

# ENHANCE HEALTHCARE'S ANESTHESIA & OPERATING ROOM REVIEW

*July to September 2019*



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July

## 5G – Coming Soon to An OR Near You?

We've all heard of the impending 5G roll out. Soon to be a reality in major cities, it is said to offer vastly increased speed and responsiveness compared to current "4G" cellular capabilities. A recent Health Data Management [article](#) considers the possible implications for healthcare. Rapid transfer of large data files will facilitate remote care, virtually immediate sharing of scans and the ability to perfect remote diagnosis.

Perioperative applications include the facilitation of remote robotic surgery, improved access to patients in rural locations and facilitating the use of AI to determine treatment plans and proactively identify patients at risk for post-op complications. The large amounts of data required for all of the above are supported by highly reliable and fast 5G networks.

## Cybersecurity: Now An Anesthesia Machine Problem

As if we didn't already have enough to worry about, now faceless hackers can possibly take control of our anesthesia machines! In a scenario which sounds like it was dreamed up by a novelist, The Department of Homeland Security's Cybersecurity and Infrastructure Agency (CISA) issued a warning saying that certain GE Healthcare anesthesia machines have the ability to be hacked remotely, according to an [article](#) written in Fox News.

The specific devices GE Aestiva and Aespire Versions 7100 and 7900 can apparently be hacked not to steal data but to alter the amount of anesthetic agent delivered or stop a respiratory device. The article notes that the devices received a vulnerability score of v3 5.3, or moderate severity. Jon Rabinowitz of CyberMDX takes issue with the rating. He notes that when these devices were first being designed cybersecurity and cyberhacking were not vulnerabilities that were being focused on, and that the scoring system does not account for the potential patient risk. If adjusted for these factors he feels the GE machine vulnerability should be scored as critical. GE Healthcare also issued a statement acknowledging that there is a potential to hack the devices however, after conducting an internal risk investigation determined there was no clinical hazard or direct patient risk.

### Review Of Financial Incentive Programs For Anesthesiologists

Dr. David Lubarsky et al. provides a detailed review [article](#) in the January 2019 issue of Anesthesiology. They look at financial incentives for physicians in general, with many specific examples related to anesthesiologists. Utilizing the framework of behavioral economics as well as a number of supporting studies, the authors describe issues to consider when designing and implementing incentive programs. The review details many of the premises of behavioral economics and links them to incentive program attributes. This article may be used for anesthesia (and other specialty) groups and facility administrators as they work to design performance metrics and associated financial benefits in a way to “maximize effectiveness and minimize unintended consequences.”

**EHC NOTE:** *In the process of contract negotiations, we are frequently involved in the design and implementation of performance metrics linked to some portion of anesthesia subsidy. Sometimes designed as a withhold, sometimes as a “bonus”, the vast majority of hospitals and health systems expect metrics to delineate targets and expectations. The concepts detailed in the review article by Lubarsky et al. offers an excellent resource as to how incentive measures are designed. On a lighter note, much of the information contained in the article was presented by Dr. Lubarsky at the 2017 ASA Practice Management Conference. During the presentation, he was discussing the potential pitfalls in offering different compensation for the same work (this may relate to an Anesthesiologist, CRNA, OR Nurse etc.) There is apparently a fair amount of research in this area and he played a video highlighting one part of that body of work which is both informative and entertaining. If you have a minute (or 2 minutes and 43 seconds to be exact), check it out [here](#).*

### Reimbursement Scenarios For Medicare For All

Adding to the issue we discussed in our [article](#) in the June Review, Dr. Zirui Song from Harvard Medical School in JAMA Network offers this timely [analysis](#) of the impact of a Medicare for All transition on reimbursement under various assumptions. While the analysis encompasses the potential physician reimbursement implication on a broad spectrum of care (office visits, diagnostic testing etc.), we will focus only on the subset devoted to common surgical procedures. Importantly for OR managers and hospital executives, hospital payments currently reflect a similar range of payment ratios between Medicare and commercial payers, thus the current analysis should at least directionally apply to the impact on facility reimbursement.

The analysis delineates the current average commercial in and out-of-network payment as a percentage of Medicare and shows how that payment would compare to a theoretical Medicare for All reimbursement at 125% or 200% of current Medicare levels. Details are shown in a [supplement](#) to the article and demonstrate variable impact. At 125% of Medicare an abscess drainage would yield 12% more in physician fees than current in-network commercial rates, while surgical reimbursement for cholecystectomy would be about 14% higher.

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In a theoretical world of across the board 200% of Medicare reimbursement, surgical professional fees would exceed current average in-network rates by 28 to 80% for the four procedures analyzed. The author delineates some likely offset to reimbursement changes based upon historical experience. For example, price reductions have resulted in either an increase in the volume of the service delivered, or an upcoding in procedure type or site of service.

**EHC NOTE:** *While uncertainty abounds in the details of what a possible Medicare for All implementation would look like; this article offers a data driven framework to quantify an impact which would be manageable from the perspective of surgical in-network professional fees. Of course, as always the devil is in the details and potential reimbursement methodologies would be a topic of intense debate and lobbying. In almost any scenario, it is likely that a Medicare for All construct would offer a “sweetener” to keep the majority of hospitals and physicians relatively whole at the outset. However, with an aging population and the associated inexorable march in utilization of healthcare services, if the government has 100% control of the market it would eventually be forced to ratchet down reimbursement across the board as budgets get strained to the breaking point.*

*Although the initial impact may be manageable for hospitals and health systems, there would be outlier losers out of the gate in a Medicare for All transition. Readers who are anesthesia providers can count themselves in the most exposed decile. With baseline in network rates in the 300 to 500% of Medicare range, a theoretical increase to even 200% of Medicare would leave a gaping revenue hole for anesthesia groups, with the implications as discussed in our article last month. As we said last month, “there’s always a career in plumbing to consider.”*

*As a side note, since out-of-network fees appear to be under increasing scrutiny and will likely have less of an impact going forward, we feel that the in-network comparison is most relevant. This is not to say that individual surgeons who are currently in an out-of-network business model would not be disproportionately affected on a percentage basis, but they are likely to be dramatically affected – Medicare for All or not.*

### **EHC's Anesthesia 101 Building Blocks #1: Anesthesia Subsidy Drivers**

We are often asked to describe the basic building blocks of creating an anesthesia agreement. In response, we created a series of brief articles designed to give a foundational understanding of the process and some of the common areas to be considered. We will be offering a monthly series in the Review, the first of which addresses Anesthesia Subsidy Drivers.

