informal and incompletely analyzed feedback to be included in a patient's later attempts to affix formal responsibility for care.

With the increasing use and recognition of telemedicine services, especially for Medicaid patients, physicians with responsibility for patient care are often not in direct contact with the patient himself/herself. Cases holding remote practitioners responsible when the advice they give will foreseeably impact a specific patient’s care are on the rise. Both inquiring and responding practitioners thus need to be increasingly clear when they are only having a generalized discussion of professional technique or options based on hypothetical “facts,” and when they are taking on the responsibility to investigate and confirm facts when advising about care to be rendered to a specific patient.
Despite its risks and lack of utility as a defense of one's actions if they prove imprudent, informal peer assistance can be a valuable means of assuring that a practitioner has considered all the issues and options on a timely basis. Some quality experts refer to such a consultation as a "biopsy of the standard of care," an apt description of its intent. Knowledge gained from such an informal opinion can contribute substantially to a practitioner's performance and avoid later issues in peer review. More formal prospective peer assistance occurs when a second opinion or written consultation with a subspecialty colleague who has officially accepted responsibility for the patient's care is obtained. With the aid of telemedicine technology, the ability to obtain formal consultation from a specialist at a remote academic center is increasingly available. The physician in the remote location can be directed to perform various hands-on examinations under the observation of the consultant. Such assistance can facilitate the willingness of a "teleconsultant" to provide meaningful patient care advice and accept a portion of the formal responsibility for patient care decisions. Unfortunately, reimbursement programs and state licensing activities are reluctant to recognize these developments.

Implementing the peer review process

The more conventionally acknowledged and legal use of the term “peer review” refers to review of either current or prior medical activities by someone whose sole function is to evaluate the care, without having had direct responsibility for its delivery. It can occur concurrently (as in the case of proctors or other observers commonly used with new members of a staff or practitioners newly awarded a particular clinical privilege) or retrospectively (in the review of medical records, outcomes, complication statistics and the like). A variety of venues may be involved depending on the complexity of the institution and its practice.

Department peer review

The first level in hospital-based peer review is typically the departmental review, where fellow practitioners have the chance to learn all the details of a case in question. Although departmental review is often discounted because of its potential for "whitewashing" adverse findings against a colleague and friend, the candid opinions of those physicians closest to the situation can often bring to light extenuating circumstances and subjective factors not available to reviewers at higher levels, as well as offer the practitioner whose case is reviewed valuable insights into missed opportunities. It is thus of vital importance to create a milieu of frank and serious examination of cases and events reported to the department quality review committee.

This departmental review is usually conducted by the department head or QI Committee chairperson. Should a case or issue involve this practitioner, another physician should be designated to summarize the case and moderate the discussion. This initial screening person will separate incidents which clearly lack any possibility of questionable care or unprofessional conduct by the involved practitioner, or which may have equipment or policy causes requiring separate avenues of investigation. The involved practitioner should be given sufficient advance notice that a particular case will be presented at the departmental quality meeting and should be required to be present and participate. The practitioner should present an explanation of the events with particular attention to the thought processes occurring at the time that justified the approach employed and an opinion as to why an adverse outcome took place. If appropriate, the involved practitioner may be asked to leave during parts of the discussion to promote candor and dispel concerns of personal attribution of remarks; but the involved practitioner should always be informed of the conclusions, since the major purpose of peer review is to improve care, not sanction practitioners for their errors.

A consensus opinion rather than individual comments should be reflected in the minutes. If further action is deemed warranted, a specific formally-adopted recommendation should be drafted, approved and forwarded to the next higher body, usually the medical staff executive committee.
While the Health Care Quality Improvement Act’s “safe harbor” processes exclude protection for peer review actions taken by direct economic competitors, it has become clear over the years that this proscription applies only to the hearing and final decision-making phases of peer review rather than direct economic competitors whose only role is to serve as providers of facts or initial evaluators in departmental processes that lead to other formal review mechanisms.

**Outside consultation for peer review**

Anesthesiologists from outside the hospital are often requested to provide unbiased opinions. Appropriate participants can be located through the larger ASA component societies or state medical associations. These organizations often have liability protection when the review is conducted as part of their programs, but the choice of the individual to serve should normally be made by the institution conducting the peer review, and only after careful review of the qualifications of persons suggested. In situations where a hospital board or administration has significant concerns regarding practitioner performance or departmental function, the ASA Anesthesia Consultation Program, managed by ASA’s Quality Management and Departmental Administration Committee, is available to provide a formal, in-depth assessment of the areas of concern. That process must be carefully integrated with the institution’s official peer review processes to obtain protection under federal or state peer review laws.

**Outcome of peer review**

Compliance with peer review recommendations at the hospital level can range from easy, such as a practitioner obtaining additional familiarity with a given procedure, to drastic, such as the loss of clinical privileges. Processes resulting only in suggestions of further education or consultations that are not mandatory (i.e., privileges are not restricted until education or consultation is received and the practitioner does not have to abide by the results of any consultation he or she obtains) do not require reporting to the National Practitioner Data Bank (NPDB), but may require reporting to state licensing boards. An action restricting or suspending clinical privileges for more than 30 days for reasons based on quality of care concerns requires a NPDB report both when imposed and when lifted. Likewise, even voluntary “restrictions” agreed to after an official investigation has begun (as defined in the institution’s bylaws and policies) become reportable. In addition, most state licensing boards require all of their licensees to report to the Board any colleague who may be impaired, incompetent or otherwise unable to practice safely. In addition, most states require hospitals to report any completed peer review activity resulting in adverse findings reflecting on competence. Such reports may trigger official licensing actions, which are typically subject to more formal standards and processes because due process requirements must be met when a state takes action against a licensee.
4.2 THE ANESTHESIA QUALITY INSTITUTE (AQI)

The Anesthesia Quality Institute (AQI)’s vision is to become the primary source of information for quality improvement in the clinical practice of anesthesiology. The mission of the AQI is to “develop and maintain registries of case data that help anesthesiologists assess and improve patient care.” The intention is to organize the registries such that anesthesiology practice groups desire to submit case information, and so that individual anesthesiologists, practice groups, researchers, and professional societies find the data useful for improving the quality of care and meeting regulatory requirements.

As of May 2014, AQI supports eight registries, including:

- National Anesthetic Clinical Outcomes Registry (NACOR) – A description of NACOR is included below.
- Anesthesia Incident Reporting System (AIRS) – a nationwide system for collecting individual adverse events from anesthesia, pain management and perioperative care.
- National Pain Registry (NPR) – a registry based on clinical information taken directly from existing digital information about pain treatment procedures that will track patients over time to document changes in chronic pain.
- Anesthesia Closed Claims Project – a registry to identify major safety concerns, patterns of injury and strategies for prevention to improve patient safety in pain management, operating rooms, labor floor, remote locations and critical care.
- Neurologic Injury after Non-supine Shoulder Surgery Registry – To investigate the mechanism of severe brain and spinal cord damage that has been reported after shoulder surgery in the sitting position.
- Postoperative Visual Loss Registry – collection of detailed case reports of visual loss after non-ophthalmic surgery.
- Anesthesia Awareness Registry – a registry seeking greater understanding about the cause of awareness during general surgery.
- Practice Performance Assessment and Improvement (PPAI) registry – a four-step process whereby diplomats assess their practices and implement changes that improve patient outcomes. PPAI supports the ASA/ABA Maintenance of Certification in Anesthesiology (MOCA) educational program;

Data captured by NACOR falls into four categories:

- Practice demographics – describing the anesthesia group (age, training, certifications, subspecialties) and the environment (hospital size, inpatient/outpatient mix). This information is collected or updated annually for each practice.
- Case specific data in several tiers: simple (e.g. CPT® code, anesthesia type, provider code, patient age); moderate (e.g. duration of surgery, agents used); and complex (e.g. output from AIMS with vital signs, fluids, drug doses).
- Outcome data: Basic (e.g. intra-op cancellation, mortality, major morbidities) and extended (e.g. infections, prolonged length of stay, late events). The basis for recognized outcomes of interest will be the ASA Committee on Performance and Outcomes Measurement (CPOM) definitions. Information will come from department data or from linkage to surgical databases that capture long term patient outcome.
- Risk adjustment data: ICD-9 diagnostic codes, pre-operative medication use, defined comorbidities, hospital length of stay, etc. Much of this data will come from the hospital or healthcare facility’s systems.
4.2.1 QUALITY CAPTURE FORM (SAMPLE)

Anesthesia Quality Improvement PACU Discharge

<table>
<thead>
<tr>
<th>Case Info</th>
<th>Anesthesia type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Provider ID</td>
</tr>
<tr>
<td>MR #</td>
<td>CRNA ID</td>
</tr>
<tr>
<td>ASA Class</td>
<td>Additional provider</td>
</tr>
</tbody>
</table>

**Patient is awake and able to contribute to assessment**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**Patient Physical Exam:**

<table>
<thead>
<tr>
<th>Mental Status at baseline (Y/N)</th>
<th>Yes</th>
<th>No</th>
<th>Pain Score (10-point VAS scale):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>on PACU admission</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Highest pain score</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pain score at time of assessment</td>
</tr>
</tbody>
</table>

**Nausea or vomiting requiring treatment**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**Any occurrence of vomiting**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**Did the patient experience an unexpected event during perioperative care?**

<table>
<thead>
<tr>
<th>Unplanned ICU admission</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unplanned hospital admission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intraoperative awareness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epidural hematoma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peripheral neurologic deficit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corneal abrasion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agitation requiring treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seizure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncontrolled blood sugar (high or low)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subcutaneous emphysema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vascular access complication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulmonary Edema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prolonged PACU stay - patient condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New PVC’s, bradycardia, arterial fibrillation, or other dysrhythmias requiring treatment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**If other, please specify:**

This is a template. Please modify for local conditions. The definitions for each measure can be found on the AQI website. Not Part of Patient’s chart

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4.3 **MEDICARE QUALITY REPORTING PROGRAMS**\(^{38}\)

Anesthesiologists, their practices and the facilities where they practice are increasingly measured on the quality of care that is provided to patients. Quality reporting programs often require individual practitioners and/or their facilities to report certain metrics to the Centers for Medicare & Medicaid Services (CMS) in exchange for either incentive payments or payment (negative) adjustments to their covered professional services. In 2012, CMS administered roughly 30 quality reporting programs and have a [measures inventory][1] of more than 1,100 measures in use with the possible consideration of adding another 2,000 measures over the next few years.

Although a number of measures and data may be gathered on anesthesiologists and their practice, the programs that affect anesthesiologists and other anesthesia practitioners most often include the Physician Quality Reporting System (PQRS), the Value-Based Payment Modifier (VM), Physician Compare and the Electronic Health Record (EHR) Incentive Program. According to the 2015 Medicare Physician Fee Schedule, practitioners who fail to participate or satisfactorily report PQRS may experience a 2% PQRS payment adjustment to their covered professional services in 2017 and be subject to a 2 or 4% negative value modifier on those services in 2017 as well.

Anesthesiologists also contribute to and may be impacted by CMS quality reporting programs that target the facilities where they practice. Such quality programs include, but are not limited to, the Ambulatory Surgical Center Quality Reporting Program, Hospital Compare, Hospital Inpatient Quality Reporting, Hospital Outpatient Quality Reporting and a variety of other programs where data is submitted, feedback reports are issued and quality and cost may determine Medicare payments to that facility.

Information on these programs and others that may impact your practice may be found on the CMS webpage as well as on the [QualityNet website][2]. For further information on quality reporting programs, please visit the [Quality and Regulatory Affairs (QRA)](mailto:qra@asahq.org) webpage or contact the department at qra@asahq.org.

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\(^{38}\) The ASA Department of Quality and Regulatory Affairs (QRA) monitors rules and regulations pertaining to quality reporting programs that impact the practice of anesthesiology. QRA is the author of Section 4.3 of MADOM.
4.3.1 EHR INCENTIVE PROGRAM

The Electronic Health Record (EHR) Incentive Program is overseen by the Centers for Medicare & Medicaid Services (CMS) for physicians participating in the Medicare component and individual state Medicaid agencies administer the program for physicians participating in the Medicaid program. Similar to other quality reporting programs, the EHR Incentive Program uses payment incentives and payment adjustments to encourage the adoption, implementation and use of certified EHR technology. The American Recovery and Reinvestment Act created the EHR Incentive Program.

Under the program there are two categories of professionals: “Hospital-based eligible professionals” and “Eligible Professionals” (EPs). Hospital-based eligible professionals are not eligible to receive the incentive payments and are exempt from future penalties. To be deemed a hospital-based eligible professional, one needs to provide 90 percent or more of their covered services in a hospital inpatient or emergency room setting. CMS determines this by looking at the place of service codes (POS codes) on the codes a physician submits for payment under Medicare (POS code 21 for Inpatient Hospital and POS code 23 for Emergency Room - Hospital). The majority of anesthesiologists do not provide 90% or more of their covered services in the hospital inpatient or ER setting unless one exclusively does cardiac, transplant or critical care work. The majority of the codes submitted by anesthesiologists are for Outpatient Hospital (POS code 22) or Ambulatory Surgical Center (POS code 24).

A majority of anesthesiologists are deemed EPs and thus eligible to receive the incentive payments for demonstrating “meaningful use” of EHRs. Because anesthesiologists were not initially intended to be deemed EPs when the law was debated, many of the meaningful use requirements do not reflect the typical practice of anesthesiology, making it difficult for anesthesiologists to achieve meaningful use. Only a fraction of anesthesiologists have been able to meet Meaningful Use Stage 1 program requirements.

The Hardship Exemption
As a result of ASA’s advocacy efforts, CMS created a hardship exemption for anesthesiologists, which exempts anesthesiologists from payment penalties that will begin in 2015. The exemption recognizes the state of commercially available EHR technology for anesthesiologists, workflow challenges and the nature of the patient-anesthesiologist relationship. The exemption was granted as part of the Meaningful Use Stage 2 Final Rule in 2012.

The hardship exemption is automatically determined and annually based on a physician’s specialty designation under the Provider, Enrollment, Chain and Ownership System (PECOS). Physicians with the Anesthesiology specialty designation of “05” do not need to complete the hardship exemption form. CMS reserves the right to revisit this exemption at any point. ASA has and will continue to advocate that this important exemption be maintained.

39 Information on the EHR Incentive Program was last updated in September 2014. ASA expects that the Centers for Medicare & Medicaid Services (CMS) and the Office of the National Coordinator (ONC) will release further rules and regulations on the EHR Incentive Program and Meaningful Use Stage 3 in 2015. Program goals and objectives are subject to change and further clarification throughout the year. Please visit the CMS website for up-to-date information.

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Participating in the EHR Incentive Program
Anesthesiologists may attempt to become meaningful users and receive incentives, as the hardship exemption only applies to the penalties. CMS and the Office of the National Coordinator for Health Information Technology (ONC) have provided several resources for physicians seeking to participate in the EHR Incentive Program. To learn more about the program, physicians are encouraged to use the CMS eligibility tool and review the CMS-produced "Beginner's Guide". EPs must have participated in meaningful use and received an incentive by 2014 to earn additional incentives under the Medicare program. The Medicaid EHR Incentive Program extends incentives to 2016.

ONC is the “principal federal entity charged with coordination of nationwide efforts to implement and use the most advanced health information technology and the electronic exchange of health information.” ONC supports “the adoption of health information technology” and promotes “nationwide health information exchange to improve health care.” The agency was established in 2004 and mandated through the Health Information Technology for Economic and Clinical Health Act (HITECH) in 2009. Similar to CMS, ONC is an agency under the Department of Health and Human Services and their participation in and support of various policy committees informs upon the direction and planning of meaningful use requirements within the EHR Incentive Program.

ONC provides physicians and practices with a variety of information on how to take the first steps toward implementing EHRs in your practice, achieving meaningful use and supporting the implementation of EHRs. ONC also supports educational efforts on HIT implementation and use of EHRs.

ASA Regulatory and Legislative Action
ASA continues to advocate that the criteria to meet meaningful use be applicable to anesthesiologists. In 2013, ASA stressed the importance of maintaining the hardship exemption in comments submitted to the ONC Health IT Policy Committee regarding their recommendations for Meaningful Use Stage 3. ASA supported the Health IT Policy Committee's recommendation to exclude specialists from the prevention reminder objective and to exclude eligible professionals who do not administer immunizations from the immunization objective. ASA also recommended excluding anesthesiologists from other requirements, including the clinical summary requirement, syndromic surveillance, e-communication with patients and computerized order entry for transfers of care objectives. ASA expressed support for allowing reporting to a registry as a menu objective. ASA also recommended additional flexibility for physicians who achieve a close percentage of the objectives.

Please direct your questions on the EHR Incentive Program to the ASA Department of Quality and Regulatory Affairs (QRA). QRA may be contacted at (202) 289-2222 or by e-mail at qra@asahq.org.
4.3.2 PHYSICIAN COMPARE

Physician Compare is a Center for Medicare & Medicaid Services (CMS) website that assists consumers and patients find and choose physicians and other healthcare professionals enrolled in Medicare. Consumers are able to identify a significant amount of information on physicians and other healthcare professionals on the website. This information includes:

- Addresses where the professional sees patients
- Primary and secondary specialties
- Medicare Assignment status
- American Board of Medical Specialties (ABMS) board certification
- Quality programs that the professional participates, including the Physician Quality Reporting System (PQRS), PQRS Maintenance of Certification Program Incentive, Electronic Prescribing (eRx) Incentive Program, the Electronic Health Record (EHR) Incentive Program, and the Million Hearts program
- Gender
- Medical school education and residency information
- Groups that individuals work with (individual profile or individuals who work with the group (group profit)
- Hospital affiliation

Information on the website is gathered from the Provider, Enrollment, Chain, and Ownership System (PECOS). PECOS data is checked against Medicare claims data. Anesthesiologists and other healthcare professionals should review their information on a regular basis to ensure the information is accurate. To review and update your information, visit PECOS at https://pecos.cms.hhs.gov/pecos/login.do. To update information not found in PECOS, such as hospital affiliation and foreign language, professionals and group practices should contact the CMS Physician Compare Team at physiciancompare@westat.com.

Beginning in 2015, physician quality reporting information may, depending on CMS testing and validation procedures, be posted on Physician Compare. According to the 2015 Medicare Physician Fee Schedule, “to the extent that scientifically sound measures are developed and are available, [CMS is] required to include, to the extent practicable, the following types of measures for public reporting:

- Measures collected under the Physician Quality Reporting System (PQRS)
- An assessment of patient health outcomes and functional status of patients
- An assessment of the continuity and coordination of care and care transitions, including episodes of care and risk-adjusted resource use
- An assessment of efficiency
- An assessment of patient experience and patient, caregiver, and family engagement
- An assessment of the safety, effectiveness, and timeliness of care
- Other information as determined appropriate by the Secretary”

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40 Information presented in this chapter has been gathered from the CMS Physician Compare website and the 2015 Medicare Physician Fee Schedule. Please note that rules and regulations governing Physician Compare may be changed by Federal Rules and Regulations.

Among other provisions, the Affordable Care Act (ACA) requires that CMS implement to the extent practicable, processes to ensure that public data is valid, reliable and accurate; processes for physicians and eligible professionals (EPs) to have a reasonable opportunity to review their results (30-day window), processes to ensure appropriate attribution of care, and processes to ensure timely statistical performance feedback.

