A consensus-based approach to firearm injury
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Surgeons often become frustrated with the fact that, for various reasons, it can take a long time for research to translate into practice. Consequently, we rarely celebrate our accomplishments and often forget the tremendous progress we have made in our understanding of surgical diseases and how they are best treated. Our heightened awareness of the causes and effects of morbid obesity is an example of an area that has experienced significant improvements in recent decades.

A learning experience

Two pioneers in metabolic and bariatric surgery—Henry Buchwald, MD, PhD, FACS, FRCS(Hon), and Walter J. Pories, MD, FACS—convened a Metabolic Surgery Symposium, August 9—10 in Chicago, IL. The American College of Surgeons (ACS) sponsored the conference, and I participated in both days of the program. The experience was eye-opening and invigorating.

Dr. Buchwald, professor of surgery and biomedical engineering, University of Minnesota, Minneapolis, is renowned for his research into type 2 diabetes and its reduction through bariatric surgery, as well as for the introduction of new approaches to bariatric surgery. Dr. Pories is professor of surgery, biochemistry, and kinesiology at East Carolina University, Greenville, NC. In addition to his seminal work in wound healing, Dr. Pories was the first to describe the full and durable remission of type 2 diabetes following gastric bypass surgery. He is a principal investigator for the National Institutes of Health (NIH) study Longitudinal Assessment of Bariatric Surgery and other research into the mechanisms of diabetes remission supported by the NIH and industry.

The symposium comprised a group of other outstanding leaders in the field of metabolic and bariatric care (see sidebar, page 11, for list of speakers). They addressed a range of issues, including mechanisms of metabolic bariatric surgery, metabolic surgery to control diabetes, psychiatric treatment for eating disorders, neurologic conditions and metabolic surgery, international metabolic surgery, ACS quality and safety programs in metabolic surgery, and the effects of politics on metabolic surgery.

An evolving specialty

These speakers showed how our understanding of morbid obesity and its treatment have evolved. Initially, we thought morbidly obese patients could be treated through weight-loss procedures, followed by diet, exercise, and the adoption of healthy lifestyles. But diet and exercise have only a temporary effect. A study of winners of the weight-loss competition television show The Biggest Loser indicated that the contestants usually regain the weight they lost within six years. This return to their previous weight is attributed to two factors. First, their resting metabolisms continued to slow even after they lost the weight and assumed healthy eating habits. Second, their bodies produced lower levels of leptin, which led to increased hunger, cravings, and eating binges. In other words, their bodies actually resisted the change.

Furthermore, many morbidly obese people who have tried to lose weight through diet and exercise often cannot afford or otherwise don’t have access to the full range of caregivers who can help them maintain a stable weight, including psychologists, sleep specialists, trainers, and so on.

Bariatric surgery has proven to be the most effective means of addressing morbid obesity and its comorbidities, including type 2 diabetes mellitus, hypertension, dyslipidemia, cardiovascular disease, stroke, sleep apnea, gallbladder disease, hyperuricemia and gout, and osteoarthritis. Although many drugs are in development to regulate metabolism, their long-term effect is minimal in comparison with the long-lasting impact of metabolic surgery. These procedures also help people improve their self-image and self-confidence, thereby reducing the risk of depression and anxiety.

Perhaps most importantly, bariatric surgery is safe, has durable outcomes, and is acceptable to patients who are presented with the option. Numerous studies have shown that bariatric operations can be performed as safely and with outcomes that are equal to operations performed to treat gastroesophageal reflux disease.

There was palpable excitement as the speakers at the Metabolic Surgery Symposium shared this infor-
and on the second day of the meeting, we broke into writing groups to put together a set of articles for future publication.

**Training and accreditation**

Of course, it is imperative that the surgeons who perform these procedures be appropriately trained to use the new technology that continues to proliferate in this discipline. The ACS Clinical Congress this month will feature several sessions on bariatric and metabolic surgery, including three Scientific Forum Sessions, a Meet-the-Expert Session, and a number of Panel Sessions.

Furthermore, the procedures must be performed in facilities that have been accredited as having the right resources. As many of you know, the ACS and the American Society for Metabolic and Bariatric Surgery (ASMBS) combined their respective national bariatric surgery accreditation programs into a unified program several years ago to achieve one national accreditation standard for bariatric surgery centers, the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP®). A bariatric surgical center achieves MBSAQIP accreditation following a rigorous review process, during which it must prove that it can maintain certain physical resources, human resources, and standards of practice.

The Metabolic Surgery Symposium reinforced my belief that the College is doing the right thing in helping metabolic and bariatric surgeons to mobilize and provide quality surgical services to Americans in need of care for morbid obesity. It’s the right thing for the profession, and it’s the right thing for patients.

If you have comments or suggestions about this or other issues, please send them to Dr. Hoyt at lookingforward@facs.org.
A consensus-based approach to firearm injury
The COT’s consensus-based approach to firearm injury: An introduction

by Ronald M. Stewart, MD, FACS; Deborah A. Kuhls, MD, FACS, FCCM; Brendan T. Campbell, MD, MPH, FACS; Robert W. Letton, Jr., MD, FACS, FAAP; Peter A. Burke, MD, FACS; Rochelle A. Dicker, MD, FACS; and Barbara A. Gaines, MD, FACS

The American College of Surgeons Committee on Trauma (ACS COT) has developed a strategy aimed at reducing death and disability from firearm injury, which is built on a trauma system (public health) model. The goals of this strategy are as follows:

• Prevent injuries from occurring through firearm injury and violence prevention programs

• Achieve immediate bleeding control at the scene of injury before emergency medical services (EMS) professionals arrive by turning bystanders into immediate responders through the proliferation of Stop the Bleed® and bleedingcontrol.org and by providing support for EMS

• Ensure the delivery of rapid and effective on-site medical care with bleeding control through the COT’s partnership with the National Association of Emergency Medical Technicians (NAEMT) and its Prehospital Trauma Life Support (PHTLS) course

• Provide rapid, definitive, high-quality trauma center treatment of the injured patient through the ACS COT’s Trauma Center Verification, Review, and Consultation (VRC) Program, the Trauma
Quality Improvement Program (TQIP®), the ACS COT Performance Improvement and Patient Safety (PIPS) Program, and the Advanced Trauma Life Support Course (ATLS®)

• Promote robust rehabilitation and reintegration programs designed to minimize disability (VRC and our recent efforts to achieve zero preventable deaths and disability from injury)

These techniques are described in greater detail later in the article, which starts with a look at the epidemiology of firearm injuries and the COT’s efforts to build consensus on the prevention of firearm injuries. This introductory article sets the stage for the three features on firearm injury prevention that follow, and concludes with a more detailed discussion of the previously listed bullet points.

Epidemiology of firearm injuries
In the last five decades, dramatic improvements have occurred in trauma care through the ongoing development of verified trauma centers and of regional trauma systems. The nation’s communities and patients have all benefited from these enhancements.

In most U.S. trauma centers, firearm injuries account for a fraction of the injured patients who receive care. The COT recently queried all levels of trauma centers that submit data to the National Trauma Data Bank® and found that fewer than 5 percent of trauma patients who receive care at these facilities are seen for firearm injuries.1 Owing to the lethality of firearm injury, many of these patients die before they have the opportunity to enter the trauma and EMS system. Therefore, it is probably of little surprise that many trauma surgeons and nurses sometimes underestimate the substantial impact of firearm injuries on the burden of death in the U.S.

Three mechanisms account for most trauma injuries and deaths in the U.S: motor vehicle crashes, firearm injuries, and falls. Interestingly, each of these mechanisms accounts for almost identical rates of death: motor vehicle, 10.6 deaths per 100,000 per year; firearms, 10.5 deaths per 100,000 per year; and falls, 10.4 deaths per 100,000 per year (see Figure 1, page 15). So, although firearm injuries account for less than 5 percent of the patients who receive care in trauma centers, firearm injuries account for roughly the same number of deaths as motor vehicle crashes. This difference is attributable to the increased lethality of firearms in comparison with vehicular injury or falls.

Trends over time demonstrate that from 1979 to 2014, adult firearm homicide rates decreased by approximately 50 percent (from 8.22 to 4.16 deaths per 100,000), whereas firearm suicide rates have remained largely unchanged (from 8.93 to 8.21 deaths per 100,000). Firearm suicides account for approximately 65 percent of all firearm deaths in the U.S. Unintentional firearm death rates have significantly improved, while intentional mass shootings have significantly increased over the same period. The net effect over four decades is that firearm injury death has declined slightly but not to the same extent as other injuries, such as those deaths related to motor vehicle crashes (see Figure 2, page 16). Although the true toll includes the human cost of suffering and loss of productivity, the total cost of firearm injuries in the U.S. was estimated to be $174 billion in 2010.2

Prevention of firearm injuries
For more than three decades, the ACS COT has advocated for effective prevention of firearm injuries. From a practical perspective, a number of these efforts have stalled because of a lack of consensus among surgeons (and the public) regarding how best to proceed. Most recently, the COT initiated a concerted and dedicated effort to achieving consensus on how best to eliminate unnecessary death and suffering related to firearm injury. We began by publishing a description of our view on a public health approach to firearm injury prevention and on how consensus might be reached to address this significant public health challenge in “Firearm injury prevention: A consensus approach to reducing preventable deaths,” published in the Journal of Trauma and Acute Care Surgery.3
From a naïve starting point, the issue of firearm injury prevention may not seem so controversial; however, even a superficial examination of the issue reveals significant disagreement among otherwise reasonable and knowledgeable Americans. The members of the COT believe, and the data support, that the concept of personal liberty is the major issue of discord in the discussion of firearms and injury. Indeed, the controversy is less about the facts of firearm injury and death than the stories we use to explain the facts.

Americans hold personal liberty and individual rights dear, and two dominant contrasting narratives emerge in the discussion of firearms in the U.S. Based on the COT’s survey data of its U.S. members—with 254 members surveyed and 237 responses—approximately 15 percent have no strong opinion regarding firearms and freedom; however, about 80 to 85 percent support or strongly support one of two contrasting narratives.

Adherents to the first narrative (a little more than half of the surgeons surveyed) believe firearms are important for personal safety and defense and are an emblem of personal liberty. The COT has hosted discussions with all our members regarding their opinions and in conversations regarding firearm injury prevention has found that people who adhere to this first narrative tightly link the meaning of guns and freedom. In this case, a discussion over gun control roughly translates into freedom control. Members of this group tend to focus on guns as beneficial to personal safety and freedom.

In contrast, adherents to the second narrative (approximately 30 percent of the surgeons surveyed) believe that the large number of firearms on the streets and in U.S. homes puts their personal safety and the safety of their families at risk, thereby reducing their personal liberty. People who adhere to this narrative tend to view firearms as emblematic of the violence in the U.S. Based on the COT’s conversations regarding firearm injury prevention, it is clear that adherents to this narrative tightly link the guns to violence, so a discussion over gun control translates roughly into violence control. Thus, this group tends to focus on decreasing guns and limiting access to guns.

These two dominant narratives create a perceived chasm that may seem unbridgeable. The gap is further magnified by the fact that this issue is often a surrogate for a broader polarizing political discussion. From the COT’s vantage point, the net effect of this situation is limited constructive dialogue, resulting in few pragmatic, constructive ideas or actions to reduce death and disability related to firearm injury. The ACS COT has openly worked within its membership to build bridges across this perceived chasm. The COT has done so by respectfully including and engaging individuals on both sides of the debate in a constructive dialogue centered on the goal of preserving life and improving the patient care (see Table 1, page 16).

Although this exchange proved difficult to initiate, the COT is optimistic about the future. ACS COT members have learned consensus-building skills through the
process of leading and participating in trauma systems. Trauma system development has flourished in regions where patient-centered consensus decisions are made, balancing freedom and autonomy with responsibility. The principles in Table 1 are as applicable to leading performance improvement and patient safety initiatives in trauma centers as they are to firearm injury prevention.

The COT’s initial pilot work demonstrates that a professional, collegial dialogue is achievable, and that when ACS COT surgeons engage in such discussions, they tend to agree more than they disagree, and when they disagree, they are able to continue the dialogue with a common goal of reducing injury and death. Once the COT survey was fully analyzed, the survey results were shared with COT members in a Town Hall at the COT Annual Meeting in March 2016. This was a purposeful forum to facilitate a discussion regarding firearm injury prevention. This Town Hall meeting was a model of collegiality and professionalism. The attendees provided input on interpreting the study and their ideas and thoughts with how best to proceed. One of the foci to emerge from the conversation was development of comprehensive programs aimed at reducing violence. It was determined that verified ACS trauma centers should be leveraged as a platform to reduce all forms of violence in our communities.

Based on these consensus principles, the COT Injury Prevention and Control Committee has moved forward with a comprehensive strategy aimed at reducing violence and injury. The first step was to conduct a survey process of leading and participating in trauma systems. Trauma system development has flourished in regions where patient-centered consensus decisions are made, balancing freedom and autonomy with responsibility. The principles in Table 1 are as applicable to leading performance improvement and patient safety initiatives in trauma centers as they are to firearm injury prevention.

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Based on these consensus principles, the COT Injury Prevention and Control Committee has moved forward with a comprehensive strategy aimed at reducing violence and injury. The first step was to conduct a survey
to assess the views of COT members. This survey had a greater than 93 percent response rate and was presented at the 2016 American Association for the Surgery of Trauma’s annual meeting, a meeting of the ACS Board of Regents, and at the 2016 ACS Clinical Congress. In brief, more than 80 percent of COT surgeons agree on 10 of 15 policies directed toward reducing firearm injury, highlighted in Table 2 on this page. The complete results of this survey are published in the Journal of Trauma and Acute Care Surgery and are available in an open access article at facs.org/quality-programs/trauma/ipc.

In the article on page 30, Mark W. Puls, MD, FACS, and his colleagues from the Board of Governors present their Board of Governors’ survey results.

Following the COT survey and Town Hall, the ACS COT Injury Prevention and Control Committee moved forward with an approach aimed at addressing interpersonal violence, the perceived “root cause” of a significant portion of firearm injuries and death. The article “Violence intervention programs: A primer for developing a comprehensive program for trauma centers” offers a comprehensive resource for use in establishing violence intervention programs that leverage existing research on how best to address interpersonal violence (see article, page 20). The article is an abbreviated version of a more comprehensive guide available on our COT Injury Prevention and Control website at facs.org/quality-programs/trauma/ipc, along with a PowerPoint presentation that may be helpful when trauma centers are meeting with stakeholders. This approach also is embodied in the work of Stephanie Bonne, MD, FACS, who describes her experience as the recipient of Claude Organ, Jr., MD, FACS Traveling Fellowship (see article, page 37), which enabled her to research how to bring a hospital-based violence intervention program to her trauma center in Newark, NJ.

COT approach to the optimal care of patients with firearm injuries
The COT has developed a strategy for providing optimal care to the injured patient. This approach involves the following activities.

<table>
<thead>
<tr>
<th>TABLE 2. COT SURVEY RESULTS</th>
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<tbody>
<tr>
<td>• 93 percent support improving mental health screening and treatment to reduce suicides and gun-related violence</td>
</tr>
<tr>
<td>• 93 percent support identifying and implementing evidence-based injury prevention programs that decrease firearms injuries</td>
</tr>
<tr>
<td>• 92 percent support mandatory prosecution of convicted felons attempting to purchase a firearm</td>
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<tr>
<td>• 92 percent support preventing people with mental illness from purchasing firearms</td>
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<tr>
<td>• 92 percent support increased penalties for purchasers who supply guns to individuals illegally (straw purchasers)</td>
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<tr>
<td>• 92 percent support making funds available for research on gun violence and how to prevent gun violence</td>
</tr>
<tr>
<td>• 90 percent support preserving the right of health care providers to counsel their patients on safe firearm ownership</td>
</tr>
<tr>
<td>• 86 percent support mandatory background checks and license permit for all firearm purchases, including those from dealers, gun shows, or private sales prior to final sale</td>
</tr>
<tr>
<td>• 84 percent support preventing people who are on the U.S. No-Fly List to purchase firearms</td>
</tr>
<tr>
<td>• 83 percent support requiring safety features to promote gun safety, including child-proof locks and smart gun technology</td>
</tr>
</tbody>
</table>
Stop bleeding immediately at the scene

The COT’s Stop the Bleed/Bleeding Control program is being promulgated with the goal of turning bystanders into immediate first responders to stop compressible bleeding until medical personnel arrive. This initiative grew out of the Hartford Consensus led by ACS Regent Lenworth M. Jacobs, Jr., MD, MPH, FACS. This program was developed with numerous critical partners including the U.S. Department of Defense, the Tactical Combat Casualty Care Committee, and NAEMT. Easy-to-learn principles and techniques to control active bleeding can truly make the difference between life and death.