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## **ANESTHESIA 101: ANESTHESIA SUBSIDY DRIVERS**

In today's healthcare environment, anesthesia subsidies are common hospital operational costs, often costing millions of dollars. With eighty percent of hospitals paying an anesthesia subsidy, finding ways to reduce these costs – without risking quality – is a hot topic. What's more, anesthesia groups face decreasing reimbursements and, supply-demand imbalances that dramatically drive up subsidy requirements.

Contract negotiations should maximize the value of the significant investments hospitals make in their anesthesia service while supporting fair compensation for anesthesia providers. These discussions offer a chance to isolate and address any of the incongruities between anesthesia group needs and hospital budgets. However, to do so, facility leaders must understand the four drivers of anesthesia subsidies: Fair Market Value Compensation, Anesthetizing Locations, the Anesthesia Staffing Model, and Revenue Cycle Performance.

### **FAIR MARKET VALUE COMPENSATION**

Fair market value compensation is based on several factors including geographic location, call requirements, case types and subspecialty training expectations. This value can be determined by comparing several regional surveys of salary and benefits packages, ranging from high to low, and not solely judging by the median rate. Supplemental modifications should be made after considering a number of factors such as the region's average cost-of-living, case volume, call stress, and contract length. By identifying each of these factors a reasonable compensation allocation can be determined.

### **ANESTHETIZING LOCATIONS/ PROVIDERS**

The number of anesthetizing locations directly plays into subsidy costs. Administrators are often pressured to open additional locations, or to provide numerous flip rooms for surgeons. However, in the absence of incremental cases to fully utilize the added capacity, with each location comes an increase in staffing costs, as well as a decrease in surgical minutes performed per location. This reduction means lower productivity and less billable hours per provider, which then expands the difference between provider expense and realized revenue. The additional subsidy necessitated by this capacity may be warranted, but that is ultimately a business decision driven by the ability to increase market share and incremental surgical cases.

### **STAFFING MODEL**

Whether an anesthesia group chooses a physician only, anesthesia care team, or CRNA only model, finding the right fit and balance in a staffing plan has a direct impact on subsidy. The chosen model can have a major impact on the subsidy requirements. However, choosing a staffing model is a complex decision requiring the consideration of a variety of factors: surgeon preferences, case complexity, call obligations, after hours workload and subspecialty coverage requirements. During negotiations, expert



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advice from individuals familiar with anesthesia staffing norms can be a valuable resource to help hospitals understand the staffing model complexities and opportunities.

### REVENUE CYCLE PERFORMANCE

While most contracted groups do their best to collect all amounts due to them from payers, anesthesia billing is unique and complex. Subsidizing based on a revenue guarantee without closely monitoring anesthesia billing is a common error. In this construct, ultimately hospitals assume the risk of poor revenue cycle realization. Ideally, facilities should monitor charge capture, payer contracting strategies, net collection percentages and receive monthly reports. In fact, even facilities with fixed anesthesia subsidies should ensure adequate anesthesia revenue cycle practices. Otherwise the group may come back with an unnecessarily high request for subsidy upon contract re-negotiation.

These four drivers can be evaluated and adjusted to identify opportunities for increasing collections and reducing costs – improving the hospital's bottom line. EHC's Anesthesia Subsidy Value Index takes key metrics from a hospital's OR to determine if it is receiving the most efficient level of anesthesia coverage and highlights areas that can be improved upon.

### [Growth Of Enhanced Recovery After Surgery \(ERAS\) Across The US](#)

According to an [article](#) written in Anesthesiology News, Enhanced Recovery After Surgery, or ERAS, is seeing continued growth and adoption in hospitals across the United States. A survey conducted by Dr. Sunitha Singh, ERAS coordinator at Stony Brook University Medical Center, showed colorectal surgery (88% of respondent facilities) as being the most popular ERAS program, followed by gynecology (51%), orthopedics (49%), surgical oncology (38%) and urology (35%).

It was expected that colorectal would be the most represented among the 148 returned surveys as it was the focus of many early ERAS efforts. 4.6% of hospitals that responded to the survey reported having no ERAS program.

The total number of ERAS programs in a hospital was positively correlated to the number of ORs and to the presence of anesthesia and surgery residency programs.

According to another expert quoted in the article, Dr. Anoushka Afonso, ERAS Director at Memorial Sloan Kettering, ERAS programs are a great way to improve care and save money. However, Dr Afonso opines that many hospitals still have not implemented them due to the high need for collaboration among many departments and stakeholders including the surgeons, anesthesiologists and OR staff. To increase involvement, education and research must be presented and it is important for OR leadership and administration to support and encourage the efforts.

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**EHC Note:** *In our experience working with hospitals and health systems across the country we have come across ORs of all sizes with a wide range of ERAS programs in place (not uncommonly none). If a hospital is not already involved or actively pursuing ERAS, if supported by adequate specialty case volume, it is often our recommendation to explore implementation. These programs have the potential to not only improve patient outcomes and care, but also may drive cost savings through standardization, reduced length of stay and reduced perioperative complications. Oftentimes, we look to the anesthesia department to spearhead implementing and maintaining ERAS programs. While anesthesiologists are an important part of the ERAS puzzle because they are directly involved in all stages of the perioperative process, they must obtain significant support to create a successful program. We typically see significant involvement of senior champions in the target surgical specialty and senior hospital leadership, as well as OR managers, and pre and post op managers. While adding ERAS programs will require a significant outlay of time and energy, the potential benefits are meaningful both clinically and financially.*

### [Upgrade Your \(Anesthesia\) Technology Support Staff](#)

The news is filled with the latest high technology gizmos, gadgets and apps, but Anesthesia Technology is not often in the headlines. However, the July 2019 edition of the [ASA Monitor](#) has two articles devoted to these invaluable support professionals. In the first, an anesthesiologist and three leaders of the American Society of Anesthesia Technologists and Technicians (“ASATT”) describe the wide range of skills provided by the profession. ASATT members can offer a range of services including assistance with invasive procedures; maintenance of point of care testing devices; operation of cell savers; EMR setup; maintenance of QI records; and to ensure MRI compatibility of anesthesia equipment. Since many local facilities establish policies and procedures which limit the roles of anesthesia techs, ASATT is seeking to establish uniform state and federal scope of practice guidelines.