For PQRS measures to be posted on the Physician Compare website, CMS requires a minimum sample size per each measure of twenty (20) patients. At the same time, CMS will include “all measures in a downloadable file and [will] limit the measures available on Physician Compare profile pages to those measures that not only meet the requirements of public reporting such as validity, reliability, accuracy, and comparability, but that also are accurately understood and interpreted by consumers as evidenced via consumer testing.”42

In general, PQRS measures and non-PQRS Qualified Clinical Data Registry (QCDR) measures that are new to the quality reporting program will not be displayed on Physician Compare for their first year data. According to the Medicare Physician Fee Schedule, “QCDR data will only be publicly reported at the individual-EP level.”43

In the 2015 Medicare Physician Fee Schedule, CMS published Table 49 as a “Summary of Finalized Data for Public Reporting”44:

<table>
<thead>
<tr>
<th>Data Collection Year</th>
<th>Publication Year</th>
<th>Data Type</th>
<th>Reporting Mechanism</th>
<th>Finalized proposals regarding quality measures and data for public reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2016</td>
<td>PQRS, PQRS GPRO, EHR and Million Hearts</td>
<td>Web Interface, EHR, Registry, Claims</td>
<td>Include an indicator for satisfactory reporters under PQRS, participants in the EHR Incentive Program, and EPs who satisfactorily report the individual PQRS Cardiovascular Prevention measures in support of Million Hearts.</td>
</tr>
<tr>
<td>2015</td>
<td>2016</td>
<td>PQRS GPRO &amp; ACO GPRO</td>
<td>Web Interface, EHR, Registry, and Administrative Claims</td>
<td>All 2015 PQRS GPRO measures reported via the Web Interface, EHR, and Registry that are available for public reporting for group practices of 2 or more EPs and all measures reported by ACOs with a minimum sample size of 20 patients</td>
</tr>
<tr>
<td>2015</td>
<td>2016</td>
<td>CAHPS for PQRS &amp; CAHPS for</td>
<td>CMS-Specifed Certified CAHPS Vendor</td>
<td>2015 CAHPS for PQRS for groups of 2 or more EPs and CAHPS for ACOs for those</td>
</tr>
</tbody>
</table>

ACOs. who meet the specified sample size requirements and collect data via a CMS-specified certified CAHPS vendor.

<table>
<thead>
<tr>
<th>Year1</th>
<th>Year2</th>
<th>Measure</th>
<th>Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2016</td>
<td>PQRS</td>
<td>Registry, EHR, or Claims</td>
<td>All 2015 PQRS measures for individual EPs collected through a Registry, EHR, or claims</td>
</tr>
<tr>
<td>2015</td>
<td>2016</td>
<td>QCDR data</td>
<td>QCDR</td>
<td>All individual-EP level 2015 QCDR data.</td>
</tr>
</tbody>
</table>

Please direct your questions on Physician Compare to the ASA Department of Quality and Regulatory Affairs (QRA). QRA may be contacted at (202) 289-2222 or by e-mail at qra@asahq.org.
4.3.3 PHYSICIAN QUALITY REPORTING SYSTEM

PQRS is a voluntary reporting program that uses a combination of incentive payments (for reporting years 2007-2014) and payment adjustments (beginning in reporting year 2013) to promote reporting of quality information by eligible professionals (EPs). Under PQRS, covered professional services are those paid under or based on the Medicare Physician Fee Schedule (PFS). Anesthesiologists whose professional services are paid under the Medicare PFS are considered eligible professionals. To the extent that EPs are providing services which get paid under or based on the PFS, those services are eligible for PQRS incentive payments and/or payment adjustments. 2014 was the last year that PQRS incentives were available to satisfactory reporters. Practices that satisfactorily reported or satisfactorily participated in PQRS in 2014 should receive their incentives in late 2015.

PQRS was initially titled the Physician Quality Reporting Initiative (PQRI) and implemented under the Tax Relief and Health Care Act of 2006 (TRHCA).

In 2015, EPs who do not participate in PQRS or fail to satisfactorily report (via claims, “traditional” qualified registry, Electronic Health Record, or the Group Practice Reporting Option reporting mechanisms) or satisfactorily participate (via the Qualified Clinical Data Registry reporting mechanism) are subject to a 2.0% payment adjustment (penalty) on their covered professional services in 2017. Unlike previous years, there are no PQRS incentives for participating in PQRS in 2015 and beyond.

The transition from payment incentives to payment adjustments is listed below.

<table>
<thead>
<tr>
<th>Reporting Year / Adjustment Year</th>
<th>Payment Incentive</th>
<th>Payment Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>1.0%</td>
<td>None</td>
</tr>
<tr>
<td>2012</td>
<td>0.5%</td>
<td>None</td>
</tr>
<tr>
<td>2013 / 2015</td>
<td>0.5%</td>
<td>-1.5%</td>
</tr>
<tr>
<td>2014 / 2016</td>
<td>0.5%</td>
<td>-2.0%</td>
</tr>
<tr>
<td>2015 / 2017</td>
<td>None</td>
<td>-2.0%</td>
</tr>
</tbody>
</table>

Individual Eligible Professionals (EPs) can participate in the Physician Quality Reporting System (PQRS) using any of the below reporting methods:

- Claims
- “Traditional” Qualified Registry
- Direct Electronic Health Record (EHR)
- Qualified Clinical Data Registry (QCDR)
- Group Practice Reporting Option (GPRO)

Because anesthesiologists practice in a variety of settings and practices, the American Society of Anesthesiologists® (ASA) recommends anesthesiologists and pain medicine doctors review the
reporting mechanisms and choose the mechanism that best fits their practice. The first chart displays the reporting mechanisms for Individual Eligible Professionals (EPs). EPs also have the option to report as part of a group practice. For the GPRO reporting option, please review the second chart. Most anesthesiologists and their groups report via the claims-based reporting option. Over 80% of anesthesia practitioners who reported PQRS in 2012 reported via the claims-based option.

Criteria for reporting vary between reporting options but on the whole, CMS seeks alignment when it comes to reporting certain measures. All reporting options require the EP to report nine quality measures across three National Quality Strategy (NQS) domains. Only the claims-based, “traditional” registry, and GPRO reporting via a registry reporting mechanisms allow the Measure-Applicability Validation (MAV) process to take place for physicians reporting fewer than nine measures across three NQS domains.

There are six NQS domains that are applied to each individual measure. The NQS domains are assigned by measure stewards and approved by CMS. These six domains include:

- Patient Safety
- Person and Caregiver-Centered Experience and Outcomes
- Communication and Care Coordination
- Effective Clinical Care
- Community and Population Health
- Efficiency and Cost Reduction

The domains are often listed at the top of each measure specification for reporting via non-QCDR options. NQS domains for QCDR measures may not necessarily be placed at the top of the measure specifications but must be nonetheless posted on the QCDR’s webpage.

**Individual Reporting Criteria for the Satisfactory Reporting of Quality Measures Data via Claims, Qualified Registry, and EHRs and Satisfactory Participation Criterion for the Qualified Clinical Data Registry (QCDR)**

<table>
<thead>
<tr>
<th>Reporting Period</th>
<th>Measure Type</th>
<th>Reporting Mechanism</th>
<th>Satisfactory Reporting / Satisfactory Participation Criteria</th>
</tr>
</thead>
</table>

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<table>
<thead>
<tr>
<th>Reporting Period</th>
<th>Measure Type</th>
<th>Reporting Mechanism</th>
<th>Satisfactory Reporting / Satisfactory Participation Criteria</th>
</tr>
</thead>
</table>
| 12-month (Jan. 1 – Dec. 31, 2015) | Individual Measures | Claims | • Report at least 9 measures, covering at least 3 of the NQS domains  
• Report each measure for at least 50 percent of the EP’s Medicare Part B FFS patients seen during the reporting period to which the measure applies  
• Of the measures reported, if the eligible professional sees at least 1 Medicare patient in a face-to-face encounter, the eligible professional will report on at least 1 measure contained in the cross-cutting measure set  
**If less than 9 measures apply to the EP:**  
• Report up to 8 measure(s)  
• Report each measure for at least 50 percent of the Medicare Part B FFS patients seen during the reporting period to which the measure applies.  
• Measures with a 0 percent performance rate would not be counted. |
| 12-month (Jan. 1 – Dec. 31, 2015) | Individual Measures | “Traditional” Qualified Registry | • Report at least 9 measures, covering at least 3 of the NQS domains  
• Report each measure for at least 50 percent of the EP’s Medicare Part B FFS patients seen during the reporting period to which the measure applies  
• Of the measures reported, if the eligible professional sees at least 1 Medicare patient in a face-to-face encounter, the eligible professional will report on at least 1 measure contained in the cross-cutting measure set  
**If less than 9 measures apply to the EP:**  
• Report up to 8 measure(s)  
• Report each measure for at least 50 percent of the Medicare Part B FFS patients seen during the reporting period to which the measure applies.  
• Measures with a 0 percent performance rate would not be counted. |
### Reporting Period | Measure Type | Reporting Mechanism | Satisfactory Reporting / Satisfactory Participation Criteria |
|---------------------|--------------|---------------------|---------------------------------------------------------------|
| 12-month (Jan. 1 – Dec. 31, 2015) | Individual Measures | Direct EHR Product or EHR Data Submission Vendor Product | - Report at least 9 measures, covering at least 3 of the NQS domains  
  - If an EP’s direct EHR product or EHR data submission vendor product does not contain patient data for at least 9 measures covering at least 3 domains, then the EP would be required to report all the measures for which there is Medicare patient data.  
  o Report at least 1 measure for which there is Medicare patient data |
| 12-month (Jan. 1 – Dec. 31, 2015) | Individual Measures | Qualified Clinical Data Registry (QCDR) | - Report at least 9 measures available for reporting under a QCDR covering at least 3 of the NQS domains  
  - Report each measure for at least 50 percent of the EP’s patients (Medicare and Non-Medicare)  
  - Report on at least two (2) outcome measures OR if two outcome measures are not available, report on a least one (1) outcome measure and at least 1 of the following types of measures – resource use, patient experience of care, efficiency/appropriate use, or patient safety.  
  o NOTE: If you are participating via the CMS-Approved AQI/NACOR QCDR, you must report on two outcome measures. |

### Group Practice Reporting Option (GPRO)

Information listed below was displayed in the Federal Register on November 13, 2014 (Table 51, p. 67797). Please visit the Centers for Medicare & Medicaid Services (CMS) GPRO webpages for additional information on each GPRO reporting mechanism and applicable measures.

CMS has released a document that will guide you through the GPRO reporting mechanisms. Please visit the Centers for Medicare & Medicaid Services for up-to-date information on each reporting mechanism as the agency often updates information and produces guidance documents throughout the year.

### Summary of Requirements for the 2017 PQRS Payment Adjustment: Group Practice Reporting Criteria for Satisfactory Reporting of Quality Measures Data via the GPRO

<table>
<thead>
<tr>
<th>Reporting Period</th>
<th>Group Practice Size</th>
<th>Measure Type</th>
<th>Reporting Mechanism</th>
<th>Satisfactory Reporting Criteria</th>
</tr>
</thead>
</table>

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<table>
<thead>
<tr>
<th>Reporting Period</th>
<th>Group Practice Size</th>
<th>Measure Type</th>
<th>Reporting Mechanism</th>
<th>Satisfactory Reporting Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-month (Jan. 1 – Dec. 31, 2015)</td>
<td>25-99 EPs</td>
<td>Individual GPRO Measures in the GPRO Web Interface</td>
<td>GPRO Web Interface</td>
<td>• Report on all measures included in the web interface&lt;br&gt;• Populate data fields for the first 248 consecutively ranked and assigned beneficiaries in the order in which they appear in the groups&lt;br&gt;○ If the group practice is assigned less than 248 Medicare beneficiaries, then the group practice must report on 100 percent of its assigned beneficiaries.</td>
</tr>
<tr>
<td>12-month (Jan. 1 – Dec. 31, 2015)</td>
<td>25-99 EPs and 100+ EPs</td>
<td>Individual GPRO Measures in the GPRO Web Interface + CAHPS for PQRS</td>
<td>GPRO Web Interface + CMS-Certified Survey Vendor</td>
<td>• All CAHPS for PQRS survey measures reported on its behalf via a CMS-certified survey vendor&lt;br&gt;• Must report on all measures included in the GPRO web interface&lt;br&gt;• Must populate data fields for the first 248 consecutively ranked and assigned beneficiaries in the order in which they appear in the group’s sample for each module or preventive care measure.&lt;br&gt;○ If the group practice is assigned less than 248 Medicare beneficiaries, then the group practice must report on 100 percent of its assigned beneficiaries.</td>
</tr>
<tr>
<td>Reporting Period</td>
<td>Group Practice Size</td>
<td>Measure Type</td>
<td>Reporting Mechanism</td>
<td>Satisfactory Reporting Criteria</td>
</tr>
<tr>
<td>------------------</td>
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</tr>
</tbody>
</table>
| 12-month (Jan. 1 – Dec. 31, 2015) | 2-99 EPs | Individual Measures | Qualified Registry | • Report at least 9 measures, covering at least 3 of the NQS domains  
• Of the measures reported, if the eligible professional sees at least 1 Medicare patient in a face-to-face encounter, the eligible professional will report on at least 1 measure contained in the cross-cutting measure set  
If less than 9 measures across 3 NQS domains apply to the group practice, the group practice would:  
• Report up to 8 measure(s) covering 1-3 NQS domains for which there is Medicare patient data  
• Report each measure for at least 50 percent of the Medicare Part B FFS patients seen during the reporting period to which the measure applies.  
• Measures with a 0 percent performance rate would not be counted. |
| 12-month (Jan. 1 – Dec. 31, 2015) | 25-99 EPs and 100+ EPs | Individual Measures + CAHPS for PQRS | Qualified Registry + CMS-Certified Survey Vendor | • All CAHPS for PQRS survey measures reported on its behalf via a CMS-certified survey vendor  
• Report at least 6 additional measures, outside of CAHPS for PQRS, covering at least 2 of the NQS domains using the qualified registry.  
• Of the measures reported, if the eligible professional sees at least 1 Medicare patient in a face-to-face encounter, the eligible professional will report on at least 1 measure contained in the cross-cutting measure set  
If less than 6 measures apply to the group practice, the group practice must report up to 5 measures. |
### Reporting Period

#### 12-month (Jan. 1 – Dec. 31, 2015)

<table>
<thead>
<tr>
<th>Group Practice Size</th>
<th>Measure Type</th>
<th>Reporting Mechanism</th>
<th>Satisfactory Reporting Criteria</th>
</tr>
</thead>
</table>
| 2-99 EPs            | Individual Measures | Direct EHR Product or EHR Data Submission Vendor Product | • Report at least 9 measures, covering at least 3 of the NQS domains  
• If the group practice’s direct EHR product or EHR data submission vendor product does not contain patient data for at least 9 measures covering at least 3 domains, then the group practice must report the measures for which there is Medicare patient data.  
• Report at least 1 measure for which there is Medicare patient data |

#### 12-month (Jan. 1 – Dec. 31, 2015)

<table>
<thead>
<tr>
<th>Group Practice Size</th>
<th>Measure Type</th>
<th>Reporting Mechanism</th>
<th>Satisfactory Reporting Criteria</th>
</tr>
</thead>
</table>
| 2-99 EPs and 100+ EPs | Individual Measures + CAHPS for PQRS | Direct EHR Product or EHR Data Submission Vendor Product + CMS Certified Survey Vendor | • All CAHPS for PQRS survey measures reported on its behalf via a CMS-certified survey vendor  
• Report at least 6 additional measures, outside of CAHPS for PQRS, covering at least 2 of the NQS domains using the qualified registry.  
• Report at least 1 measure for which there is Medicare patient data |

### Measures Available for Reporting (Claims and “Traditional” Qualified Registry)

For the claims-based and “traditional” qualified registry reporting option, measures for anesthesia care include the following measures. The measures include anesthesia CPT Codes and codes related to Central Venous Access procedures. Please review each measure for denominator eligible cases and their applicability to the CPT Codes you report.

- **Measure #44:** Coronary artery bypass graft: preoperative beta-blocker in patients with isolated CABG surgery
- **Measure #76:** Prevention of catheter-related bloodstream Infections
- **Measure #193:** Perioperative temperature management

CMS and measure stewards often update [measure specifications](#) each year. Practices are encouraged to familiarize themselves with any updates to codes and reporting requirements by visiting the CMS website for measure codes. In 2015, CMS also included measure flowcharts to assist practices.

Because anesthesiologists practice in a variety of settings and encounter different patient populations, ASA recommends exploring other measures that may apply to your practice. From the CMS 2015 [Measure Specifications Manual for Claims and [“Traditional”] Registry Reporting of Individual Measures:
“If the specified denominator codes for a measure are not included on the patient’s claim (for the same date of service) as submitted by the individual eligible professional, then the patient does not fall into the denominator population, and the PQRS measure does not apply to the patient. Likewise, if the specified denominator codes for a measure are not associated with a patient for an individual eligible professional or group practice submitting to a registry, then the patient does not fall into the denominator population, and the PQRS measure does not apply to the patient.

PQRS measure specifications include specific instructions regarding CPT Category I modifiers, place of service codes, and other detailed information. Each eligible professional and group practice should carefully review the measure’s denominator coding to determine whether codes submitted on a given claim or to a registry meet denominator inclusion criteria.”

**Measure-Applicability Validation (MAV) Process**

For claims-based, “traditional” qualified registry and Group Practice Reporting Option (GPRO) mechanism using a registry for reporting, the **Measure-Applicability Validation (MAV)** process allows EPs with fewer than nine measures covering less than three NQS domains to be considered satisfactory reporters. The MAV process is automatically triggered when an EP reports fewer than nine measures covering less than three NQS domains. For payment adjustment considerations, the MAV process determines whether an EP, who submitted data on fewer than three PQRS measures, should have submitted additional measures to PQRS. **Eligible professionals who fail MAV** are subject to the 2017 payment adjustment.

**Cross-Cutting Measures**

Reporting of **cross-cutting measures** is required for claims and the “Traditional” qualified registry reporting mechanisms. For reporting cross-cutting measures, CMS has released additional guidance on their measure codes and **analysis and payment** webpages.

Eligible professionals or group practices are required to report one (1) cross-cutting measure if they have at least one (1) Medicare patient with a face-to-face encounter. CMS defines a face-to-face encounter as an instance in which the EP is billed for services that are associated with face-to-face encounters under the Physician Fee Schedule (PFS). Note that CMS reserves the right to amend the codes used to determine what constitutes a face-to-face encounter.

In January 2015, CMS released additional guidance on the how the MAV process will apply to cross-cutting measures on their analysis and payment webpage. From p. 3 of the MAV guidance document:

At least one cross-cutting measure must be satisfactorily reported for those individual providers with face-to-face encounters. CMS will analyze claims data to determine if at least 15 cross-cutting measure denominator eligible encounters can be associated with the eligible professional. If it is determined that at least one cross-cutting measure was not reported, the individual provider with face-to-face encounters will be automatically subject to the 2017 PQRS payment adjustment and MAV will not be utilized for that individual provider. For those individual providers with no face-to-face encounters, MAV will be utilized for those that report less than nine measures and/or less than three NQS domains.”
Because anesthesiologists practice in a variety of settings and encounter different patient populations, ASA cannot make recommendations or determine which cross-cutting measures may or may not apply to you and your practice. For this reason, ASA encourages EPs to contact the CMS QualityNet Help Desk at (866) 288-8912 or via email at qnetsupport@hcqis.org to ensure you are reporting applicable measures.

**Qualified Clinical Data Registry Reporting Mechanism**

The 2014 Physician Fee Schedule (PFS) Final Rule finalized an additional method for individual PQRS reporting—the Qualified Clinical Data Registry (QCDR). A QCDR is a CMS-approved entity, such as a registry, certification board or collaborative that collects medical and/or clinical data for the purpose of patient and disease tracking to foster improvement in the quality of care furnished to patients. This option is different from a “traditional” qualified registry in that each QCDR has flexibility to develop measures that will best achieve the goal of improving the quality of care furnished by EPs.

The reporting mechanism has allowed specialty societies like the ASA and AQI space to develop meaningful measures that reflect profession-specific priorities and instances of care. The QCDR reporting mechanism is unique because it allows registries such as NACOR to report on measures already part of the PQRS program as well as specialty-based, registry-developed measures. In 2014, the Anesthesia Quality Institute’s National Anesthesia Clinical Outcomes Registry (NACOR) applied for and was a CMS-Approved QCDR. EPs participating via the QCDR in 2014 were able to choose from eight PQRS measures and eleven non-PQRS measures to report to NACOR. In 2015, CMS has allowed QCDRs to submit data on any number of PQRS measures and up to 30 non-PQRS QCDR measures.

