Anesthesia Does Not Have to Be a Black Box

Science and technology provide numerous examples of the black box concept. We click on a button and expect a certain outcome, even if we have absolutely no idea what makes the whole thing work.

Hospital executives often view anesthesia services as a black box. There is little, if any, transparency surrounding the services, and the management of those services can be complicated and confusing.

Hospital administrators understand that the anesthesia department is an important factor in the success of the operating room (OR). Administrators assemble staff, schedule patients for OR, and have certain expectations for outcomes. However, when outcomes are not as expected (e.g., canceled surgeries, unhappy surgeons, problems in the Post Anesthesia Care Unit (PACU) or unreimbursed charges), administrators are left scratching their heads on how to fix it. They cannot see within the black box.

Partnering with an anesthesia management company helps to simplify the mystery of anesthesia services. An effective management company offers transparency and aligns goals with the hospital’s needs – inside and outside the OR.

Even Before Surgery Begins

The traditional approach to managing anesthesia services is limited to clinical processes, performance and outcomes. This type of approach views anesthesia as a commodity service – any provider will do as long as clinical outcomes are positive.

A new trend in anesthesia management takes a global perspective of the clinical as well as the business side of delivering anesthesia services.

The white paper Five Warning Signs of Suboptimal Anesthesia Management identifies key service areas for the delivery of anesthesia service, such as customer satisfaction, administration and leadership, in addition to the traditional management areas of clinical processes and performance.

ASSEMBLING THE RIGHT TEAM

Like any business, the number one resource for anesthesia services is people. Before focusing on processes and procedures, management must assemble appropriately trained nurses, surgeons and anesthesia providers.
Assembling the right team goes beyond selecting properly credentialed and clinically proficient providers. It includes finding the right mix of physicians and mid-level providers who work as a cohesive team with all of the staff. It incorporates recruiting and developing staff and leaders responsible for retaining the hospital’s most valued employees.

In the May 2009 issue of Healthcare Financial Management Magazine, the authors of “Anesthesia Subsidies: A Strategic Approach for Financial Executives” discussed the significant supply and demand imbalance created in the 1990s for anesthesia services.

A recent survey conducted by the Association of American Medical Colleges (AAMC) and the American Medical Association (AMA) indicates a changing physician culture that is coping with burnout and poor retention.

So, not only do hospitals face a provider shortage, but also an increasing problem of retaining the providers they do have.

When hospitals contract with anesthesia providers, there are ongoing administrative and management issues, including:

• Current and complete credentialing
• Competency/skills assessment, such as The Joint Commission’s Focused Professional Practice Evaluation (FPPE) and Ongoing Professional Practice Evaluation (OPPE)
• Payor contracting
• Recruiting and staffing

Add in the regulation issues of state legislation, the Centers for Medicare and Medicaid Services (CMS), and hospital bylaws, and hospitals face considerable obstacles. Healthcare reform legislation raises further financial concerns for hospitals with payment reductions, cuts to Medicare and Medicaid, and questions concerning private payor contracting.

Staffing and regulatory challenges are nothing new to hospital executives. However, what cultivates the black box perception is a lack of transparency and communication between the anesthesia department and hospital management. As a result, hospitals often leave the management of anesthesia services to anesthesia providers, with very little oversight. The clinicians arrive at the hospital, provide their services, then leave. When problems arise, the business relationship for interactive solutions is missing.

Currently, hospitals have options for the delivery of anesthesia services including local providers; regional groups; national, multi-specialty groups; or national, anesthesia-only specialty groups. An anesthesia management company that specializes solely in providing anesthesia services offers hospitals the clinical and business expertise, centralizing accountability for determining solutions to a hospital’s anesthesia problems.
Establishing Processes and Procedures

With the right team in place, the focus shifts to creating the necessary processes and procedures for perioperative services. In a June 2010 educational report, Healthcare Financial Management Association (HFMA) identified the following four strategies for the successful delivery of anesthesia services:

- Analyzing processes
- Matching the right skills to the right procedure
- Establishing a strong performance monitoring
- Supporting documentation efforts

The primary concern for hospitals is patient safety, a “do no harm” philosophy, but production and cost pressures also drive hospital executives. With the OR as the major revenue driver, a common goal for hospitals is increasing or maintaining surgical volume. To achieve that goal, there must be adequate anesthesia coverage for the OR, efficient scheduling and timely patient throughput and turnover in the OR and PACU.

The white paper A Focus on Clinical Quality Excellence in Anesthesia Services recommends establishing the OR as the center of excellence.