The second article is written by Dr. Alvin Head and our good friend Robert Johnson. Using their experience in numerous operating rooms, they observe that anesthesia techs are often laid off during periods of budget stress. They argue that this is in fact the wrong response and that valuable work provided “behind the scenes” by techs is then redistributed to far more expensive anesthesia clinicians. Thus, the attempt at reducing cost actually has the opposite effect. The authors provide a cost allocation analysis of supporting required steps during OR turnover with different provider classes. They find that in a 10 room OR a fully allocated annual cost for anesthesia techs is \$16,640, for CRNA/AA’s \$83,200 and for anesthesiologists \$166,400. A helpful guide for the number of anesthesia techs per type of anesthetizing location is provided as well and shown below.



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Sites	Anesthesia Techs needed	Anesthesia sites covered
General Anesthesia	1	4
Cardiovascular	1	2
Liver Transplant	1	2
Offsite Procedures	1	2
Ambulatory	1	4

**EHC NOTE:** As we travel to operating rooms around the country, the issue of “inadequate support staff” – including anesthesia techs – is a frequent theme from surgeons, anesthesiologists, nurses and OR leaders. Operating room time is incredibly valuable, and it makes little sense to reduce operating room efficiency and utilization due to relatively affordable support staff. As the article by Head and Johnson points out, shifting functions appropriately performed by anesthesia techs to mid-level or physician providers will incur a 5 to 10-fold increase in expense for the same deliverables. It makes little sense in any business to utilize staff at levels below pay grade.

It also makes little sense to limit support staff in the roles they can fulfill in optimizing throughput and efficiency. This is the point of the article by the group including ASATT leadership. We concur with their proposals to seek uniform scope of practice guidelines for anesthesia techs. Facilities employing anesthesia technicians should always seek to maximize their contributions to the collective efforts for efficiency.

Expanding the discussion beyond techs, we feel that operating room leaders should carefully look at all support personnel including housekeeping, pharmacy techs, and the transport/orderly staff. If a minute of operating room time is worth over \$100, it makes little sense to cut corners on affordable support staff who can make a lot more of those high-value minutes productive instead of dormant.

### Hospitals Struggle To Meet Leapfrog Group Volume Targets

The Leapfrog Group, with the help of an expert panel, has identified eight high-risk surgical procedures where there is a high “volume to outcome relationship” and established minimum hospital and surgeon volume standards for each. In their [Inpatient Surgery Report 2019](#) the results from 2,000 responding hospitals provide food for thought and reason for concern. For the 8 procedures, the vast majority of hospitals did not meet both hospital and surgeon volume criteria, meaning they had a higher likelihood of surgical errors and complications due to the low volume of procedures performed. In fact, the procedure with the highest percentage of facilities meeting both of these criteria was bariatric surgery for weight loss (38%), with Esophageal Resection and open AAA Repair both under 3%.

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The report continues with an analysis of surgical appropriateness. For all high-risk procedures, hospitals are asked to report on their implementation of a hospital-wide policy which includes processes aimed at monitoring surgical necessity and preventing overuse of surgical procedures. Hospitals are asked about their progress in developing surgical appropriateness criteria based on published guidelines and other relevant factors. Once again, less than half of reporting facilities had a surgical appropriateness policy for bariatric surgery for weight loss. For all other procedures, less than one-third of reporting hospitals indicated that they have a surgical appropriateness policy in place. The report concludes that “hospitals can and should establish and enforce policies for peer-review and evidence-based standards, to assure that patients are only operated on when need is evident.”

**EHC NOTE:** *The implications highlighted by the Leapfrog Group survey should be concerning for individual patients, payers and employers. Patients obviously deserve to have evidence-based criterion used in determining whether surgical intervention is the best option to treat their condition. This is especially true for the complex procedures considered by Leapfrog. Furthermore, especially for this subset of cases, the need for hospitals and surgeons to maintain their skill set in providing care by meeting volume thresholds has been a theme we have revisited several times in the Review.*

*Payers and Employers rightfully want to see their expenditures yield the best results. For complex procedures, complications can lead to significant patient suffering, increased length of stay and cost. In an [article](#) in Modern Healthcare on the subject, the AHA pushed back on a rigid volume threshold. We agree that a rigid threshold may be up for debate, but it is in the best interest of all parties to further study volume levels/surgeon experience and results for each procedure and drive complex cases to better performing centers.*

### Trump Pushes For Price Transparency

In June, President Trump signed an executive order requiring price transparency in health care. He is quoted as saying “Hospitals will be required to publish prices that reflect what people pay for services,” in an [NPR](#) article on the topic. Trump continues in his signature style “You will get great pricing. Prices will come down by numbers that you wouldn’t believe. The cost of healthcare will go way, way down.”

Unfortunately, the details are murky, with the order leaving the Department of Health and Human Services to develop the specifics which would then be turned turn into official rules. At a high level, the intent is to give patients access to information required to make an informed decision as they would with any other purchase. As such, the administration would have hospitals provide actual prices which patients and insurers pay and also for the providers/insurers to identify expected out-of-pocket costs for patients.

As would be expected, various interest groups that take strong positions pro and con, opine that the proposal would either facilitate a true free market in healthcare, or conversely ultimately drive up prices.

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**EHC NOTE:** Like many ideas emanating from Washington, transparency in healthcare pricing is a reasonable concept. Who can argue that patients (consumers) should not know what they are going to be asked to pay for services? However, like other government constructs, we struggle to see how this would be applied in our day-to-day operating room realities. Sure, there are some procedures which are fairly consistent and can be priced accurately (such as joint replacements), and others which may be paid as a flat fee for certain insurers (such as labor epidurals). But many procedures can take unexpected twists, or by their nature be unknown (exploratory laparotomy). How do unanticipated events or complications necessitating additional care – and cost – get priced in advance? If patients are to be given a menu of potential complications and their cost, it would be daunting to create and could lead to some very long preop discussions.

While we applaud the efforts from the administration and certainly join the President in striving for “great healthcare”, we think that any price transparency proposals should be pulled from the theoretical world of DC and discussed with folks on the front lines of healthcare ... before being trotted out to the public.

*August*

## Post-Op Death Rates Sheds Light On Need For Increased Post-Operative Focus

A [study](#) reviewed in Reuters Health claims that recovery at home is one of the riskiest times for post-surgical patients. The study examined outcomes for major complications and death intra-operatively and up to 30 days post-operatively in 40,000 patients 45 and older in 14 countries undergoing non-cardiac surgery. Of all postoperative deaths, 1% or 5 patients died in the operating room, 70% or 500 patients died in the hospital and 29% or 210 patients died after being sent home. Factors that significantly increased the likelihood of postoperative death were major bleeding, heart damage, bloodstream infections and sepsis. Other comorbidities included high blood pressure and diabetes.

