It is a challenge to effectively report to the American College of Surgeons (ACS) and the American Pediatric Surgical Society (APSA) the fundamentals of a comprehensive course that was robust in concept, content and principles. Suffice it to say, it was certainly a privilege to be the ACS/APSA scholar and to be part of a group of surgeons who I found to be intelligent, insightful and masters in their respective fields. The course and faculty were outstanding.

The demographics of the student body were as follows: 30 surgeons (20 males/10 females), 18 surgeons were sponsored by their respective societies as documented in the June Bulletin of the ACS, 12 surgeons were institutionally sponsored. Surgical Specialties represented: General (7), Thoracic (6), Cardiothoracic (5), Surgical oncology (2), and Trauma (1), Bariatric (1), Colorectal (1), Plastic (1), Breast (1), Urology (1), Ob/Gyn (1), Otolaryngology (1), Neurosurgery (1) and Pediatric surgery (1). Institutional affiliation were as follows: Johns Hopkins University (4), Dartmouth (2), George Washington University (2), Uniformed Services University (2), Children’s National Health System (1), Stanford University (1), East Carolina University (1), Ohio State University (1), University of New Mexico (1), Duke University (1), Memorial Sloan Kettering (1), University of Washington (1), Texas Tech University (1), Emory University (1), ENT Center of the Ozarks (1), Baystate Medical Center (1), Moffitt Cancer Center (1), Washington University (1), Newark Beth Israel (1), Roswell Park (1), Genesis healthcare (1), Children’s Hospital of New Orleans (1), Mayo Clinic Florida (1), The Heart Hospital Plano (1), Stony Brook University (1), and University of Utah (1) and Children’s National Health System (1).

I have chosen to focus my report on three concepts that were emphasized throughout the course.

1. Bias and the decision-making process
2. The cost of healthcare and a potential solution
3. The characteristics of admired and great leadership

1. How do we arrive at the “best” decision? This is a critical process for the success of a surgeon and more importantly for the success of the team and organization. It is imperative to recognize that in all decisions there is a degree of uncertainty. Understanding and appreciating the uncertainty factor, allows the self-aware and mindful surgeon to realize that it is possible to make a bad decision due to our intrinsic biases. For
this reason, I believe it worthy to review, so that all surgeons are aware of and embrace the four cognitive biases that significantly impact the decision-making process.

Confirmation bias is the tendency to search for, interpret, favor, and recall information in a way that confirms one’s preexisting beliefs or hypothesis. This phenomenon is very active when we consider different clinical decision pathways for our patients. We all have a tendency to assign more weight to research that provides evidence that supports our clinical decisions rather than considering research that disconfirms our decisions. We usually arrive at clinical decisions for our patients based on our training. Fortunately, in our profession, the leveling of evidence of research is an attempt to combat our confirmation biases. Level 1 research should guide our decisions more than Levels 2 to 5. We cannot succumb to the statement that we are all victims of our training. As surgeons we are obligated to continue to train and educate ourselves and our colleagues; encourage an atmosphere of open inquiry against dogmatic clinical decisions; avoid reaching conclusions until enough information has been collected and analyzed and avoid tunnel vision.

Sunk cost trap refers to the tendency that we will continue down a decision pathway even if we realize that it is resulting in a suboptimal outcome. In short, we fall into this trap when we have invested considerable time, energy and resources into a course of action or strategy for our patient/team/organization and it has not resulted in the desired outcome. The common tendency for surgeons is to escalate their commitment to this pathway because they don’t want to be wrong. Few surgeons have been educated in courses in economics and finance and therefore we may not understand the concept of sunk costs and how to avoid the bias. We must realize that past costs cannot be recovered. Time, energy and resources are already spent. The recognition that our past decisions do not obligate us to continue down the same decision pathway in the future is key. As surgeons we must reflect on our past decisions and consider if we were given the opportunity would we have made the same decision again.

Anchoring effect is a cognitive bias. It is our tendency to rely too heavily on the first piece of information offered (the “anchor”). During decision making, anchoring occurs when we as surgeons use an initial piece of information to make subsequent decisions. The initial decision serves as an anchor and other decisions are made by adjusting away (or towards) the anchor. We are also biased by interpreting other information around the anchor. This bias is very common in surgery. We have a tendency to accept a diagnosis around the first piece of information we receive. We fall victim of this bias if we are willing to accept a patient’s surgical diagnosis made in the emergency room or by our house staff or colleague without further thought. We force our profession to avoid anchoring by utilizing and educating our students and house staff to develop a differential diagnosis. Despite the differential, all of us have anchored to a diagnosis only to be proven wrong in the operating room. It is clear that our mind is biased by first impressions. About 75% of diagnostic errors have a cognitive component. The two overarching cognitive components are: the tendency to seek only as much information as necessary to form an initial clinical impression, and the tendency to stick with the initial impression even as new information becomes available. As surgeons we must base our decisions on a fundamental analysis of all existing predefined logical data, processes, and information.
Finally, framing effect is a decision bias that occurs when objectively equivalent information is presented in either positive or negative terms in order to influence a decision. Patients/teams and organizations tend to avoid risk when a positive frame is presented but seek risks when a negative frame is presented. Several studies have reported that framing bias is a widespread and robust phenomenon in medicine. We encounter many examples of diagnoses that have surgical and non-surgical treatment options that may be considered equivalent. Presenting the information regarding the surgical decision in a positive manner to our patients to enhance their decision is one such example of framing. In this example, we as surgeons are obligated to have our patient evaluated by a non-surgical expert in order to have the information reframed thus allowing an unbiased decision. The framing effect is a powerful bias in medical decision making. To avoid the bias, we must seek to reframe the question, show empathy by assuming someone else’s perspective and finally parse the question for our patient.