The reporting criteria for QCDR participation is different than that of an EP participating via the claims-based or “traditional” qualified registry mechanism. In 2015, the satisfactorily participate in a QCDR, the EP must report at least 9 measures available for reporting under a QCDR covering at least 3 of the NQS domains. Each measure must be reported for at least 50 percent of the EP’s patients (Medicare and Non-Medicare). If participating via the CMS-Approved AQI/NACOR QCDR, EPs must report at least two outcome measures.

As of February 2015, QCDR applicants must apply each year and submit measures for CMS to approve for use by January of the reporting year. For additional regulatory information on the QCDR reporting option, please visit the [CMS Qualified Clinical Data Registry](#) webpage.

For information on the reporting via the QCDR option, please visit the [AQI NACOR website](#) or contact AQI staff at 847-268-9192.

For general and regulatory questions on PQRS, please contact the ASA Department of [Quality and Regulatory Affairs (QRA)](#). QRA may be contacted at (202) 289-2222 or by e-mail at qra@asahq.org.
4.3.4. VALUE-BASED PAYMENT MODIFIER (VM)

Section 3007 of the Affordable Care Act mandated that, by 2015, CMS begin applying a value modifier under the Medicare Physician Fee Schedule (MPFS). Both cost and quality data are to be included in calculating payments for physicians. CMS uses your submitted quality data and your performance in PQRS as part of its determination of your practice’s Value-Based Payment Modifier (VM) or just “payment modifier” for short. The VM is assessed at the Tax Identification Number (TIN) level.

Over the next few years, the VM becomes applicable to additional groups until all physicians and non-physician practitioners are included. Practices of 100 or more eligible professionals (EPs) who submitted quality data to PQRS in 2013 via GPRO and who opted for quality-tiering in the VM may see a neutral or positive modifier in calendar year (CY) 2015. Those that did not opt for quality-tiering would see a neutral modifier. This process was outlined in the April 2013 ASA NEWSLETTER Practice Management article. Practices with 10-99 EPs were subject to the VM starting in 2016 based upon their 2014 PQRS reporting.

For 2015, non-participation or failure to satisfactorily report or satisfactorily participate in the PQRS 2015 reporting period will subject you to a 2% payment adjustment on your covered professional services in 2017. PQRS affects your Value-Based Payment Modifier (VM) in 2017 as well. For the VM, practices of two to nine (2-9) EPs and solo practitioners who opt not to report PQRS or fail to satisfactorily report or satisfactorily participate risk a -2% modifier. Groups of ten (10) or more EPs who likewise fail to meet PQRS reporting criteria risk a -4% modifier.

For the VM (CY 2017), EPs and practices that satisfactorily report or satisfactorily participate in PQRS in 2015 are subject to the quality-tiering category for the VM. In this category, practices demonstrating low cost but high quality -- determined by a set of cost, resource and other PQRS measures -- may see a positive modifier. Practices providing low quality and high cost care are subject to a negative modifier. For others, a neutral modifier will apply.

For the VM, groups of ten (10) or more EPs within the quality-tiering category for the VM are eligible for an upward, downward or neutral modifier in 2017. Groups of two to nine EPs and solo practitioners are eligible for an upward or neutral modifier for 2017.

Please note that the information provided below may not capture updates to the VM or additional guidance documents produced by the CMS. Please review the CMS webpage on the Value-Based Payment Modifier for additional details.

CMS has updated and released the following chart for EPs and their practices to review:
Value Modifier and the PQRS

Quality-Tiering
Practices that satisfactorily report or satisfactorily participate in PQRS for 2015 are automatically placed in the quality-tiering category. In this category, practices demonstrating low cost but high quality, determined by a set of cost and quality measures, may see a positive modifier. Practices providing low quality and high cost care are subject to a negative modifier. According to the 2014 Proposed Physician Fee Schedule Rule, CMS believes that most physicians will fall into a neutral category; however, ASA will continue to monitor the VM and we welcome feedback from members affected by the VM.

The chart below outlines the phased in approach CMS has taken with the VM and how groups and solo practitioners may be affected by quality-tiering.

<table>
<thead>
<tr>
<th>Performance Year / VM Year</th>
<th>Group Size</th>
<th>Potential Adjustment*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 / 2015</td>
<td>Groups of 100 or more Eligible Professionals</td>
<td>Upward, downward or neutral</td>
</tr>
<tr>
<td></td>
<td>Groups of 10-99 Eligible Professionals</td>
<td>Upward or neutral</td>
</tr>
<tr>
<td>2014 / 2016</td>
<td>Groups of 100 or more Eligible Professionals</td>
<td>Upward, downward or neutral</td>
</tr>
</tbody>
</table>
To determine value using cost and quality of care measures, according to the CMS documents, calculation of the VM includes\(^{45}\), but is not limited to:

- CMS use of all quality measures that are available via the various PQRS reporting mechanisms (GPRO Web-Interface, Registry, Qualified Clinical Data Registry, Electronic Health Records) to calculate a physician group or physician solo practitioner’s CY 2017 payment adjustment.

- CMS will continue to use three claims-based outcomes measures:
  - Composite of Acute Prevention Quality Indicators
  - Composite of Composite of Chronic Prevention Quality Indicators:
  - All-Cause Hospital Readmission Measure

  **Note:** CMS has changed to attribution methodology for these measures to remove the pre-step and include NPs, PAs, and CNSs in the first step of the attribution process

- Patient Experiences of Care Measures are also available for the VM during calendar year 2016 and 2017. These measures would have been reported as CAHPS for PQRS under the GPRO reporting mechanism.

- CMS will use three cost measures beginning in calendar year 2016:
  - Total per capita costs measure (annual payment standardized and risk-adjusted Part A and Part B costs
  - Total per capita costs for beneficiaries with four chronic conditions: COPD, Heart Failure, Coronary Artery Disease, Diabetes
  - Medicare Spending Per Beneficiary measure (includes Part A and B costs during the 3 days before, through 30 days after discharge following an inpatient hospitalization)

- Beginning with the CY 2017 payment adjustment period, CMS will increase the case minimum from 20 to 200 cases for the all-cause hospital readmission measure.

Each year (often in late summer or early fall), practices and solo practitioners will receive a Quality Resource and Use Report (QRUR) from CMS. The QRUR will provide their information regarding quality and cost performance rates. Please visit the CMS website for further information on QRURs and how to read such reports once your practice receives them.

For questions regarding the VM and its implications on your payments, please contact the ASA Department on Payment and Practice Management. For questions regarding the VM and the use of cost and quality measures, please contact the ASA Department of Quality and Regulatory Affairs (QRA). QRA may be contacted at (202) 289-2222 or by e-mail at qra@asahq.org.

\(^{45}\) Information in this particular section was gathered from the December 2, 2014 CMS MLN Connects National Provider Call.
Chapter 5

The Regulatory Environment

5.0 THE REGULATORY ENVIRONMENT

5.1 HOSPITAL ACCREDITATION

5.2 HOSPITAL INTERPRETIVE GUIDELINES: 2014 POLICY TEMPLATES AND RESOURCES

46 Chapter 5 was last reviewed and updated in February 2015.
47 Robert S. Lagasse, M.D. originally authored Section 5.1.
5.0 THE REGULATORY ENVIRONMENT

The Department of Anesthesiology does not exist in a vacuum, and management must take into account the need to meet external requirements for performance reporting, benchmarking and peer review. Traditionally, the department has met these requirements by assisting the hospital in maintaining accreditation by The Joint Commission (TJC), formerly the Joint Commission on Accreditation of Healthcare Organizations. This was necessary because TJC was ‘deemed’ by the Centers for Medicare & Medicaid Services (CMS) as able to certify the hospital’s eligibility to receive federal payments. This near-monopoly on defining hospital quality has eroded in recent years – competing organizations have arisen and been similarly awarded deeming authority by CMS. An increasing numbers of patients, including surgical patients, receive care from outpatient facilities that are not under the hospital accreditation umbrella of TJC.

Section 5.1 compares various routes to accreditation now available to hospitals and surgery centers. All of the listed surveyors will demand evidence of a quality management (QM) program in the department of anesthesiology. When granting privileges and credentials, deeming organizations consider evidence that QM data is generated. Meeting this core requirement has become essential to anesthesia department management.

The TJC process, labelled Ongoing Professional Practice Evaluation (OPPE), assumes that the hospital is collecting and analyzing performance data on an individual-physician basis. The hospital, in turn, will often request this data from the department of anesthesiology. To date, the specific measurements required have been left to the discretion of the department, but it may not be long before certain elements of performance reporting are pre-specified. At present, most groups and hospitals use compliance with the Surgical Care Improvement Project (SCIP) as their OPPE metrics; in the future it is likely that these process measures will be replaced by the kind of outcome measures reported in the National Anesthesia Clinical Outcomes Registry (NACOR), as described in Section 4.

TJC surveyors will ask to see the department’s policy and procedure manual, both to assess it for the presence of certain key policies and to study whether the department is following its own specified procedures. This is one reason why periodic review of the manual is recommended and that outdated policies are retired and archived. The policies that are included in the manual should be written to meet external requirements (of course) but also to describe as closely as possible the way the practice actually works. It is easier to defend the lack of a particular policy than to justify, to a surveyor, clinical practice that is at odds with the written policy. Section 5.1.1 is a sample of one such policy, based on an issue which has been interpreted differently by surveyors and anesthesiologists on Endotracheal Tube Storage over the years. The policy shown is in compliance with the current understanding between the American Society of Anesthesiologists and TJC.
5.1 HOSPITAL ACCREDITATION: WHAT ARE MY CHOICES? HOW WILL IT AFFECT ME? 48

Recent Developments in Deeming Authority
The Social Security Act of 1965 states that hospitals accredited by The Joint Commission (TJC; formerly JCAHO) were “deemed” to have met most of the CMS Conditions of Participation (CoP). This statutory reference was removed in July 15, 2010. Over the years, three additional organizations have received “deemed” status: the American Osteopathic Association Healthcare Facilities Accreditation Program (1966), Det Norske Veritas (DNV) Healthcare (2008), and the Center for Improvement in Healthcare Quality (2013).

Validation Surveys
CMS conducts random surveys of hospitals that have been accredited by an organization with deeming status to validate the work conducted by the accrediting organization. There are two types of validation surveys:

1. A random sample, either comprehensive or focused;
2. In response to an allegation – this validation survey is always focused.

Neither type of survey is optional.

Advantages of Accreditation Beyond “Deemed” Status
Aside from a facility gaining “deemed” status, there are advantages to accreditation. For example:

- Insurers and other third parties may require accreditation to participate in managed care;
- Facilities may get a discount on liability insurance;
- There are possible state regulatory advantages;
- Some state laws require certain types of health care providers to be working at accredited facilities;
- Accreditation may spare hospitals the need to undergo surveys to assess compliance with state licensing requirements (e.g., Texas and North Carolina); and
- Accreditation may serve as a defense against negligent credentialing suits (e.g. Ohio)

There are a few options for different types of facilities seeking accreditation. Hospitals may choose among The Joint Commission; AOA Healthcare Facilities Accreditation Program (HFAP); DNV Healthcare; and the Center for Improvement in Healthcare Quality (CIHQ).

48 Chapter 5.0 written and edited by Robert S. Lagasse, MD.
Ambulatory Centers have two additional accreditation options: Accreditation Association for Ambulatory Health Care (AAAHC) and the American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF).

Choosing not to be accredited is common for smaller hospitals for financial reasons. If a hospital is not accredited, CMS and/or state agency surveys will be conducted. Details of these surveys are described in the Medicare State Operations Manual. When choosing an accrediting agency or even whether to seek accreditation or not there are many things a facility should consider, such as:

- State law;
- Accreditation requirements and any legal advantage accreditation may bring;
- Contracts—do payers or vendors require accreditation?
- The services and support offered; and
- Business considerations—direct and indirect costs, impact on quality, public relations and marketing.

The chart on the following pages presents information about each accrediting agency.

<table>
<thead>
<tr>
<th></th>
<th>The Joint Commission (TJC)</th>
<th>AOA Healthcare Facilities Accreditation Program (HFAP)</th>
<th>Det Norske Veritas (DNV) Healthcare</th>
<th>Center for Improvement in Healthcare Quality (CIHQ)</th>
<th>Accreditation Association for Ambulatory Health Care (AAAHC)</th>
<th>American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number and type of facilities</td>
<td>&gt;4,000 hospitals (82%)</td>
<td>&gt;90 hospitals</td>
<td>&gt;311 US hospitals</td>
<td>&gt;274 US hospitals</td>
<td>&gt;4,600 AHCFs</td>
<td>&gt;1000 ASCs</td>
</tr>
<tr>
<td>Type of Facility Surveyed</td>
<td>Hospital</td>
<td>Hospital</td>
<td>Hospital</td>
<td>Hospital</td>
<td>Ambulatory Center</td>
<td>Ambulatory Center</td>
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<tr>
<td><strong>Organizational Structure</strong></td>
<td>The Joint Commission (TJC)</td>
<td>AOA Healthcare Facilities Accreditation Program (HFAP)</td>
<td>Det Norske Veritas (DNV) Healthcare</td>
<td>Center for Improvement in Healthcare Quality (CIHQ)</td>
<td>Accreditation Association for Ambulatory Health Care (AAAHC)</td>
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<tr>
<td><strong>Private, non-profit corporation</strong></td>
<td>Formed 1951</td>
<td>Established in 1945 by the AOA; accredits osteopathic &amp; allopathic HCOs</td>
<td>International, independent, for-profit foundation; operating in the U.S. since 1898</td>
<td>For-profit healthcare consulting company, Accreditation Resource Services; Hospital Accreditation Division focuses on acute care and critical access hospitals</td>
<td>Private, non-profit organization formed in 1979; accredits a wide variety of ambulatory health care organizations, including Indian and student health centers</td>
<td>Not-for-profit organization formed in 1980; accredits ambulatory surgery facilities, including office-based and outpatient settings; separate accreditation program to evaluate and approve facilities for deemed status</td>
</tr>
<tr>
<td><strong>Governance &amp; Leadership</strong></td>
<td>Governed by Board of Commissioners with a majority of members appointed by AMA, ACP, ACS and the AHA, along with 6 public members, nursing and TJC president; TJC leadership helps influence national healthcare policy,</td>
<td>Governed by the AOA Bureau of Healthcare Facilities Accreditation consisting of physicians and administrators from family practice, surgery, internal medicine, pathology, obstetrics and gynecology,</td>
<td>Managed by a dedicated group of professionals with many years of experience in their respective field of healthcare management, clinical services, health law, ISO certification and engineering; gaining recognition for understanding the managed by a core group of professionals with many years of experience in their respective field of nursing, healthcare administration, quality, and information technology; Healthcare Accreditation Certification</td>
<td>Accreditation Association has 16 member organizations, including American Society of Anesthesiologists and Society for Ambulatory Anesthesia, which have representatives that serve on the AAAHC Board along with two</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The Joint Commission (TJC)</strong></td>
<td><strong>AOA Healthcare Facilities Accreditation Program (HFAP)</strong></td>
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<td><strong>American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF)</strong></td>
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<tr>
<td>funding priorities, performance measurement, and future legislation alongside other key stakeholders and influencers</td>
<td>hospital administration, colleges of osteopathic medicine and the American Academy of Osteopathy; Key player in shaping healthcare policy</td>
<td>dynamics of complex healthcare organizations in the U.S.</td>
<td>Program (HACP) professional credential solely dedicated to demonstrating competency in the CMS survey and certification process</td>
<td>public members; The growth from the six founding member organizations has allowed them to expand beyond ambulatory surgical facilities.</td>
<td></td>
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<tr>
<td><strong>Accreditation Requirements</strong></td>
<td><strong>Healthcare practice standards and national patient safety goals are developed in concert with healthcare professionals, the public, and other key stakeholders. Requirements exceed the CMS Conditions of Participation.</strong></td>
<td><strong>CMS CoPs and other nationally recognized standards, as well as evidence-based best practice and selected patient safety initiatives (e.g., AHRQ, IHI). Requirements exceed the CMS Conditions of Participation</strong></td>
<td><strong>National Integrated Accreditation for Healthcare Organizations (NIAHO) standards integrate the CMS CoPs with ISO 9001 Standards for formation and implementation of a Quality Management System. Standards are less prescriptive and focus on continual improvement.</strong></td>
<td><strong>CIHQ uses CMS's Conditions of Participation (CoPs) for its regulatory standards. In addition CIHQ has a few of its own standards that cover &quot;gaps in the CoPs in the areas of patient safety and quality of care&quot; (e.g. temporary privileges, fair hearing process, physician health, and telemedicine) Review by the AAAHC surveyors for compliance with core standards that apply to all organizations seeking accreditation. Additional adjunct standards apply to organizations based on the services they provide (e.g. anesthesia services)</strong></td>
<td><strong>30-day mortality reported to AAAASF; biannual Peer Review Report; Medical Director is M.D. or D.O.; Every physician holds unrestricted hospital privileges at an accredited acute care hospital within 30 minutes; basic mandates and class standards</strong></td>
<td></td>
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### Survey Process