The article concludes by emphasizing an increased need for providers to focus on postoperative and transitional care-to-home, and enabling patients to empower themselves through advocacy and support of research into enhanced monitoring techniques after surgery.

***EHC Note:*** While not mentioned in the article, the concepts of Enhance Recovery with preoperative optimization and postoperative standardization, if applied worldwide should be effective in reducing concerning rates of postoperative morbidity and significant mortality found in this study.

## The Anesthesia Angle On The Impending Physician Shortage

The Association of American Medical Colleges (“AAMC”) conducted a study on the significant shortage of physicians in the U.S. workforce. The study analyzed primary care physicians and specialists and determined that between 2017 and 2032 there would be a shortage of 21,500 to 55,200 primary care physicians and 24,800 to 65,800 specialists. Although the study did not identify anesthesia among the top 10 most challenging specialties to recruit to, it shined a light on the need to further analyze recruitment efforts.

Citing the AAMC study, Anesthesiology News [surveyed](#) anesthesia leaders and recruitment experts to develop insights on the anesthesia job market and strategies to adapt to the looming shortage of providers. In addition to the general shortage of physicians, anesthesiologists face additional challenges due to escalating need for coverage of non-OR anesthesia locations such as endoscopy, cath lab and radiology. Other anesthesia recruitment challenges include the increased desire for work-life balance for anesthesiologists of all ages and increasing maternity, and more recently paternity leave.

The survey also gave insights on how to address recruitment in an increasingly competitive environment. Attracting candidates is mainly based on geographic location, compensation and benefits and perks. If an organization is lacking in one of these areas, they should overcompensate in another to remain competitive. For example, if the hospital is in a less desirable geographic location, more compensation may need to be offered to attract quality clinicians. Additionally, vacation time and sign-on bonuses oftentimes becomes the deciding factor for clinicians choosing between multiple facilities.

Other important factors to recruitment are discussed in another August Anesthesia and OR Review article ["Our Rural Hospital Has Difficulty Recruiting" – Factors to Focus on When Recruiting Physicians](#)

### [A New Foundation For 3-D Organ Printing Shows Promise](#)

An [article](#) in Science (August 2, 2019) details breakthroughs made in 3-D printing of organs at Carnegie Mellon University. Researchers have utilized a new technique called "FRESH" to build stable collagen "scaffolding" which has proven challenging with previous bio-printing approaches. Building on this foundation and using the human heart for proof of concept, the investigators were able to print coronary arteries, cardiac microvasculature, a ventricle and a neonatal sized heart which was anatomically correct although the ability to contract and respond to electrical stimuli was not described. The printed ventricle began to visibly contract after 4 days and was eventually able to respond to a pace making device. The authors emphasize that the cardiac model was only chosen for proof of concept and that the same approach could be used as a framework for bio-printing other organs. They caution that there are numerous hurdles remaining to bio-printing fully functional organs including "generating the billions of cells needed to bio-print large tissues, achieving manufacturing scale, and creating a regulatory process for clinical translation."

***EHC NOTE:*** *While we are not by any stretch of the imagination experts in 3D printing of organs, the possibilities implicit in the breakthroughs from Carnegie Mellon may revolutionize our world in the future. Maybe even fodder for a movie... Terminator 7, bio-printed and better than new? In the real world, imagine the ability to bio-print and then implant a customized heart for a patient with end stage cardiac disease. The same for kidneys, livers, lungs, etc. Talk about personalized care! This technology could likely be adapted to assist failing organs (a biological LVAD?) or replace diseased tissue. The implications for operating rooms would likely be profound. In the short to medium term, we would foresee an increase in case volume to surgically implant such devices. This scenario would likely help support inpatient surgical volume, which under the current reimbursement construct would be favorable for hospitals and help to buttress professional fee revenue for hospital-based anesthesia groups.*

### Overlapping Surgery Deemed Negligent In A \$2M Jury Award

A New York Supreme Court jury in Syracuse issued a \$2M malpractice verdict against a surgeon (Dr. Greenky) who routinely staggered Joint Replacements in two to three OR's. According to an [article](#) on the topic in Syracuse.com, the patient suffered injuries from the procedure and was the 6th of 14 patients for the surgeon that day. The surgeon testified that he routinely put in 14 hours of work on operative days, a practice that the plaintiffs' attorney likened to an assembly line. The plaintiff was quoted as saying she "cannot understand why surgeons performing complex operations are allowed to work more than 14 hours a day when bus drivers are prohibited by federal regulations from driving more than 10 hours." Her attorney alluded to production pressure leading to the poor outcome in this case, indicating that the surgeon probably would have had to cancel some of the other procedures on his schedule that day if he spent extra time on the plaintiff.

The defense argued that the injured patient did not prove that using two operating rooms is negligent or that it caused the patient's injury. His attorney said the testimony about Greenky's use of more than one operating room should not have been allowed and probably influenced what he called the "excessively high verdict."

***EHC NOTE:*** Guidelines have been issued from the American College of Surgeons supporting overlapping surgical procedures with patient consent. Despite this, when looked at under the microscope of a trial, the award in this case shows that a lay jury may not view this practice as acceptable care. While we regularly see the use of "flip" rooms to meet surgeon demands and to facilitate OR throughput and efficiency, there are of course a set of patients involved in the underlying cases. Properly managed, it is our experience that these cases may be provided with quality equal to that of cases performed in a single operating room. However, from a patient or a lay person's perspective, this practice may sound quite concerning. "What do you mean my surgeon left in the middle of my procedure to start on another patient?"

### EHC's Anesthesia 101 Building Blocks: Service Expectations

We are often asked to describe the basic building blocks of creating an anesthesia agreement. In response, we created a series of brief articles designed to give a foundational understanding of the process and some of the common areas to be considered. We will be offering a monthly series in the Review, the second of which addresses Anesthesia Service Expectations.



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## **ANESTHESIA 101: SERVICE EXPECTATIONS**

In today's healthcare environment many hospitals have very specific goals regarding patient and surgeon satisfaction as well as growth initiatives. To determine if a particular anesthesia model is right for your facility you have to weigh how each model will be able to help you meet those goals.

### **QUALITY**

High quality care has always been a top priority for healthcare providers. And in the age of healthcare reform, with reimbursement tied to outcomes, hospital leaders are looking for ways to ensure quality standards are consistently met and exceeded.