The ACS Bleeding Control Course is a critical COT initiative that is engaging communities while working to achieve zero preventable deaths by ensuring that every American understands the fundamentals of bleeding control. To date, 5,334 instructors in 40 countries have been trained, teaching more than 28,000 students in 2,762 individual courses.

Promote high-quality EMS care

The EMS Committee of the COT partners with several organizations with the mission of improving prehospital care through high-quality education and provider support and the development of national EMS guidelines. For decades, the EMS Committee has worked with the NAEMT to develop and promulgate the Prehospital Trauma Life Support (PHTLS) course (www.naemt.org/education/PHTLS/phtls.aspx). The EMS Committee partners with other key stakeholder groups to set national standards and triage criteria for trauma patients. These standards are aimed at improving prehospital care and minimizing the time to definitive care for seriously injured trauma patients.

Improve trauma center care

The ACS COT works to ensure that trauma patients receive timely and appropriate care through the multiple hospital-based programs aimed at evaluating and improving trauma center standards, processes, and outcomes. Developed in 1987, the VRC Program for hospitals provides external review of trauma centers, verifying that centers have essential resources and processes in place to provide an organized and systemic approach to the care of the injured patient as outlined in the Resources for Optimal Care of the Injured Patient. These guidelines span the continuum of trauma care, from prevention through rehabilitation. To date, almost 500 trauma centers across the U.S. participate in the COT VRC Program.

ACS TQIP serves as an institutional vehicle to improve quality and outcomes at trauma centers through risk-adjusted benchmarking, ongoing education, and the sharing of best practices among participants. More than 600 trauma centers participate in TQIP.

As a part of the COT’s mission to improve quality in trauma care, the COT PIPS Committee develops model PIPS programs for trauma centers and publishes best practice guidelines annually, which provide recommendations for managing patient populations or injury types with special consideration to trauma care providers, while also setting standards for optimum performance improvement.

At the individual health care professional level, the COT offers multiple educational programs aimed at advancing the skills of trauma care professionals across a number of domains. The flagship program of the COT Trauma Education Programs, ATLS, has been taught to more than 1 million students in 75 countries and continues to grow internationally and domestically.

Improve rehabilitation and reintegration

The rehabilitation of patients is an important, but often overlooked, part of the trauma care continuum. To optimize the recovery of trauma patients and assist with their reintegration into society, the COT requires ACS-verified centers to meet standards in many areas of rehabilitation. The COT has made rehabilitation a priority within national trauma system development by adding the goal of decreasing preventable disability to its strategy of implementing the National Academies of Sciences, Engineering, and Medicine’s landmark report, A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury.
Conclusion
The ACS COT employs a comprehensive strategy aimed at reducing death and disability from firearm injury. This strategy is built upon a trauma system and public health model. The intent of this approach is to reduce unnecessary death and disability through a combination of prevention and optimal clinical care.

In the following three articles in this issue of the Bulletin, members of the COT highlight and describe our injury and violence prevention strategies. We believe these approaches can and will significantly reduce fatal firearm injuries and disability. The degree to which these initiatives are successful depends not only on the quality of our science, but also on the quality of our conversation. We want to thank all members of the ACS COT and all members of the Board of Governors for their willingness to work together for the betterment of our patients and our communities. ♦

Acknowledgements
The authors would like to thank members of the ACS Board of Regents; the Executive Committee of the Board of Governors; the COT Executive Committee; the COT Injury Prevention and Control Committee; and (all MD, FACS) David B. Hoyt, ACS Executive Director; Patricia L. Turner, Director, ACS Division of Member Services; Michael F. Rotondo, Medical Director, ACS Trauma Programs; ACS Regent James K. Elsey; ACS Regent Beth Sutton; Michael J. Zinner, Chair, ACS Board of Regents; Diana L. Farmer, Chair, ACS Board of Governors Executive Committee; ACS Regent Henri R. Ford, MHA, FAAP; ACS Regent Lenworth M. Jacobs, Jr., MPH; and numerous staff of the ACS; as well as Trudy Lerer, MS, senior biostatistician, Connecticut Children’s Medical Center, Hartford, for their support and guidance on this important initiative.

REFERENCES
Injuries resulting from interpersonal violence in the U.S. are all too common. In 2015, homicide was the sixth leading cause of death for all age groups. It was the third leading cause of death in 15- to 34-year-olds, and fourth in children 10 to 14 years of age. Interpersonal violence disproportionately affects minority populations, and homicide is the leading cause of death in young (15 to 24 years old) African Americans and second among young Hispanics. Nearly 1.5 million nonfatal injuries occur among 15- to 34-year-olds, and the direct and indirect cost of these injuries is approximately $12 billion.

Trauma centers stand on the front lines of this interpersonal violence epidemic. With injury recidivism rates as high as 55 percent, injury prevention advocates are exploring ways to close this revolving door to decrease violent injury, using similar methods to those that have been used effectively to reduce the incidence of cardiovascular disease and cancer. Approaching interpersonal violence prevention as a public health issue would allow practitioners to identify risk and protective factors to prevent recurrent injury.

To begin a program to reduce risk factors associated with violent injury, a comprehensive approach that addresses mental health and social determinants of health is critical. Hospital-based violence intervention programs (HVIPs) are multidisciplinary programs that identify patients at risk of repeat violent injury and link them with hospital and community-based resources aimed at addressing underlying risk factors for violence. Data indicate that HVIPs can reduce violent injury recidivism and hospital costs.

A group from the American College of Surgeons Committee on Trauma (ACS COT) Injury Prevention and Control Committee was tasked with outlining a comprehensive approach to institute a sustainable HVIP. The following is a summary of the concepts outlined in the “Violence Intervention Programs: A Primer for Developing a Comprehensive Program within Trauma Centers” developed by this group in August 2017 to guide fledgling programs and perhaps save new programs from the pitfalls that often accompany this difficult work (see Figure 1, page 22).

The complete primer is available on the ACS COT website at facs.org/quality-programs/trauma/ipc.
Goal

To provide a comprehensive approach to treating victims of interpersonal violence through the development of a HVIP to address risk factors associated with violent injury, thereby providing more complete trauma care, and ultimately reducing recidivism.

Principles

I. A public health approach to violence prevention

• Modifiable risk factors associated with violent injury
  – Poor education
  – Lack of job opportunities
  – Injury and criminal recidivism
  – Socioeconomically deprived neighborhoods
  – Substance abuse
  – Complex post-traumatic stress disorder (PTSD)
  – Lack of positive role models

• Notion of violence as a public health issue with modifiable risk factors first acknowledged by U.S. Surgeon General C. Everett Koop, MD, FACS, in the 1980s

II. Methodology

• HVIPs use the “teachable moment,” approaching hospitalized target population patients with culturally competent case managers (CMs).

• Mental health resources are linked and offered as a core component of HVIPs.

• CMs develop rapport with clients and begin identifying/addressing individual needs with long-term commitment.

• CMs shepherd clients through risk-reduction resources via strong community/city ties and knowledge of landscape, such as access to job training, education, substance abuse treatment, domestic violence agencies, and so on.

Following is a step-by-step guide to establishing a working HVIP. It describes minimum requirements to run a program and examples of resources that a more advanced program might use.

Step 1: Define the problem

I. Globally and in your community: Who is your target population?

• Individuals
• Families
• Both individuals and families

II. Burden of disease

• Homicide: Number one and number two killer of young African Americans and Latinos, respectively

III. Understand target population

• Look up national and local data
  – Sources of national data: the Centers for Disease Control and Prevention’s (CDC’s) Web-based Injury Statistics Query and Reporting System and National Violent Death Reporting System
  – Sources of local data: trauma registry, vital statistics, police data, and child death reviews; examples of data available through these sources include demographics—age, race, location (zip code or census tract)—and geocoding

IV. Determine which programs are present in your hospital and community. Partnering with these organizations leads to program legitimacy and to an understanding of available risk-reduction resources.

• Emergency medicine
Firearm Injuries

- Not-for-profit violence prevention programs, such as Cure Violence
- Juvenile/criminal justice system: police, attorney general’s office, prosecutor
- Schools
- City/county health departments
- Office for Victims of Crime
- Mayor’s office of community engagement or equivalent
- Neighborhood efforts of city supervisors
- Community-based organization (CBO) case management and risk-reduction resources

V. New/developing program

- Universities, specifically schools of public health, nursing, sociology, and social work
- Conduct initial surveillance and needs assessment of community violence; communicate findings to hospital leadership and city officials to build interest among stakeholders
- Develop social capital through attendance at CBO meetings to build alliances and commitment to serve the community
- Engage community leaders to help create a HVIP
  - Obtain input from community on building the case management team

**FIGURE 1. TIMELINE FOR DEVELOPMENT OF A HVIP**

Successful HVIP initiation requires both sequential and continuous components. The sequential component outlines steps to program implementation, and the continuous component represents relationships that need to be built and maintained for successful implementation. Actual timeline is highly variable by program; shown is a rough estimate based on a two year implementation plan.

**Sequential component:**
- Find the target population
- Investigate existing violence prevention programs in community
- Face-to-face discussions
- Hospital administrators
- Social services
- Community-based organizations
- Case management hiring and training
- Commitment of hospital champion
- Build relationships with mental health and job training services
- Obtain funding
- Draft consents and MOUs
- Work space and capital purchases
- Build relationships with other community stakeholders
- Maintain relationships with community services
- Community-wide victim services coordination
- Sustain funding
- Join NNHVIP

**Continuous component:**
- IRBs
- Data collection
- Qualitative and quantitative feedback
- Private grants
- Hospital funding
- Public or city funding
- Tattoo removal
- Employment services
- Justice system and court advocacy
- Pediatrics and adolescent medicine
- Psychiatry
- Emergency medicine
FIREARM INJURIES

• Impress upon hospital leadership and CBOs that the status quo is unacceptable. Violence should never be “normalized” in any community

VI. Established program

• Understand dynamic process: Local target population and efforts inside/outside the hospital

• Periodically circle back to ascertain the population most at risk; priorities, funding, and capacity changes in cities/CBOs

• Constantly reevaluating provider landscape aids in building networks and strengthening regional/city-wide efforts

VII. Potential pitfalls

• Lack of comprehensive surveillance
  - Reference multiple data sources, such as trauma registries and police data, when conducting surveillance to understand target population

• Avoid replicating services and working in isolation
  - Understand the violence prevention landscape in community to avoid replicating services and look for opportunities to potentially merge efforts
  - Team approach is more effective; “it takes a village”
  - Interact with communities at-risk to develop trust and buy-in

II. Change the administration’s perception of the hospital’s role

• Establishing a program geared toward vulnerable populations boosts hospital optics

• Public relations: Roll out program
  - Media event involving mayor, hospital chief executive officer, city supervisors, and so on

• Collaborate with social services department

• Public safety/security: Understand concerns and how a public figure could help temper emotions in the community after an event

• Hospital staff are part of the community
  - Educate hospital staff; reinforce importance of this public health issue that can be addressed in your setting
  - Victims of Crime Act (VOCA) accountability at your institution
    o Is VOCA present and efficient?

• Identify key community stakeholders

III. Use local CBOs (break barriers): At-risk communities should be part of development and implementation of program

• Attend meetings

• Identify community leaders and CBOs that offer resources for risk reduction
  - Have community choose CMs
    o Community partners (CPs) will differ depending on target population/resources.
o Initially, CBOs may supply CM services when you are unable to support CMs.

- Introduce HVIP concept at staff, leadership committee, and CBO meetings

o Individualization is key.
o Stakeholders want to understand potential human value, but also may be interested in financial impact.
o A CBO may want assurance regarding the role that the community will play in program.

- Designate an inhospital champion (trauma surgeon or emergency physician)

  - Key for advocacy
  - Should encourage an open-door policy to ensure critical issues are promptly addressed
  - A community partner is important for developing partnerships when ready to secure with risk-reduction resources (Step 3)

IV. Potential pitfalls

• Personnel who assume violence is not “modifiable” require patience

• Culture inside and outside of hospital

  - Repeatedly remind people that violence is never acceptable or normal

  - Acknowledge that risk factors are modifiable

• Lack of stakeholder buy-in; occurs for a number of reasons

  - Messaging to particular groups is out of line with priorities of a particular stakeholder

  - Stakeholders feel overlooked in development and implementation

  - Failure to address priority items of particular stakeholders

Step 3: Developing the essential resources

I. Culturally sensitive/competent CM: Key component of a successful program

• Longer-term CM model (beyond hospitalization) with participant follow-up and tracking

• Unique qualities of CM position

  – Often have experience with violent neighborhoods
  – CM must have ability to:

  o Accurately screen for high-risk individuals
  o Conduct needs assessment with clients
  o Develop almost instant rapport
  o Shepherd clients through risk-reduction resources
  o Follow up for more than three months post-injury

II. Identify your “hospital champion”

• Usually a clinician from the trauma or emergency medicine services who meets the following criteria:

  – Is committed to advocacy

  – Plays large role in development, implementation, and program sustainability

  – Increases exposure of program

  o Research
  o Fundraising
  o Grant writing

  – Usually is affiliated with other HVIPs and injury prevention efforts locally/nationally

III. Potential pitfalls

• Lack of dependability on partner organizations for risk reduction

  – CBOs may have insufficient slots for services they provide
FIREARM INJURIES

- Important to establish memoranda of understanding (MOU), enabling transparency of expectations
  - Leaving out vital component of hospital or community
    - Can lead to feelings of exclusivity and poor future communication
    - Truly “takes a village” and is very emotionally charged at times

- Population struggles
  - Individual may not stay with job or school/general education diploma program, initially—important to recognize as long-term goal
  - Criminal records may hinder employment opportunities; job readiness/vocational training partnerships are key

Step 4: Implementation: Developing the programmatic structure

I. Building the team: program administration
  - Program executive director: typically a trauma surgeon or emergency physician
  - Program manager: typically an injury prevention coordinator in new programs; this position is not essential if director has time

II. Building the team: frontline staff/case managers/intervention specialists
  - Great candidates often found working in CM capacity at CBO
  - Consider panel interviews, involving people from community
  - As program grows, useful to have supervising CM

- Important to have at least two CMs to start—a lone soldier has a difficult job

- New programs often have MOUs with CBOs for CM services, which allows time to secure funding, demonstrate value, and build bridges to community

III. Training frontline staff
  - Should address recognizing acute stress response, PTSD, and understanding of trauma informed care (TIC)

  - Workshops are available through the National Network of Hospital-based Violence Intervention Programs (NNHVIP)

  - NNHVIP offers monthly working group calls to discuss difficult cases and challenges

IV. Accountability
  - Weekly staff meetings with set agenda, and separate weekly CM sessions to discuss number of eligible patients, screening, enrollment, progress, and retention

V. Data collection
  - Immediately begin collecting data on eligible patients, CM screening rates, enrollment rates, early attrition rates, needs assessment, progress on identified needs, and long-term outcomes

  - A template to track HVIPs was designed by QuesGen Systems, which several NNHVIP programs use or adapt as a platform in building a multicenter database

Step 5: Building the support structure

I. Referral to mental health system
  - Mental health services are an essential component of the program
Best practice is to have an integrated model where CM and mental health services begin simultaneously and work together throughout client’s tenure.