Inefficiencies in one area often affect other anesthesia service areas. For example, the ineffective management of supplies and equipment leads to delays in care and to cancellations. Trends of clinical inefficiencies, such as failed regional anesthesia, impact patient throughput and the satisfaction level of multiple stakeholders.

What happens in the black box should not be a well-guarded secret. Deciding what produces optimal results for anesthesia services requires a team care model approach, and that requires transparency and communication.
Inside the OR
If any one area epitomizes the black box theory, it is the OR. Hospital administrators create the input of staff and patients and expect positive outcomes as the output. However, what transpires in the OR is critical for making the “whole thing work.”

The global management of anesthesia services evaluates each service area:
- Clinical quality including processes and procedures
- Compliance and risk management performance levels
- Customer satisfaction level of stakeholders
- Administration of staffing, professional development, financial management
- Leadership management of clinical and business aspects

A total quality management program focuses on three phases: before surgery, inside the OR and post surgery in one continuous cycle of improvement.

RECOGNIZING STAKEHOLDERS
There are numerous stakeholders in the delivery of anesthesia services – patients, surgeons, physicians, nurses and other staff, as well as hospital executives and administrators. Each has different expectations for the process, performance and outcomes of delivering anesthesia services. That creates a significant challenge for the management of anesthesia services.

How do you satisfy each stakeholder while achieving optimal quality? It requires a collaborative effort. The first step is defining an anesthesia value proposition for each stakeholder. Developing unique anesthesia value propositions provides the framework for quality assessment.

The value proposition process facilitates benchmarking that is specific and measurable for managing expectations and improving results. Like the inner workings of a black box, each component is interdependent for meeting expectations and achieving positive outcomes.

UNDERSTANDING COMPLIANCE
The industry trend toward tying quality and outcomes to reimbursements has a substantial impact on a hospital’s bottom line. In that regard, anesthesia quality is no different from any other hospital department. However, because so much of the inner workings of the anesthesia department are inside that black box, hospital administrators struggle with knowing how much of an impact there is.

In his November 15, 2010, interview with Becker’s ASC Review®Somnia Anesthesia Services’ quality assurance officer, Hugh Morgan, recommended:

“At a minimum, hospitals and ASCs must conduct an annual review of the CMS Conditions of Participation, Interpretive Guidelines for Anesthesia.”

The CMS Conditions of Participation (COP) describes hospital and Ambulatory Surgical Center (ASC) requirements for billing CMS patients. The COP contains additional guidelines for specialty practices, such as anesthesia services.
The black box contains numerous anesthesia-specific quality and accreditation requirements. The following is a current list:

**Regulatory (CMS)**
- Conditions of participation/interpretive guidelines (May 2010)
  - 2010 changes to Quality Assessment and Performance Improvement (QAPI), pre-post-operative documentation, Certified Registered Nurse Anesthetist (CRNA) independent analgesia
- Physician quality reporting initiative (PQRI)
  - Incentive bonus for reporting data on quality improvements
  - Equal to two percent of Medicare reimbursement
- Agency for Healthcare Research and Quality (AHRQ) – Patient Safety Indicators
- Federal Drug Administration (FDA) – anesthesia machine check standards

**Accreditation – The Joint Commission (JC) and Accreditation Association for Ambulatory Health Care (AAAHC)**
- National Patient Safety Goals – 7 of 17 anesthesia-related
- Surgical Care Improvement Project (SCIP) measures – five anesthesia-related
- Over 20 JC standards and 100 elements of performance related to anesthesia survey risk

**Professional Societies – American Society of Anesthesiologists (ASA), American Association of Nurse Anesthetists (AANA), Subspecialties**
- Over 68 standards, guidelines, advisories, practice parameters

Is it any wonder that hospital administrators find compliance challenging? Anesthesia touches and affects more areas of a hospital facility on a daily basis than most any other medical specialty. The key is building a solid infrastructure that values each patient’s anesthetic experience and then dedicating the appropriate quality resources.

To open the black box on anesthesia quality compliance, hospitals must have a collaborative partnership with anesthesia services.

**DEVELOPING EFFECTIVE RISK MANAGEMENT**

Authors of the article “Risk Management in Anesthesia” note that risk management involves all aspects of anesthesia care and includes “preventive and remedial measures to minimize patient anesthesia-related morbidity and mortality.”

"Anesthesia is considered a leading discipline in the field of patient safety.”
Risk Management in Anesthesia, Minerva Anestesiologica, Vol. 75-No. 11, November 2009
Hospitals have very real risks with the suboptimal management of anesthesia services. Hospitals risk CMS participation and accreditation status, patient safety and satisfaction, and potential damage to the hospital's standing in the community.