<table>
<thead>
<tr>
<th><strong>The Joint Commission (TJC)</strong></th>
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<th><strong>American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided by Priority Focus Process; Tracer methodology; verification of implementation of corrective action from self-assessment; interactive education sessions; Final report with Recommendations For Improvement left on-site; Final decision posted on Quality Check.</td>
<td>Care Access Review &amp; Evaluation (CARE); patient-centered linear review of patient care and evaluation of facility practices based on evidence-based medicine practices, quality assurance parameters and bio-medical ethics; educationally focused recommendations for corrective measures for deficiencies; Voluntary public reporting into</td>
<td>Concurrent NIAHO and ISO surveys; Tracer methodology; DNV accredited after last survey day; Corrective Action Plan; Approval by the Accreditation Committee; Three years to become compliant with ISO 9001 standards; Introduction, Pre-assessment, ISO certification</td>
<td>Information contained in the Accreditation Survey Activity Guide Available free-of-charge to all applicant and accredited organizations (accreditation policy); Tracer activities, patient interviews, and staff interviews as required by CMS Extensive Credentialing and Privileging file review (non-prescriptive)</td>
<td>Involves self-assessment by the organization, as well as a thorough on-site survey. The scope of a survey is based on the application and supporting documentation. Standards are divided into core standards that apply to all organizations, and adjunct standards that apply to organizations based on the services they provide (e.g. anesthesia services)</td>
<td>A facility is inspected every three years for compliance with basic mandates and class specific standards; Classes based on type/depth of anesthesia under which the procedures may be performed; A self-evaluation by the facility director is performed between inspections each year using the same Standards &amp; Checklist answer sheet</td>
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<thead>
<tr>
<th>Survey Frequency</th>
<th>The Joint Commission (TJC)</th>
<th>AOA Healthcare Facilities Accreditation Program (HFAP)</th>
<th>Det Norske Veritas (DNV) Healthcare</th>
<th>Center for Improvement in Healthcare Quality (CIHQ)</th>
<th>Accreditation Association for Ambulatory Health Care (AAAHC)</th>
<th>American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF)</th>
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<tr>
<td>TJC performs on-site surveys every three years. A self-assessment (Periodic Performance Review) is prepared annually by the hospital.</td>
<td>Ambulatory Surgery Center Quality Collaboration</td>
<td>HFAP performs on-site surveys of hospitals once every three years.</td>
<td>DNV performs an annual on-site survey</td>
<td>CIHQ performs triennial &amp; mid-cycle surveys</td>
<td>For AAAHC, on-site inspections are requested by the health care organization every three years to maintain deemed status, in addition to annual self-assessments and ongoing peer review.</td>
<td>AAAASF does on-site inspections every three years and the facility is evaluated each year by the facility director.</td>
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<td>Performance Improvement</td>
<td>The Joint Commission (TJC)</td>
<td>AOA Healthcare Facilities Accreditation Program (HFAP)</td>
<td>Det Norske Veritas (DNV) Healthcare</td>
<td>Center for Improvement in Healthcare Quality (CIHQ)</td>
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<td>ORYX guides performance improvement; Core Measure Sets (e.g., AMI, CHF, etc.); four or more core measure sets required; Publicly reported on Quality Check; Periodic Performance Review (PPR); Strategic Surveillance System (S3)</td>
<td>Hospital's core measure data extracted from the Hospital Compare website. The data is aggregated and used during the survey process to allow hospitals to see how they compare to their previous reporting period as well as to other HFAP accredited hospitals nationwide. May require safety initiative participation.</td>
<td>International Standards Organization 9001 Standard for formation and implementation of Quality Management Systems; fundamentals of quality systems; management responsibility; over a million organizations certified; ISO 9001 one of the most widely used management tools (170 countries)</td>
<td>CMS requires hospitals to have a Quality Assessment and Performance Program (QAPI); No specific requirements for QAPI structure and methodology; No single approach to performance improvement is universally accepted.</td>
<td>Institute for Quality Improvement (1999); non-profit organization offers surveys designed specifically for ambulatory care (e.g. disease or procedure specific performance measurement, cost, and quality improvement); benchmarking against similar facilities; one page, 5-10 minutes each, 15-25 per ambulatory facility, available online</td>
<td>Peer Review performed every 6 months and includes both Random Cases and Unanticipated Operative Sequelae using the required AAAASF online format minimum of six cases per surgeon utilizing the facility or 2% of all cases in a group; all unanticipated sequelae; means for measuring medical competence and evaluating patient safety.</td>
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<td>Scoring Process</td>
<td>The Joint Commission (TJC)</td>
<td>AOA Healthcare Facilities Accreditation Program (HFAP)</td>
<td>Det Norske Veritas (DNV) Healthcare</td>
<td>Center for Improvement in Healthcare Quality (CIHQ)</td>
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<td>Elements of Performance are scored as Insufficient Compliance, Partial Compliance, or Satisfactory Compliance; Standards are identified as compliant or not compliant, based on EP scoring; Immediacy of risk to the patient (criticality) determines immediacy of risk to accreditation status</td>
<td>Surveyors report discrepancies to the HFAP Office. The facility is then sent a comprehensive report. The facility then submits a Plan of Correction within 30-60 days. Documentation of correction is required to be accredited.</td>
<td>Nonconformities identified by survey. The organization is responsible for developing and implementing corrective action plans to address all.</td>
<td>Standards are scored as pass/fail. Hospitals generally cannot fail an accreditation survey by CIHQ if an acceptable plan of correction is developed and implemented.</td>
<td>Surveyors consider the organization's compliance with the standards, accuracy of survey findings, and the organization's commitment to providing high-quality. Time limited accreditation (0.5 to 1 year) if some areas need to be addressed, 3 year accreditation if in full compliance.</td>
<td>Standards &amp; Checklist; General Environment, OR Environment; Policy &amp; Procedure, PACU Environment, General Safety in the Facility, Blood and Medications, Medical Records, Quality Assessment/Quality Improvement, Personnel, Governance, Anesthesia. Generally three to six months to correct all deficiencies and document corrections.</td>
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<tr>
<td>Accreditation Categories</td>
<td>The Joint Commission (TJC)</td>
<td>AOA Healthcare Facilities Accreditation Program (HFAP)</td>
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<td>Accredited: Complaint with all applicable standards at the time of survey or has successfully addressed all RFIs; Provisional: Fail to successfully address RFIs; Conditional: RFI requires onsite follow-up; Preliminary Denial: Subject to appeal; Denial: Accreditation denied &amp; appeals exhausted.</td>
<td>Accredited: Full Accreditation; Interim Accreditation: plan of correction submitted in response to deficiency report; Denial: insufficient plan of correction in response to deficiency report</td>
<td>Accredited: Nonconformities resolved pursuant to accepted corrective action plan; Jeopardy Status: Organization fails to meet corrective action plan requirements; Not Accredited</td>
<td>Surveys are scored as pass/fail. Hospitals generally cannot fail an accreditation survey by ICHQ if an acceptable plan of correction is developed and implemented. Accredited or Not Accredited</td>
<td>Accreditation for 3 years: Substantial compliance with the standards; Accreditation for 1 year: Requires sufficient time to achieve compliance, on-site survey in 10 months; Accreditation for 6 months: Continued compliance not well-established; Denial or revocation of accreditation</td>
<td>Regular accreditation without deficiencies; Medicare accreditation without deficiencies; Regular accreditation with deficiencies (deficiency corrections need documentation); Medicare accreditation with life safety code and/or standard deficiencies (deficiency correction must be documented)</td>
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Accreditation Categories
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<td><strong>Support</strong></td>
<td>Dedicated account representatives; Standards interpretation assistance; Periodic performance reviews; Patient safety alerts and advisories; Strategic surveillance system (S3); Electronic manuals at a cost; Joint Commission Resources</td>
<td>Standards interpretation for clients; Accreditation Manuals, including cross-reference to CMS CoPs, available for purchase by clients</td>
<td>NIAHO Standards and other support materials available free online; Interpretive Guidelines for Accreditation Process available free online; ISO 9001/NIAHO implementation course and other in-depth course available for a fee (web-based and instructor led)</td>
<td>Unlimited access to experts by phone or email with responses within 48-72 hours; Electronic alerts of new or modified standards within 3-5 business days; Electronic resource &amp; reference libraries linked to standards and policy templates; Complimentary monthly audio conferences (1-1.5 hours) on CIHQ &amp; CMS compliance</td>
<td>Accreditation Handbook for Ambulatory Health Care is available for purchase; Achieving Accreditation is an interactive, in-depth educational seminar for a registration fee designed to help organizations prepare for the Accreditation Association survey; Healthcare Consultants International, Inc. (HCI) is a for profit subsidiary providing medical and surgical consulting services.</td>
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<td>Cost</td>
<td>The Joint Commission (TJC)</td>
<td>AOA Healthcare Facilities Accreditation Program (HFAP)</td>
<td>Det Norske Veritas (DNV) Healthcare</td>
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<td>The average cost for The Joint Commission services is $33,000 for three years. Survey is required once every three years. Individual hospital costs vary by size and complexity.</td>
<td>The average cost for HFAP services is $25,000 for three years. Individual facility costs vary by size and complexity.</td>
<td>The average annual cost is $23,100. The cost of the survey is based on the number of surveyors, length of the survey, size of the facility, average daily census, number of FTEs, complexity of services offered, type of survey and number of off-site clinics or locations. Online &quot;quick quote&quot; available.</td>
<td>Cost varies by size of facility up to 400 beds from $5,500-$22,000/3 years. &gt;400 beds must call for pricing. Disease specific certification fee $2,500 per year (stroke, heart failure, and joint replacement). No additional fees for follow-up surveys due to deficiencies or &lt; complaints.</td>
<td>Fee based on size, type and range of services provided is determined at time of application. Estimates are not available online. The AAAHC Handbook has additional information regarding payment of survey fees. If the organization cancels or postpones its survey 15-29 days before the survey, the AAAHC will assess a $500 Administrative fee.</td>
</tr>
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</table>
5.2 HOSPITAL INTERPRETIVE GUIDELINES: 2014 POLICY TEMPLATES AND RESOURCES

On January 14, 2011, the Centers for Medicare and Medicaid Services (CMS) issued revised Interpretive Guidelines (IGs) pertaining to the hospital Conditions of Participation. To help its members implement the many changes in these IGs, ASA has prepared a set of policy templates and forms. Language that is quoted from the IGs is in blue color in these documents, as well as the source reference e.g. (§482.52).

In the IGs, CMS reaffirmed its many-year definition of “anesthesia,” to mean general anesthesia, regional anesthesia, deep sedation/analgesia or monitored anesthesia care. “Analgesia/sedation” is defined as local/topical anesthesia, minimal sedation, and moderate sedation/analgesia (“conscious sedation”).

Only qualified anesthesia professionals are permitted to administer “anesthesia” as defined above. CMS defines these individuals as qualified anesthesiologists; non-anesthesiologist MD/DOs; dentists, oral surgeons or podiatrists qualified under State law; nurse anesthetists (CRNAs); and anesthesiologist assistants (AAs). CMS now more clearly acknowledges that the boundary between ‘anesthesia’ and ‘analgesia’ is a continuum. Since there are certain CMS requirements that apply only when “anesthesia” is administered, each hospital must establish policies and procedures, based on nationally recognized guidelines, which address whether specific clinical situations involve ‘anesthesia’ versus ‘analgesia’. New in this revision is a hospital requirement to monitor quality and safety indicators for all ‘anesthesia’ and ‘analgesia’ services. (§482.52)

- See policy template “Scope of Anesthesia Services”

CMS has affirmed that “all services along the continuum of anesthesia services provided in a hospital must be organized under a single anesthesia service, which must be directed by a qualified physician. The Director has the authority and responsibility for directing the administration of all anesthesia throughout the hospital “including all departments in all campuses and off-site locations where anesthesia services are provided,” as well as for the quality and appropriateness of anesthesia care. The Director must be appointed using qualification criteria approved by the hospital’s governing body.

- See policy template “Director of Anesthesia Services: Job Description”

The service and its Director are also responsible for planning, directing and supervising all activities of the anesthesia service. This responsibility includes establishing criteria for granting privileges to all providers, from topical/local anesthesia through all levels of sedation to general anesthesia.

- See policy template “Policies and Procedures Governing Anesthesia Privileging in Hospitals”

The updated IGs also provide more detail on the requirements for pre- and post-anesthesia evaluations. These evaluations must be performed whenever general anesthesia, regional anesthesia, deep sedation/analgesia or monitored anesthesia care is administered, and can be completed only by a qualified anesthesia professional. However, this need not be the same practitioner who administered the anesthesia to the patient.

The pre-anesthesia medical history review as well as patient interview and examination must be completed within 48 hours prior to the first dose of medication for anesthesia induction. The IGs now

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49 Approved by the ASA Committee on Quality Management and Departmental Administration on May 19, 2011, and last amended on June 30, 2014.
clarify that the other specified components of the pre-anesthesia evaluation may be performed within 30 days before the procedure, needing review and update within the 48-hour window.

- See policy templates for “Preanesthesia Evaluation” and for the “Preanesthesia Evaluation Note”

The postanesthesia evaluation must be completed within 48 hours from the time the patient is moved to the designated recovery area (e.g., same day surgery recovery, PACU or ICU). The postanesthesia evaluation should not begin until the patient has recovered sufficiently from the anesthesia to appropriately participate in the assessment, unless the plan is continued sedation.

- See policy templates for “Postanesthesia Evaluation” and for the “Postanesthesia Evaluation Note”

Current practice dictates that the patient receiving moderate sedation be monitored and evaluated before, during, and after the procedure by trained practitioners. However, pre- and post- anesthesia evaluations are not required for moderate sedation for the purposes of complying with the hospital Conditions of Participation, because moderate sedation is not considered by CMS to be “anesthesia” and thus is not subject to this requirement. Nevertheless, the director of anesthesia services should define what are the minimum requirements for pre- and post- sedation evaluations.

The IGs also provide guidance on the minimum elements required under the current standard of care for an anesthesia intra-operative report or record.

- See policy template “Intraoperative Anesthesia Record”

It is important that anesthesiologists proactively work with their facility's Medical Executive Committee, or its local equivalent. The authority given by CMS to the director of anesthesia services gives anesthesiologists the opportunity and the authority to promote safety throughout our hospitals for all aspects, levels and providers of anesthesia care.

Finally, the policy templates and resources are not intended to be, nor should they be interpreted as, legal advice. All anesthesia departments and hospitals should review these templates and resources with appropriate legal counsel and make their own determinations as to relevance to their particular hospital setting and compliance with State and federal laws and regulations.

Beverly K. Philip, MD

This Quality Management and Departmental Administration committee work product has not been reviewed or approved by ASA’s Board of Directors or House of Delegates and does not represent an ASA Policy, Statement, or Guideline.
Chapter 6

Special Topics\(^{50}\)

Additional “Special Topics” are planned for future MADOM editions.

6.1 AMERICAN BOARD OF ANESTHESIOLOGY (ABA) MAINTENANCE OF CERTIFICATION IN ANESTHESIOLOGY (MOCA)\(^{51}\)

6.2 CRITICAL CARE

6.3 EMERGENCY PREPAREDNESS \(^{52}\)

A. Introduction
B. Hospital and Departmental Preparedness
C. Anesthesiology Departmental Preparation
D. The Big Picture: The National Response Framework and Incident Command Systems (NRF, NIMS, ICS, HICS)
E. Physician Volunteerism During Major Disasters and Community Emergencies
F. Volunteer Opportunities and Registries
G. Self-Protection
H. The Role of Medical Regulatory Agencies in Disaster Management
I. Resources and Acronyms

6.4 EMERGENCY MANUALS IMPLEMENTATION COLLABORATIVE (EMIC)

6.5 ELECTRONIC HEALTH RECORD – DATA CAPTURE

\(^{50}\) Chapter 6 was reviewed by the Committee on Quality Management and Departmental Administration in Fall 2014; Sections 6.4 and 6.5 were updated in May 2015.

\(^{51}\) Dr. Arnold J. Berry, MD, MPH, Professor of Anesthesiology, Emory University School of Medicine, Atlanta, GA authored Section 6.1.

\(^{52}\) Joseph McIsaac, M.D., M.S. was the Section Editor for Emergency Preparedness in the 2010 edition of MADOM. Contributing authors in 2010 included Jill Antoine, M.D., Paul Barach, M.D., M.P.H., J. Kent Garman, M.D., Carin Hagberg, M.D., Harriet Hame, M.D., Bill Horton, M.D. and Bonnie Tompkins, M.D. The listed authors prepared the original Emergency Preparedness Chapter for MADOM in 2010. Minor updates to online resources and minor edits were added by the American Society of Anesthesiologists in 2014.
6.1 AMERICAN BOARD OF ANESTHESIOLOGY (ABA) MAINTENANCE OF CERTIFICATION IN ANESTHESIOLOGY (MOCA)

The American Board of Anesthesiology awards certification to anesthesiologists after they have completed training in an accredited residency program and have successfully passed the written and oral exams. The ABA awarded “life time” certificates (Non-Time Limited Certification [NTLC]) to diplomates completing the process before January 1, 2000. After that time, ABA awarded only Time Limited Certificates (TLC) that expire after 10 years unless the diplomate participates in and successfully completes all Maintenance of Certification in Anesthesiology (MOCA) requirements. The ABA is one of 24 member boards of the American Board of Medical Specialties (ABMS) and must follow the general Maintenance of Certification requirements set by ABMS.

MOCA consists of the following four Components and the detailed requirements for each are listed and explained on the ABA website.

- **Part 1: Professional Standing**
  Must hold an unrestricted license to practice medicine in the U.S. or Canada

- **Part 2: Lifelong Learning and Self-Assessment**
  CME credits including credits in Self-Assessment CME and Patient Safety CME

- **Part 3: Cognitive Examination**
  The ABA routinely posts examination dates candidates signing up for In-Training Examinations, Anesthesiology Certification, MOCA, Subspecialty Certification, and Subspecialty Recertification

- **Part 4: Practice Performance Assessment and Improvement**
  Depending on the year of certification, may consist of a Case Evaluation, Simulation activity and an Attestation of the diplomate’s clinical activity and ongoing program of practice assessment and performance improvement

As MOCA has evolved since its implementation in 2000, the requirements for cohorts entering the system have periodically changed. The specific MOCA requirements for the four parts by year of initial certification are posted on the ABA website. The ABA has also posted Frequently Asked Questions (FAQs) for MOCA.

**Voluntary and Expedited MOCA for Non-Time Limited Certificate Holders**
The ABA has stated that they will not revoke certification for anesthesiologists who hold non-time-limited (NTL) certificates, but these anesthesiologists may choose to voluntarily participate in MOCA. For anesthesiologists with NTL certification who need to complete MOCA more quickly, there is an expedited pathway.

**MOC:PQRS Incentive Payment for ABA Diplomates participating in MOCA**
The Affordable Care Act permits diplomates participating in MOCA in 2014 to qualify for a bonus incentive payment if they also participate in the Physician Quality Reporting System (PQRS). As of April 2014, CMS has not defined MOC:PQRS beyond 2014.
**MOC:PQRS** requires that diplomates participate more frequently in their MOC program and therefore, there are extra MOCA requirements for those who choose to take part in this.

**MOCA for Subspecialties**
As of April 2014, ABA offers Subspecialty Certification in:
- Critical Care Medicine
- Pain Medicine
- Hospice and Palliative Medicine
- Sleep Medicine
- Pediatric Anesthesiology

After completing primary ABA certification, anesthesiologists who practice in one of these subspecialties may gain subspecialty certification. Anesthesiologists may choose to maintain both their primary and subspecialty certifications by completing both sets of MOCA requirements, but to facilitate this process, several of the requirements overlap. Related information may also be found in ABA’s Booklets of Information (BOI).

Once subspecialty certification is obtained, primary ABA certification is not required and the anesthesiologist is not required to participate and complete primary MOCA. But, if the subspecialty MOCA requirements are not completed, the individual will no longer be ABA certified.
6.2 CRITICAL CARE

Critical care services add value to an anesthesia department. The roles for and value of critical care services are explained in the Principles of Critical Care Medicine (2013). The services provided by critical care strengthen relationships within the hospital, extend anesthesiology services into the postoperative setting, and serve as an opportunity for leadership within the medical organization.

Critical Care Organization

Establishing levels of care in a health care organization is fundamental to setting up a critical care service.53 There are numerous models for critical care delivery, but common to all is a multidisciplinary team consisting of physicians, nurses, technicians, and sometimes pharmacists, dieticians, therapists and social workers. Coordinating the input of these services affords many different critical care delivery models. Intensivists train in a variety of primary disciplines, including anesthesiology, emergency medicine, medicine, pediatrics and surgery. It is possible to create an independent department of critical care, and many argue its advantages. Further, some type of critical care infrastructure needs to exist to coordinate care across specialties and to mediate decisions during transitions to or from the intensive care unit (ICU). However, many critical care physicians feel more comfortable under the administrative umbrella of their primary specialty. This affords support in career development and through professional societies, and facilitates part-time practice in the primary area of training. This is particularly the case for anesthesiology-based intensivists, who benefit from participation in anesthesia care as part of a continuum of perioperative care, and for whom operating room time is beneficial for billing and for professional enrichment. Managing critical care services from within an anesthesiology department can enhance the department’s profile and power within a medical center.

Scheduling

Many, if not most, practicing anesthesiologist intensivists prefer to spend part of their clinical time in the intensive care units, frequently attending in the ICU for less than a week per month. This speaks to the high-stress and long hours associated with providing critical care services. The ability to work part of the time in the operatory is a useful way to maintain skills in the primary specialty and enjoy professional variety. Intensivists maintain their professional profile within an anesthesiology department by providing care in the operating room. Similarly, pulmonologists or other intensive care professionals in the department can improve their visibility by staffing preoperative clinics or other clinical areas in perioperative care. Finally, there is a beneficial trade in ideas that occurs as an intensivist-anesthesiologist provides care in the ORs and ICUs. The dual nature of most anesthesiology intensivists generates several important resource considerations.

Reimbursement

Critical care services generate revenue, but often not as productively as anesthesia services. Because the details of billing in the ICU are distinctly different from reimbursement for anesthesia services, traditional anesthesia billing management services might not have the expertise to optimize reimbursement. Pooling revenues can be an important way to promote a collegial, team-like work environment. Health care administrators might be sympathetic to the vital role of critical care to their organizations, facilitating subsidies. As the base salaries for intensivists are higher than some other specialty-based intensivists, and most intensivists would be reluctant to take a pay cut to practice their subspecialty, subsidies might be necessary. Reimbursement schemes include a base pay, clinical productivity

incentives or a combination. In-house intensivist staffing is possible under a shared call or incentive payment structure.

**Use of mid-levels/training staff**

Critical care training is a core component of anesthesiology residency training. Many intensive care units (ICUs) staffed by anesthesiology-based faculty participate in resident and fellow training. These supervised trainees can provide care, generate documentation and perform procedures, extending the abilities of the primary intensivist. Alternatively, advance practice nurses, physician assistants and nurse practitioners can similarly act as physician extenders. Both trainees and physician extenders can take overnight call, providing additional clinical expertise in the ICU during off hours. There are many useful resources available about how to incorporate extenders into critical care practice.