Clear referral pattern for mental health is important, if these services are not integrated.

Strong links between CMs and mental health providers needed; tight partnership between CM services of HVIP and mental health providers is essential in enrolling and sustaining participation of clients in mental health services.

- Mental health peer counselors provide critical links to mental health services
- Examples of mental health approach: TIC, acknowledgement of longstanding traumatization, moral reorientation therapy, trauma-focused cognitive behavioral therapy

II. Referrals for housing, employment, school, and other services (based on community)

- Prioritization of mental health, education, and jobs as core resources for clients of programs

III. Multidisciplinary integrated approach

- Involvement of other disciplines, including pediatrics, psychiatry, and family medicine, along with medical students, is helpful in finding resources, building bridges, and educating
- Involving people with expertise in both qualitative/quantitative analysis and health economists can strengthen ability of program to conduct research and evaluation

Case study: A 17-year-old male shot on a Friday night. One of the CMs is working and responds to trauma page. Victim is taken to operating room, CM contacts hospital social worker. Both individuals find family and friends of victim and work to support family and work with other city intervention specialists to reduce chances of retaliation.

Two days later, victim is in position to talk with CM, as he is recovering from bowel injuries. CM uses “teachable moment” at the bedside to expose victim to premise of program and assess victim’s risk of reinjury. The CM deems individual high-risk and offers program’s services. Victim and his parents sign consent forms so that data can be stored, and a needs assessment is performed.

CM visits victim daily in hospital and finds a place for tattoo removal postdischarge. He meets with probation officer at juvenile justice, and they work together on program management. He also inputs data into software program and presents new client at CM and staff meetings.

Once the client is discharged, focus is on working with school counselors, parents, and the district to move client to a safer school. When ready, the client enrolls in a new school and receives tutoring from the volunteers at the HVIP.

Over course of next three months, check-in spreads out from daily to weekly, and tutoring continues. CM also assists victim’s mother in locating mental health services.

IV. Case study pitfalls

- CM does not return to bedside when client initially refuses services. Often, first bedside visits are unsuccessful. Try again.
- The CM loses contact with client outside hospital, even when client refuses services while hospitalized. Some clients are apt to be receptive to services, even after discharge.
- Not exploring potential partners on the criminal justice side could undermine the management plan. It is important to recognize that court-mandated activities may be underway for some individuals. It is also useful for programs to establish relationships with judges in order to best advocate for their clients.
- Lack of engagement with families (particularly when victims are youth) may hurt the chances of enrolling potential clients.
Once the CM creates a bond with the client, it is important to pay close heed to the client’s concerns and fears, or run the risk of creating feelings of distrust and abandonment.

Clients may feel vulnerable, especially if law enforcement is involved. Their fear of a CM revealing vital information to law enforcement may cause them to regress. HVIPs can obtain certificates of confidentiality from the National Institutes of Health (NIH).

Step 6: Evaluation—
Based on CDC’s recommended broad outline of how to evaluate a community-based injury prevention program with the public health model in mind

Evaluation starts day one

- Most critical to evaluation process: There is more to evaluation than just capturing recidivism
- Intermediate and surrogate measures (for example, finding employment)
- Qualitative outcomes

Evaluation standards

- Reach (for example, are CMs conducting bedside interventions before discharge?)
- Feasibility (for example, is the target population being enrolled and staying enrolled?)
- Functionality

CM evaluation

- Are CMs “connecting” with the target population?
- Are CMs conducting a needs assessment?
- Are CMs finding appropriate risk-reduction resources in the community?

Process outcomes: Are clients sticking with resources?
If not, why not?

- School
- Employment
- Mental health follow-up
- Staying connected to their CMs

Long-term outcomes

- Injury and criminal recidivism
- Qualitative value of program

- Qualitative analysis—critical in understanding the inherent value of the programs not captured in the typical quantitative measures
- Semi-structured interviews and evaluation for common themes can reveal value not captured by other measures

- Cost-effectiveness analysis

V. Potential pitfalls

- Evaluation as an afterthought will lead to lack of evidence

- Poor enrollment of target population occurs if programs do not reassess registry data to expose at-risk groups

- Programs need to adapt to address unforeseen population/resource changes

- Singular evaluation of outcomes, such as recidivism, misses nuanced value of programs

Case study: Robert joined a violence prevention program after being hospitalized for his second violent injury. When he recovered from his injury, his CM, who had assessed his needs, accompanied him to mental health services for three months. Robert’s anxiety was improving, and he felt ready to work. The CM was able to help place him in a program in which Robert would learn how to be an arborist. This program paid a stipend and had the potential of landing him a permanent job. Robert stuck with the program and
felt empowered by the skills he was learning. He was put in charge of teaching middle-schoolers how to trim trees during a summer seminar. Six months after the program initiation, Robert was on his home front steps arriving from work when he was shot in the leg. Robert was treated for his injury and recovered enough to go back to the arborist program several months later.

This story brings to light the painful fact that secure housing may not be safe housing. Is this recidivist event considered a failure of his violence prevention program? Not necessarily. While we may be unable to modify all risk factors in a client’s life, such as the surrounding community, the services provided to a client, such as mental health services and vocational training, should be taken into consideration when evaluating the outcomes of these public health programs. If only recidivism is tracked, the other components of value will go unrecognized.

**Step 7: Budget and sustainable funding**

I. **Bare-bones program budget**

- In-kind support for the director and prevention coordinator
- Two full-time CMs at $35,000–$60,000 plus benefits
- Software program at $6,000–$12,000

II. **Established programs increase budgets for more CMs, and pay percentage of salaries for administrative staff, program evaluators**

III. **Funding sources**

- Hospital and private foundations
- City government (line items in city budgets)
- Federal
  - Department of Justice
  - Department of Defense
  - NIH
  - CDC
  - Victims of Crime Act fund

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**BIBLIOGRAPHY**


IV. Potential fee-for-service billing

- There is taxonomy for CMs; frontline staff acknowledged as part of health care team

**Step 8: Advocacy**

I. Contact hospital or university foundation for advocacy, financial support

Case study: Bank of America Foundation approached one hospital foundation. Bank of America was interested in supporting the underserved community in improving the economic state. In conjunction with the foundation, the HVIP worked with an urban arborist program to create a vocational training program for clients with the potential to secure a city or private arborist job at the end of the internship.

II. Fee-for-service billing

- State-level bills advocating for CMs to be capable of billing Medicare for their services are under review, with an ultimate goal of federal-level policy

- May be able to advocate at the state level for this form of reimbursement

III. Potential pitfalls

- Missed opportunities to highlight the program in press conferences and in city hall; poor social media presence and lack of public advocacy leads to missed opportunities for buy-in, financial support, and political backing ♦

**Note**

For more information about the violence intervention programs primer, contact Tamara Kozyckyj, Coordinator, Trauma Systems Programs, tkozyckyj@facs.org.

The authors are all members of the ACS COT Injury Prevention and Control Committee’s Violence Prevention Programs Workgroup.

**BIBLIOGRAPHY, CONTINUED**


Firearm-related injuries and deaths represent a significant public health problem in the U.S. More than 17 percent of the overall burden of injury deaths are firearm-related, translating to an average of 32,529 firearm deaths per year since 2010—approximately the equivalent to deaths resulting from motor vehicle crashes or fall-related injuries.*

To address this public health challenge, the American College of Surgeons (ACS) Committee on Trauma (COT) sought to identify areas of agreement and disagreement within its ranks to better inform and guide injury prevention and advocacy strategies. The ACS COT Injury Prevention and Control Committee developed a 32-question survey to evaluate COT member attitudes and beliefs regarding firearms, firearm injuries, and potential policy approaches to firearm injury prevention. The survey was administered to U.S. COT members in 2016. The findings were presented to COT members at a 2016 Town Hall and they were presented at the American Association for the Surgery of Trauma (AAST) meeting in 2016, and subsequently published in the *Journal of Trauma and Acute Care Surgery.*†

The ACS Board of Governors (B/G) sought to learn more about the opinions of U.S. ACS Governors regarding firearm

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injury and firearm injury prevention with the belief that the B/G is more representative of the ACS Fellowship than the COT. The Executive Committee of the B/G worked with the ACS COT leadership to identify a subset of the ACS COT survey questions for inclusion in the 2016 ACS annual B/G member survey. The annual B/G member survey has been conducted for more than 20 years, and in 2016, a total of 11 focused questions from the ACS COT survey were included. Two-thirds of the U.S. B/G members represent their state ACS chapters and one-third represent specialty societies. Our hypothesis was that the B/G survey results, which represent the opinions of surgeons from a range of surgical practice types, would help identify topical areas and initiatives where broader consensus could be reached.

Methods
The research protocol and survey instrument were submitted to the Institutional Review Board at Boston University School of Medicine, MA, and were determined to be exempt according to 45 CFR 46.101(b). The questionnaire was sent via e-mail to U.S. B/G members in 2016 using the SurveyMonkey cloud-based tool. Data were de-identified and analyzed using descriptive statistics, chi-square, Fisher’s exact test, and Mann-Whitney and Kruskal-Wallis tests; 0.05 were used for statistical significance using IBM Statistical Package for the Social Sciences Statistics Software version 21. In addition to the routine analysis of the B/G survey, the focus questions on firearm injury prevention were compared with responses to the COT survey. The results of the survey and the survey analysis were shared with the B/G during its joint meeting with the Board of Regents at Clinical Congress 2016.

Demographic results
A total of 187 of 218 Governors responded to the survey, for an overall response rate of 86 percent. Their de-identified responses comprised the cohort for analysis. At least one survey participant from 48 states and two U.S. territories responded. Results were extracted and analyzed by members of the Governors Survey Workgroup. A range of specialties was represented, including general surgery (20 percent); acute care general surgery (10 percent); trauma surgery (8 percent); surgical oncology (8 percent); breast surgery (7 percent); critical care surgery (7 percent); and colon and rectal surgery (7 percent). The remaining 33 percent of respondents were from different surgical specialties. The combination of general surgery, acute care, or trauma surgery accounted for 38 percent of respondents in the B/G survey in contrast to 81 percent in the COT member survey. When asked about the presence of one or more firearms in the home, 35 percent of B/G respondents answered in the affirmative, compared with 43 percent of COT member respondents.

Personal opinion question results
The B/G survey included two personal opinion questions regarding firearms, which also were part of the COT member survey. The first question sought the respondents’ opinion regarding the general benefit (or lack of benefit) of firearm ownership and their views on personal liberty and firearm ownership. The responses from the COT survey and the B/G survey were similar.
(see Table 1, page 31). A little more than half of both groups expressed the belief that personal firearm ownership is beneficial and an important liberty or a constitutional right. Conversely, about a third of both groups expressed the belief that personal ownership of firearms is harmful, and generally or critically limits personal liberty. Approximately 15 percent of both groups had no strong opinion either way.

B/G members were asked what level of priority the ACS should give to preventing firearm-related injuries. As depicted in Figure 1, this page, 77 percent of the Governors indicated that the ACS should make preventing firearm-related injuries the highest or a high priority, whereas 88 percent of the COT survey respondents said that reducing firearm injury should be a high or the highest priority of the ACS.

**ACS Advocacy and Health Policy efforts**
Respondents to both the B/G and COT member surveys were asked to rate their opinion on whether the ACS should initiate efforts to advocate or support legislation in seven specific areas related to firearm injury prevention:

1. Mandatory background checks and license/permit for all firearm purchases, including those from authorized dealers, gun shows, or private sellers

2. Measures to prevent people with mental illness from purchasing firearms

3. Efforts to increase penalties for purchasers who provide guns to individuals illegally (straw purchasers) and dealers who sell firearms through illegal means or who bypass background checks

4. Preserve the right of physicians and health care providers to counsel their patients or the parents of their patients on safe firearm ownership

5. Identify and implement evidence-based injury prevention programs that decrease firearm injuries (in partnership with other professional organizations or independently)

6. Limit civilian access to ammunition designed for military or law enforcement use (that is, armor piercing, large magazine capacity)

7. Advocate for research funding to better understand gun violence and how to prevent it

Table 2, page 33, presents a direct comparison of responses from B/G and COT members to these seven initiatives, without respect to firearms in the home. The level of “strongly support or support” ranges from 74 to 93 percent among B/G participants and between 76 and 93 percent of COT survey participants.

The responses from the ACS Governors and the COT members were statistically different in two key areas. These two questions concerned preserving the right of physicians to counsel patients or families on firearm
injury prevention (B/G 74 percent; COT 91 percent); and priorities for research funding regarding firearm injury prevention (B/G 80 percent; COT 92 percent). Although statistically different, members of both the COT and the B/G clearly support these approaches, although they differ in the degree of support.

For the other five advocacy initiatives surveyed, the percentage difference between the B/G and COT responses was not statistically different. Despite the specialty differences between the COT and the B/G, the level of support for these other five advocacy initiatives was remarkably similar.

**Effect of firearm ownership on results**
Both the COT survey and the B/G survey results were also analyzed based on whether the respondents had a firearm in the home. This evaluation was done to explore how closely or differently these two groups may be with respect to attitudes and beliefs regarding potential policies or strategies to reduce firearm injury. We hypothesized that there would be differences based on the presence or absence of a firearm in the home.

Table 3, page 34, shows the responses of COT members based on whether the respondent had a firearm in the home. Although statistically different, in general, as a group, the respondents with firearms in the home are very supportive of most of the issues, with more than 70 percent of respondents supporting six of seven of the advocacy issues surveyed.

Table 4, page 35, displays the data for B/G respondents by the presence or absence of a firearm in the home. In B/G respondents, there were statistical differences in five of the seven areas when analyzed by the presence or absence of a firearm in the home. Like the members of the COT, the Governors with firearms in their homes indicate more than 70 percent support for five of the seven policy questions surveyed.

### TABLE 2.
**VIEWS ON ADVOCACY AND HEALTH POLICY TOPICS**

<table>
<thead>
<tr>
<th>Advocacy issue</th>
<th>COT or B/G survey</th>
<th>Strongly support or support</th>
<th>Neutral</th>
<th>Strongly oppose or oppose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mandate background checks and license/permit for all firearm purchases, including those from authorized dealers, gun shows, or private sales prior to purchase</td>
<td>COT 86% 4% 10%</td>
<td>B/G 90 2 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Prevent people with mental health illness from purchasing firearms</td>
<td>COT 91 5 4</td>
<td>B/G 93 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Increase penalties for purchasers that provide guns to individuals illegally (straw purchasers) and dealers that sell firearms through illegal means or bypassing background checks</td>
<td>COT 92 4 4</td>
<td>B/G 90 4 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Preserve the right of physicians and health care providers to counsel their patients or the parents of their patients on safe firearm ownership</td>
<td>COT* 91 7* 2</td>
<td>B/G* 74 18* 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Identify and implement evidence-based injury prevention programs that decrease firearm injuries (in partnership with other professional organizations or independently)</td>
<td>COT 93 5 2</td>
<td>B/G 87 8 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Limit civilian access to ammunition designed for military or law enforcement use (that is, armor piercing, large magazine capacity)</td>
<td>COT 76 9 15</td>
<td>B/G 76 8 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Make funds available for research to better understand gun violence and how to prevent gun violence</td>
<td>COT* 92 5* 3</td>
<td>B/G* 80 10* 10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .001, using Mann-Whitney U tests comparing B/G with COT responses. Highlighted in grey where p was significant using Mann-Whitney U tests.
For both groups, it is clear that the most contentious question for those surgeons with versus those without firearms in the home is the policy of limiting civilian access to types of ammunition designed for military or law enforcement use (for example, armor piercing, large magazine capacity).

The following list summarizes and compares with the COT the total percentage of B/G respondents who support or strongly support each initiative, and compares this finding with those respondents with a firearm in their home who support or strongly support each of the seven policies surveyed.

1. 93 percent of the Governors support preventing people with mental illness from purchasing firearms (91 percent, COT). When examining responses of those with firearms in the home, 92 percent of B/G and 87 percent of COT members support this initiative.