Some of the measures for anesthesia risk management include:

- Anesthesia forms and documents
- Medication safety and security
- Education of anesthesia staff
- Ongoing monitoring and reporting

“Risk Management in Anesthesia” identifies the following four steps for preventing critical incidents in the delivery of anesthesia services:

1. Detection of problems
2. Assessment
3. Implementation of solutions
4. Verification of effectiveness

Adverse effects from anesthesia do occur; however, developing effective risk management procedures helps detect and eliminate preventable risk factors.

**OPTIMIZING PATIENT SAFETY**

Evidence-based medicine guides patient safety. The baseline for clinical quality is regulatory and accreditation standards, typically defined by process and outcomes. That may be acceptable for compliance; however, the fundamental measurement for anesthesia clinical quality goes beyond compliance. It is an assessment of the patient's experience – was it good or bad?

If hospitals are not capturing or measuring each patient's anesthesia experience, they are losing essential information for risk management assessment and quality improvement measures.

An effective anesthesia management company focuses only on the anesthesia specialty and translates the black box content of compliance, risk management and patient safety into solutions that integrate with a hospital's goals and objectives.

**Post Surgery**

Successful outcomes consider all stakeholders for anesthesia services while balancing clinical and business needs. When the patient exits the OR, it is the extension of careful planning by all service areas. It closes the loop on the clinical aspect of care and measures the return on investment for the business side of anesthesia services.
FOCUSING ON CLINICAL ISSUES

The primary concern outside the OR is the safety and comfort of the patient, minimizing the incidence of postoperative nausea and vomiting (PONV) and pain.

With the administration of anesthesia in the OR, what forms a patient’s experience is the time spent outside the OR. Was the patient comfortable? Did he or she feel safe and cared for?

Improve Quality

Effective management of the PACU provides oversight and coordinates processes and procedures.

Several management tools support anesthesia quality, including the use of customer satisfaction surveys, outcome tracking, accurate and timely documentation of patient charts, and routine audit procedures.

Often overlooked or undervalued, anesthesia customer satisfaction surveys provide valuable insight for improving quality by:

- Surveying all stakeholders
- Capturing expectations of stakeholders
- Benchmarking for quality improvement
- Validating care performance and outcomes

These tools help identify trends, prevent systemic repeats and improve care. They open the black box, revealing the source of the problem.

MANAGING THE BUSINESS SIDE OF ANESTHESIA

Perhaps the greatest, single issue that keeps hospital executives up at night is how to do more with less.

The anesthesia economics of supply and demand, rising supply and labor costs, decreasing reimbursements and increasing scrutiny on a federal level have hospital executives searching for efficiencies and cost-effective strategies.
In the Summer 2010 Sentinel newsletter of the Pennsylvania Society of Anesthesiologists, the authors of “Breaking Down the Business of Anesthesia” remarked how “the business side of the industry is the furthest thing” from the minds of doctors obtaining their education.

Failing to address the business side of anesthesia services puts a hospital at risk. Continuous monitoring and risk assessments of financial performance are vital for evaluating anesthesia services. Two areas for analysis are cost and revenue management.

Managing Costs
Both labor and nonlabor costs are associated with the delivery of anesthesia services. With so much of a hospital’s expenses related to labor, the decisions made have major implications.

Market-driven compensation calls for close attention to regional and national benchmark data, such as that provided by the Medical Group Management Association (MGMA). Hospitals should question if their anesthesia staffing model is the best value for the expenditure. Inefficiencies in staffing increase costs, such as last-minute replacement with costly locum tenens.

Nonlabor costs include the equipment, supplies and drugs needed for the delivery of anesthesia services. The most costly expenses for anesthesia are the different types and prices of gases. Different flow rates can have a significant impact on costs. Collaborating with anesthesia providers in cost-containment incentives is an effective method for managing anesthesia’s nonlabor costs.

Maximizing Revenue
Two major factors influencing the revenue cycle for anesthesia services are:
• Billing management – including charge entry, coding and collections
• Anesthesia subsidies – additional financial support paid by hospitals when revenues don’t cover the costs

IMPROVED BILLING MANAGEMENT INCREASES REIMBURSEMENTS
What is the most misunderstood content in the anesthesia black box? For most hospital administrators, the answer is anesthesia billing and reimbursement.

Reasons why anesthesia billing is so complex:
• It is the only specialty requiring time-based billing
• Insurance companies have different reimbursement guidelines, which often means different coding, different requirements
• It makes a difference if a CRNA or a physician delivers the services
• Medicare has its own Resource-Based Relative Value (RBRVS) units system
• Medicare has different reimbursement for medically versus non-medically directed anesthesia
Somnia’s white paper on *Delivery of Anesthesia in America’s Hospitals: Understanding the Subsidy* notes Medicare installed the RBRVS system in the late 1980s and typically pays only a third of what private insurers pay.