In the OR, anesthesia plays a big role in the quality of outcomes. When analyzing the care delivered by your group, consider how providers ensure a consistent approach to issues such as infection control and safety practices, and if they utilize policies and procedures based on industry best practices. It is also wise to discuss with the group how it measures and reports quality performance so it can compare that performance to benchmarked data and identify areas for improvement.

### **SATISFACTION**

These days, low patient satisfaction scores can negatively impact reimbursement. That is why it is important that your anesthesiology group understands their role in the patient experience. Pre- and post-op care, including pain management, and on-time starts are just a few of the ways that anesthesia providers can affect the patient experience.

In addition, the level of surgeon satisfaction can directly influence your bottom line. If surgeons are not pleased with the anesthesia coverage at your hospital, they may start scheduling procedures at other facilities. For example, some surgeons prefer to work only with anesthesiologists rather than CRNAs, or may need anesthesiologists who are certified for their particular specialty.

### **LEADERSHIP**

Strong anesthesia leadership is key to a successful hospital/group partnership. The person in this position should coordinate with hospital leadership to ensure the group is aligned with the hospital's quality, satisfaction and growth goals, then work with his or her group to ensure it is helping to meet those goals. The anesthesia leader is also responsible for ensuring that the group is meeting the coverage needs for all the hospital's locations and subspecialties. Leaders are also responsible for guiding certification and ongoing training, and tracking quality, among other tasks.

It is very important to address these issues, clearly set expectations and document expected coverage and deliverables – for both parties – in the anesthesia group or individual provider contract. However, it is perhaps even more important to put measurement procedures around these goals in place so that you can track progress, identify areas for improvement and uncover and remedy problems before they grow into larger issues.

### [\\$6.4M Award To Surgeon In Defamation Lawsuit](#)

A Cardiac Surgeon won a \$6.4M judgement against Memorial Hermann Hospital (MH). An [article](#) in Becker's Hospital Review describes the case in which Dr. Miguel Gomez had his outcomes reviewed by a new cardiac service line administrator in 2009. The raw data showed Gomez with a high mortality rate, but he and the chair of the hospital's surgical peer review committee allegedly agreed that the data was invalid because it was not risk-adjusted and told the hospital to stop using the flawed data.

Nonetheless, when Gomez moved his practice to another facility, he claims that MH sought to damage his reputation to retain his patients. He alleged that MH shared the flawed data with his referral sources, claiming "it was a safety issue".

At trial, the jury awarded Dr. Gomez the \$6.4M in 2017, and this award was upheld by the appellate court on appeal. MH is reportedly considering another appeal, claiming that their quality review process is not meant to single out an individual physician but rather to improve clinical processes.

***EHC NOTE:*** *The case described highlights the potential exposure from the use of quality data in a way which may actually be or may be perceived to defame a physician or to influence referral patterns. While we do not know the "apples to apples" applicability of the outcome data related to Dr. Gomez' cases as compared to his peers, we can assume that there is a plausible argument that the raw differences are explainable by case complexity and/or patient acuity.*

*This case should be kept in mind by any hospitals considering the use of quality or outcome data in a way which may negatively impact a physician. The data should be unimpeachable, risk-adjusted and only shared in proper forums which are designed for quality oversight and process improvement, not for altering referral patterns and damaging practices. It is often helpful to consider how any potentially negative data, if shared, would be viewed by lay people if subjected to the harsh spotlight of a trial in the future. Memorial Hermann has 6.4 Million reasons to remember that expensive lesson.*

### [Anesthesia Group Relationship With Trinity Health Devolves Into A Flurry Of Lawsuits](#)

Trinity Health is facing possible losses of millions of dollars per month as a cautionary tale unfolds which highlights the high stakes in the relationship between Health Systems and their anesthesia providers. Anesthesia Associates of Ann Arbor (A4), which is the exclusive provider for six Trinity hospitals, terminated contracts with Blue Cross Blue Shield Michigan, Aetna and Priority Health and pursued litigation against the payers. According to an [article](#) written in Modern Healthcare, in response to the groups actions, the rate disputes have caused Anesthesia Associates to be dropped from the networks of the insurers, and Trinity is alleging that the actions of the group will drive patients to other hospitals to seek surgical care. Trinity claims that the group is in violation of state and federal antitrust laws and is in breach of their contract, which requires that they be in-network with these insurers at all times.

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These rate disputes could cost Trinity millions of dollars each month in lost revenue and increase the out-of-pocket costs for patients, leading them to seek care elsewhere. The health system claims that their main concern is that their patients receive quality and safe care without incurring additional costs. Trinity aims to establish liability for all financial losses due to declines in hospital patients with their lawsuit against Anesthesia Associates.

Not to be outdone, as Trinity attempted to recruit and potentially employ the groups' anesthesiologists and anesthesiologists, A4 countersued, alleging the health system ignored its exclusive contract obligations and valid non-compete agreements by improperly attempting to poach and hire away physicians. In a [press release](#) issued by A4, they celebrated a temporary restraining order they were awarded in the case. Trinity is therefore barred from contacting any of the A4 providers in an attempt to employ them.

The anesthesia services contract is set to expire in September, leaving a bit of time for more legal maneuvering by both parties to determine the future of their severely damaged relationship.

### **“Our Rural Hospital Has Difficulty Recruiting” – Factors To Focus On When Recruiting Physicians**

It is well-known that recruiting providers of any kind to rural locations can be a challenge.

A [survey](#) conducted by Jackson Physician Search presents the similarities and disparities between what attracted rural physicians to rural hospitals and what rural administrators think attracted them, and provides suggestions on how to recruit and retain physicians.

The survey was composed of 23 questions about the factors that affected physician recruitment to rural hospitals. There were 150 physician respondents with 75% of them practicing in a community with less than 25,000 people and 105 rural health system administrator respondents. The results showed how physicians and administrators value attributes including organizational culture, compensation and recruiting incentives as factors for choosing a rural practice location.

Although there were some similarities in the responses of both groups, the results highlight that factors physician feel are important to recruitment and retention often differ from the assumptions of administrators seeking to hire these physicians. Not surprisingly both groups feel that compensation is a top factor when recruiting physicians to a rural practice. However, top factors noted by physicians which were not as significantly appreciated by administrators included autonomy to practice; a team-based, family-oriented culture; and involvement of top administrators in the recruitment process.