2. 90 percent of Governors support mandatory background checks and license/permit for all firearm purchases including those from authorized dealers, gun shows, or private sales prior to purchase (86 percent, COT). When examining responses of those with firearms in the home, 83 percent of B/G and 72 percent of COT members support this initiative.

3. 90 percent of Governors support increased penalties for purchasers who provide guns to individuals illegally (straw purchasers) and dealers that sell firearms through illegal means or bypassing background checks (92 percent, COT). When examining responses of those with firearms in the home, 84 percent of B/G and 85 percent of COT members support this initiative.

4. 87 percent of the Governors support identifying and implementing evidence-based injury prevention programs that decrease firearm injuries (93 percent, COT). When examining responses of those with firearms in the home, 87 percent of B/G and 85 percent of COT members support this initiative.

5. 87 percent of Governors support the right of physicians and health care providers to counsel their patients or the parents of their patients on safe firearm ownership (84 percent, COT). When examining responses of those with firearms in the home, 84 percent of B/G and 85 percent of COT members support this initiative.

6. 86 percent of Governors support identifying and implementing evidence-based injury prevention programs that decrease firearm injuries (in partnership with other professional organizations or independently) (93 percent, COT). When examining responses of those with firearms in the home, 93 percent of B/G and 93 percent of COT members support this initiative.

7. 97 percent of Governors support limited access to ammunition designed for military or law enforcement use (that is, armor piercing, large magazine capacity) (99 percent, COT). When examining responses of those with firearms in the home, 99 percent of B/G and 99 percent of COT members support this initiative.

8. 99 percent of Governors support making funds available for research to better understand gun violence and how to prevent gun violence (99 percent, COT). When examining responses of those with firearms in the home, 99 percent of B/G and 99 percent of COT members support this initiative.

*p < 0.05, comparing "No" to "Yes." Highlighted in grey where p was significant.
### Table 4. ACS B/G Survey: Policy Support with and without a Firearm in Home

<table>
<thead>
<tr>
<th>Advocacy issue</th>
<th>Firearm in home</th>
<th>Strongly support or support</th>
<th>Neutral</th>
<th>Strongly oppose or oppose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mandate background checks and license/permit for all firearm purchases, including those from authorized dealers, gun shows, or private sales prior to purchase</td>
<td>No*</td>
<td>95%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Yes*</td>
<td>83</td>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>2. Prevent people with mental health illness from purchasing firearms</td>
<td>No</td>
<td>95</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>92</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>3. Increase penalties for purchasers that provide guns to individuals illegally (straw purchasers) and dealers that sell firearms through illegal means or bypassing background checks</td>
<td>No*</td>
<td>94</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Yes*</td>
<td>84</td>
<td>5%</td>
<td>11%</td>
</tr>
<tr>
<td>4. Preserve the right of physicians and health care providers to counsel their patients or the parents of their patients on safe firearm ownership</td>
<td>No</td>
<td>74</td>
<td>21%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>75</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>5. Identify and implement evidence-based injury prevention programs that decrease firearm injuries (in partnership with other professional organizations or independently)</td>
<td>No*</td>
<td>92</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Yes*</td>
<td>78</td>
<td>12%</td>
<td>10%</td>
</tr>
<tr>
<td>6. Limit civilian access to types of ammunition designed for military or law enforcement use (that is, armor piercing, large magazine capacity)</td>
<td>No*</td>
<td>88</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Yes*</td>
<td>51</td>
<td>11%</td>
<td>38%</td>
</tr>
<tr>
<td>7. Make funds available for research to better understand gun violence and how to prevent gun violence</td>
<td>No*</td>
<td>86</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>Yes*</td>
<td>67</td>
<td>11%</td>
<td>22%</td>
</tr>
</tbody>
</table>

*p < 0.05, comparing “No” to “Yes.” Highlighted in grey where p was significant using Mann-Whitney U tests.

the home, 78 percent of B/G and 87 percent of COT members support this initiative.

5. 80 percent of the Governors support making funds available for research on gun violence and how to prevent gun violence (92 percent, COT). When examining responses of those with firearms in the home, 67 percent of B/G and 82 percent of COT members support this initiative.

6. 76 percent of Governors support efforts to limit civilian access to types of ammunition designed for military or law enforcement use (76 percent, COT). When examining responses of those with firearms in the home, 51 percent of B/G and 54 percent of COT members support this initiative.

7. 74 percent of Governors support preserving the right of health care providers to counsel their patients on safe firearm ownership (91 percent, COT). When examining responses of those with firearms in the home, 75 percent of B/G and 84 percent of COT members support this initiative.

**Key findings**

The results of this survey demonstrate that ACS COT members and ACS B/G members are largely in agreement on firearm injury and firearm injury prevention. Both groups believe the ACS should assign a high or its highest priority to reducing firearm-related injuries. Between 50 to 55 percent of surgeons of both groups agree that firearm ownership is beneficial and is an important freedom or right. About 30 percent of both groups believe firearms are generally harmful and limit personal liberty, and about 15 percent have no strong opinion either way. Both groups have relatively polar views regarding firearm ownership, but...
both groups are similar with respect to the degree of polarization.

The results of these surveys also demonstrate significant agreement between the ACS COT and ACS B/G regarding the policies addressed in the survey, with most members of the two groups sharing their support for most of the policies surveyed. This general agreement persists when the survey answers from members of the two groups are analyzed according to the presence of firearm(s) in the home. Most surgeons and other health care professionals with firearms in their homes support every policy surveyed, and for at least five of the potential policies, there is consensus agreement between those with and those without firearms.

**Next steps**

The U.S. ACS Governors represent the spectrum of surgical specialties and are geographically diverse. The significant consensus among the B/G members and between the COT and B/G surveys is useful in our effort to work toward a better understanding of the views of ACS members.

Both survey tools were designed to create an accurate picture of where surgeons agree and where they disagree, and to facilitate a professional dialogue among the surgeons being surveyed. Both the B/G and the COT agree that any advocacy-related strategy should be based on respect for the opinions of all Fellows, particularly for those surgeons with minority views. The COT has been in touch with stakeholder groups representing multiple points of view with the goal of improving the dialogue around how best to reduce death and disability related to firearm injuries.

In the meantime, the COT is working to evaluate the best evidenced-based violence prevention and intervention programs that could be implemented through its network of ACS-verified trauma centers. The COT also is moving forward with advocacy for increasing funding for research on firearm injuries and developing strategies for effective counseling regarding firearm safety.

The results of these two surveys show that, although there is only about a 50 percent chance we agree on the benefits of firearm ownership, the odds are favorable that surgeons agree on most policies aimed at reducing firearm injury. This realization should be the basis for collegial, civil, and inclusive discourse on how best to proceed.

The B/G and the COT are committed to working together and to improving the quality of the conversation around how best to reduce firearm injury.

**Acknowledgements**

The authors would like to thank members of the Executive Committee of the B/G, the COT Executive Committee, and the COT Injury Prevention and Control Committee. The authors also would like to acknowledge the following (all MD, FACS): David B. Hoyt, ACS Executive Director; Patricia L. Turner, Director, ACS Division of Member Services; Michael F. Rotondo, Medical Director, ACS Trauma Programs; ACS Regents James K. Elsey, Beth H. Sutton; and Michael J. Zinner, Chair, Board of Regents; and Diana L. Farmer, Chair, B/G Executive Committee. The authors would also like to recognize ACS staff members and Trudy Lerer, Connecticut Children’s Medical Center, Hartford, for their support and guidance on this important initiative.
Trauma surgeon uses traveling fellowship to learn about HVIPs

by Stephanie Bonne, MD, FACS

HIGHLIGHTS

• Organ Traveling Fellowship awardee describes her experiences at a HVIP
• Summarizes the role of case managers who help patients in the postdischarge phase to find job training and other educational opportunities
• Outlines how successful HVIPs reduce costs and decrease recidivism

I applied for the American College of Surgeons (ACS) Claude H. Organ, Jr., MD, FACS, Traveling Fellowship with the goal of attaining a better understanding of hospital-based violence intervention programs (HVIPs). As a trauma surgeon, I have always had an interest in public health initiatives related to injury and violence prevention. Having recently moved to Newark, NJ, it was apparent that both the community and Rutgers University would benefit from a HVIP, as urban violence remains a common cause of injury in Newark.1 Specifically, I was interested in learning about the Wraparound Project in place at the University of California, San Francisco (UCSF), and San Francisco General Hospital.

Getting started

HVIPs have been implemented in several U.S. trauma centers in the last decade, and recently these programs have been emerging nationwide with increasing rapidity.2 According to the National Network of Hospital-Based Violence Intervention Programs (NNHVIP), in the 1990s, only four programs existed nationwide, 10 more were added from 2000 to 2009, and since 2010, 18 programs have launched. In 2009, program directors from across the country formed the NNHVIP to share best practices, to have access to a mentorship program in which new program directors are paired with more established directors, and to help hospitals learn how to initiate HVIPs at their institutions. By learning about HVIPs through the work and publications of the NNHVIP, I was able to develop an understanding of the process needed to start a HVIP in my own institution and subsequently secured a pilot foundation grant from the Healthcare Foundation of New Jersey to support a program in Newark.
Starting a high-quality, sustainable HVIP requires tremendous dedication to the cause, along with a great deal of practical knowledge about how to manage the program. It was with this understanding that I applied for the Claude H. Organ, Jr., MD, FACS, Traveling Fellowship, with the goal of partnering with an established HVIP to gain firsthand knowledge about best practices for managing a HVIP. One of the oldest and most successful HVIPs in the U.S. is the Wraparound Project in San Francisco, which is based at UCSF and San Francisco General Hospital, and managed by Rochelle A. Dicker, MD, FACS, and Catherine Julliard, MD, MPH. The Organ Traveling Fellowship afforded me the opportunity to spend one week at San Francisco General Hospital to learn about the many facets of this program.

The important role of case managers
My week began with a visit to the hospital to meet the case workers and the injury prevention coordinator, Adaobi Nwabuo, MB, BS, MPH. Case managers are the cornerstone of successful HVIPs. They often meet patients during the “teachable moment” of trauma care when an injured person may be more receptive to services or more prepared to make life changes as a response to their injury experience. Case managers meet with and develop a relationship with patients during their hospitalization. They offer immediate services, such as assistance with completing applications for victims of crime compensation, and help with relocation or referrals to mental health services.

After the patient’s hospital discharge, the case worker continues to work with the client to develop goals, find assistance from community-based organizations, apply for job training or other educational programs, or secure employment. The emphasis on long-term commitment to the patient cannot be overstated. Case managers not only refer clients to community-based resources, but also accompany them on visits, assist in completing paperwork, and ensure follow-up. The uptake of community services is much higher using this model than if the patients simply received referrals or a list of available
organizations with the expectation that they will follow up independently. It is vital to the success of these programs that case managers be from the communities they serve. Being a member of the community adds to their credibility and will make clients more receptive to the advice offered by their case managers.

Although I had learned about case management processes by reading medical literature on HVIPs, observing the case managers interact with clients allowed me to form a more complete vision of what a HVIP would look like at my own center. I visited the bedside with a case manager to experience how that first, most critical interaction works. I reviewed consents, progress notes, data entries, and documentation to better understand the essential tasks and timeline of case management. The seemingly small tasks of data collection, handoffs, and logistics all weave together to form the complex fabric that makes these programs run efficiently. Seeing the program firsthand allowed me to better understand the intervention and resource needs of these programs. This experience helped me understand what the program might look like on the ground in Newark.

**Relationship building**

A second key component of HVIPs is the relationship of the program with outside organizations. In a well-developed program like the Wraparound Project, the HVIP has standing relationships with community-based organizations that provide clients with social services. I visited several such programs to see how the clients were progressing at various points in their posthospital discharge, from several months to several years of recovery.

One program, Friends of the Urban Forest, provides employment through an arborist apprentice program, which trains clients in the skills necessary to care for the city’s trees. Another program, the Trauma Recovery Center, founded by Alicia Boccellari, PhD, provides mental health, counseling, and group therapy services to victims of violence. A third program, Project Rebound, provides guidance, test preparation, and
on-campus resources to clients who choose to pursue a college education at San Francisco State University following their injury.

Perhaps one of the more important aspects of the Organ Traveling Fellowship experience was the opportunity to visit all of these partner organizations that interact with patients at different stages of rehabilitation. It was clear that it would be important to develop relationships with Newark organizations that offer job training, employment, and mental health services.

As I was visiting the partner programs and reflecting on my experiences, I began to recognize my own implicit bias. Previously, this bias clouded the way I defined “recovery” for victims of violence. Seeing former trauma patients at various stages of healing changed my perspective regarding what to expect from individuals as they recover from traumatic injury. As surgeons, we see patients for a few postoperative visits, but we may have an incomplete understanding of how long it takes someone to heal from the psychosocial trauma of being a victim of violence and how that affects their recovery. Having a better understanding of how recovery can be experienced differently depending on the individual situation, and how nonlinear that pathway can be, helped inform my expectations for my own program’s success.

Another component to consider when starting a HVIP is how the program will coexist with other citywide violence prevention initiatives. In San Francisco, the mayor’s office holds a weekly victim services response meeting. This meeting brings together various community-based organizations, the Department of Public Health, the Wraparound Project, and individuals representing public housing, public schools, and law enforcement to review the cases of violent injury from that week. In each case, a comprehensive strategy is coordinated that includes law enforcement, victim services, and family services to ensure that all victims are reached and to avoid redundancy. This comprehensive strategy was so impressive that I was compelled to initiate a similar victim services response meeting in Newark.

Although Newark cannot reproduce every detail of the San Francisco victims services coordination system, the idea that this kind of collaboration exists was essential to launching the HVIP at my institution.

Obtaining funds
Finally, as the manager and hospital champion for the initiation of a HVIP, it was imperative that I understand the funding and evaluation mechanisms of these programs. The funding process is circular. Evaluation compels more funding, which, in turn, helps to fund more evaluation.

I had the opportunity to meet with the members and staff of the San Francisco General Hospital Foundation to discuss funding opportunities and logistics specifically involved in foundation support of a HVIP. I also visited the Law Center to Prevent Gun Violence, a San Francisco-based not-for-profit organization that has a group of attorneys and grant writers dedicated to uncovering research funding opportunities for HVIPs and advocating for policy initiatives to support public health models of violence prevention, including HVIPs.4

Once funded, whether by the hospital or through private grants, an essential component of the program is evaluation and data collection. In addition to collecting basic demographics, tracking the uptake of services, referrals, and the outcomes of these programs is critical to determining a center’s success. The NNHVIP is poised to start data sharing and the creation of a national database will track outcomes and provide research opportunities. As a junior faculty member, the opportunity to better understand these data points and the research potential of HVIPs solidified my academic interest in these programs.

An effective model
The data gathered from successful HVIPs show strong interaction with community-based services, notable reduction in costs, and modest decreases in recidivism.5 7 HVIPs operate on a public health secondary prevention model that seeks to limit the burden of
disease or, in the case of HVIPs, violence, on an already affected population. Recidivism seems to be the most obvious outcome measure on which to base the success of these programs. However, after spending a week immersed in the Wraparound Project and speaking with case managers, staff, and clients, I learned that prevention outcomes are more complex than simply tracking whether a person is injured again. Uptake of resources, reentry into school or the workforce, positive mental health outcomes, or qualitative outcomes like increased self-esteem, goal-setting behavior, and life outlook are all much more meaningful than recidivism alone.

The portability of HVIPs has been more challenging, as each program, while drawing from the same essential structure, needs to be tailored to the community in which it is implemented. Visiting a successful program was essential to my understanding of the functional aspects of the program, but I also learned that it is important to create a program that is a good fit specifically for Newark. A one-size-fits-all program does not exist, as the individuals involved in providing these services need to be keenly aware of the unique needs of the communities they serve and the forces at play in them. This knowledge comes from the time dedicated to assessing the “lay of the land” of the hospital and the city in which the program is intended to start.