CMS has a rule that requires physician supervision of CRNAs, unless a state elects to “opt out” of the requirement. There is a difference between medically directed and supervised. The medically directed designation is more restrictive and has seven required rules. The anesthesia staffing models that drive value and improve quality white paper lists the seven rules.

While Medicare generally accepts split claims for anesthesiologists and CRNAs, many private insurers do not. Therefore, CRNAs employed by a hospital but medically directed by a separate anesthesia group present a billing challenge. If both the hospital and the anesthesia group bill for the services, most private insurers pay the first claim and deny the second claim as a “duplicate service.”

The article “Breaking Down the Business of Anesthesia” identifies another problem. Typically, payers base fee schedule rates for non-anesthesia procedures and pain management on units published in the American Society of Anesthesiologists (ASA) Relative Value Guide (RVG). Because Medicare and private insurers have different reimbursement methods, the value of these services is lost.

The article, “Billing & Compliance Recommendations” published on CRNAbiz.com, offers examples of billing problems:

- **Pre- and post-anesthesia visits** – Billing separately for visits during the perioperative period creates greater scrutiny. Generally, the ASA’s RVG includes the visits in the base units for anesthesia units.
- **IV PCA management** – This is overseeing the patient-controlled administration of intravenous pain medication (codes 99231–99233). It should not be billed to Medicare; however, some private insurers reimburse the service.
- **Incorrect coding** – The use of incorrect codes can result in incorrect reimbursement or even denial. For example, the use of transesophageal echocardiography (TEE) for monitoring purposes (code 93318) is not the same as the diagnostic TEE services (code 93312 or 93313)

An anesthesia management company with an anesthesia specialty understands the complex intricacies and billing requirements. An effective management company helps hospitals maximize reimbursement for anesthesia services by establishing solid billing management practices.

**Controlling Anesthesia Subsidies**

Anesthesia subsidies are at the heart of many differences in expectations between hospitals and the anesthesia department. Hospital administrators often feel they are not receiving the level of service they expect from the extra financial support.

The supply and demand imbalance, decreasing reimbursement and productivity, led to the need for subsidizing anesthesia services. However, sound financial principles demand that hospitals explore all revenue streams and optimize payor contracts.
• Would a different staffing model reduce cost while maintaining safe, effective anesthesia care?
• Are scheduling and coverage matching the demand for anesthesia services?
• What impact are delays having on costs?
• Are payor reimbursements based on performance objectives?

These are just a few of the questions hospitals must ask when looking to manage rising anesthesia subsidies.

Improved quality and efficiencies opens the door for additional streams of revenue, such as coverage of gastrointestinal (GI) radiology or the Intensive Care Unit (ICU). This also improves coverage for obstetrics and produces greater surgical volumes. By maximizing revenue, hospitals may reduce or eliminate anesthesia subsidies.

The same business intelligence solutions used for cost reductions and maximizing productivity work for managing the business side of anesthesia services – nothing black box about that.

The Transparent Box
Transparency eliminates the mystery of the black box. We see what is inside the box and discover what makes it all work.

However, just like lifting the hood of a car when we do not have the expertise for understanding what’s inside, hospitals have the option of hiring an anesthesia management company to be the mechanic for managing their anesthesia services.

Hospitals hire anesthesia management companies for three reasons – to improve quality, to increase revenue and to reduce costs. The measurement of success is the enhanced value for anesthesia services.

With a supportive, transparent anesthesia partner, hospital executives will not view anesthesia services as a black box.

ABOUT SOMNIA ANESTHESIA

Founded in 1996 by practicing anesthesiologists, Somnia Anesthesia is a full-service clinical anesthesia solutions partner, providing support in all areas of anesthesia including leadership, recruiting, revenue cycle management, payor contracting, quality assurance, and billing and credentialing to hospitals, surgery centers and office-based surgical facilities. Owned and operated by physicians, Somnia provides locally recruited anesthesia teams, supported by an unmatched national infrastructure that delivers the economies of scale clients demand. Anesthesia continues to be Somnia Anesthesia’s only business.
Resources

1 Somnia Anesthesia White Paper Five Warning Signs of Suboptimal Anesthesia Management: How Even a Talented Clinical Team Can Put a Hospital at Risk, available at http://info.somniaanesthesiaservices.com/Warning-Signs


3 Erikson, CE. Results of the AAMC/AMA surveys of physicians over and under 50. Program and abstracts of the Third Annual AAMC Physician Workforce Research Conference; May 4, 2007; Bethesda, Maryland


10 Answine, Joseph MD (see n. 8)