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**EHC Note:** EHC partners with many hospitals and anesthesia groups providing care in underserved, rural communities. A recurring theme echoed by administrators, physicians and OR managers when discussing staffing issues is that their hospital is especially “difficult to recruit to” due to geographic location. This survey notes the importance of hospital administration focusing on the factors that are most likely to resonate with the physicians who are being recruited. It sheds light on an interesting point, that it is not necessarily difficult to recruit to these areas, just that recruitment efforts should not only focus on compensation, but also on the opportunities for autonomy, a family-centered environment and close ties with hospital leadership. In other words, play up the unique attributes which differentiate rural opportunities from others and usually resonate with candidates.

### **Not Too Good To Be True! – Go To Cancun, Have Knee Replacement By US Surgeon, Come Home With A Check For \$5K**

An interesting twist on Medical Tourism is detailed in a New York Times [article](#). A patient from Mississippi, Donna Ferguson, arranged her care through Denver-based North American Specialty Hospital (“NASH”). Ferguson was flown to Cancun, had her knee replaced by a U.S. based, Mayo-trained surgeon, had no out-of-pocket expenses and was actually paid \$5,000 for her trouble. The hospital is accredited by the international arm of the Joint Commission and the surgeon was covered with additional U.S. based malpractice insurance. NASH charges a fixed amount for each case and is paid by the employer or an intermediary that arranges the treatment.

How can this be possible? Due to the differential in costs between U.S. and Mexican hospitals and the cost of the knee implant, even with the cost of travel and the patient “bonus”, the cost to her husband’s self-insured employer was less than half of what it would have been in the US. While the cost differential is certainly present in other Medical Tourism destinations, the approach taken for Ms. Ferguson attempts to allay quality concerns by providing the care by a US surgeon and coverage with US malpractice insurance. Her husband’s employer has sent about 140 employees or dependents for treatments at a hospital in Costa Rica, and together the foreign medical facilities have saved the firm \$3.2 million in health costs – or approximately 50% of the cost in the US. These savings include travel costs and incentive payments. Patient satisfaction with the program is reported to be overwhelmingly positive.

**EHC NOTE:** The approach described in this article appears to be an innovative twist on Medical Tourism, designed to remove some negative perceptions. As patients tend to focus on the surgeon as their primary caregiver, offering a US based surgeon alleviates concerns for some. In our opinion, there is a much larger sphere of care which should be of concern to the patient. That sphere would include equipment and monitor quality; OR and post-operative nursing expertise; anesthesia provider experience and competence; and the resources to address emergencies or complications.

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*Having said that, the ability to benefit from such a dramatic cost arbitrage is a compelling business opportunity that enterprising companies such as NASH will continue to explore. One detail described in the Times article is that the cost of the identical implant in Mexico is \$3,500 as opposed to \$8,000 in the US. Such a dramatic cost differential makes little sense and is likely the single largest savings realized by traveling over the border.*

*The unusual dynamics of our healthcare system have resulted in similar pricing differentials in many areas including pharmaceuticals and provider costs. The concern for us in the operating room environment is that at some level of cost savings, an increasing number of patients with discretionary insurance may be driven to explore Medical Tourism. At some point, a meaningful loss of these well reimbursed cases would have a negative financial impact on anesthesia providers and hospitals.*

*September*

## **Incisional Hernia Risk – Now There's An App For That**

Researchers at the Perelman School of Medicine at UPenn have developed an [app](#) designed to assess the risk of incisional hernias in a variety of abdominal procedures. A previous analysis from UPenn shown that care related to incisional hernias cost the US Healthcare system \$7.3 Billion per year. Based upon a “big data” analysis of 30,000 patients, the team identified risk factors as well as procedures across multiple specialties likely to lead to an incisional hernia. The app is designed to assign a real-time risk score to every patient scheduled for abdominal surgery at the point of care. This allows surgeons to consider incisional hernia risk as part of their pre-procedural planning and decision making.

## **WakeMed Successfully Adapts ERAS Protocols For Cardiac Surgery**

Enhanced Recovery After Surgery (ERAS) has been growing dramatically for many case types in many surgical specialties. While use has lagged in Cardiac Surgery, results from WakeMed detailed in a recent Modern Healthcare [article](#) show impressive results for these cases as well. Beginning in 2017, WakeMed pioneered enhanced recovery protocols for CV surgery with impressive results. The protocol has reduced the total time in the ICU from 45 to 28 hours, ICU readmission decreased 30% and opioid use decreased by 40%.

Their approach is multi-factorial, led by CV surgeon Judson Williams, MD. He feels that Cardiac Surgical departments have been slow to adopt enhanced recovery protocols because as he is quoted in the Modern Healthcare article “The historical mindset around cardiac surgery was that the operations were so big and the patients were so complex that all of these enhanced recovery pathways were really too difficult to apply to cardiac surgery.”

Despite this prevailing mindset, Dr. Williams realized that 80% of the morbidity for CV surgery patients was pre or postoperative, therefore he felt that ERAS protocols would improve patient outcomes. The protocol his team designed includes carbohydrate loading 2-4 hours preoperatively, around the clock multi-modal analgesia, smoking and alcohol cessation, early extubation and early mobilization.

## **Same-Day Knee Replacements Becoming Common Practice**

UAB News [reports](#) that the University of Alabama at Birmingham hospital is now consistently offering same-day total knee replacement surgery. The UAB's Department of Orthopaedic Surgery currently performs more than 1,000 hip and knee replacements annually, and this number is growing. Dr. Elie Ghanem, an orthopedic surgeon at UAB and champion of same-day knee replacements states that an overnight stay for many of these patients is unnecessary and the sooner they can return to their normal routine and start physical therapy, the better. Patients who go home sooner are also at lower risk for hospital-acquired infections.



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Patients must meet specific criteria to be eligible for same-day discharge. Those with heart or lung issues or that need social support at home are not eligible. Eligible patients must live within 90 minutes of the hospital, be medically stable, have pain under control and be able to walk 150 feet before being discharged.

Ghanem also comments that this advancement in joint replacement surgery is made possible due to innovations in anesthesia and the collaborative effort between physical therapy, nursing, anesthesia and the patients' support system.

The UAB hospital has plans to expand the same-day discharge program to include total hip replacements in the future.

### [Augmented Reality Gets A Chance To Optimize Surgical Procedures](#)

The trend toward the use of technology applications in surgery continues with a partnership between the George Washington University Hospital and Novorad, detailed in a recent [article](#) in Health Data Management. Novorad has developed a system which can apply Augmented Reality (AR) – made famous through its' use in Pokémon Go – to support pre-operative planning and surgical strategy. Supported by HoloLens from Microsoft, the system allows surgeons to visualize 3D holograms from patient images on the actual patient both preoperatively and while the patient is on the table. Capabilities available using these holographic images include virtual incisions to guide the surgeon, shunts and needle placement; finding the optimal entrance and trajectory for instrumentation; finding and resecting masses; and guidance of interventional biopsies.