**RESOURCES:**


6.3 EMERGENCY PREPAREDNESS

A. Introduction

Since the September 11, 2001, attacks on the United States, the public health sector has focused on disaster emergency preparedness. National and state efforts have primarily been directed to pre-hospital and emergency department preparation for mass casualties (both conventional and those due to weapons of mass destruction (WMD) exposure). Disaster response, however, does not stop at the ground floor of the institution. The whole hospital must work together to manage the patient surge. A modern Department of Anesthesiology is not limited to the operating theater; it interfaces with a wide variety of services and is essential to delivery of quality medical care. The Anesthesiology Chair, in conjunction with departmental leadership and the Hospital Emergency Preparedness Committee, is responsible for ensuring continuity of care during a crisis.

Preparedness is a basic skill. All members of the department should understand the overall plan and their individual roles during a disaster. Trauma care, mass casualty surge capacity, pandemic disease response, infrastructure preservation, nuclear, chemical, biological exposure, personal protective equipment, family care planning, and emergency communications are topics that must be regularly reviewed during departmental in-service training. While it is important to have experts who champion the cause, provide education, and establish standards, it is ultimately the Chair's responsibility to ensure that the department can provide effective care during a disaster.

The American Society of Anesthesiologists® (ASA) has an established Committee on Trauma and Emergency Preparedness (COTEP) that is committed to providing a user-friendly website that will help members, their families, and their practice prepare for any trauma or emergency. In addition, the ASA COTEP website provides accurate and timely information, practice guidelines and useful links for managing casualties from trauma, natural disasters, fires, industrial injuries, and weapons of mass destruction.

B. Hospital and Departmental Preparedness

In a public health emergency resulting in mass casualties, such as a terrorist attack, a pandemic, or a catastrophic natural disaster, health care facilities and hospitals will be required to triage and provide medical treatment to large numbers of individuals. In an event involving nuclear, chemical, or biological agents, there is also a risk of toxic injury to health care responders through contamination from the site and the patients themselves.

This chapter focuses on how a department of anesthesiology should prepare for such a large-scale health emergency.

The Hospital Plan

The first stage of plan development is to perform a hazard vulnerability analysis (HVA). This is simply a listing of various internal and external hazards with an assessment of the likelihood of an event versus the impact (the institution's ability to respond). This list can then be prioritized. Over time, as specific hazards are deemed to be manageable, others rise to the top. The HVA is reviewed and revised on a yearly basis.

Once an event occurs, its impact is determined by the institution’s capacity to absorb the surge and its overall response. “Surge capacity is a health care system’s ability to expand quickly beyond normal services to meet an increased demand for medical care in the event of bioterrorism or other large-scale
public health emergencies.” Simple counter-measures can save many lives but require an appropriate emergency response with the availability of basic decontamination, protective equipment, antidote supplies, and trained rescue and medical teams that are available without delay. Paramedics and emergency department staff, in most cases, will be the front line in a major disaster, but they will soon be overwhelmed, and anesthesiologists will certainly be the next in line because of their ability to respond to the need for life support. In any case scenario of public health emergencies, even a small event, anesthesiologists are very likely to be directly involved in either the operative or critical care of the victims.

Hospital disaster policies should ideally be developed and coordinated in conjunction with the city, state, and national disaster medical system and other health facilities. The guiding goal should be the prevention and minimization of death, disability, and suffering as a large number of patients are treated in a short period of time.

In the event of a public health emergency, a Hospital Preparedness Program (HPP) should entail the following:

1. **Integration:**
   Integration of both private and public medical capabilities with public health and first responder systems;

2. **Medical preparedness:**
   Increasing the preparedness, response capabilities, and surge capacities of hospitals, other health care facilities and emergency medical service systems;

3. **At-risk populations:**
   Identify at-risk populations and determine their public health and medical needs (including trauma care facilities);

4. **Coordination:**
   Coordinating all levels of planning, preparedness, response, and recovery activities; and

5. **Continuity of operations:**
   Maintaining necessary public health and medical services.

The disaster plan must:
- Specify both process and outcome objectives,
- Identify rapid surveillance methods,
- Identify equipment needs, strategies for medical and public health intervention, and chain of command among participating response organizations,
- Identify linkages and information flow among participants,
- Identify personnel who will intervene, and timing and phasing of response,
- Identify methods for communicating with the public, and
- Identify clinical and administrative leaders and their lines of management.

**Logistics**

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Hospitals and health care workers will be strained by disaster management. In addition to emergency departments, critical care units and rehabilitation beds will be overwhelmed. Current recommendations to help hospitals prepare for such an event focus on the “three S’s” – supplies, staff, and space.55

**Supplies and Equipment**

Hospitals and health care facilities usually function with a “just-in-time” supply chain. Limited supplies, including pharmaceuticals, are stored on-site and delivered and replenished when needed. While this method of supply helps diminish hospital storage costs, it also threatens a successful disaster response.

In addition to the supplies, hospitals are likely to run short of vital equipment, such as ventilators, oxygen and decontamination units.

Ventilators are crucial, especially during events such as an influenza pandemic, as they are necessary equipment for the management of respiratory failure. A good departmental plan should include plans for ventilator use, as well as proper universal precaution procedures and an adequate supply of personal protective equipment (PPE). A back-up plan should be established in case supplies run out, such as cleaning and reusing materials, or in the event that hospital gas supplies fail. Austere conditions may exist for an extended period during some disasters and proper preparation will lessen the impact.

**Staff**

Workforce shortages are an ongoing challenge for most hospitals and health care facilities. Providers and staff members need to be trained to go to work in the midst of a chaotic and uncertain environment. Providers rely on their relief to show up so they can address their own family and personal needs.

The department’s disaster plan requires that employees be familiar with and prepared to perform other duties or jobs requested. Employee identification badges and stickers for access should be obtained and updated. Every employee from hospital administrator to housekeeper plays an important role in providing the best clinical care for patients during a disaster.

Teams should be determined based on availability and skill mix. Employees should be organized into A, B and C teams.

**A Team (Ride Out Team)** – Members are assigned to the facilities during the disaster. In general, A Team reports to their designated facility 2 days/48 hours prior to anticipated events. Facilities need to consider accommodating family members and providing childcare needs for members of the A Team.

**B Team (Ramp Up and Relief Team)** – Members report to their designated work locations 3 days/72 hours prior to the anticipated disaster. The B team will assist in the overall preparedness until relieved by the A Team. The B Team will report back to work within 24 hours as relief support, as determined by the system command center.

**C Team** – Members should provide overall preparedness support up to 2 days/48 hours prior to the anticipated disaster and available to report to work within 24-48 hours after the disaster, as determined by the system command center. The C Team should provide relief to the B team, if necessary, and be involved in restoring normal operations.

A facility command center should be established to provide all local facility internal communications, including updates and information to patients and families. Only authorized personnel should be permitted to enter and remain in the facilities.

The Emergency Center can be further divided into separate teams related to medical triage – responsible for the quick assessment of patients:

i. Immediate care – responsible for the treatment of life threatening injuries.
iii. Non-urgent care – responsible for treatment of patients who need first aid only
   (Ambulatory Care areas may be utilized as back up for minimal only care)
iv. Clerical – responsible for logging each patient according to each area they are treated.

**Space**

During a disaster, hospitals will be required to treat the sudden influx of injured, walking sick and sick patients. The following suggestions regarding space should be considered in the event of a disaster:

- Discharge of any patients (including emergency department) who can continue their care safely at home;
- Cancel elective surgical procedures and reassign staff;
- Limit the use of ancillary services including radiological and laboratory testing;
- Group like-patient types together to allow efficient patient care;
- Increase capacity of patient rooms;
- Convert other areas of the hospital to patient bed areas, such as waiting rooms and outpatient clinics.

Other mechanisms to increase surge capacity include the development of staff call centers and the use of home consult services will also allow for an increase in surge capacity.

**Surge Prediction**

The [Agency for Healthcare Research and Quality (AHRQ) Hospital Surge Model](https://www.ahrq.gov) estimates the hospital resources to treat casualties arising from biological, chemical, nuclear or radiological attacks:

- The number of casualties arriving at the hospital, by an evaluation of condition (e.g. mild or severe symptoms, and day/time)
- The number of casualties in the hospital, by unit (ED, ICU, or floor) and day
- The cumulative number of dead or discharged casualties, by day; and
- The required hospital resources (personnel, equipment, and supplies) to treat casualties, by unit and day.

Although this model is an excellent tool to estimate hospital resources for a public health emergency, it does not take into account the number of anesthesia care providers necessary to support surgical care. Each Anesthesiology Department will need to make their own estimate of anesthesia care providers based on their patient care model and staff availability. Additionally, AHRQ has established guidelines to assist pediatric hospitals in converting standard to surge capacity in order to provide care for large numbers of critically ill children.56

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C. Anesthesiology Departmental Preparation

Although there is a paucity of literature on planning and training for disasters at the level a whole should be used to prepare the operating room teams. Anesthesiology and the leadership of the operating room should use the same processes that are required to prepare the hospital. The hospital's Hazard Vulnerability Analysis (HVA) is the basis for a departmental HVA. Priorities will then emerge depending on local circumstances and capabilities.

Anesthesia care providers should be considered “first responders” as they may be called upon to perform lifesaving emergency treatment, such as intubation of a patient who will likely be difficult to intubate. An anesthesiologist or surgeon should be involved with or in charge of a triage team(s).

Mass casualties, by definition, involve numbers of patients that overwhelm the system, either due to absolute numbers or to a degradation of the facility's capacity. Anesthesia care providers must be prepared to rapidly provide surgical anesthesia to large numbers of trauma victims. Depending on circumstances, the situation may necessitate anesthetics that allow patients to breathe spontaneously and protect their own airway. Total intravenous anesthesia using a combination of sedative hypnotics and narcotics or regional anesthetic techniques should be considered when access to technology is compromised (lack of power or availability of operating rooms).

Department responsibilities for planning and supplying continuing operations need to be addressed. A department plan should be established and it should be tested, practiced and revised, as necessary. The plan should encompass nursing, anesthesiology and surgery in order to ensure collaboration of all three specialties. The plan consists of:

- The Chain of Command
- Task Priorities
- Patient Flow
- Logistics
- Communications
- Isolation and Personal Protection

Several actions need to occur in rapid succession and should be summarized on a single sheet of paper prominently displayed or readily available to the entire staff.

Operating Room Chief Priority Tasks

- Briefly coordinate with the Chief of OR Nursing to assess status (number of staffed ORs available: immediately, in 30 minutes, and in 60 minutes).
- Anesthesia floor manager should co-locate with the OR nursing manager to ease communication and coordination. Anesthesia floor manager should become the OR Medical Director until relieved.
- Notify all surgical teams of disaster (including pertinent information such as WMDs), instruct them to finish expeditiously any ongoing cases, and prepare to receive trauma patients.

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58 Responsibilities were modified from Figure 13.3 in McIsaac JH. “Operating Room Preparation for Mass Casualties,” in McIsaac JH, ed. Hospital Preparation for Bioterror: A Medical and Biomedical Systems Approach. Amsterdam: Academic Press, 2006.
• Elective cases should be placed on hold.
• Assign free staff to set up for trauma/emergency cases.
• Activate disaster personnel call-in tree (a branched tree is more efficient than a list).
• Notify PACU and ICU to discharge patients, call in personnel and expand bed capacity.
• Coordinate with anesthesia techs to ensure adequate supplies of fluids, drugs, and disposables.
• Instruct supply personnel to restock/overstock all locations.
• Coordinate with Blood Bank, Pharmacy, and Central Supply to expect increased demands.
• Coordinate with Surgical Chief to assess availability of surgeons.
• Send liaison to ED to assess situation and report back (number and types of cases).
• Consider assembling contingency teams for “off-floor” response (airway emergency management, ED and ICU assistance).
• If airborne infectious disease is suspected, or there is the potential for chemical or radiological contamination, coordinate with Security and Facilities Management to institute isolation/personal protection procedure.
• Ensure there is a back-up communications plan and staff is aware of it.

It is expected that emergency personnel who are well trained, confident in their skills, and assured that their families are safe will report for duty during a crisis. The converse is also true. The department leadership must ensure that each member feels adequately trained, has access to appropriate equipment, and has a family disaster plan in place. Don't neglect ancillary support personnel. If the individuals who deliver supplies, transport patients, and clean the facility lack confidence or feel their families are at risk, they will be unavailable when needed. The job of the physician and nurse will be that much harder.

Communications
The most commonly cited reason for mission failure during a crisis is a breakdown in communications. Cellular systems, the Internet, and traditional telephones are vulnerable to weather, overload, and deliberate disruption. Back-up communications should be an integral part of disaster planning at all levels. The simplest system is to write out a clear and succinct message, in plain English (free of medical jargon) to a specific recipient. It should be dated, time stamped, and contain the name and location of origination. Written messages can be hand carried to a central communications point where they can be prioritized and sent to the appropriate parties. While relatively slow, this can be a very effective means of communications.

Handheld radios are useful tools when limited to a few key leaders or central communications points. However, unless extensive training in net control techniques is practiced, they cannot handle more than a few users before the system becomes overloaded. An alternate is to enlist outside communicators, such as the local Amateur Radio Emergency Service® (ARES) or the Hospital Disaster Support Communications System. These individuals have the capability to provide voice, text, and even video communications using their own equipment. They can serve both as a link from the hospital EOC to outside agencies, and as a supplement to internal communications between departments. Clearly, successful back-up communications depend upon practicing these techniques during drills.

Evaluation of the Department Plan
The Joint Commission requires all hospitals to conduct disaster exercises each year. Although not all will involve surgical scenarios or simulated patient care, it is vital that the Operating Room and the Department of Anesthesiology participate in these exercises.

The hospital and department disaster preparedness plan should consider five aspects in evaluating of the success of their plans, namely:

- **Structure**
  How is the hospital and department response organized? What resources are needed and available (equipment and personnel)? How are disaster response teams organized and trained?

- **Process and Effort**
  How well are individuals prepared? Were barriers encountered, and how these were handled? Were all predetermined activities carried out in response to disaster conditions?

- **Outcomes**
  What was and was not achieved as a result of the medical and public health responses?

- **Adequacy**
  What was the extent of death and disability that could have been prevented? What was the extent to which the disaster-related needs of the population affected were met?

- **Costs**
  What did the medical and public health response cost? Was the money spent most effectively relative to the benefits received?

**Summary**

It is imperative that the critical infrastructure of a hospital be maintained and protected in a disaster. The number one priority is safety of both patients and provider teams. Considerable coordination of efforts is required to support effective preparation for and proper response to a disaster.

The department’s plan should address the personal safety and home preparedness of all staff. Hospital personnel must be educated on how to obtain accurate information, protect themselves and their families, and avoid becoming casualties themselves. Without this preparedness, not only will patients’ care be adversely affected but the health of the caregiver and his/her family members may be placed in jeopardy.

D. **The Big Picture: The National Response Framework and Incident Command Systems (NRF, NIMS, ICS, HICS)**

**National Response Framework (NRF)**

The National Response Framework (NRF), administered by the Federal Emergency Management Agency (FEMA), presents the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies. It establishes a comprehensive, national, all-hazards approach to domestic incident response. The National Response Plan was replaced by the National Response Framework effective March 22, 2008.

The National Response Framework defines the principles, roles, and structures that organize how we respond as a nation. The National Response Framework:

- Describes how communities, tribes, states, the federal government, private-sectors, and nongovernmental partners work together to coordinate national response;
- Describes specific authorities and best practices for managing incidents; and
• Builds upon the National Incident Management System (NIMS), which provides a consistent template for managing incidents.

Information on the National Response Framework including documents, annexes, references, briefings and trainings can be accessed from the FEMA website.

National Incident Management System (NIMS)
As stated on the FEMA website that supports NIMS,

“The National Incident Management System (NIMS) identifies concepts and principles that answer how to manage emergencies from preparedness to recovery regardless of their cause, size, location or complexity. NIMS provides a consistent, nationwide approach and vocabulary for multiple agencies or jurisdictions to work together to build, sustain and deliver the core capabilities needed to achieve a secure and resilient nation.”

NIMS incorporates incident management best practices developed and proven by thousands of responders and authorities across the United States. These practices, coupled with consistency and national standardization, will now be carried forward throughout all incident management processes: exercises, qualification and certification, communications interoperability, doctrinal changes, training, and publications, public affairs, equipping, evaluating, and incident management. All of these measures unify the response community as never before.

NIMS is not an operational incident management or resource allocation plan. NIMS represents a core set of doctrines, concepts, principles, terminology, and organizational processes that enables effective, efficient, and collaborative incident management. NIMS was created and vetted by representatives across the United States including: the federal government, states and territories, cities, counties, and townships, tribal officials and first responders.

Key features of NIMS:
• Incident Command System (ICS) – NIMS establishes ICS as a standard incident management organization with five functional areas -- command, operations, planning, logistics, and finance/administration -- for management of all major incidents. To ensure further coordination, and during incidents involving multiple jurisdictions or agencies, the principle of unified command has been universally incorporated into NIMS. This unified command not only coordinates the efforts of many jurisdictions, but provides for and assures joint decisions on objectives, strategies, plans, priorities, and public communications.

• Communications and Information Management – Standardized communications during an incident are essential and NIMS prescribes interoperable communications systems for both incident and information management. Responders and managers across all agencies and jurisdictions must have a common operating picture for a more efficient and effective incident response.

• Preparedness – Preparedness incorporates a range of measures, actions, and processes accomplished before an incident happens. NIMS preparedness measures include planning, training, exercises, qualification and certification, equipment acquisition and certification, and publication management. All of these serve to ensure that pre-incident actions are standardized and consistent with mutually-agreed doctrine. NIMS further places emphasis on mitigation activities to enhance preparedness. Mitigation includes public education and outreach, structural
modifications to lessen the loss of life or destruction of property, code enforcement in support of zoning rules, land management, and building codes, and flood insurance and property buy-out for frequently flooded areas.

- **Joint Information System (JIS)** – NIMS organizational measures enhance the public communication effort. The Joint Information System provides the public with timely and accurate incident information and unified public messages. This system employs Joint Information Centers (JIC) and brings incident communicators together during an incident to develop, coordinate, and deliver a unified message. This will ensure that Federal, state, and local levels of government are releasing the same information during an incident.

- **NIMS Integration Center (NIC)** – To ensure that NIMS remains an accurate and effective management tool, the NIMS NIC will be established by the Secretary of Homeland Security to assess proposed changes to NIMS, capture and evaluate lessons learned, and employ best practices. The NIC will provide strategic direction and oversight of the NIMS, supporting both routine maintenance and continuous refinement of the system and its components over the long term. The NIC will develop and facilitate national standards for NIMS education and training, first responder communications and equipment, typing of resources, qualification and credentialing of incident management and responder personnel, and standardization of equipment maintenance and resources. The NIC will continue to use the collaborative process of Federal, state, tribal, local, multi-discipline and private authorities to assess prospective changes and assure continuity and accuracy.

**Incident Command System (ICS)**

The ICS is a widely applicable management system designed to enable effective and efficient incident management by integrating facilities, equipment, personnel, procedures, and communications operating within a common organizational structure.

The **Incident Commanders (ICs)** structural organization builds from the top down; responsibility and performance begin with the ICS element and the IC. The IC(s) is/are responsible for the overall management of the incident. On most incidents, the command activity is carried out by a single IC. The need for a Unified Command (UC) occurs when an incident affects the statutory responsibility of more than one agency or jurisdiction. It provides guidelines to enable agencies with different legal, geographic, and functional responsibilities to coordinate, plan, and interact effectively.

Command encompasses the IC and the Command Staff. Command Staff positions may be established to assign/delegate responsibility for command activities that the IC cannot perform due to the complexity of the incident or other situational demands. These positions may include the Public Information Officer, (PIO) Safety Officer, and Liaison Officer, in addition to others; as required and assigned by the IC.