In summary, having this firsthand opportunity to see a mature program in action solidified my understanding of the functional aspects I need to set in place to create a successful HVIP in Newark, and the ways in which I can build a successful academic career by implementing and evaluating HVIPs from a public health perspective.

I cannot thank the ACS enough for the tremendous opportunity afforded me by the Claude H. Organ, Jr., MD, FACS, Traveling Fellowship, and I look forward to building a robust program so that I may mentor others in the future, thereby carrying on Dr. Organ’s legacy.

REFERENCES

POLICE ACCESS TO TRAUMA PATIENTS

To protect and serve:

The ethical dilemma of allowing police access to trauma patients

by Katherine C. Ott, MD; Douglas Brown, PhD; Ira J. Kodner, MD, FACS; Kathryn Q. Bernabe, MD; and Jennifer Yu, MD, MPH

HIGHLIGHTS

• Describes the role of the surgeon when treating a patient who is remanded to police custody
• Provides a case study examining the responsibilities of a pediatric surgeon caring for a young patient who is a suspect in an alleged crime
• Discusses the four guiding ethical principles—autonomy, benevolence, beneficence, and justice—physicians rely on when determining whether law enforcement should have access to a patient

The physician-patient relationship is as complex as it is critical for surgeons and other medical professionals who provide care to pediatric victims of trauma. As soon as a clinical relationship with the patient has been established, the patient’s interests and safety become the physician’s primary concern. This responsibility is both an ethical and a legal duty. It applies to all patients, including those who are suspected or convicted of a crime. Physicians are expected to give every patient (or legal guardian of a minor), regardless of background, complete information about his or her care and to obtain informed consent for treatments and procedures, according to institutional policies. This process is particularly important when treating pediatric patients who are excep-
tionally vulnerable and limited in their ability to speak for themselves due to their age, developmental immaturity, and fear of consequences. Safeguarding the health, autonomy, and dignity of a patient remanded to police custody should be the primary focus of the physician.

At the same time, physicians and law enforcement have an important reciprocal relationship that is often beneficial to both patients and health care providers. Law enforcement personnel frequently accompany patients to the emergency department (ED) or seek access to patients for questioning while they are hospitalized.1 Physicians in the trauma bay rely on law enforcement to provide crucial initial information regarding patients as they arrive from the field. Law enforcement can be critical in protecting the safety of health care workers and adjacent patients from someone who is violent or physically threatening. The urgent nature of emergency medical and surgical care and criminal investigation, however, may lead to potential conflicts of interest regarding access to patients in the ED.

Police officers have a unique set of responsibilities, primarily concern for public safety, as they focus on investigating and preventing crime. Obtaining accurate interview information is often time-sensitive, which is why, in many cases, these individuals remain at the bedside in anticipation of obtaining information as soon as the patient can provide it.

Despite the frequency with which law enforcement officers accompany patients into the ED, few hospitals or state and local governments have policies that regulate their presence. Indeed, the presence of law enforcement personnel largely falls outside the ethical and institutional guidelines of health care institutions. Nonetheless, law enforcement’s presence may distract from and negatively affect the quality of care provided to the patient when police and the medical team have conflicting goals. Such differences can place surgeons in difficult situations as they attempt to manage a patient’s care, particularly when the patient is in extremis or needs emergent procedural intervention.

The following article describes a case in which police have requested that they remain at the bedside of a shooting victim. The article specifically discusses potential ways that the attending pediatric surgeon could respond to the request.

The scenario
A pediatric surgeon practicing in a large urban, free-standing children’s hospital is called to the trauma bay to evaluate a 17-year-old male with a gunshot wound to the abdomen. The patient is a suspect in an alleged crime and is accompanied by the local police upon arrival. His wrists and ankles are handcuffed to the medical stretcher, and several police officers are surrounding his stretcher.

The initial trauma assessment reveals the patient sustained a severe spinal cord injury resulting in paraplegia, as well as gastric and pancreatic injuries that will require emergent surgical intervention. The multiple officers present insist upon going with the patient directly to the operating room (OR) and to accompany him afterward to the intensive care unit (ICU) so that they can immediately interview him when he awakens from general anesthesia.

Several members of the nursing staff express concern that the presence of the officers will be detrimental to the patient’s care, which requires medical staff to have direct physical access to the patient to reassess his clinical stability and to provide any needed emergent care. In addition, the presence of multiple officers could compromise his private health information because the officers would be able to hear and witness medical provider conversations about the patient. The nurses and other medical staff also are concerned about the effect that the sudden presence
of law enforcement officers in the ICU could have on the other pediatric patients and families who are there for critical care.

**Discussion of options**

With the patient’s tenuous hemodynamic status in mind, the pediatric surgeon is presented with a number of ethical concerns and has four potential options:

- Perform the initial operation, and then transfer the patient to the adjacent adult hospital (where additional protocols regarding police interaction are more commonly used) after he is stabilized

- Perform all necessary operations and postoperative care at the children’s hospital and allow the officers to remain at the patient’s bedside

- Express concern regarding the officers’ role and request an ethics consult

- Ask the officers to wait in the designated waiting area away from the OR and away from the patient’s bedside until the patient has been declared clinically stable, citing the best interests of the patient, in particular the patient’s safety, the need for timely surgical and medical intervention, and the patient’s health information privacy

**Option 1: Perform the initial operation, and then transfer the patient to the adjacent adult hospital (where additional protocols regarding police interaction are more commonly used) after he is stabilized**

This may be an appealing option, especially given the patient’s age in this scenario. Gunshot victims are often brought to the adult ED simply because of proximity or because the exact age of the patient is initially unknown. Adult hospitals and EDs may have a more streamlined process for caring for victims of violence, as this problem is more common in the adult population. Adult hospitals and EDs often work closely with local police departments and may also have an in-house security.

However, the prevalence of youth violence argues against the feasibility of this option as a routine solution. Youth violence is an important health care issue across the U.S. Injured victims and perpetrators of violence are frequently seen in pediatric EDs. Homicide is the third leading cause of death for young people ages 15–24 years old. In 2012, 4,787 young people were killed by homicide, which is equivalent to approximately 13 cases per day, and more than 599,000 young people ages 10 to 24 were treated in U.S. EDs for physical assault injuries. Youth homicides and assault-related injuries result in $16 billion in combined medical and work loss costs every year. Violent injuries are often repeated; among youths who suffer a penetrating injury, nearly 45 percent are victims of violence again in the five years following the first injury, and 20 percent will die in the same time frame. Given the high rate of violent trauma, especially in urban settings, ideally pediatric EDs and trauma bays should be equipped to care for patients who arrive with police accompaniment.

Initiating a patient’s care in one hospital and then transferring the patient to another hospital creates its own set of both practical and ethical complications. Electronic or non-electronic health record communication barriers often exist between hospitals even when they are physically nearby or associated with one another. These communications issues become compounded and even dangerous in situations where the patient requires multiple operations or complex ICU care. Fracturing patient care in this way can be detrimental to the patient, possibly resulting in avoidable medical errors. Transfer from a pediatric facility to an adult facility can also result in poorer outcomes if the adult facility lacks up-to-date pediatric algorithms. For example, pediatric trauma literature supports significantly less invasive surgical management for abdominal trauma with splenic injury than is recommended to treat a similar situation in an adult with abdominal trauma.

Moving the patient to a different surgical team also hinders communication between the surgeon and the patient. When dealing with critically ill patients,
continuity of care between the surgical team and family members is imperative to avoid medical error and maintain patient-physician trust. Moving the patient from one team to another at this juncture would dissolve the initial relationship with the family and might create distrust between the medical team and the patient. Bias decisions may then be made with patient or family or any consents obtained during the patient’s ongoing medical care. Transfer between facilities, therefore, should only occur when medically necessary and in the best interest of the patient.

Option 2: Perform all necessary operations and postoperative care at the children’s hospital, and allow the officers to remain at the patient’s bedside

Members of hospital security and law enforcement play key roles in the ED. Numerous important relationships exist between emergency medicine providers, surgeons, and law enforcement. Patients often arrive at the trauma bay accompanied only by police officers and paramedics. Physicians must work with officers present at the scene to understand exactly what happened to the patient and the circumstances surrounding the event. In this regard, the interests of the police, the patient, and the physician are all initially aligned.

The primary objective for law enforcement, however, is the public’s safety. Law enforcement is neither trained nor liable for protecting the health privacy of the patient. Law enforcement is not qualified to know what constitutes the best medical care for the patient. Law enforcement officials are trained to investigate crimes in the most efficient manner possible. Many critical pieces of evidence, such as the testimony of the patient, diminish in accuracy and detail over time, and thus police officers often will physically remain with a detainee in order to initiate an interrogation as soon as possible. They may even request information about the nature of the patient’s injuries from surgeons and ICU professionals, which presents a problem for surgeons who are responsible for providing the best possible care to the patient while adhering to the Health Insurance Portability and Accountability Act (HIPAA), which provides strict guidelines regarding patient privacy and confidentiality.

If a person is convicted of a crime, U.S. law suspends certain rights, including the right to privacy. These laws are in effect when prisoners are brought to the ED. Depending on local laws, police may be required to remain within visual contact of the patient at all times, which inevitably erodes the patient’s privacy. These laws may also apply to individuals for whom arrest is pending. Law enforcement personnel often wait to arrest the suspect until after they have received at least an initial medical assessment, but they may do so immediately if the person is considered highly dangerous or a flight risk. Neither criteria would be met in the scenario described in this article where the patient is not only unconscious, but also paralyzed from the waist down. Even when patients are ultimately arrested, a significant number are never actually charged or convicted.

Despite these laws, the presence of police should have no bearing on the quality of patient care. In situations where the patient is not actually under arrest or incarcerated, very few laws exist regarding police presence at the bedside, and ultimately the decision rests with the attending surgeon.

Option 3: Express concern regarding the officers’ role and request an ethics consult

The equal treatment of all patients cannot be taken for granted, and the nursing staff in particular are often acutely aware of inequities given their constant proximity to the patients. Nurses have a similar professional code of ethics that calls for unbiased care regardless of the patient’s individual attributes. Particularly in the pediatric setting, nurses passionately protect and advocate for their patients. Ignoring the concerns of nursing staff would be unwise and a potential danger to patient care because it creates disharmony among the provider team.

EDs and ICUs are especially susceptible to aggressive and tense situations due to an environment filled with emotional stress. Nurses are at a particularly
high risk of exposure to violence. In one survey of 27 ED nurses, almost half reported having been physically or verbally assaulted by patients while at work. In addition, law enforcement and hospital security are crucial for the protection of hospital personnel when dealing with violent or aggressive patients. The attending surgeon must take into account the safety of both the patient and the medical staff.

With the conflict between law enforcement and the medical team in this situation, requesting an ethics consult would be appropriate but may be infeasible due to the critical nature of the patient’s injuries. Ethics consults can potentially take many days to gather information and to come to a recommendation, which may be an option for stable patients but would likely be impractical for trauma victims arriving to the ED or ICU, unless the ethics consult service has a rapid response process in place.

At times, even the presence of law enforcement can present a conflict for the physician if it affects the quality of care the patient is receiving. When patients are brought in to the trauma bay, they are suffering from both physical and psychological injuries related to their trauma. They are incredibly vulnerable and, when conscious, are often overwhelmed and already feeling unsafe. Studies show that patients have negative views regarding law enforcement institutions in general. Patients who are incarcerated or even simply accompanied by police may worry that their physician is working with law enforcement. This leads to a breakdown in physician-patient trust, which can lead to the withholding of information that is critical to patient care.

Providing information to outside parties against the patient’s wishes would undoubtedly be a violation of the patient’s right to privacy. In specific situations, including domestic, child, or elder abuse, physicians are required by law to violate a patient’s confidentiality in order to keep the patient or another party safe. Most physicians are aware of these exceptions, as they are clearly defined within the law and reinforced by HIPAA and hospital regulations. These laws also designate exactly where and to whom the information should be reported. Conversely, very few laws exist regarding exactly what can be disclosed to police who accompany patients into the ED. In these scenarios, the surgeon must weigh the benefit to the public good against the patient’s right to privacy. When time allows, ethics consults and hospital legal teams may be beneficial in this decision-making process.

**Option 4: Ask the officers to wait in the designated waiting area away from the OR and away from the patient’s bedside until the patient has been declared clinically stable, citing the best interests of the patient, in particular the patient’s safety, the need for timely surgical and medical intervention, and the patient’s health information privacy.**

This request may be particularly difficult to make. If the patient does not pose an immediate threat to the hospital staff, the need for law enforcement to remain directly at the bedside is significantly diminished. Police may wish to take a statement from the patient, but this is not the priority of the attending surgeon, as the presence of law enforcement may detract from the focus of the health care providers. As discussed earlier in this article, studies have shown that a police presence negatively affects patient perceptions of the quality of their medical care and can limit communication between the physician and the patient.

Prioritizing the best interests of the patient makes restricting police access ethically compelling. This path strengthens the physician-patient relationship, allows for open communication with family members, and protects the patient’s privacy. Furthermore, the presence of police officers at the bedside represents a violation of the patient’s right to privacy and confidentiality. Surgeons should always seek to uphold the integrity of the physician-patient relationship and respect that once a patient enters a clinical care setting, the patient’s privacy and confidentiality are of the highest priority. This expectation allows physicians to address deeply personal issues in an effort to better understand a patient’s illness or injury. Such an expectation may be heightened when the patient is severely injured or is an alleged victim or perpetrator of violence.
However, it is the surgeon’s responsibility to decide when a police presence presents an unnecessary breach of confidentiality or places the patient’s health at risk. The surgeon can, and must, prioritize the patient’s interests over those of law enforcement. This is a challenging decision to make and rests almost entirely on the shoulders of the individual surgeon, as very few laws or hospital regulations address this concern.

**Ethical bottom line**

Physicians ask patients and their families to trust that the medical care team will weigh the risks and benefits of all interventions and will do what is in the best interests of the patient, while respecting the patient’s goals and values. Pediatric patients who are brought into the trauma bay are particularly vulnerable, especially when they are accompanied by police rather than a parent or guardian. Surgeons enter each case with the understanding that their fiduciary duty requires that the care and protection of the patient be the primary concern. The physician must act as a gatekeeper and guardian for the patient to ensure that privacy and confidentiality are maintained.  

The ED and trauma bay are structured, protocol-driven environments. The presence of police officers is often beneficial, and yet is not always clearly defined by either local law or hospital policy. Multiple considerations must be taken into account, including patient privacy, staff and public safety, local laws or institutional guidelines regarding law enforcement, any requirements regarding reporting a patient’s status, and the effects on quality of patient care. Ideally, a physician would consult with an ethics review board; however, this may be less feasible in a trauma situation where time is a critical and, ultimately, limiting factor. Hospitals should make an effort to clearly delineate the role of law enforcement in these situations in order to aid the physician and to allow the focus to remain on the patient’s medical care.

In the absence of specific laws or hospital policies, a physician must rely on four guiding ethical principles—autonomy, benevolence, beneficence, and justice—to determine when law enforcement

**REFERENCES**


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should have access to a patient. What these principles mean and questions to ask oneself to ensure they are being applied correctly are as follows:

- **The principle of autonomy** refers to the patient’s right to make decisions regarding his or her own medical care without being influenced or coerced by outside parties. Is the patient actually under arrest or in police custody, or are the police simply accompanying the patient with the intent to question him or her? What are the local laws with regard to these patients?

- **Benevolence** refers to the physician’s responsibility to prevent “deliberate, unnecessary, or avoidable harm to patients.”25 Does the police presence impede the patient’s care or violate their trust or privacy?

- **The principle of beneficence** requires that the physician have a positive impact on the patient’s health. Is the presence of law enforcement benefiting the patient in some way?

- **The principle of justice** delineates that all patients should be treated equally regardless of their personal or financial situation. Is the patient receiving the same care and being treated with the same respect that any other person arriving in the trauma bay would expect to receive?