**EHC NOTE:** *In this issue we've already discussed virtual reality applications for pain management, now augmented reality takes the stage to support aspects of surgical care. While the partnership described is in the evaluation phase seeking to determine effectiveness, we believe that some variation of computer assisted surgery will gain broader traction in the next decade or so. The compelling potential of the AR approach is the ability to adapt to changes in patient positioning to inform surgical approach while in the OR. While previous 3D modeling has been used preoperatively for complex case planning, it was a relatively static rendition, not designed to be actively superimposed on a patient in real time.*

*Although Healthcare has been famously slow to adapt to technology, the broad adaptation elsewhere continues to offer a springboard for innovators to create must-have applications, including in our perioperative environment. Who would have thought that the tech which allowed many of our kids (and maybe some of us) to run around engrossed in Pokémon Go a few years ago would provide a basis for a novel surgical support system? As always, we are excited to see how this and other innovative applications of technology reshape our intraoperative world over the next few years.*

### [The 5 C's Of Physician Leadership](#)

Read our article on the keys to successful hospital-based provider leadership!

<https://enhancehc.com/wp-content/uploads/2019/05/The-5-Cs-of-Leadership.pdf>

### [Virtual Reality Shows Promise As A Pain Management Tool](#)

Investigators at Cedars-Sinai Medical Center completed a randomized clinical trial evaluating the impact of on demand Virtual Reality viewing on pain scores for hospitalized patients. Results, published in a [paper](#) in PLOS-ONE evaluated the impact on 120 patients with pain scores >3/10 randomly assigned to use VR as opposed to a relaxing television selection. The VR group showed a significant reduction in pain scores for up to 72 hours, with the most pronounced reduction shown in patients with an initial pain score over 7/10. Narcotic usage did not vary between the groups.

In their discussion, the authors conclude that their findings “build upon earlier studies and further indicate that VR is an effective adjunctive therapy to complement traditional pain management protocols in hospitalized patients.” They feel that future research should assess the ideal use of VR for hospitalized pain patients, including the most effective protocols, ideal patient characteristics for response, and the potential for VR to act as an initial option for breakthrough pain to possibly reduce overall narcotic usage.

### [Follow Up: Trinity Health And Anesthesia Group, A4 Reach A New Agreement](#)

In our August Anesthesia and OR Review we shared a story [“Anesthesia group relationship with Trinity Health devolves into flurry of lawsuits”](#) discussing the dispute between Trinity Health and Anesthesia Associates of Ann Arbor (A4). The lawsuits filed by both parties highlighted the high stakes and delicate relationship between health systems and their anesthesia providers as well as the possible detrimental consequences of upsetting that relationship. However, this story has a happy ending. According to an [article](#) in Modern Healthcare, the hospital and anesthesia group were able to settle their lawsuits and sign a new agreement.

Trinity Health and A4 signed a new five-year agreement allowing the anesthesia group to continue their long-standing relationship providing services to five of their original six Trinity Health Michigan hospitals. The agreement also released A4 providers from their non-compete agreements allowing those that practice at Mercy Health St. Mary's Hospital in Grand Rapids to choose where they practice and continue to live in their community.

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**EHC Note:** *Trinity Health and A4 reaching an agreement in their high stakes battle marks a positive ending to a story that could have gone much differently with devastating consequences for both the health system and group. As consultants for hospitals and anesthesia groups across the country, we are often brought in to advise on and mediate conflicts which have the potential to escalate to the point that A4 and Trinity reached.*

*While underlying causes differ, often we are brought in because a hospital is unhappy with their anesthesia service or stipend, or a group is stressed by escalating costs, reimbursement challenges and requests for coverage of poorly utilized additional anesthetizing locations. The solutions and decision making logic is complex on both sides, but not uncommonly hospitals consider measures such as putting out a Request for Proposals (RFP) or employing anesthesia providers. Changing anesthesia groups can cause temporary to long-term upheaval for administration and the operating room. While each situation is different, we frequently seek a resolution acknowledging the issues for both parties and finding a middle ground acceptable to all. While this is where Trinity Health and A4 eventually landed, we strive to arrive there without the situation escalating into lawsuits.*

### **Technology Expands Anesthesia Perioperative Information Flow**

A September 2019 Anesthesia and Analgesia [article](#) looks at the ability to marry improving remote monitors and evolving artificial intelligence to expand and fine-tune the real-time data available to anesthesia providers. Building on remote surveillance capabilities in other medical specialties, this technology may be adapted to greatly enhance the information flow in the perioperative period. The benefits of larger and more diverse data sets are only valuable to clinicians if they can be distilled to a manageable number of high-yield alerts in a time frame in which intervention can change patient care and outcomes. In the traditional anesthetizing environment, artifact and inherent variability in vital signs leads to numerous alarm triggers and “alarm fatigue”. Utilization of intelligent systems offers the capability of recognizing artifactual patterns and increasing the sensitivity to clinically important events but also, and perhaps most importantly, to increase specificity to reduce alarm fatigue.

The article addresses the potential of this technology throughout the perioperative period. Intraoperatively, anesthesiologists remote to the operating room may be aided by technology that continually and intelligently assesses the patient for signs of deterioration and alerts them instantly when such an event occurs, augmenting the ability of the anesthesiologist to supervise the care of multiple patients at once. Studies are underway to assess the impact of monitoring operating room anesthesia care in real-time, to identify practices that diverge from evidence-based approaches, and to provide intraoperative support to staff. The study designers characterize the software as enabling the anesthesiologist to perform a version of air traffic control.

Preoperatively, remote surveillance technology can offer objective data showing functional capacity, exercise tolerance, etc. The challenge will be to reliably collect data from remote monitoring devices, and to turn that data into easily digestible, actionable data on the part of anesthesia

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providers. Likewise, postoperatively, remote surveillance and alerting systems may enable anesthesiologists to remain involved in complex patients' immediate postoperative care when physiological decline occurs. Intelligent systems can combine patterns from multiple monitors prior to sending an alarm to the anesthesia provider – again, helping to reduce alarm fatigue.

The authors conclude, "The convergence of recent developments in healthcare information technology and monitoring have opened the door for remote surveillance systems that provide meaningful patient alerts. In all settings of the pre-, intra-, and postoperative continuum, patient care may benefit from such systems. Anesthesiologists have an opportunity to lead the development of these systems."