2. Most adults in America are concerned with the increasing cost of healthcare. In fact, healthcare costs have continued to grow unchecked and exponentially over the last 30 years and will soon represent 18% of our GDP. The desire to control costs without impacting on the quality and outcome of care delivered to our patients is critical and should be of paramount importance to surgeons. There are many factors that have led to this escalation but one factor that was highlighted by the faculty experts at the course were administrative costs. Administrative costs are those expenses that are not directly associated with providing goods and services to people in need of care. From 1990 to 2012 the US healthcare workforce grew by 75%. This seems logical as the growth in the healthcare workforce may parallel population growth and healthcare needs of our aging society. However, much of the workforce growth is represented by a significant increase in the number of healthcare administrators.

The number of physicians in the United States grew 150 percent between 1975 and 2010, roughly in keeping with population growth, while the number of healthcare administrators increased 3,200 percent for the same time period. Advocates for this growth, state that it was necessary to compete with the significant technological and regulatory changes affecting the way healthcare was delivered during this timeframe. That being said, the average U.S. physician still
spends 43 minutes per day interacting with health plans about payment, dealing with formularies, and obtaining authorizations for procedures. The time and frustration associated with administrative expenses leads to surgeon burnout and pushes some surgeons to leave practice.

It is clear that our healthcare system is complex. There is no account kept on the amount of administrative expense of United States healthcare system, but there are estimates of the overall magnitude. Most estimates suggest that administrative expenses range from 15 to 30 percent of medical spending. If we utilize the 15% estimate, it would suggest that administrative costs account for twice what America spends on cardiovascular disease care every year, and three times what we spend on cancer care.

The level of administrative expense is much higher in America than in other countries. For example, administrative costs account for 39 percent of the difference in spending between the United States and Canada. The typical hospital spends nearly 10 cents out of every dollar collected collecting that dollar; the typical physician’s office spends much more.

Most of the administrative expenses are for billing and insurance related (BIR) services.

Therefore, it would be a logical starting point to initiate cost control by first reforming our BIR services.

Three potential solutions were inferred:

a. Integrating Electronic Medical Record (EMR) and Billing Systems

This is occurring; however, a disproportionate number of administrative personnel are involved with the billing process. The EMR which is a record of clinical information has no way to communicate information to payment or authorization systems run by insurers. Therefore, when clinical documentation is required outside the hospital system, it requires people to be involved to communicate this information. In contrast to health care, consider what happens when a person shops at Walmart. An item is scanned, authorization and payment are immediately obtained via computer system. The computer system automatically alerts the inventory system, which in turn automatically re-orders new inventory from the relevant supplier. The supplier’s computer processes this information and arranges for new inventory to be sent to the store (along with other inventory that needs to be restocked). All of this occurs without a single individual being involved. The goal should be the same in health care.

b. Reducing Severity Adjustment

There are significant numbers of administrative personnel (and costs) associated with determining the severity and complexity of a patient presenting for treatment. There are 5 different levels of clinic complexity levels, emergency room visit levels, inpatient and outpatient consultation levels and 3 different complexity levels of admission care. The rationale for this model is logical: it takes more resources to treat a more complex and severely ill patient. However, the administrative requirement of billing in this system is extremely high as there are
people whose job it is to search the records of every patient to look for whether every patient has a history of conditions which would bump the patient into a more lucrative reimbursement.

The natural solution is to limit the extent of levelling of complex care. CMS recently announced its intention to implement such a policy for evaluation and management visits, moving from five billing categories to just two.

c. Standardizing Pre-Authorization Requirements

Reducing the administrative burden for pre-authorization of services would significantly reduce costs and improve efficiency. A typical insurer has a multitude of policies regarding what findings must be documented before it will authorize further treatment. Each insurer has multiple different pre-authorization requirements for each diagnosis that varies for each specific business, hospital, public program and location. The manuals to bill surgical services at most insurers is over a foot high. The personnel required on both ends (insurer and provider) to complete this task is enormous. This tasking should be able to performed electronically, however, the job is usually initiated by faxing EMR records from provider to insurer.

*Solutions were extracted from Cutler HELP Testimony to Congress July 2018

3. What are the characteristics of a great leader? The following slide was presented.

![Characteristics of Admired Leaders](image)

The class agreed unanimously that the above list was accurate. Honesty and integrity were critical and should be the most valued characteristic of leadership.

Defined: A great leader helps a group of people identify what they want and how to get it, and then influences that group, free of coercion, to take coordinated action to achieve the desired outcomes. A great leader achieves results at a level far beyond what others achieve.

In concluding this report, I will close with a paragraph that I enjoyed drafting as I very much believe it epitomizes of our profession’s beliefs.
Many of us have been mentored by great surgeons, women and men that are defined by their outstanding technical ability, knowledge, and diagnostic acumen. During our formative years of training and clinical practice there is little focus on the management skills that are critical for the success of the team, institution, and health care system. As clinical surgeons, many of us depend on accruing this skill set as a component of “on the job training.” With time, we realized that the nontechnical abilities such as communication, leadership, and advocacy skills, that are important to initiate change, ultimately translate into enhanced patient safety, experience, and outcomes. It is clear that for surgeons in America to remain successful, we must find a method to continue to balance the ongoing challenges of maintaining a comprehensive practice as clinician, educator, and researcher, as well as that of administrator and healthcare advocate.

Respectfully submitted,

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