The PIO is responsible for communicating with the public and media, and/or coordinating with other agencies, as necessary, with incident-related information requirements. The PIO is responsible for developing and releasing information to the news media, incident personnel, and other appropriate agencies and organizations. Depending on the size or complexity of the incident, a lead PIO should be assigned for each incident and may have assistants, as necessary, including supporting PIOs representing other responding agencies or jurisdictions.

The Safety Officer monitors incident operations and advises the IC/UC on all matters relating to operational safety, including the health and safety of emergency responder personnel.
The Liaison Officer is the IC/UC point of contact for representatives of other governmental agencies, non-governmental organizations (NGOs), and/or the private sector (with no jurisdiction or legal authority) to provide input on their agency’s policies, resource availability, and other incident-related matters.

The ICS has five major management functions: Command, Operations, Planning, Logistics, Finance and Administration. This structure is modular and can extend to incorporate all elements necessary for the type, size, scope, and complexity of a given incident (Figure 1). The IC/UC normally assigns one or more Section Chiefs (the Section Chiefs are the General Staff) to manage the following ICS functional areas:

- Operations Section is responsible for managing on-scene tactical operations to meet the incident objectives as established by the IC or UC.
- Planning Section collects, evaluates, and disseminates incident situational information to the IC/UC and incident management personnel.
- Logistics Section meets all service and support needs for the incident, including ordering resources through appropriate procurement authorities from off-incident locations.
- Finance/Administration Section is responsible for all administrative and financial considerations surrounding an incident, including financial reimbursement to individuals, agencies, and departments.

![Figure 1—ICS Organizational Chart](image)

**Hospital Emergency Incident Command System (HICS)**

Confusion and chaos are commonly experienced by the hospital at the onset of a medical disaster. However, these negative effects can be minimized if management responds quickly with structure and a focused direction of activities.
The Hospital Emergency Incident Command System (HICS) is an emergency management system which employs a logical management structure, defined responsibilities, clear reporting channels, and a common nomenclature to help unify hospitals with other emergency responders. There are clear advantages to all hospitals using this particular emergency management system.

Based upon public safety’s Incident Command System, HICS has already proved valuable in helping hospitals serve the community during a crisis and resume normal operations as soon as possible. A survey of California hospitals in the spring of 1997 reveals a significant number of hospitals have, or will be incorporating HICS within their emergency plans. HICS is fast becoming the standard for health care disaster response and offers the following features:

- Predictable chain of management
- Flexible organizational chart allows for specific emergencies
- Prioritized response checklists
- Accountability of position function
- Improved documentation for improved accountability and cost recovery
- Common language to promote communication and facilitate outside assistance
- Cost-effective emergency planning within health care organizations

Courses on NIMS and ICS
This FEMA Independent Study site offers links to multiple distance learning Incident Management courses. Personnel in many fields are required to take the IS700 course. This site lists multiple courses which may be of interest or required for emergency management personnel, fire service personnel, first responders, public health workers, hospital personnel, and the general public.

Other institutions offer NIMS training on select topics:
- The Johns Hopkins Bloomberg School of Public Health
- University of Minnesota School of Public Health
- Yale New Haven Health

E. Physician Volunteerism During Major Disasters and Community Emergencies

“During last year's Hurricane Katrina disaster in the Gulf States, there was an outpouring of both personal and financial support for the victims. Physicians also wanted to help and, in many cases, tried to find a method to volunteer their services in the area. In fact, more than 3,500 physicians signed up through the Internet with the U.S. Department of Health and Human Services (HHS) as available for immediate deployment. Few of these volunteers were actually used. Many individual physicians simply went to the Gulf and pitched into the chaos with varying results. Most physicians, however, found that their desire to lend their medical skills could not be fulfilled. Many physicians who wanted to help were very frustrated at their inability to do so.

A number of volunteer civilian physicians and other health care providers were, in fact, deployed under federal auspices within two days of the disaster and served under very harrowing, dangerous and frustrating (yet gratifying) conditions. How did this happen? Because of this disaster, the federal government and state governments now realize that it is vitally important to have a group of precredentialed and trained health care providers who can be deployed in a crisis and serve in a preplanned, organized manner.

professionals available in case of a future emergency. Much attention is being paid to the possibility of a flu pandemic and the need for surge capacity of hospital beds, drugs, supplies and, most importantly, health care providers.

The question this article will answer is: How can physicians and other health care providers become preregistered, precredentialed and pretrained to respond to a future disaster or community emergency? How can they fit into a plan to provide surge capacity to augment local health care facilities that have been overwhelmed by patients?

Fitting Into a Plan for Future Disasters
The first fact to understand is that emergency agencies usually do not want individual, unsolicited and uncredentialed physicians to just show up for work. Physicians who try this are usually sent home.

If they do actually work, they are subjecting themselves to extreme liability risk since they are usually not covered by one of the federal liability protection programs. Also, since they are not usually credentialed to practice medicine in other states, they are sometimes actually violating state law if they do practice without a license. Good Samaritan laws covering medical volunteers vary widely from state to state and cannot be counted on to protect an individual physician from liability. Organized federally credentialed groups are working as federal agents or employees and are exempt from these problems under the Federal Tort Claims Act. Having said this, there were many individual physicians who managed to contribute their skills under very difficult circumstances in the Katrina disaster.

The American College of Emergency Physicians and the National Association of EMS Physicians have published a “Policy on Unsolicited Medical Volunteers,” which states that an organized approach is needed for all medical volunteers in a disaster. They advise that medical personnel should not respond to an emergency unless officially requested by the jurisdiction’s emergency medical services agency.

The federal government divides the responsibility for various medically related areas in major disasters and emergencies among at least seven different agencies.61 All of these agencies participated in various ways during the Katrina disaster. Physician volunteers were recruited under HHS and the Department of Homeland Security (DHS), Division of Emergency Preparedness and Response [Federal Emergency Management Agency (FEMA)]. Some Veterans Administration hospitals also were tasked to contribute medical volunteers to the effort. Some medical volunteers were asked to deploy to the Gulf area with the Red Cross. Reports from some physicians were that they were not allowed to use their medical skills in shelters because of Red Cross liability concerns.

Methods for Civilian Physicians to Volunteer

61 The seven agencies identified in 2006 included: 1.) US Department of Health and Human Services (HHS) Office of the Assistant Secretary for Public Health Emergency Preparedness (ASPHEP) – an agency that was reorganized into the Office of the Assistant Secretary for Preparedness and Response (ASPR); 2.) HHS Bioterrorism Hospital Preparedness Program; 3.) Department of Homeland Security (DHS) Division of Emergency Preparedness and Response; 4.) DHS National Pharmaceutical Stockpile; 5.) Centers for Disease Control and Prevention (CDC); 6.) CDC Bioterrorism Health Preparedness and Response; and 7.) Department of Veterans Affairs (VA). Please note that jurisdictions and authority has changed since 2006. Under the Pandemic and All Hazards Preparedness Act, HHS is the lead agency for the National Response Framework (NRF)
It turns out that there are several effective methods for civilian physicians to volunteer their skills to join an organized group of physicians and other health care workers in case of a major national disaster. Much of the content below has been obtained from public Web sites. The Web sites are listed for the convenience of the reader.

There are varying levels of commitment and effort for volunteers. The three methods are listed in order of increasing commitment, effort and time commitment.

**Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) Plan**

The ESAR-VHP program is a national mandate funded by the federal Health Resources and Services Administration (HRSA). It provides multiyear grants to states for bioterrorism preparedness. The program is on a “fast track” since federal funding ends August 2007. Most states are planning to complete registrations before 2007.

The grant mandate is to develop a system that provides for the advanced registration and credentialing of clinicians in order to augment a hospital or other medical facility and thereby meet the increased patient/victim care needs during a declared emergency. The program hopes to capture, in advance, the historically large stream of health care personnel who wish to volunteer their expertise during a disaster or emergency.

ESAR-VHP plans to enroll the following professionals: M.D., D.O., R.N., N.P., D.D.S., pharmacists, paramedics, respiratory care and behavioral health. All volunteers must have an active, unencumbered license.

Although this program is the least formal of all the programs, it does plan to determine how the ESARVHP volunteers will be integrated, insured, trained, housed, supervised and managed during the emergency incident.

Physicians and other health care providers should expect to receive information soon about volunteering for this program. Since there is really no formal time commitment incurred by signing up, it is probably a good idea to do so since it will give you the opportunity to help in case of a future disaster or emergency.

**Medical Reserve Corps (MRC)**

The second method concerns joining a Medical Reserve Corps (MRC) unit. Medical Reserve Corps (MRC). There are currently more than 300 MRCs in the United States.

An MRC is a community-based network of volunteers that assists public health efforts in times of special need or disaster, e.g., during a major communicable disease outbreak, an earthquake, flood or an act of terrorism. Members of an MRC also may volunteer their time throughout the year in order to promote community public health and education. The MRC program office is headquartered in the Office of the Surgeon General. It functions as a clearinghouse for information and best practices to help communities establish, implement and maintain MRC units across the nation.

The MRC program office sponsors an annual leadership conference, hosts a Web site and coordinates with local, state, regional and national organizations and agencies to help communities achieve their local visions for public health and emergency preparedness.
MRCs bring volunteers together to supplement existing local emergency plans and resources. In order to be effective during times of emergency, volunteers must be organized and trained to work in emergency situations. The MRC is designed to provide that organizational structure and to promote appropriate training of volunteers according to local community needs and vulnerabilities.

Any variety of individuals depending on community need may comprise MRCs. Volunteers may include, but are not limited to, current or retired health professionals (such as physicians, nurses, mental health professionals, dentists, dental assistants, pharmacists and veterinarians), social workers, communications/public relations professionals, health care administrators, clergy, etc. Each MRC can customize its membership to fit community needs.

MRC volunteers can choose to support communities in need nationwide. When the Southeast was battered by hurricanes in 2004, MRC volunteers in the affected areas and beyond helped communities by filling in at local hospitals, assisting their neighbors at local shelters and providing first-aid to those injured by the storms. Over this two-month period, more than 30 MRC units worked as part of the relief efforts, including those whose volunteers were called in from across the country to assist the American Red Cross and FEMA. MRCs also are tied into most states’ emergency medical services authority and can be activated by either state or county EMS agencies as well as by the federal government. All deployments are voluntary.

**Disaster Medical Assistance Team (DMAT)**

The next and most organized method is the DMAT. Many of these units were, in fact, immediately deployed to the Katrina disaster under HHS/FEMA.

As an example, the San Francisco Bay Area DMAT (CA-6) was mobilized within two hours of the disaster and deployed a 35-member team directly to New Orleans by air within eight hours. Support supplies were moved by ground transport. The team, however, simply relieved another DMAT and used their prepositioned supplies. The San Francisco DMAT took more than a half million dollars’ worth of supplies and equipment to the disaster, including a complete tented field hospital.

The DMAT program is a federal program under the National Disaster Medical System (NDMS) that organizes and pre-trains medical and paramedical volunteers. Nationally there are currently more than 29 deployable teams, each with 50 to 150 civilian volunteers. Deployed teams usually consist of 35 medical and paramedical professionals and support personnel.

NDMS, under the Department of Homeland Security, fosters the development of DMATs. A DMAT is a group of professional and paraprofessional medical personnel (supported by a cadre of logistical and administrative staff) designed to provide emergency medical care during a disaster or other event.

Each team has a sponsoring and funding organization such as a major medical center, public health or safety agency, nonprofit, public or private organization. The DMAT sponsor organizes the team and recruits members, arranges training and coordinates the dispatch of the team.

In addition to the standard DMATs, there are highly specialized DMATs that deal with specific medical conditions such as crush injuries, burns and mental health emergencies. Other specialty

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62 Figures are accurate for 2006 when the original article was published.
teams include Disaster Mortuary Operational Response Teams that provide mortuary services, Veterinary Medical Assistance Teams that provide veterinary services and National Medical Response Teams that are equipped and trained to provide medical care for victims of weapons of mass destruction.

DMATs deploy to disaster sites with sufficient supplies and equipment to sustain themselves for a period of 72 hours while providing medical care at a fixed or temporary medical care site. In mass casualty incidents, their responsibilities include triaging patients, providing austere medical care and preparing patients for evacuation. In other types of situations, DMATs may provide primary health care and/or may serve to augment overloaded local health care staffs. Under the rare circumstance that disaster victims are evacuated to a different locale to receive definitive medical care, DMATs may be activated to support patient reception and disposition of patients to hospitals.

DMATs are designed to be a rapid-response element to supplement local medical care until other federal or contract resources can be mobilized or the situation is resolved.

DMAT members are required to maintain appropriate certifications and licensure within their discipline. When members are activated as federal employees, licensure and certification are recognized by all states. Additionally DMAT members are paid while serving as part-time federal employees and have the protection of the Federal Tort Claims Act in which the federal government becomes the defendant in the event of a malpractice claim.

DMAT teams are expected to be deployable within 12 hours and wear insignia and military-style uniforms while deployed. An individual is expected to complete extensive, free online and field training before being qualified for deployment. There are immunization, training and meeting attendance requirements to maintain membership. Meetings of DMATs are held regularly with some overnight or multiday field exercises.

DMATs need more physicians. In order to join, simply find the unit closest to you and contact the unit commander. In order to be qualified for temporary federal service, it is necessary to complete extensive federal application forms. The application process takes from one to four months to go through the various federal approvals. In the meantime, the new member can take the required online training and participate fully with the unit with the exception of federal deployment.

It is important to stress that DMATs are civilian, volunteer organizations. All deployments and participation are fully voluntary.

**Conclusion**

It is interesting that FEMA, in August 2001, predicted the three most likely catastrophes that might hit the United States. First was a terrorist attack in New York City, second was a full-strength hurricane hitting New Orleans and third was a major earthquake in California along the San Andreas fault. Two of these predictions have already come true — is California next?

Will our communities be stressed by a flu pandemic? If so, health care facilities will be overwhelmed and will need help from a volunteer group of health care providers.
Since it appears that the United States will continue to face major natural and manmade disasters in the future, it is important for a flexible disaster medical response system to be available for immediate activation and deployment. Most physicians are willing and perhaps even enthusiastic about being involved in these efforts. It is important for the medical community to understand that a preorganized and formal structure will allow a more expeditious and effective response than individual efforts. A pool of trained and organized physician volunteers are needed for future disasters.

Individuals can, and probably will, be registered and participate in multiple volunteer organizations. For example an individual could be registered in the ESAR-VHP program, be a member of a local MRC and a member of a Federal deployable DMAT.

If there is no DMAT unit or MRC in your area, it is possible for individuals or organizations to organize one of these units. Both the DMAT and MRC Web sites have extensive information available on how to join, organize and run one of these organizations.

F. Volunteer Opportunities and Registries

- **Volunteer Network**
  The USA Freedom Corps official website is a user friendly site to identify and link to multiple volunteer organizations across the country. Individuals, groups and educators can find volunteer resources including Ten Tips to Volunteering Wisely.

- **Emergency System for Advance Registration of Volunteer Health Professionals** (ESAR-VHP)

- **Medical Reserve Corps**
  Learn more about the Medical Reserve Corps, find MRC units, identify training opportunities on the easy to navigate national website.

- **Citizen Corps**
  This site provides public information on preparedness and encourages volunteerism. There are links to the following volunteer opportunities, Community Emergency Response Teams (CERT), Fire Corps, Neighborhood Watch Program, Medical Reserve Corps (MRC) and Volunteers in Police Service (VIPS).

- **Community Emergency Response Teams (CERT)**
  Community Emergency Response Teams are active throughout the country. This site provides basic information about training, and the location of teams. There is also information about starting a CERT program in your area.

G. Self-Protection

Personal Protective Equipment (PPE) training, use, and maintenance deserves as much attention in anesthesia practice as does other types of equipment. Advance training ensures safe use. The Powered Air Purifying Respirator (PAPR) provides a higher level of respiratory personal protective equipment (PPE) than the N95 respirator. Although no PPE can guarantee absolute respiratory protection from biological disease exposure, the PAPR has been suggested by the Centers for Disease Control (CDC) and
Occupational Safety and Health Administration (OSHA) as an alternative to the N95 when performing aerosol-generating procedures, which include endotracheal intubation, on patients with Avian/Pandemic Influenza/SARS/XDR-TB. The minimal respiratory protection that should be worn under these conditions is a fit tested and seal checked N95 respirator with full barrier contact protection, which includes gown, gloves, hat, goggles and face shield, and shoe covers. The N95 will not protect a wearer who has a beard.

Although hospitals stock PAPRs, Employee Health (EH) Departments may have no formal PAPR training programs, as many EH departments are over-extended trying to keep up with N95 fit testing. During Pandemic Influenza, Anesthesia Departments may need to conduct PAPR training themselves. Just-in-time training in PAPR use is not appropriate for Providers who perform intubation and other aerosol-generating procedures regularly; just-in-time training is, however, appropriate for personnel who would need to enter a contagious environment on a one time basis, for instance to provide a consult or perform maintenance.

A PAPR is a belt-worn unit that draws air in through a High Efficiency Particulate Air (HEPA) filter and exhausts it at a high flow rate into a protective head covering hood, preventing contaminated air from entering, and providing filtered air to the wearer. If the PAPR full head and shoulders hood is chosen as opposed to the loose fitting face piece helmet, complete contact protection is provided for the head and neck. Although the level of respiratory protection with the PAPR is higher than that of the N95, the risk of self-contamination from incorrect removal (doffing) may be greater with the PAPR than with the N95. Therefore, the donning and doffing procedure should be practiced in advance and undertaken with extreme care.

The PAPR is not to be used during surgery because it exhausts the wearer’s exhaled air directly into the operating room environment, creating a wound infection hazard. This issue is currently unresolved.

The PAPR hoods are disposable, but in a high demand situation, will need to be reprocessed between uses and between users. The hoods should be cleaned with dilute bleach or quaternary ammonium solution, according to the manufacturer's instructions. Cleaning protocols should be approved by the hospital Infectious Disease Practitioner.

Other PAPR issues are discussed in a workshop on PAPR Training, included for Anesthesia Departments and individuals to use in conducting their own training in the use of PAPRs for respiratory protection from infectious respiratory diseases. This workshop should be done with the approval of the Employee Health Departments, which may be different for anesthesia residents, staff, and CRNAs; anesthesia providers may be independently or self-employed and are, therefore, responsible for their own training.

It should be noted that PAPRs for PPE for chemical hazardous material exposure require eight hours of awareness and operations level training by a certified hazardous material HAZWOPER (Hazardous Work Operations) instructor. Hospital based first-receivers of victims of exposure to hazardous chemical materials may not enter a contaminated area or care for a non-decontaminated patient unless they have received this training and are dressed in hazmat PPE. Hazmat PPE includes full chemical barrier protection and a chemical PAPR, made of butyl rubber with chemical vapor filter canisters. Biological PAPRs employ particulate filters only and do not provide protection from chemical

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vapors or liquids. The storage containers for biological PAPRs should be clearly marked as not for use in chemical exposure.

H. The Role of Medical Regulatory Agencies in Disaster Management

Local, state and national bodies develop regulations for disaster preparedness and management through which apply to healthcare providers and institutions. Currently these regulations have largely evolved thru local and regional initiatives, since regulation of health care delivery is primarily a state and local responsibility. Federal regulation of healthcare is limited to conditions for payment under federal programs and regulations involving workforce protection.

Currently, there is a lack of uniformity among municipal and state regulations governing healthcare providers. This has led many medical groups and hospitals to establish Compliance Offices and Service Continuity Offices. Compliance Offices track all regulations which may apply to the practice or facility. Service Continuity Offices clarify how these regulations are applied to a specific practice or institution. Within this structure there is an opportunity to develop institutional policies which allow the entity to meet its role in disaster management without creating unnecessary opportunity for institutional liability/loss.

An example is verification of professional licensing, credentialing and delineation of practice privileges. Currently, credentialing and privileging are considered a medical staff responsibility. Professional licenses are granted by states and may be honored by other states through reciprocity. National registries of practitioner credentials have been established. States have also established mechanisms for temporary licensing of retired physicians during disasters. The decision to accept such credentialing and grant practice privileges remains the responsibility of each practice/hospital medical staff.

Credentialing and the granting of practice privileges have professional liability implications. Liability, logistic, and management factors may determine the appropriate granting of privileges during a disaster.