**EHC NOTE:** *Artificial Intelligence and Machine Learning is creeping into many aspects of our daily lives. Our cars have lane assist, intelligent cruise control and are "learning" to drive themselves. Amazon, Google and Netflix seem to know our interests and preferences at least as well as we do. Why not apply computer generated insight and "intelligence" to the perioperative environment? In a busy operating room with anesthesia providers involved in numerous procedures, as well as being responsible for patients in the pre- and post-op areas, the amount of information to process is daunting. Allowing computers to analyze, consolidate and format this information to facilitate decision making and priorities is a natural evolution of perioperative care (not only for anesthesia providers, but all perioperative stakeholders).*

*We certainly support studies of the clinical and operational impact of intelligent technology throughout the perioperative period and believe that the future will inevitably be shaped by its use. A natural extension of that adoption will be to question how technology impacts anesthesia coverage models. Medical direction rules are unchanged from the 20th century. Does value added artificial intelligence allow medical directing physicians to expand their coverage ratios? If a provider can have real-time feeds from multiple operating rooms along with smart alarms on their phone, can they medically direct 1:5, 1:8, 1:X? Does a field model of coverage make more sense? Could anesthesia be monitored from a truly remote site along the lines of a tele-ICU? Do we collectively have a choice to reassess anesthesia models as the number of anesthetizing locations continues to expand at a higher rate than the available provider pool? We believe that these questions and many more will be raised as technology continues its inexorable march towards perioperative intelligence, as anesthetizing locations expand, as demographics expands the ranks of the elderly and as anesthesia providers get spread thinner and thinner.*

### Consumerism And Price Transparency In Healthcare – Real World And Theoretical Challenges

In July we ran a [story](#) related to President Trump's push for price transparency in healthcare, concluding that "any price transparency proposals should be pulled from the theoretical world of DC and discussed with folks on the front lines of healthcare ... before being trotted out to the public." Building on that theme, we review two new articles offering additional insight into the challenges alluded to previously.

The first [article](#) which appears in Health Data Management addresses the foundational business differences between healthcare and a "typical" business. Using the purchase of a Diet Coke as a "typical" consumer decision (involving a 2 AM emergency need for a Diet Coke), author Irv Lichtenwald opines that as a consumer purchasing that product "I have alternatives. I basically understand underlying pricing structure, am willing to pay extra for convenience, and I have ready access to numerous outlets competing for my business." In the scenario where he needs an emergency appendectomy at 2 AM, in the healthcare market, his perspective is "I can't shop, don't know what I will pay, have no concept of valuation and am operating in an information vacuum. Almost nothing about this healthcare situation defines me as a consumer."

The article goes on to state that while price transparency is always important in any purchasing decision, the problem with healthcare pricing is that no one knows what the prices mean. Secret insurer discounts, complex coding, the potential for complications changing pricing and inconsistent definitions are all cited as confounding variables in clear consumer pricing for health services. The point is that healthcare is unique and complex, the stakes for individual patients are high and patients are not "consumers" of a typical product (like a Diet Coke). Mr. Lichtenwald concludes that "Healthcare requires creative solutions that borrow from different philosophies and proven successes elsewhere, and it requires a market with a conscience. Pretending that healthcare is any old consumer product does a disservice to patients, physicians and our shared values."

[Article two](#), a real-world healthcare pricing story, is from Kaiser Health News (KHN). Wolfgang Balzer, an engineer, needed a hernia repair. Being true to his profession and therefore detail oriented, he patiently waited to meet his deductible to schedule the procedure and sought quotes from his hospital, surgeon and anesthesia provider. The quotes, taking into account his Cigna discount, put his overall out-of-pocket co-pay at just under \$1,500 for the hospital and surgeon. Interestingly, the anesthesia provider never got back to Mr. Balzer prior to the procedure despite a reported four inquiries.

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Mr. Balzer had an uneventful and successful procedure...until the bills came in. Both the hospital and surgeon bills were about 50% higher than in the estimates, therefore the out-of-pocket requested was about \$800 higher than quoted. There were reportedly no complications and an uneventful perioperative course. While complications can understandably affect a patient bill, a straightforward, uncomplicated procedure for a discrete CPT code should have an accurate allowable for a specific insurer. Yet in this case, the hospital quote ballooned 50% in the actual Cigna contract rate. Same logic applies to the surgeon.

In this case, the hospital responded that they use averages because more complicated cases may use more supplies or services. Ultimately, when the issue of the billing discrepancy came to light through a press inquiry, Balzers' bill was reduced 100% to \$0! A good outcome for him perhaps, but not so much for the hospital.

The article concludes by advising patients to get an "all-in" estimate prior to services – including surgeon, hospital and anesthesia costs, recognizing that actual costs may vary dramatically from the quote. Rules requiring some degree of accuracy in medical estimates would be helpful, KHN notes that many other countries require accurate quotes to patients paying out-of-pocket. A quote from Mr. Balzar's wife concludes "There's no other consumer industry where this would be tolerated."

***EHC NOTE:*** *Together, these two articles offer an interesting snapshot of the strange crossroads of the business of healthcare in the US. Are we striving to be a true free market which allows consumers to make informed choices or are we going to continue to protect opacity and inconsistent pricing? Our guess is that as deductibles increase and patients realize they are liable for a meaningful portion of the cost of care, the market will force us in the direction of transparency, or some sort of universal solution.*

*What does this mean for the business of surgery? As an industry we need to be able to offer an accurate price quote for an easily definable, uncomplicated procedure such as the hernia repair described. It is fair and reasonable for a patient to be able to receive an all-in price as suggested in the KHN article. It should not be up to the patient to cobble together three or more quotes from various providers. Surgical directors should begin to create this capability in conjunction with their surgeons, anesthesia providers etc. however, the base case should be clear and accurate. As Mr. Lichtenwald says, healthcare pricing is unique and complex, so pricing disclaimers related to issues such as complications, unplanned admissions and unforeseeable events should certainly be delineated. Bottom line is that our patients deserve and will increasingly demand transparency.*

*Ultimately, if our system is to migrate to a true free market, facilities which are able to offer transparency will have an advantage. Online screening tools to easily identify patient responsibility and to display quality measures for the care required will likely become more accurate, robust and widely utilized. As we've seen in numerous other markets, such tools have the ability to drive market share. Facilities which get ahead of the curve and are able to create coherent surgical pricing should be able to enjoy first mover advantage relative to their local competitors.*



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