After these initial concerns are addressed and the basic ethical principles are considered in each unique situation, the surgeon must further ask if staff or public safety concerns are sufficiently compelling to potentially violate the patient’s best interests and allow law enforcement to proceed with questioning. Only after assessing each of these variables can the surgeon determine who should have access to the patient and truly provide the most ethical medical care possible. ♦

**REFERENCES, CONTINUED**

The ACS recognizes the following facts:

- Lithium ion batteries differ from other batteries in that they contain flammable organic solvents, such as ethylene carbonate and ethyl methyl carbonate.1

- When lithium batteries short-circuit, they are at risk of causing a fire.

- Causes of short-circuits include, but are not restricted to, the following:1
  - Manufacturing process problems (micrometer-sized metal particle accumulation and short circuiting)
  - Overcharging a battery
  - Exposure to high voltage (wrong charger/failed charger)
  - Damage to the battery

- Mechanical failure rate of lithium batteries is 1 in 10 million.

- Approximately 4 billion are manufactured annually.

- Lithium battery incidents have occurred in smartphones, e-cigarettes, laptop computers, hoverboards, and electric cars powered by lithium batteries.2

- The U.S. Consumer Product Safety Commission has recalled millions of devices due to lithium battery safety issues, including hoverboards and laptops.

- The Federal Aviation Administration has banned selected electronic devices from airplanes.3
Reported e-cigarette injuries are rising and include burn injury, face fractures, head injury, mouth trauma, and tooth loss.\textsuperscript{4-12}

The ACS supports efforts to promote, enact, and sustain legislation and policies that encourage the following:

- Manufacturing a lithium battery that does not use a flammable solvent
- Promoting safe manufacturing processes for lithium batteries
- Supporting regulations that ensure safe use and storage of lithium battery products
- Reporting and tracking injuries due to lithium battery injuries in a national database to further inform epidemiology and prevention efforts

REFERENCES, CONTINUED


The ACS recognizes the following facts:

- The preponderance of medical research in the last 30 years has shown a positive association between the concurrent use of opioids and motor vehicle crashes.

- Driving under the influence of controlled substances, including opioids, leads to impaired driving.

The ACS supports efforts to promote, enact, and sustain legislation and policies that encourage the following:

- Educating patients on the dangers of driving or engaging in other hazardous activities while taking opioids

- Educating patients using opioids about the potential risks of using concurrent psychoactive substances

- Requiring prescribers to be certain their patients receive instructions about what constitutes safe use of opioids, sedatives, and other psychoactive medications

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The Merit-based Incentive Payment System for small and rural practices

by Sadhana Chalasani

The Medicare Access and CHIP (Children’s Health Insurance Program) Reauthorization Act (MACRA) of 2015 called for major changes in the physician payment system. The first reporting requirements related to these MACRA provisions began in January 2017. This new Centers for Medicare & Medicaid Services (CMS) payment system, the Quality Payment Program (QPP), continues the transition to payment methodologies based on value and performance rather than volume. The two options surgeons have to participate in the QPP are the Merit-based Incentive Payment System (MIPS) and Advanced Alternative Payment Models (A-APMs) incentive payment.

Small and rural practices transitioning to the QPP may face additional challenges due to limitations on staffing, technology, or other factors. This column serves as a guide to educate small and rural practices about their reporting requirements and resources available to help them succeed in MIPS.

What components of MIPS are being implemented in the 2017 transition year?

In the early years of the QPP, most surgeons will participate in the MIPS program, which comprises four components: Quality, which is based on the former CMS Physician Quality Reporting System; Advancing Care Information (ACI), based on the previous Electronic Health Record Incentive Payment Program–Meaningful Use; Improvement Activities (IA), a new category; and Cost, which is derived from the previous Physician Value-Based Payment Modifier program. In the first year of the program, referred to as the 2017 transition year, Quality accounts for 60 percent of the MIPS final composite score, and ACI and IA account for 25 and 15 percent, respectively. Due to ongoing development, the Cost component has no weight in the MIPS final score for the transition year.

What is “Pick Your Pace?”

In the 2017 transition year, CMS is allowing providers flexibility in how they participate in MIPS by creating Pick Your Pace participation thresholds. Pick Your Pace allows participants to submit minimal data to avoid a penalty, as well as the opportunity to fully report to potentially qualify for a small incentive payment. The 2017 transition year MIPS Pick Your Pace options are as follows:

• Option 1: Submit no data under any component and receive a 4 percent Medicare Part B penalty in payment year 2019.

• Option 2: Test the MIPS program by submitting a minimum amount of 2017 data to CMS to avoid the 4 percent Medicare Part B penalty in 2019. CMS defines a minimum amount of data as: one Quality measure, one IA, or required Base Score ACI measures.

• Option 3: Participate in MIPS for part of the year by submitting data for at least a continuous 90-day period in 2017 to avoid the 4 percent penalty and possibly earn a small incentive payment based on performance. Partial participation in MIPS means that surgeons should meet at least the following reporting criteria:

  - Six Quality measures for at least 90 consecutive days for 50 percent of all-payor applicable patients (or 50 percent of applicable Medicare patients for claims reporting), and/or

  - Four medium-weighted or two high-weighted IA for 90 consecutive days, and/or

  - ACI measures for at least 90 consecutive days

• Option 4: Fully participate in MIPS by submitting 2017 data to be eligible for a positive
payment adjustment, based on performance. Full participation in MIPS means that surgeons should meet at least the following reporting criteria:

- Six Quality measures for up to a full year on 50 percent of all-payor applicable patients (or 50 percent of applicable Medicare patients for claims reporting), and
- Four medium-weighted or two high-weighted IA for up to a full year, and
- ACI measures for up to a full year

**How does CMS define a small or rural practice?**

CMS defines a small practice as one with 15 or fewer MIPS-eligible clinicians. CMS defines a rural practice as individual MIPS-eligible clinicians and groups in rural areas (for example, zip codes designated as rural, using the most recent Health Resources and Services Administration Area Health Resources File data set available) or health professional shortage areas (HPSAs). For 2017, CMS considers an individual MIPS-eligible clinician or a group with at least one practice site under its tax identification number in a zip code designated as a rural area or HPSA to be a rural area or HPSA practice.

**Are clinicians in a small or rural practice required to report for MIPS?**

CMS bases its requirements to report on the Medicare Part B charges a physician receives or the number of Medicare patients a provider sees. Physicians, physician assistants, nurse practitioners, clinical nurse specialists, and certified registered nurse anesthetists who bill more than $30,000 in Medicare Part B allowed charges and who provide care to more than 100 Medicare patients annually must participate in the QPP. Similarly, if these providers have less than or equal to $30,000 in Medicare Part B allowed charges or less than or equal to 100 Medicare Part B patients, they will not have to participate in MIPS.

Clinicians in their first year of Medicare participation and qualified participants in an A-APM may also be exempt from MIPS.

Clinicians can verify their MIPS participation status by inputting their National Provider Identifier on the CMS QPP web page at https://qpp.cms.gov/participation-lookup?npi.

**Does the program have any scoring advantages for small and rural practices who are subject to MIPS?**

Small practices are subject to different scoring rules for the IA component of MIPS. The IA component comprises medium-

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**FIGURE 1. GEOGRAPHIC CBO COVERAGE BY ORGANIZATION**

and high-weighted activities that are reported to achieve the total score of 40 points. Regularly, the medium activities are worth 10 points and the high activities are worth 20 points. However, for small practices, the medium activities count for 20 points and the high count for 40 points, ensuring that these providers only need to attest to two medium-weighted activities or one high-weighted activity to reach 40 points.

What local resources are available to help small and rural practices succeed in MIPS?
CMS allotted approximately $20 million to 11 community-based organizations (CBOs) in February 2017 to help small practices comply with MIPS. These CBOs will help clinicians in small and rural practices select and report on appropriate measures and activities to satisfy the requirements of each performance category under MIPS, engage in continuous quality improvement, and optimize their health information technology. They will also help clinicians evaluate their options for joining an A-APM.

The CBOs use various mechanisms, including in-person consults, online meetings, and telephone/e-mail correspondence, to help surgeons in small and rural practices comply with the MIPS reporting requirements. These CBOs help surgeons reach their Pick Your Pace goals by identifying measures and activities that are appropriate for their specialty and practice. The CBOs help determine the best data submission mechanism, walk practices through the entire data submission process, and work with practices to improve performance scores.

How do clinicians locate their respective CBO?
The 11 participating CBOs and their geographic coverage are detailed in the map (Figure 1, page 53). Contact information for the 11 participating CBOs can be found in the sidebar on this page. General information or help to get connected is also available by sending an e-mail to qppsurs@impaqint.com.

Where else can small and rural practices go for help?
In addition to the local resources, CMS recently launched a web page (https://qpp.cms.gov/about/small-underserved-rural-practices) to highlight support and available options for small, underserved, and rural practices, including a version of the map on page 53. Surgeons also can visit the ACS QPP web page (facs.org/qpp) and the CMS QPP website (https://qpp.cms.gov/) for more information.

If you have questions regarding the QPP, contact CMS at QPP@cms.hhs.gov, or the ACS Division of Advocacy and Health Policy at QualityDC@facs.org.

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<td>• Toll-free at 1-866-333-4702</td>
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<td>• <a href="mailto:qpp-surs@qualityinsights.org">qpp-surs@qualityinsights.org</a></td>
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<td>• MT, WY, AK: <a href="mailto:QualityPaymentHelp@mpqhf.org">QualityPaymentHelp@mpqhf.org</a></td>
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This year has been unique in American politics, given the disruptions in the Trump Administration and the partisan nature of the 115th Congress. Likewise, the American College of Surgeons (ACS) advocacy efforts have been a bit out of the ordinary. While the attention of the media and the American public have been focused largely on the efforts by Republican lawmakers to dismantle the Affordable Care Act (ACA), other important legislative initiatives and regulatory changes have been moving under the radar of public scrutiny. Two of these issues are of interest to rural surgeons and showcase the efforts of the ACS Division of Advocacy and Health Policy (DAHP) in this unusual political environment.

Ensuring Access to General Surgery Act

One bill of importance to surgeons is the Ensuring Access to General Surgery Act of 2017 (H. R. 2906/S. 1351) sponsored by Reps. Larry Bucshon, MD, FACS (R-IN), and Ami Bera, MD (D-CA), and Sens. Charles Grassley (R-IA), and Brian Schatz (D-HI). This legislation has bipartisan support in Congress and addresses an issue that has been a high priority of the College for several years.

The College has had a longstanding interest in workforce issues. Since 2008, the Health Policy Research Institute (HPRI), a collaborative effort between the College and the Cecil Sheps Center at the University of North Carolina at Chapel Hill, has gathered data related to the surgical workforce. In 2011 and 2012, the HPRI produced a series of maps that illustrated the concentration of surgeons (the number of surgeons per 100,000 population) in metropolitan areas on the East and West Coasts. A total of 841 counties, largely in the rural Midwest, had no surgeons, according to this data.

The College called for the ACA to include language that provided a 10 percent Medicare incentive payment to general surgeons when they perform procedures in Health Professional Shortage Areas (HPSAs) from 2011 to 2016. However, because this law applied the incentive payment to HPSAs designated for primary care, it had a negligible effect on the general surgery workforce.

A shortage of general surgeons is a critical component of the workforce crisis in health care. Accordingly, the ACS is urging policymakers to recognize—through the designation of a formal surgical shortage area—that surgeons are uniquely trained and qualified to provide certain necessary, lifesaving procedures and are, therefore, an essential component of a community-based health care system.

The ACS supports the Ensuring Access to General Surgery Act, which would direct the Secretary of the U.S. Department of Health and Human Services (HHS), through the Health Resources Services Administration (HRSA), to conduct a study on general surgery workforce shortage areas. Additionally, it would grant the HHS Secretary the authority to provide a general surgery shortage area designation.

Up to this point, HRSA has not designated a shortage area solely based on a shortage of surgical services. The ACS asserts that research must be conducted and evaluated in order to determine what constitutes a surgical shortage area and where these areas exist. Determining where patients lack access to surgical services will provide the HRSA with a tool for increasing access to the full spectrum of high-quality health care services. Incentivizing general

ACS advocacy efforts in 2017 that will affect rural surgery

by Carrie Fiarman Zlatos; Lauren Foe, MPH; and Mark Savarise, MD, MBA, FACS
surgeons to locate or remain in communities with workforce shortages could become critical to guaranteeing that all Medicare beneficiaries, regardless of geographic location, have access to quality surgical care.

Determining what defines a surgical shortage area is an important legislative first step in achieving this goal. In June, the Ensuring Access to General Surgery Act was referred to the Energy and Commerce Committee in the House and the Health, Education, Labor, and Pensions Committee in the Senate for consideration.

Critical access hospital 96-hour rule
An old nemesis of rural surgeons, the critical access hospital (CAH) 96-hour rule, has become one of many issues to receive scrutiny from the Trump Administration in its efforts to promote regulatory relief for businesses.

The 96-hour rule is a result of 20-year-old legislation. Section 1814(a)(8) of the Social Security Act required the Centers for Medicare & Medicaid Services (CMS) to enact a provision under which physicians must certify that patients may be expected to be discharged or transferred to another hospital within 96 hours after admission to a CAH. For inpatient services rendered in CAHs to be payable under Medicare Part A, CMS requires that all physician certification requirements—including the 96-hour certification—be completed and documented in the medical record.

The rule became an issue for surgeons in 2013, when CMS instituted its Two-Midnight Rule for inpatient hospitalization, and the agency noted that the 96-hour rule had not been enforced. The 96-hour certification requirement has imposed significant burdens on the surgical community, particularly for those surgeons who provide essential care to rural Medicare beneficiaries. The ACS remains concerned that strict compliance with the 96-hour certification requirement may violate the Emergency Medical Treatment and Labor Act (EMTALA), as well as a CAH’s Medicare Conditions of Participation. Unfortunately, several attempts at legislative repeal of the rule have fallen short in recent years.

In 2017, however, the measure received scrutiny at the regulatory level under HHS Secretary Tom Price, MD, who has sought to eliminate burdensome regulations. CMS, like all regulatory agencies, is bound to enforce all laws passed by Congress. However, a great deal of rulemaking occurs after a law is passed under the authority of the executive branch. In the case of the 96-hour rule, for example, the agency determined how the rule would be enforced, how often hospitals would be scrutinized, and what methods would be used to penalize violators. The Secretary has broad authority to interpret and enforce such regulations.

To minimize the burden of physician certification requirements on CAHs, CMS included in its fiscal year 2018 Medicare Inpatient Prospective Payment System final rule a policy that makes the 96-hour rule a low priority for medical record reviews occurring on or after October 1, 2017. Under this proposal, CMS will not require quality improvement organizations, Medicare administrative contractors, supplemental medical review
contractors, and recovery audit contractors to conduct medical record reviews of the 96-hour certification requirement absent any evidence of potential fraud, waste, or abuse.

The ACS supports CMS’ decision to make the 96-hour certification requirement a low priority for medical record reviews. This policy indicates that CMS is aware of the problems inherent in the rule, and the ACS continues to urge CMS to remedy these problems in future rulemaking. More specifically, the ACS maintains that future rules should go beyond instructing audit entities to forgo reviews of medical records for this requirement unless there are specific concerns related to program integrity.

**ACS actions**

During the August congressional recess, the ACS DAHP focused on arranging in-district meetings with members of Congress and their staffs to increase cosponsorship of the Ensuring Access to General Surgery Act. To help leverage these efforts, surgeons need to be engaged and contact their elected officials. As part of its grassroots advocacy strategy, the DAHP continues to urge College members to take action, through peer-to-peer outreach and via SurgeonsVoice.org and other ACS communication platforms, including NewsScope and Health Policy and Advocacy Council weekly e-mail updates.

At press time, more than 140 messages have been circulated to more than 85 lawmakers urging timely consideration of this important legislation. Additionally, ACS staff will be identifying and reaching out to surgeon-advocates who serve on key College committees or councils to assist in elevating this policy priority and encourage additional cosponsors.