A department chairman or designee should fully understand the disaster plan of the local facility, understand who is responsible for identifying applicable regulations and understand who is responsible for developing policies that implement these regulations. The role of each practice and healthcare facility, in a disaster, is determined locally (and is subject to local, state and federal regulations).

*Each anesthesiologist and each department Chairperson should be aware of his or her role in the practice/hospitals’ unique local disaster plan.*

It is the responsibility of the Anesthesiology Chair to ensure departmental readiness for disasters. Disaster preparedness is a fundamental skill required of all members. The department's HVA should be aligned with that of the hospital. The plan should be simple, emphasizing inter-departmental cooperation to ensure continuity of care in the face of patient surge and degraded infrastructure. The Anesthesiology Service should participate in the twice yearly TJC mandated disaster exercises and have a seat on the Hospital Emergency Management Committee.

I. Resources and Acronyms

(Note: All these terms can be searched on the Internet for more information)

<p>| ARC | American Red Cross |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASPR</td>
<td>Office of the Assistant Secretary for Preparedness and Response</td>
</tr>
<tr>
<td>BARDA</td>
<td>Office of The Biomedical Advanced Research and Development Authority</td>
</tr>
<tr>
<td>CBRNE</td>
<td>[National Strategy for] Chemical, Biological, Radiological, Nuclear, Explosive</td>
</tr>
<tr>
<td>CDC</td>
<td>U.S. Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>CERT</td>
<td>Community Emergency Response Teams</td>
</tr>
<tr>
<td>CinC</td>
<td>Commander in Chief</td>
</tr>
<tr>
<td>COOP</td>
<td>Continuity of Operations</td>
</tr>
<tr>
<td>DHS</td>
<td>Department of Homeland Security</td>
</tr>
<tr>
<td>DMAT</td>
<td>Disaster Medical Assistance Team</td>
</tr>
<tr>
<td>DMORT</td>
<td>Disaster Mortuary Operational Response Team</td>
</tr>
<tr>
<td>EOC</td>
<td>Emergency Operations Center</td>
</tr>
<tr>
<td>ERT</td>
<td>Emergency Response Team</td>
</tr>
<tr>
<td>ESAR-VHP</td>
<td>Emergency System for the Advance Registration of Volunteer Health</td>
</tr>
<tr>
<td>FCO</td>
<td>Federal Coordinating Officer</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
</tr>
<tr>
<td>HEICS</td>
<td>Hospital Emergency Incident Command System</td>
</tr>
<tr>
<td>HHS</td>
<td>U.S Department of Health and Human Services</td>
</tr>
<tr>
<td>HRSA</td>
<td>Health Resources &amp; Services Administration</td>
</tr>
<tr>
<td>ICP</td>
<td>Incident Command Post</td>
</tr>
<tr>
<td>ICS</td>
<td>Incident Command System</td>
</tr>
<tr>
<td>JFO</td>
<td>Joint Field Office</td>
</tr>
<tr>
<td>MACS</td>
<td>Multiagency Coordination System</td>
</tr>
<tr>
<td>MRC</td>
<td>Medical Reserve Corps</td>
</tr>
<tr>
<td>NDLS</td>
<td>National Disaster Life Support</td>
</tr>
<tr>
<td>NDMS</td>
<td>National Disaster Medical System</td>
</tr>
<tr>
<td>NIMS</td>
<td>National Incident Management System</td>
</tr>
<tr>
<td>NIPP</td>
<td>National Infrastructure Protection Plan</td>
</tr>
<tr>
<td>NIRT</td>
<td>Nuclear Incident Response Team</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>NMRT</td>
<td>National Medical Response Team</td>
</tr>
<tr>
<td>NRF</td>
<td>National Response Framework</td>
</tr>
<tr>
<td>OEP</td>
<td>Office of Emergency Preparedness</td>
</tr>
<tr>
<td>OSG</td>
<td>Office of the Surgeon General</td>
</tr>
<tr>
<td>PAPR</td>
<td>Powered Air Purifying Respirator</td>
</tr>
<tr>
<td>POTUS</td>
<td>President of the United States</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>REP</td>
<td>Radiological Emergency Preparedness</td>
</tr>
<tr>
<td>RRCC</td>
<td>Regional Response Coordination Center</td>
</tr>
<tr>
<td>SEMS</td>
<td>Standardized Emergency Management System</td>
</tr>
<tr>
<td>WMD</td>
<td>Weapons of Mass Destruction</td>
</tr>
</tbody>
</table>
6.4 EMERGENCY MANUALS IMPLEMENTATION COLLABORATIVE (EMIC)\textsuperscript{65}

Emergency Manuals are context-relevant sets of crisis checklists, or similar cognitive aids, of significant interest to anesthesia practitioners for use in operating room, perioperative, and out-of-OR anesthetizing locations. EMIC, the Emergency Manuals Implementation Collaborative, is dedicated to enabling effective implementation and use of emergency manuals within clinical practice to enhance patient safety. Its members are drawn from different practice settings and geography and share expertise with the development, use and implementation of these tools.

See www.emergencymanuals.org for many resources available free of charge including:

- Links to multiple emergency manuals and sets of crisis checklists (adult and pediatric) http://www.emergencymanuals.org/free-tools.html
- Training resources, including videos www.emergencymanuals.org/videos.html
- References for useful articles and books, from healthcare and other relevant fields www.emergencymanuals.org/useful-articles--books.html
- A collection of implementation stories http://www.emergencymanuals.org/implementation-stories.html
- An on-line discussion forum to ask questions or share experiences and guidance http://www.emergencymanuals.org/forum.html
- An opportunity to join EMIC http://www.emergencymanuals.org/join-the-collaborative.html

EMIC has hosted several sessions at major conferences in recent years to provide an opportunity for face-to-face exchange of ideas to support progress in refining the use of cognitive aids in crisis management. For further information, contact cognitiveaids@gmail.com

\textsuperscript{65} Section 6.4 updated May 2015.
6.5 ELECTRONIC HEALTH RECORD – DATA CAPTURE

INTRODUCTION

In recent years, federal legislation has encouraged and provided funding for the implementation of electronic health records (EHR). For anesthesia records, the adoption of EHRs in facilities and practices throughout the country has created unique challenges. EHR vendors often regard their anesthesia product as part of a customizable platform for anesthesia providers to use, typically as part of their Anesthesia Information Management System (AIMS). Because federal and state regulations govern what an anesthesia record should contain, vendors often relegate the inclusion of specific anesthesia-related data elements responsibility to the customer. This practice places the compliance burden on the providers or practice and allows the vendor to avoid liability for any required element omissions or errors.

This section of MADOM provides members with basic data elements related to the Centers for Medicare & Medicaid Services (CMS) Conditions of Participation (COP) regulations that practices should consider capturing in an electronic health or anesthesia record. Should these elements not be captured, providers could inadvertently submit a fraudulent claim for processing. Claims submitted to CMS will be “recovered”, at a minimum, via audit. In addition, fines may be levied via CMS, and the Office of the Inspector General may be asked to investigate suspected fraud which may lead to additional fines and/or imprisonment.

Information regarding the Electronic Health Record (EHR) Incentive Program (often referred to as Meaningful Use) is located in Chapter 4 – Quality Reporting Programs.

CONTENTS:

Conditions of Participation- Basic Documentation
I. Pre-anesthesia Evaluation Note
II. Intraoperative Anesthesia Record
IIIa. Post-Anesthesia Evaluation (Patient Able to Participate)
IIIb. Post-Anesthesia Evaluation (Patient Unable to Participate or Acute Effects Will Last Beyond 48-Hour Timeframe)

Conditions of Participation - Additional Documentation
IV. Required Documentation when Reporting Medical Direction of Anesthesia
V. Six Services Allowed While Directing Concurrent Anesthesia

(TEMPLATES) FOR ELECTRONIC HEALTH RECORDS CAPTURE FORMS – CMS CONDITIONS OF PARTICIPATION AND BILLING

Notice: The policy templates and resources are not intended to be, nor should they be interpreted as, legal advice. All anesthesia departments and hospitals should review these templates and resources with appropriate legal counsel and make their own determinations as to relevance to their particular hospital setting and compliance with State and federal laws and regulations.

Notice: This work product has not been reviewed or approved by ASA’s Board of Directors or House of Delegates and does not represent an ASA Policy, Statement, or Guideline.

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60 Section 6.5 updated May 2015.
Conditions of Participation- Basic Documentation

On January 14, 2011, the Centers for Medicare and Medicaid Services issued revised Interpretive Guidelines (IGs) pertaining to the hospital Conditions of Participation. To help its members implement the many changes in these IGs, ASA has prepared a set of policy templates and sample paper forms which are available on its website. This current document has been created to help ASA members facilitate the transition from paper records to electronic medical records and to ensure that required CMS COPs are captured by EHR data sources.

In the IGs, CMS reaffirmed its many-year definition of “anesthesia,” to mean general anesthesia, regional anesthesia, deep sedation/analgesia or monitored anesthesia care. “Analgesia/sedation” is defined as local/topical anesthesia, minimal sedation, and moderate sedation/analgesia (“conscious sedation”).

Only qualified anesthesia professionals are permitted to administer “anesthesia” as defined above. CMS defines these individuals as qualified anesthesiologists; non-anesthesiologist MD/DOs; dentists, oral surgeons or podiatrists qualified under state law; nurse anesthetists and anesthesiologist assistants (AAs). CMS now more clearly acknowledges that the boundary between ‘anesthesia’ and ‘analgesia’ is a continuum. Since there are certain CMS requirements that apply only when “anesthesia” is administered, each hospital must establish policies and procedures, based on nationally recognized guidelines, which address whether specific clinical situations involve ‘anesthesia’ versus ‘analgesia’.

It is important that anesthesiologists proactively work with their facility’s credentialing bodies and Medical Executive Committee, or its local equivalent. The authority given by CMS to the director of anesthesia services gives anesthesiologists the opportunity and the authority to promote safety throughout our hospitals for all aspects, levels and providers of anesthesia care.

I. Pre-anesthesia Evaluation Note

These evaluations must be performed whenever general anesthesia, regional anesthesia, deep sedation/analgesia or monitored anesthesia care is administered, and can be completed only by a qualified anesthesia professional. However, this need not be the same practitioner who administers the anesthesia to the patient.

The pre-anesthesia medical history review as well as patient interview and examination must be completed within 48 hours prior to the first dose of medication for anesthesia induction. The IGs now clarify that the other specified components of the pre-anesthesia evaluation may be performed within 30 days before the procedure, needing review and update within the 48-hour window.

<table>
<thead>
<tr>
<th>Pre-anesthesia Evaluation Note (Required by CMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>References §482.52(b)(1)</strong></td>
</tr>
<tr>
<td>Anesthesia services must be consistent with needs and resources. Policies on anesthesia procedures must include the delineation of pre-anesthesia and post anesthesia responsibilities. The policies must ensure that the following are provided for each patient: A pre-anesthesia evaluation completed and documented by an individual qualified to administer anesthesia, as specified in paragraph (a) of this section, performed within 48 hours prior to surgery or a procedure requiring anesthesia services.</td>
</tr>
<tr>
<td><strong>Under no circumstances may these elements be performed more than 30 days prior to surgery or a</strong></td>
</tr>
</tbody>
</table>
### Pre-anesthesia Evaluation Note (Required by CMS)

*procedure requiring anesthesia services. Review of these elements must be conducted, and any appropriate updates documented, within the 48-hour timeframe.*

<table>
<thead>
<tr>
<th>#</th>
<th>Element Name</th>
<th>Element Description</th>
<th>Details</th>
<th>Time Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient History</td>
<td>Medical History</td>
<td>1. Medical History</td>
<td>Within 30 days; MUST be within 48 hours of procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Previous anesthesia</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Drugs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Allergies</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Interview</td>
<td>Interview Notes</td>
<td>If possible, given the patient’s condition and/or Physical Examination of the patient</td>
<td>Within 30 days; MUST be within 48 hours of procedure</td>
</tr>
<tr>
<td>3</td>
<td>Risk</td>
<td>Notation of Anesthesia Risk</td>
<td>According to Standards of Practice (e.g., ASA Physical Classification)</td>
<td>Within 30 days; Updated within 48 hours (if necessary)</td>
</tr>
<tr>
<td>4</td>
<td>Problems</td>
<td>Identify potential anesthesia problems</td>
<td>Potential anesthesia problems</td>
<td>Within 30 days; Updated within 48 hours (if necessary)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Potential complications or contraindications (e.g., difficult airway, infections, limited intravascular access)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Notes</td>
<td>Additional data or information</td>
<td>Additional pre-anesthesia data or information, if applicable</td>
<td>Within 30 days; Updated within 48 hours (if necessary)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>As required in accordance with standard practice (e.g. stress tests, additional specialist consultation)</td>
<td></td>
</tr>
</tbody>
</table>
### Pre-anesthesia Evaluation Note (Required by CMS)

| 6  | Care Plan | Development of the plan for the patient’s anesthesia care | 1. Type of medications for induction  
2. Maintenance  
3. Post-operative care  
4. Discussion with patient (or patient’s representative) of risks/benefits | Within 30 days; Updated within 48 hours (if necessary) |

### II. Intraoperative Anesthesia Record

#### Intraoperative Anesthesia Record

References §482.52(b)(2):

Standard: Delivery of services. Anesthesia services must be consistent with needs and resources. Policies on anesthesia procedures must include the delineation of pre-anesthesia and post anesthesia responsibilities. The policies must ensure that the following are provided for each patient: An intraoperative anesthesia record.

<table>
<thead>
<tr>
<th>#</th>
<th>Element Name</th>
<th>Element Description</th>
<th>Details</th>
<th>Time Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient Name</td>
<td>Patient Name</td>
<td>Patient Name</td>
<td>NA</td>
</tr>
<tr>
<td>2</td>
<td>Identification Number</td>
<td>Hospital Identification Number of Patient</td>
<td>Hospital Identification Number of Patient</td>
<td>NA</td>
</tr>
</tbody>
</table>
| 3  | Practitioner Name(s) | Administering Practitioner Name(s)           | Name of practitioner who administered anesthesia  
As applicable, name of supervising anesthesiologist or operating practitioner AND as applicable, profession of the supervising anesthesiologist or operating practitioner | NA                         |
| 4  | Drug Name(s)        | Name of drugs/anesthesia agent(s)            | Name of drugs  
Name of anesthesia agents | At time of administration |
<table>
<thead>
<tr>
<th>5</th>
<th><strong>Drug Dosage</strong></th>
<th>Dosages of drug(s)/anesthesia agent(s)</th>
<th>Dosage of drug(s)</th>
<th>Dosage of anesthesia agent(s)</th>
<th>At time of administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td><strong>Drug Route</strong></td>
<td>Route of drug(s)/anesthesia agent(s)</td>
<td>Route of drug(s)</td>
<td>Route of anesthesia agent(s)</td>
<td>At time of administration</td>
</tr>
<tr>
<td>7</td>
<td><strong>Drug Administration</strong></td>
<td>Time of administration of drug(s)/anesthesia agent(s)</td>
<td>Time of administration of drug(s)</td>
<td>Time of administration of anesthesia agent(s)</td>
<td>At time of administration</td>
</tr>
<tr>
<td></td>
<td><strong>Time(s)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td><strong>Technique</strong></td>
<td>Technique(s) used</td>
<td>General Regional MAC</td>
<td>Also the Insertion/use of any, Intravascular device or Airway devices</td>
<td>At time of insertion</td>
</tr>
<tr>
<td>9</td>
<td><strong>Position</strong></td>
<td>Patient position(s)</td>
<td>Patient position(s)</td>
<td></td>
<td>At time of positioning</td>
</tr>
<tr>
<td>10</td>
<td><strong>IV Fluids</strong></td>
<td>IV fluid name(s)</td>
<td>IV fluid names</td>
<td>Blood or blood products, if applicable</td>
<td>At time of administration</td>
</tr>
<tr>
<td>11</td>
<td><strong>IV Fluid Amount(s)</strong></td>
<td>IV fluid amount(s)</td>
<td>IV fluid amounts</td>
<td>Blood or blood products, if applicable</td>
<td>Intermittently, and totaled at conclusion of the procedure</td>
</tr>
<tr>
<td>12</td>
<td><strong>Vital Signs</strong></td>
<td>Time-based vital signs</td>
<td>Vital Signs</td>
<td>Oxygenation and ventilation parameters</td>
<td>Note: Time-based documentation required</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Intraoperative Anesthesia Record

<table>
<thead>
<tr>
<th>#</th>
<th>Element Name</th>
<th>Element Description</th>
<th>Details</th>
<th>Time Requirement</th>
</tr>
</thead>
</table>

#### IIIa. Post-Anesthesia Evaluation (Patient Able to Participate)

The post-anesthesia evaluation must be completed within 48 hours from the time the patient is moved to the designated recovery area (e.g., same day surgery recovery, PACU or ICU). The post anesthesia evaluation should not begin until the patient has recovered sufficiently from the anesthesia to appropriately participate in the assessment, unless the plan is continued sedation.

### Post-Anesthesia Evaluation (Patient Able to Participate)

References §482.52(b)(3)

Standard: Delivery of services. Anesthesia services must be consistent with needs and resources. Policies on anesthesia procedures must include the delineation of pre-anesthesia and post anesthesia responsibilities. The policies must ensure that the following are provided for each patient: A post-anesthesia evaluation completed and documented by an individual qualified to administer anesthesia, as specified in paragraph (a) of this section, no later than 48 hours after surgery or a procedure requiring anesthesia services. The post-anesthesia evaluation for anesthesia recovery must be completed in accordance with State law and with hospital policies and procedures that have been approved by the medical staff and that reflect current standards of anesthesia care.

The elements of an adequate post-anesthesia evaluation should be clearly documented and conform to current standards of anesthesia care.

<table>
<thead>
<tr>
<th>#</th>
<th>Element Name</th>
<th>Element Description</th>
<th>Details</th>
<th>Time Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Respiratory Function</td>
<td>Respiratory Function</td>
<td>1. Respiratory Rate 2. Airway Patency 3. Oxygen Saturation</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure State law may supersede</td>
</tr>
<tr>
<td>2</td>
<td>Cardiovascular Function</td>
<td>Cardiovascular Function</td>
<td>1. Pulse Rate 2. Blood Pressure</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure State law may supersede</td>
</tr>
</tbody>
</table>
### Post-Anesthesia Evaluation (Patient Able to Participate)

<table>
<thead>
<tr>
<th></th>
<th>Mental Status</th>
<th>Temperature</th>
<th>Pain Assessment and Management</th>
<th>PONV</th>
<th>Hydration</th>
<th>Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Mental Status</td>
<td>Temperature</td>
<td>Pain Assessment and Management</td>
<td>PONV</td>
<td>Hydration</td>
<td>Monitoring</td>
</tr>
<tr>
<td></td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>State law may supersede</td>
<td>State law may supersede</td>
<td>State law may supersede</td>
<td>State law may supersede</td>
<td>State law may supersede</td>
<td></td>
</tr>
</tbody>
</table>

### IIIb. Post-Anesthesia Evaluation (Patient Unable to Participate or Acute Effects Will Last Beyond 48-Hour Timeframe)

The post-anesthesia evaluation must be completed within 48 hours from the time the patient is moved to the designated recovery area (e.g., same day surgery recovery, PACU or ICU). The post anesthesia
evaluation should not begin until the patient has recovered sufficiently from the anesthesia to appropriately participate in the assessment, unless the plan is continued sedation.

**Post-Anesthesia Evaluation (Patient Unable to Participate – e.g. Post-Operative Sedation, Mechanical Ventilation, etc.)**

References §482.52(b)(3)

Standard: Delivery of services. Anesthesia services must be consistent with needs and resources. Policies on anesthesia procedures must include the delineation of pre-anesthesia and post anesthesia responsibilities. The policies must ensure that the following are provided for each patient: A post-anesthesia evaluation completed and documented by an individual qualified to administer anesthesia, as specified in paragraph (a) of this section, no later than 48 hours after surgery or a procedure requiring anesthesia services. The post-anesthesia evaluation for anesthesia recovery must be completed in accordance with State law and with hospital policies and procedures that have been approved by the medical staff and that reflect current standards of anesthesia care.