With respect to the 96-hour rule, the College has worked to influence the rulemaking process through its Regulatory Affairs staff. In addition to the 96-hour rule, the DAHP had identified 12 other issues related to regulatory relief in a letter sent to Secretary Price July 18, 2017. These include areas of importance to many surgeons, such as the requirement to report evaluation and management services in the global period in 17 states, the Two-Midnight Rule for inpatient hospitalization, and the three-day inpatient stay requirement for skilled nursing admission. The full text of the letter is available at facs.org/advocacy/federal/2017letter.

The ACS supports policies and regulations that reduce the administrative burdens placed on providers and streamline clinical workflow. The College is working to reduce the excessive and unnecessary regulatory burdens placed on physicians and their practices and continues to advocate for regulatory relief for rural surgeons. For more information about ACS regulatory relief efforts, contact regulatory@facs.org.
The surgical cap: Symbol, science, argument, and evidence

by Kevin J. Gibbons, MD, FACS, FAANS; Kenneth V. Snyder, MD, PhD; Steven D. Schwatzberg, MD, FACS; and Elad I. Levy, MD, MBA, FACS, FAHA

From Residency to Retirement

The public argument over the recent ban on the traditional surgical skullcap has divided the surgical community. The Association of periOperative Registered Nurses (AORN) had claimed that the evidence warrants banning the cap in the operating room (OR) in an effort to reduce surgical site infections (SSIs); however, this view disregards personal preference in the name of patient safety.1 The American College of Surgeons (ACS) has defended the cap, noting, among other points, that it is a symbol of the surgical profession and a matter of legitimate personal preference.2 This issue has captured the attention of the mainstream media, prompted numerous blog posts on the topic, and has caused real disruption at many health care institutions around the country, including our medical center, Buffalo General Medical Center, NY.3-5

Background

From 2012 to 2014, AORN advocated banning the surgical cap and promoted the use of bouffant-style caps or hoods. Articles published in the AORN Journal by leaders of the organization described the need to eliminate access to surgical caps in the name of patient safety.6-8 The most recent guidelines for surgical attire do not specifically mention the surgical cap but do describe head attire that covers all hair and the wearer’s ears, which, essentially, prohibits the use of the cap. The initial AORN guidelines did mention the cap, but now the organization says it has not taken an official position on the cap.8

Some institutional reviewers have taken a hard-line position on the use of surgical caps in the OR, where the mere presence of this head covering puts the hospital at risk for immediate repercussions, such as the loss of Centers for Medicare & Medicaid Services certification. For institutions such as our medical school, the Jacobs School of Medicine and Biomedical Sciences, State University of New York at Buffalo, and our medical center with 70 residency and fellowship programs and more than 700 residents, the loss of CMS certification is an existential threat. Therefore, the surgical cap was immediately banished at our hospital system. Notably, this action presented an opportunity to review the SSI rates in clean Class I procedures before and after the ban.

In a series of nearly 16,000 clean Class I surgical procedures performed between January 2014 and March 2016 at our medical center, the elimination of the skullcap did not lower SSI rates.9 In fact, after the skullcaps were banned, a small non-statistically significant increase in infections was noted, supporting the fact that a larger study is not needed.
In today’s health care system, which should be reliant on evidence-based medicine, the ban on the surgical cap was a drastic top-down mandate, enforced as a standard, lacking any scientific support. There is no evidence linking skullcaps to SSIs.

**Evidence**

In today’s health care system, which should be reliant on evidence-based medicine, the ban on the surgical cap was a top-down mandate, enforced as a standard, lacking any scientific support. There is no evidence linking skullcaps to SSIs. Case reports of bacterial carriers and studies of cultures of various body parts have been cited as a basis for banning the cap; however, these reports and studies provide weak evidence in comparison with our large institutional series that directly measured cap use and SSIs. The existing guidelines cite old standards issued by the U.S. Centers for Disease Control and Prevention for banning the surgical cap, which, in fact, make no mention of surgical caps.

Why does it matter?

Surgeons who work for many hours wearing head-mounted devices need to have a level of comfort and confidence that these tools will stay in proper, focused position. Those of us who wear skullcaps have personal performance preferences that should not be summarily dismissed. Furthermore, when head-mounted devices are removed or replaced during surgery—as commonly occurs at some stage of a procedure when using an operating microscope—it is important that the surgeon’s head covering remain in place. Those of us who have been required to make the switch to bouffant caps have had them inadvertently removed with our glasses or loupes, leaving us standing hatless next to a sterile surgical field.

The other reason the surgical cap debate is important has to do with how we need to work together to care for our patients. The public discourse, the blog posts, and the discussions in surgical suites around the country regarding this topic and other issues of surgical attire have at times been polarizing. The discourse surrounding surgical attire has at times been polarizing. There are subtle and not-so-subtle hints of a battle of the sexes. However, at our institution, caps were popular among both women and men. For many years, the surgical skullcap may have been a symbol of the surgical profession, favored more by surgeons than nurses or scrub technicians. And it may have been favored more by men than women. Those divisions and assumptions about gender, surgeon versus nurse, and male versus female should no longer exist in our ORs.

In response to a letter from AORN leadership regarding our study, we described the issue as follows:

The end result of this policy and its implementation into practice are emblematic of the core problem of the regulatory state: a top-down exercise of power, however well intended, with significant unforeseen consequences. In our case, our hospital system, which is the largest nongovernmental employer in our region, was faced with immediate jeopardy over surgical head coverings. The time and energy expended by senior leadership, including administration, nursing, and physician leadership, down to all levels of the organization, was immense—and, in our view, wasted. And this occurred in an institution with surgical site infection rates already well below the national average.

**Conclusion**

SSIs pose serious complications for our patients. All members of the surgical team need to work to reduce the risk of infection. AORN’s stance is that there...
FROM RESIDENCY TO RETIREMENT

We emphasize that there is, in fact, harm in having an uncomfortable surgeon with a light and loupes out of proper position and with a bouffant hat that will not stay in place.

is no harm in mandating complete hair coverage and that alternatives to skullcaps could result in fewer SSIs. We emphasize that there is, in fact, harm in having an uncomfortable surgeon with a light and loupes out of proper position and with a bouffant hat that will not stay in place. Our study shows no benefit in eliminating the surgical cap to reduce SSIs. Evidence-based guidelines are useful, but they must truly be evidence-based if they are to be elevated to the level of a standard. The evidence does not support banning the use of the surgical skullcap.

The ACS and the AORN are the two primary organizations in the U.S. dedicated to improving the care of the surgical patient. There needs to be greater cooperation and coordination in developing and delivering evidence-based care to our patients. ♦

REFERENCES

Preventing colorectal adenomas in cancer survivors: An update on the PACES/S0820 trial

by Jason Zell, DO, MPH; Robert Krouse, MD, FACS; Judy C. Boughey, MD, FACS; and Y. Nancy You, MD, FACS

Preventing Adenomas of the Colon with Eflornithine and Sulindac (PACES)/S0820 is an important phase III National Clinical Trials Network (NCTN)-based colorectal cancer prevention clinical trial, and to ensure the success of PACES/S0820, major changes were instituted in April 2017. These changes affected the study design, the translational aims, as well as the leadership across the NCTN.

PACES launched in March 2013 as a tertiary prevention clinical trial for colorectal cancer survivors (from stage 0-III disease). Its goal was to test whether the rate of high-risk adenomas or second primary colorectal cancers can be reduced by agents called polyamine inhibitors, such as eflornithine and sulindac. Patients in the trial take these agents for three years (postoperative years one to four). Polyamines are molecules that are essential for normal physiology but, when in excess, can act as carcinogens within epithelial tissues (particularly within the colon, breast, and prostate). PACES investigators are testing two polyamine inhibitors for their anti-carcinogenic effects: first, eflornithine (difluoromethylornithine or DFMO) is a suicide inhibitor of ornithine decarboxylase, the rate-limiting step of polyamine synthesis; and second, sulindac (a cyclooxygenase non-specific nonsteroidal anti-inflammatory drug) is known to promote polyamine export from epithelial tissues.

The PACES launch came on the heels of another phase III clinical trial to prevent colorectal adenomas, involving three years of treatment with a combination of eflornithine and sulindac versus combination placebos. When compared with placebo, these agents led to a 70 percent decrease in total adenomas and, importantly, a more than 92 percent decrease in high-risk adenomas (large adenomas >1cm, adenomas with high-grade dysplasia and multiple adenomas) and second primary colorectal cancers. The regimen was well-tolerated, with no significant side effects when compared with the placebo group. Due to concerns about eflornithine-associated hearing loss observed in older trials that used up to 40-fold higher doses of eflornithine, detailed audiometry studies were done on patients in the adenoma study. No clinical hearing loss was observed, and the observed 8 percent non-significant reduction in audiogram thresholds at end-of-study essentially resolved three to six months after the discontinuation of eflornithine.

Given the favorable efficacy versus safety profile, PACES was launched to investigate these polyamine-inhibitor agents in colorectal cancer survivors who remain at risk for high-risk adenomas and secondary colorectal cancers in the surveillance period.

Changes to PACES to enhance accrual
Accrual to PACES was significantly slower than anticipated. Therefore, to enhance accrual and ensure feasibility of this cancer prevention trial, in...
Accrual to PACES was significantly slower than anticipated. Therefore, to enhance accrual and ensure feasibility of this cancer prevention trial, in 2016 investigators worked closely with the NCTN leadership, the National Cancer Institute Division of Cancer Prevention, and the NCTN Accrual to Clinical Trials (NCTN ACT) committee to propose major changes to the Data Safety Monitoring Committee. A revised protocol was approved and formally activated April 15, 2017. The key changes are as follows:

The trial was contracted from a four-arm 2 × 2 factorial design requiring 1,488 patients, to a two-arm phase III design requiring 480 patients. This new design directly compares combination agents (eflornithine/sulindac) with combination placebos. The goal is to reduce the three-year incidence of high-risk adenomas or second primary colorectal cancers by 50 percent. While the single agent/placebo arms were discontinued, all patients previously assigned to them are continuing their therapy. Available data from these patients will be analyzed for efficacy and safety.

PACES has gained the full support and leadership of all the NCTN groups. Y. Nancy You, MD, FACS, a co-author of this column, joins the PACES/S0820 team as lead investigator representing the Alliance for Clinical Trials in Oncology. Other investigators new to the team include Jennifer Dorth, MD, radiation oncologist, Cleveland Clinic, OH, representing the NRG cooperative group, and Raymond Bergan, MD, medical oncologist, Oregon Health Sciences University, Portland, representing the ECOG-ACRIN Research Group. The result of this enhanced representation across the NCTN has resulted in a renewed commitment to PACES/S0820 and improved accrual.

New translational aims were developed with Jason Zell, DO, MPH, principal investigator and a co-author of this article, and Weian Zhao, PhD, associate professor, department of biomedical engineering, University of California, Irvine, based on their prior biomarker analyses in colorectal cancer patients. Dr. Zhao’s laboratory recently developed a platform technology called Integrated Comprehensive Droplet Digital Detection (IC 3D) that can selectively detect biomarkers (for example, cells, proteins, and nucleic acids) from milliliters (mLs) of blood samples at single-cell (or single-molecule) sensitivity. This system integrates real-time fluorescent sensors, droplet microfluidics, and a high throughput 3D particle counting system. Here, study investigators propose to evaluate and use the IC 3D technology as a complementary tool to predict CRC recurrence in stage 0–III CRC patients enrolled in S0820/PACES.

The IC 3D test will detect a panel of cancer mutations with great sensitivity, including a gene panel that collectively identifies driver mutations in one or more key genes among 90 percent of CRC patients. Investigators will analyze the total DNA isolated from peripheral blood mononucleated cells (PBMCs) for circulating tumor cells and plasma-derived circulating tumor DNA to further increase the clinical sensitivity.
The research team is excited about the changes made to PACES and the opportunity to complete accrual in a more timely fashion. A dynamic group of experts across the NCTN represent the trial on a regular basis, and novel translational endpoints have been developed to provide insight into biomarkers for carcinogenesis and cancer progression.

The trial is open for accrual at 550 U.S. sites. At press time, 157 of 480 patients were registered (33 percent of the total accrual target), and accrual over the previous six months averaged six patients per month. The new target is eight patients registered per month. At this rate of accrual, the trial will close in slightly more than three years.

The research team is excited about the changes made to PACES and the opportunity to complete accrual in a more timely fashion. A dynamic group of experts across the NCTN represent the trial on a regular basis, and novel translational endpoints have been developed to provide insight into biomarkers for carcinogenesis and cancer progression. For more information about the trial, search for S0820 on either www.swog.org or https://clinicaltrials.gov/. These sites will provide location and contact information of investigators participating in the trial. On the SWOG abstract page for S0820 (http://swog.org/Visitors/ViewProtocolDetails.asp?ProtocolID=2207), scroll down to the bottom and click on the “Where is this study open?” button. On the clinicaltrials.gov page (https://clinicaltrials.gov/ct2/show/NCT01349881), under “Contacts and Locations,” expand the “show study locations” list.

REFERENCES

Local and global opportunities for member engagement

by Luke Moreau; Brian Frankel; Girma Tefera, MD, FACS; and Brittanie Wilczak, MPH

The American College of Surgeons (ACS) Division of Member Services offers two key platforms that allow members to engage with their colleagues and the organization at the local and global levels. This month’s column focuses on the value of joining your local ACS chapter and of participating in Operation Giving Back (OGB), which can provide you with opportunities to share your skills and experience with patients in need.

The value of joining your local chapter
The ACS has 111 chapters around the world, presenting many opportunities for ACS members to actively engage at the local level. Of these 111 chapters, 67 are domestic chapters, meaning they serve surgeons in the U.S. and Canada; the remaining 44 chapters are in as many countries. ACS chapters share and support the mission of the College, which is “dedicated to improving the care of the surgical patient and to safeguarding standards of care in an optimal and ethical practice environment.”

According to Patricia L. Turner, MD, FACS, Director, ACS Division of Member Services, “The first chapters of the American College of Surgeons were chartered in the early 1950s, and they continue to be an integral part of the College’s fabric. Local chapters are dedicated to providing ACS members with outstanding educational programming, social events, and networking opportunities, along with professional development through chapter meetings, advocacy efforts, community outreach, and engagement with the next generation of surgeons.”

ACS chapters offer a forum for all members—from every surgical specialty—to communicate and promote the objectives of the College and to support colleagues in practice. Following are some of the benefits that chapters provide to their members:

• Networking opportunities that enable members to build strong professional relationships with surgical peers
• Opportunities to participate in advocacy activities that affect surgical practices and patients at the state and federal levels
• Convenient educational meetings and local opportunities to earn Continuing Medical Education credits
• Opportunities to serve on the chapter council, which may translate to future leadership roles within the College
• Occasions to give back to the profession through volunteerism, both domestically and internationally
• A meeting ground for all surgical specialties to discuss common problems, shared surgical interests, and ways to complement one another’s efforts to improve the quality of care
• A forum to engage and mentor young surgeons, trainees, and medical students

Contact your local chapter to learn more about getting involved. Visit the Find a Chapter web page at facs.org/member-services/chapters/find for information about how to join your ACS chapter, or contact Luke Moreau at lmoreau@facs.org for details about domestic chapters and Brian Frankel at bfrankel@facs.org for more information about international chapters.

Engage with OGB
OGB is the volunteer arm of the ACS. The mission of OGB is to leverage the passion, skills, and...
humanitarian ethos of the surgical community to effectively meet the needs of medically underserved populations here in our backyards and around the globe. The program’s objective is to serve as a comprehensive resource for those ACS members who want to volunteer their time and talent.

Connecting volunteers, partners, and opportunities
According to a survey conducted by the ACS Division of Member Services in 2015, approximately 50 percent of ACS members are interested in volunteering their services. Volunteerism opportunities are regularly posted and updated at facs.org/ogb/opportunities. Since the launch of the new OGB website, we have continued to connect volunteers to opportunities. If you are a Fellow of the College who is interested in volunteerism or an organization who wants to partner with OGB, log into the Volunteer and Partner Portal at facs.org/ogb/portal to register (see Figure 1, this page).