*The elements of an adequate post-anesthesia evaluation should be clearly documented and conform to current standards of anesthesia care.*

For those patients who are unable to participate in the post anesthesia evaluation (e.g., post-operative sedation, mechanical ventilation, etc.), *a post anesthesia evaluation should be completed and documented within 48 hours with notation that the patient was unable to participate.* This documentation should include the reason for the patient’s inability to participate as well as expectations for recovery time, if applicable. For those patients who require long-acting regional anesthesia to ensure optimum medical care of the patient, whose acute effects will last beyond the 48-hour timeframe, a post anesthesia evaluation must still be completed and documented within 48 hours. However, there should be a notation that the patient is otherwise able to participate in the evaluation, but full recovery from regional anesthesia has not occurred and is not expected within the stipulated timeframe for the completion of the evaluation.

<table>
<thead>
<tr>
<th>#</th>
<th>Element Name</th>
<th>Element Description</th>
<th>Details</th>
<th>Time Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Post op note-patient Unable to Participate</td>
<td>Unable to Participate</td>
<td>Notation of patient’s inability to participate</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure State law may supersede</td>
</tr>
<tr>
<td>10</td>
<td>Reason</td>
<td>Reason for inability to participate</td>
<td>Reason for inability to participate</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure State law may supersede</td>
</tr>
<tr>
<td>11</td>
<td>Recovery</td>
<td>Expectations for recovery time, if applicable</td>
<td>Expectations for recovery time</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure</td>
</tr>
</tbody>
</table>

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Post-Anesthesia Evaluation (Patient Unable to Participate – e.g. Post-Operative Sedation, Mechanical Ventilation, etc.)

<table>
<thead>
<tr>
<th>#</th>
<th>Patients requiring long-acting regional anesthesia (but otherwise able to participate)</th>
<th>Patients requiring long-acting regional anesthesia whose acute effects will last beyond the 48-hour time limit (but able to participate)</th>
<th>Complete Post-Anesthesia Evaluation</th>
<th>State law may supersede</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
<td></td>
<td>Notation that the patient is able to participate</td>
<td>May be done in PACU but no later than 48 hours after surgery or procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Notation that full recovery has not occurred and not expected within the timeframe for completion of the evaluation</td>
<td>State law may supersede</td>
</tr>
</tbody>
</table>

Conditions of Participation - Additional Documentation

IV. Required Documentation when Reporting Medical Direction of Anesthesia

For additional information on coding and billing, please review the ASA Payment and Practice Management webpage.

<table>
<thead>
<tr>
<th>Required Documentation when Reporting Medical Direction of Anesthesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>References Medicare Claims Processing Manual (Pub 100-4) Chapter 12, Section 50 (07/25/2014) 50 - Payment for Anesthesiology Services (Rev. 1859; Issued: 11-20-09; Effective Date: For services furnished on or after 01-01-10; Implementation Date: 01-04-10)</td>
</tr>
<tr>
<td>C. Payment at the Medically Directed Rate</td>
</tr>
<tr>
<td>The Part B Contractor determines payment for the physician’s medical direction service furnished on or after January 1, 1998, on the basis of 50 percent of the allowance for the service performed by the physician alone. Medical direction occurs if the physician medically directs qualified individuals in two, three, or four concurrent cases and the physician performs the following activities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Element Name</th>
<th>Element Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre-anesthetic examination and evaluation</td>
<td>Performs a pre-anesthetic examination and evaluation</td>
</tr>
<tr>
<td>2</td>
<td>Anesthesia plan</td>
<td>Prescribes the anesthesia plan</td>
</tr>
<tr>
<td>3</td>
<td>Participation</td>
<td>Personally participates in the most demanding procedures in the anesthesia plan, including induction and emergence</td>
</tr>
</tbody>
</table>
Required Documentation when Reporting Medical Direction of Anesthesia

<table>
<thead>
<tr>
<th>#</th>
<th>Element Name</th>
<th>Element Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Performance</td>
<td>Ensures that any procedures in the anesthesia plan that he or she does not perform are performed by a qualified anesthetist</td>
</tr>
<tr>
<td>5</td>
<td>Monitor</td>
<td>Monitors the course of anesthesia administration at frequent intervals</td>
</tr>
<tr>
<td>6</td>
<td>Physically Present</td>
<td>Remains physically present and available for immediate diagnosis and treatment of emergencies</td>
</tr>
<tr>
<td>7</td>
<td>Post-Anesthesia Care</td>
<td>Provides indicated-post-anesthesia care</td>
</tr>
</tbody>
</table>

V. Six Services Allowed While Directing Concurrent Anesthesia

For additional information on coding and billing, please review the ASA Payment and Practice Management webpage.

Six Services Allowed While Directing Concurrent Anesthesia

References Medicare Claims Processing Manual (Pub 100-4) Chapter 12, Section 50 (07/25/2014)

50 - Payment for Anesthesiology Services (Rev. 1859; Issued: 11-20-09; Effective Date: For services furnished on or after 01-01-10; Implementation Date: 01-04-10)

C. Payment at the Medically Directed Rate

"A physician who is concurrently directing the administration of anesthesia to not more than four surgical patients cannot ordinarily be involved in furnishing additional services to other patients. However, addressing an emergency of short duration in the immediate area, administering an epidural or caudal anesthetic to ease labor pain, or periodic, rather than continuous, monitoring of an obstetrical patient does not substantially diminish the scope of control exercised by the physician in directing the administration of anesthesia to surgical patients. It does not constitute a separate service for the purpose of determining whether the medical direction criteria are met. Further, while directing concurrent anesthesia procedures, a physician may receive patients entering the operating suite for the next surgery, check or discharge patients in the recovery room, or handle scheduling matters without affecting fee schedule payment."

<table>
<thead>
<tr>
<th>#</th>
<th>Element Name</th>
<th>Element Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emergency</td>
<td>Addressing an emergency of short duration in the immediate area</td>
</tr>
<tr>
<td>2</td>
<td>Labor Pain</td>
<td>Administering an epidural or caudal anesthetic to ease labor pain</td>
</tr>
<tr>
<td>3</td>
<td>Periodic Monitoring</td>
<td>Periodic, rather than continuous, monitoring of an obstetrical patient</td>
</tr>
<tr>
<td>4</td>
<td>Receiving Patients</td>
<td>Receive patients entering the operating suite for the next surgery</td>
</tr>
<tr>
<td>5</td>
<td>Check or Discharge Patients</td>
<td>Check or discharge patients in the recovery room</td>
</tr>
<tr>
<td>6</td>
<td>Scheduling Matters</td>
<td>Handle scheduling matters without affecting fee schedule payment</td>
</tr>
</tbody>
</table>

Each of these (CMS) required elements should be included in an anesthesia EHR to facilitate ease of compliance by anesthesia providers with documentation requirements. In addition vendors of anesthesia EHRs should build in the capability and flexibility to continually update and add elements as federal, state, and local Medicare carrier requirements change.

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Appendix: Acronyms and Terms

A

AA – anesthesiologist assistant
AAA – Anesthesia Administrators Assembly
AAAASF - American Association for Accreditation of Ambulatory Surgical Facilities
AAAHC - American Association for Accreditation of Ambulatory Surgical Facilities
AACD – Association of Anesthesia Clinical Directory
AANA – American Association of Nurse Anesthetists
ABA – American Board of Anesthesiology
ACA – Patient Protection and Affordable Care Act (see Obamacare, PPACA)
ACLS – advanced cardiac life support
ACO – Accountable Care Organization
ACS – American College of Surgeons
ACT – anesthesia care team
ADE – Adverse Drug Event
ADR – Adverse Drug Reaction
AHA – American Hospital Association
AHIP – American Health Insurance Plans
AHRQ – (pronounced “ARK”) – Agency for Healthcare Research and Quality
AHSA – American Health Security Act (of 1993)
AIRS – Anesthesia Incident Reporting System
AMA – American Medical Association
APC – Ambulatory Payment Classification
APG – ambulatory payment group(s)
APN – Advanced Practice Nurse
APRN – Advanced Practice Registered Nurse
APSF – Anesthesia Patient Safety Foundation
APU – Annual Payment Update
AQI – Anesthesia Quality Institute
ARNP – Advanced registered nurse practitioners
ARRA – American Recovery and Reinvestment Act (of 2009)
ASC – Ambulatory Surgery Center
ASCQR – Ambulatory Surgery Center Quality Reporting Program (CMS)
ASRA – American Society for Regional Anesthesia and Pain Medicine
ATRA – American Taxpayer Relief Act (of 2013) – requires CMS to develop the Quality Clinical Data Registry (QCDR)

C

CAH – Critical access hospital
CAHPS – Consumer Assessment of Healthcare Providers and Systems (CAHPS)
CBA – [ASA] Certificate in Business Administration
CCM – critical care medicine
CDC – Centers for Disease Control and Prevention
CDER – Center for Drug Evaluation and Research
CDS – Clinical Decision Support [tools]
CfC – [Medicare] Condition for coverage
CFR – Code of Federal Regulations
CHIP – Children’s Health Insurance Program [Medicaid]
CME – continuing medical education (credits)
CMS – Centers for Medicare & Medicaid Services
COP – [Medicare] Conditions of participation
CPOM – ASA Committee on Performance and Outcomes Measurement
CPT® – current procedural terminology (owned by the AMA)
CQI – continuous quality improvement
CQM – Clinical quality measure
CRM – customer relationship manager
CRNA – certified registered nurse anesthetist
CSAC – Consensus Standards Approval Committee (NQF)
CY – Calendar Year (typically used in the Physician Fee Schedule)

D
DEA – Drug Enforcement Administration
DNR – do not resuscitate (orders)

E
eCQM – Electronically specified clinical quality measure
EHR – electronic health record
EMR – Expected mortality rate; Electronic Medical Record
EPs – eligible professionals
e-prescribing/eRx – electronic prescribing
Ex Officio – from the office, no hyphen, capitalized, italicized

F
FDA – Food and Drug Administration
FFS – Fee-for-service
FSMB – Federation of State Medical Boards

G
GAO – Government Accountability Office
GME – graduate medical education
H
HAI – Hospital-associated infection
HCERA – Health Care and Education Reconciliation Act of 2010
HCPCS – Healthcare Common Procedure Coding System
HIPAA – Health Insurance Portability and Accountability Act (of 1996)
HIT – Health Information Technology
HOP – Hospital Outpatient Payment [Panel]
HQMF – Health Quality Measures Form (used for eMeasures)
I
ICD-9-CM – international classification of diseases, 9th revision, Clinical Modification
ICD-10-CM – international classification of diseases, 9th revision, Clinical Modification
ICU – intensive care unit
IDS – integrated delivery system
IHI – Institute for Healthcare Improvement
IOM – Institute of Medicine
IMQ – Institute for Medical Quality
IOTA – International Organization for Terminology in Anesthesia
IPPS – [Hospital] Inpatient Prospective Payment System
IQR – Hospital Inpatient Quality Reporting
IRB – Institutional Review Board
J
Joint Commission, The (see TJC) – Formerly the Joint Commission on Accreditation of Healthcare Organizations (JCAHO)
L
LIP – Licensed Independent Practitioner

LSTP – (ASA) Leadership Spokesperson Training Program

LTC – long-term care

LTD – long-term disability

MAC – monitored anesthesia care; minimum alveolar concentration

MAAC – maximum allowable actual charge

MADOM – ASA Manual for Departmental Organization and Management

MAP – Measure Application Partnership

MAT – eMeasure Authoring Tool (MAT)

MAV – Measure-Applicability Validation

MCO – managed care organization

MDR – FDA medical device reporting and processing system

Medicare Part A – (Hospital Insurance) Medicare covers services (like lab tests, surgeries, and doctor visits) and supplies (like wheelchairs and walkers) considered medically necessary to treat a disease or condition. In general, Part A covers: Hospital Care, Skilled Nursing Facility Care, Nursing Home Care (as long as custodial care isn’t the only care you need), Hospice and Home Health Services

Medicare Part B – (Medical Insurance) Covers 2 types of services – Medically Necessary Services: Services or supplies that are needed to diagnose or treat your medical condition and that meet accepted standards of medical practice and Preventive Services: Health care to prevent illness (like the flu) or detect it at an early stage, when treatment is most likely to work best.

Medicare Part C – Medicare Advantage Plans

Medicare Part D – Medicare Prescription Drug Coverage

MedPAC – Medicare Payment Advisory Commission

MedWatch – FDA’s MedWatch program for reporting adverse events

MEI – Medicare Economic Index

MIPPA – Medicare Improvements for Patients and Providers Act (of 2008)

MMA – “Medicare Modernization Act” or the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (created Medicare Part D)
MMPS – Medicare Mortality Prediction System
MOCA – Maintenance of Certification in Anesthesiology
MPCF – Medicare Prevailing Conversion Factors
MPFS – Medicare Physician Fee Schedule
MPPR – Multiple procedure payment reduction
MUC List – Measures Under Consideration (related to PQRS Submission)
MVPS – Medicare volume performance standards

N
NAAC  - Nonadverse anesthesia complication
NACOR – National Anesthesia Clinical Outcomes Registry
NCQA – National Committee for Quality Assessment
NHSN – National Healthcare Safety Network (administered by the Centers for Disease Control and Prevention)
NPDB – National Practitioner Data Bank
NPRM – Notice of Proposed Rule Making
NQF – National Quality Forum
NQS – National Quality Strategy (AHRQ)
NRMP – National Resident Matching Program
NSQIP – National Surgical Quality Improvement Project

O
OBRA – Omnibus Budget Reconciliation Act
OCR – Office for Civil Rights
OE (O-to-E) – Ratio of a hospital’s observed mortality rate to expected mortality rate
OIG – Office of the Inspector General
OMB – Office of Management and Budget
OMR – Observed mortality rate
OPD – [Hospital] Outpatient Department
OPPS – Outpatient Prospective Payment System (CMS)
OQR – Hospital Outpatient Quality Reporting Program (CMS)
OSTP – ASA Officer Spokesperson Training Program

P
PACU – postanesthesia (one word) care unit
PALS – pediatric advanced life support
PAR – postanesthesia (one word) recover
PCA – patient-controlled analgesia
PCORI – Patient-Centered Outcomes Research Institute
PDMP – Prescription drug monitoring program
PDR – Physicians’ Desk Reference®
PEER – peer-reviewed effectiveness evaluation research
PFS – Medicare Physician Fee Schedule
PHI – Personally Identifiable Health Information
PHO – physician-hospital organization
PHR – Personal Health Record
PHS – Public Health Service
PLI – professional liability insurance
PMAG – Performance Measures Advisory Group (PMAG)
PMP – Prescription monitoring program
PONV – Post-Operative Nausea and Vomiting
POS – point of service
POV – Post-Operative Vomiting
P&P – Policy and procedure

PPACA – Patient Protection and Affordable Care Act (enacted 2010)

PPAI – Practice Performance Assessment and Improvement [registry]

PPO – preferred provider organization

PPR – Physician Payment Reform Act (enacted 11/1989)

PPS – Prospective payment system

PQRS – Physician Quality Reporting System (CMS)

PRO – peer review organization OR patient-reported outcome

PROM – Patient-reported outcome measure

PSH – Perioperative Surgical Home

PSIs – Patient Safety Indicators

PSO – Patient safety organization

PSP – Practitioners with Supervised Privileges

PSQIA – Patient Safety and Quality Improvement Act (enacted 2005)

PTAC – Professional and Technical Advisory Committee (Joint Commission)

Q

QA – Quality assurance

QCDR – Qualified Clinical Data Registry

QDC – Quality data code

QI – quality improvement

QIO – Quality Improvement Organization

QMDA – ASA Committee on Quality Management and Departmental Administration

R

REMS – Risk Evaluation and Mitigation Strategies

RRGs – risk retention groups
RUC – Relative Value Update Committee (AMA/Specialty Society)
RVG – relative value guide
RVS – relative value scale (not system)
RVU – Relative value unit

S
SAMBA – Society for Ambulatory Anesthesia
SCIP – Surgical Care Improvement Project
SEE – Self-Evaluation and Education (Program)
SGR – sustainable growth rate (Medicare)
SHIP – state health insurance program
SICU – surgical intensive care unit
SMDA – Safe Medical Devices Act (of 1990)
SOAP – subjective, objective, assessment and plan (a problem-oriented record)
STS – Society of Thoracic Surgeons
SVS – Society of Vascular Surgeons

T
TEE – transesophageal echocardiography
TENS – transcutaneous electro-nerve stimulation
TPA – third-party administrator
TPP – third-party payer
TQM – total quality management

U
UCR – Usual, customary and reasonable (charges)
UR – utilization review
URI – upper respiratory infection
URVG – Uniform Relative Value Guide (of HCFA)

USP – U.S. Pharmacopeial Convention

USP-NF – U.S. Pharmacopeial Convention – National Formulary

V

VBP – Hospital Value-Based Purchasing

VBPM or VM – Value-Based Payment Modifier (CMS)
Addendum: ASA Departments and Resources

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Fax: (847) 825-1692

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Washington, DC 20005
Telephone: (202) 289-2222
Fax: (202) 371-0384

**ADVOCACY** (Washington, DC)
This department monitors and engages in advocacy with respect to federal and state legislative, quality and regulatory activities affecting the practice of medicine by the Society's members. Further, Advocacy is responsible for providing Practice Management assistance and advice for the membership, principally with respect to the Medicare program but also with respect to all "business" aspects of the delivery of anesthesia care. The American Society of Anesthesiologists Political Action Committee (ASAPAC), a separate segregated fund of the Society, is also administered in the Washington office. Advocacy is primarily based out of Washington, DC with staff also located in Schaumburg, Illinois.

**ANESTHESIA QUALITY INSTITUTE** (Schaumburg, IL)
AQI maintains nine (9) registries including the National Anesthesia Clinical Outcomes Registry (NACOR) – a CMS-approved Qualified Clinical Data Registry (QCDR). AQI's mission is to "maintain these ongoing registries with case data as the primary resource for anesthesiologists looking to assess and improve patient care." The registries are organized so that “anesthesiology practice groups can easily submit case information and so that individual anesthesiologists, practice groups, researchers, and professional societies find the data useful to improve the quality of care." AQI may be contacted via askaqi@asahq.org.

**HEALTH POLICY RESEARCH** (Schaumburg, IL and Washington DC)
The HPR Department publishes HPR Policy Briefs, a bi-monthly column in the ASA NEWSLETTER, and other various analyses and reports for ASA internal purposes. The mission of the Committee on Health Policy Research is to review, support, and conduct analyses and research relevant to anesthesiology and its advocacy; and to inform the public, health care providers, and policymakers to help improve care delivery, quality and patient safety.

**MEMBERSHIP SERVICES** (Schaumburg, IL)
ASA offers members the education, research and practice management tools they need to serve their patients and their profession. As an ASA member, you have complimentary access to the journal Anesthesiology, the premiere source of research in the profession of anesthesiology, the ASA NEWSLETTER, as well as practice management tools, an interactive community of members, and a variety of educational resources no matter where you are in your career. Membership Services is based out of Schaumburg, Illinois.

**PAYMENT AND PRACTICE MANAGEMENT** (Washington, DC)
The Payment and Practice Management department offers a wide range of materials, including information regarding payment for anesthesia services through Medicare and private insurance payers. Staff also works to ensure that ASA is on the forefront of the development of quality improvement initiatives. This, in turn, allows ASA members to follow quality guidelines to ensure that
they remain the leaders in patient safety, and to maximize opportunities for uncomplicated recovery with minimal intervention.

**QUALITY AND REGULATORY AFFAIRS** (Washington DC)
ASA’s Quality and Regulatory Affairs (QRA) Department is based out of the Washington, D.C. office. QRA’s mission is to direct and advance the interests of anesthesiologists in professional standards, performance outcomes, quality assurance and regulatory affairs as they intersect with quality initiatives. The department works to promote the anesthesiologist’s essential role in patient safety and health care quality. QRA works closely with a number of member committees, including QMDA. QRA may be contacted at qra@asahq.org.