Engage in disaster relief efforts
From the Volunteer and Partner Portal, you can sign up for a comprehensive disaster registry at operationgivingback.facs.org/volunteer/disaster-registry. In the event of a disaster, we anticipate reaching out for help to members who are listed in this registry. The database is modeled on the American Association for the Surgery of Trauma registry (see Figure 2, this page).

Explore resources
The resource center, at facs.org/ogb/resources, provides access to tools to help volunteers prepare prior to deployment with information on travel, visa, culture, and more. Explore our tools to help you better address your needs throughout your volunteerism endeavors (see Figure 3, page 67).

ACS Volunteer Community
The volunteer community is an online service created to provide an opportunity to network, ask questions, and provide advice. The volunteer community has more than 221 members.

OGB future directions
With the formation of the Committee on Global Engagement through OGB and its four subcommittees focused on Advocacy, Domestic Volunteerism, International Volunteerism, and Education, OGB has propelled existing
CLINICAL CONGRESS 2017 ACTIVITIES

OGB will be sponsoring or cosponsoring sessions and activities at this year’s Clinical Congress. Surgeons at all stages of their career and in all specialties are encouraged to participate in these sessions, which are as follows:

SATURDAY, OCTOBER 21
8:30 am–4:00 pm
DC04 Global Health Competencies for Surgeons: Cognitive and Systems Skills

MONDAY, OCTOBER 23
9:45–11:15 am
PS103 Humanitarian Surgical Outreach at Home and Abroad: Reports of the 2017 Volunteerism and Humanitarian Recipients

11:30 am–1:00 pm
SF06 Global Surgery and Humanitarian Outreach I

1:15–2:15 pm
ME114 Operation Giving Back

3:00–5:00 pm
Global Surgery Leaders Meeting

6:00–7:30 pm
OGB Reception

TUESDAY, OCTOBER 24
11:30 am–1:00 pm
Resident Interest Group Meeting

1:00–3:00 pm
ST16 Volunteer While You Are Here—Feeding San Diego (registration required)

2:30–5:45 pm
PS228 Ethics Colloquium: Ethical Challenges of Global Surgery

2:30–4:00 pm
PS235 Current State of Health Care Disparities in Surgery and Solutions for the Future

WEDNESDAY, OCTOBER 25
8:00–9:00 am
NL09 Distinguished Lecture of the International Society of Surgery

8:00–9:30 am
PS304 Global Engagement

9:45–11:15 am
SF44 Global Surgery/ Humanitarian Outreach II

2:30–4:00 pm
SF54 Global Surgery/ Humanitarian Outreach III

activities and redefined future directions to assist those surgeons who want to volunteer. Programmatic highlights include the following:

• The Case for Global Surgery Consortia: Provide a platform for global surgery programs to join hands in delivering surgical care and workforce development. OGB encourages academic surgical programs to participate in this effort.

• Preparing ACS Fellows for Global Engagement: Most fellows and residents report the need for global engagement training. At the 2016 Clinical Congress, OGB offered an inaugural didactic course on Global Health Competencies for surgeons. This course will be provided at this year’s Clinical Congress in conjunction with a surgical skills course for providing care in low-resource settings.

Domestic volunteerism
Recognizing the need for enhanced, sustainable, and coordinated domestic volunteerism efforts, OGB continues to work toward developing a comprehensive database of free surgical access clinics. If you or your colleagues are engaged in
selected for further review. Additionally, because of the shortage of surgeons within the COSECSA region, OGB, with generous support from the ACS and other partners, provides scholarships to support women in surgical residency in addition to leadership training at the ACS Surgeons as Leaders course. Opportunities to participate in the Surgeons as Leaders Course were provided and will continue to be offered for the next several years to COSECSA leadership. Looking forward, OGB hopes to define the logistics needed for an ACS hub, which will be used to further workforce development.

OGB also participates in meetings throughout the year that further foster partnership opportunities. This year, OGB participated in conferences convened by the WACS annual conference, Pan-African Association of Surgeons, and International College of Surgeons, as well as a joint session with COSECSA at the annual meeting of the World Health Organization annual meeting and Consortium of Universities for Global Health. The College is committed to providing opportunities for members to engage at the local level, to advance their professional careers, and to encourage its members to improve the care of surgical patients around the world. For more information about the ACS chapter in your area or country, contact acschapters@facs.org. For details about Operation Giving Back, contact ogb@facs.org.

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**Partnerships**

Through targeted partnerships across the globe, OGB is expanding our reach to enhance workforce development and build sustainable surgical capacity.

Within the College of Surgeons of East Central and Southern Africa (COSECSA) and West African College of Surgeons (WACS) regions, OGB is collaborating with leadership to create sustainable solutions to the surgical workforce deficit. This year, COSECSA leadership worked with the OGB leadership to identify potential sites for collaboration within the region. After conducting a needs assessment and capacity survey, three sites have been selected for further review.
Prof. Mehmet Ali Haberal receives Distinguished Philanthropist Award

The American College of Surgeons (ACS) Foundation Board of Directors will present the 2017 Distinguished Philanthropist Award to Prof. Mehmet Ali Haberal, MD, FACS(Hon), FICS(Hon), FASA(Hon), at its annual Donor Recognition Luncheon on Monday, October 23, in conjunction with the ACS Clinical Congress in San Diego, CA.

As an ACS Foundation donor since 1990, Professor Haberal’s generous philanthropy has elevated him to the Fellows Leadership Society Founders Circle, one of the top giving tiers within the ACS Foundation’s donor recognition program.

Mary H. McGrath, MD, MPH, FACS, ACS Foundation Chair, said, “On behalf of the ACS Foundation Board of Directors, I am pleased to honor Professor Haberal with the 2017 Distinguished Philanthropist Award for his remarkable commitment to the mission of the College through philanthropic contributions and for his work as an innovative surgeon and educator. He joins a distinctive group of benefactors who have led through their examples of generosity for the good of the surgical patient and profession.”

Internationally recognized surgical pioneer

Heralded as a pioneer in the fields of general surgery, transplantation, and burn care in Turkey, Professor Haberal is founder and president of Baskent University, Ankara, Turkey. He received his medical degree in 1967 from Ankara University Medical School and completed his general surgery residency at Hacettepe University, Ankara.

Traveling to the U.S. to further his surgical training, Professor Haberal completed his fellowship in burns at the Shriners Burns Institute (now the Shriners Hospital for Children) and the John Sealy Hospital, both located in Galveston, TX, in 1973, followed by a fellowship with the legendary organ transplant pioneer Thomas E. Starzl, MD, PhD, FACS, at the University of Colorado Hospital Transplant Center, Denver, in 1975. On his return to Turkey in July 1975, Professor Haberal established the first transplantation and burn treatment units at Hacettepe University and began performing the first of many procedures and surgeries in his home country. Among his accomplishments are the following:

As an ACS Foundation donor since 1990, Professor Haberal’s generous philanthropy has elevated him to the Fellows Leadership Society Founders Circle, one of the top giving tiers within the ACS Foundation’s donor recognition program.
• Performed the first living-related kidney transplantation in Turkey, the first cadaver-kidney transplantation in Turkey with a kidney donated by Eurotransplant, and the first domestic cadaver-kidney transplantation in Turkey

• Performed the first successful cadaver-liver transplantation

• Led the first pediatric segmental living-related liver transplantation in Turkey, the region, and in Europe, immediately succeeded by the first adult segmental living-related liver transplantation in the world

• Founded Baskent University, which provides a full range of educational opportunities to the youth of Turkey and established 10 hospitals, nine outpatient clinics, 15 dialysis centers, two colleges (one in Ankara and one in Adana), and seven foundations throughout the country and is part of the national medical network

• Established and chairs the division of transplantation, department of general surgery, Baskent University Faculty of Medicine, approved by the Higher Education Commission; it is the first division of its kind at a University Hospital in Turkey

Dedication to the profession
Professor Haberal is the founder and past-president of the Middle East Society for Organ Transplantation (MESOT), the Turkish Transplantation Society, the Turkish Burn and Fire Disaster Society, and the Middle East Burn and Fire Disaster Society. He served as president of the International Society for Burn Injuries (2006–2008), and as councilor representing the Middle East and Africa for The Transplantation Society.

In 2012, Professor Haberal founded the World Academy of Medical, Biomedical and Ethical Sciences, the first meeting of which was held in Ankara 2013; he is the president of that organization. In 2013, he also founded the International Haberal Transplantation and Education Foundation, a not-for-profit organization dedicated to supporting transplant activities and ethical practices in deceased and living organ donation around the world. In December 2014, he established the Turkic World Transplantation Society. He is an ACS Governor and is president-elect of The Transplantation Society. Most recently, he received the Royal Society of Medicine’s inaugural Distinguished Fellowship.

Professor Haberal is a member of 35 national and international medical societies and has organized more than 30 national and international scientific meetings. He has authored nearly 2,000 Turkish and English scientific publications, including six books. Professor Haberal serves on the editorial board of 10 medical journals and is founder and editor-in-chief of Experimental and Clinical Transplantation, the official journal of MESOT.

Since 1989, the ACS Foundation has acknowledged individuals for their exemplary investment in the mission of the College and in philanthropy with the Distinguished Philanthropist Award. For more information, visit the ACS Foundation web page at facs.org/acs-foundation or visit the ACS Foundation Hospitality Center, Hall D, San Diego Convention Center during Clinical Congress.
Health care teams in operating rooms (ORs) handle high-risk, complex tasks, which require absolute concentration and effective, clear communication between team members. Given the complexities of most ORs, with medical instrumentation and the number of team members present in the room, noise is inescapable. Noise can serve as a distraction, potentially affecting patient safety. The Joint Commission recently tackled this topic in its August issue of *Quick Safety*, “Minimizing noise and distractions in the OR and procedural units.”

High noise levels can lead to the following:

- Ineffective communication
- Diminished signal and speech intelligibility
- Poor performance of complex tasks
- Poor cognitive function and concentration
- Stress, fatigue, and anxiety

The most commonly cited distractions in the OR are conversations unrelated to the procedure or case, telephone calls, pagers, and music.

According to the Environmental Protection Agency, the recommended level for continuous background noise in hospitals is 45 decibels (dB), but a study measuring noise levels during OR trauma procedures found an average noise level of approximately 85dB—ranging from 40dB to 130dB.

Orthopaedic surgery and neurosurgery procedures were listed among those with higher sustained continuous background noise levels with intermittent peak levels exceeding 100dB more than 40 percent of the time.

**Recommended preventive actions**

The *Quick Safety* issue recommends actions that can be taken to address noise levels in the OR, such as the following:

- Create a “no-interruption zone”—also known as a “sterile cockpit”—during critical phases of a procedure, prohibiting nonessential conversation and activities.
- Measure noise levels within the OR to provide evidence for noise-reduction strategies, empirical data reflecting efficacy of such strategies, as well as real-time information to the OR team.
According to the Environmental Protection Agency, the recommended level for continuous background noise in hospitals is 45dB, but a study measuring noise levels during OR trauma procedures found an average noise level of approximately 85dB—ranging from 40dB to 130dB.

as to when noise levels exceed recommended levels.

• Educate staff on sources of noise, their impact on patient and staff safety, and noise reduction strategies.

• Consider equipment alternatives that produce less noise.

• Evaluate the physical environment and implement means for attenuating noise. For example, minimize dropping instruments into instrument trays.

• Add simulation and training to enhance focused attention skills in the presence of continuous and intermittent noise and distractions.

• Consider simulation training to model strategies for reducing noise (such as equipment use, communication techniques, and speaking up to reduce noise).

The newsletter also recommends actions that can be taken to support decreased noise in the work environment, such as the following:7

• Foster a safety culture in which staff feel empowered and comfortable speaking up and asking for silence.

• Establish a code of conduct to minimize noise and distraction (for example, policies regarding entering/leaving room, unnecessary conversation, use of phones and pagers, use of music, and so on).

• Consult staff to understand resource needs for cellphones, pagers, and tablets, and establish policies around them. Minimize tones that are similar to monitors and alarms within the OR.

• Practice effective team communication strategies to ensure the receiver has heard and understood what has been said.

The Quick Safety issue also provides details on studies pertaining to noise levels and consequences during the anesthesia period, as well as hernia repairs. ♦

Disclaimer
The thoughts and opinions expressed in this column are solely those of Dr. Pellegrini and do not necessarily reflect those of The Joint Commission or the American College of Surgeons.

REFERENCES
In the past several years, we have witnessed advances and innovations in the prevention and treatment of breast cancer, which have resulted in decreased mortality from the disease, as well as dramatic improvements in the quality of life of breast cancer survivors. Nonetheless, a persistent socioeconomic gradient is observed in the U.S. Consequently, certain groups of patients experience far less benefit from the improvements in prevention, diagnosis, and treatment of breast cancer. Patients with lower household incomes and uninsured patients have worse clinical outcomes in comparison with patients in higher socioeconomic brackets.

Even a cursory analysis of the National Cancer Database (NCDB) Public Benchmark Reports reveals that stage of diagnosis, use of breast conserving surgery, and administration of systemic therapy all vary on the basis of socioeconomic factors. The NCDB Public Benchmark Reports include the 14 most commonly diagnosed solid tumors in the U.S. and provide access to data from six diagnosis years (2003–2014), slightly more than 9 million cases. As of 2014 (the most recent year available for analysis in the NCDB Public Benchmark Reports), only 16.6 percent of patients without insurance presented at the earliest stage of breast cancer (stage 0; DCIS), versus 23.4 percent of patients with private insurance or managed care (p<0.05). Similarly, 11.4 percent of patients without insurance presented with stage IV disease, versus only 3.1 percent of patients with private insurance or managed care (p<0.05). Breast conserving surgery was performed in 52.6 percent of patients with private insurance/managed care, versus only 40.3 percent in patients without insurance (p<0.05). Perhaps of most concern, patients without insurance were less likely to receive systemic therapy for stage III to IV breast cancer in contrast to same-stage patients with private insurance or managed care (33.2 percent versus 15.5 percent, p<0.05).

Comparable trends in many of these inequalities are also observed with respect to household income (<$36,000 versus >$69,000), demonstrating a higher stage of presentation and less guideline concordant adjuvant therapy among patients with lower household incomes. Incidentally, data on many other common types of cancer reported in the NCDB display a similar socioeconomic pattern.

The full etiology of this observed financial disparity in breast cancer care is complex and multifactorial. However, one identified factor for this phenomenon is the barrier to appropriate preventative and therapeutic care faced by individuals with fewer economic resources. Studies have demonstrated that people with limited or no access to health care are less likely to receive appropriate cancer preventative services and standard-of-care therapy. Patients in the lowest income brackets are less likely to be insured, receive early intervention for disease, and complete recommended treatments.1-6 As a result, entire segments of the U.S. population are at higher risk of dying from breast cancer simply based on how much money they make and where they fall on the spectrum of insurance coverage.

The financial burden of cancer care has been recognized as a leading cause of personal bankruptcy.7-8 Furthermore, the cost to the health care system of caring for more advanced breast cancer is considerably higher than the cost of treating early-stage disease. This situation has important implications for a system struggling to control increasing costs, which threaten to reach unsustainable levels. Late-stage presentation of disease also is associated with a greater loss of productivity and premature death, which negatively affects the entire population.9-11

Addressing the care gap
Health care inequity has been evident in the U.S. for decades and reflects deeper issues in
Even a cursory analysis of the National Cancer Database (NCDB) Public Benchmark Reports reveals that stage of diagnosis, use of breast conserving surgery, and administration of systemic therapy all vary on the basis of socioeconomic factors.
Ideally, our nation’s health care system would guarantee that all breast cancer patients could access appropriate care and would receive this care in a timely fashion.

**Conclusion**

Redesigning the health system has been recognized as a priority to improve quality and achieve value in health care. In fact, the value-based approach to health care quality improvement has immediate implications for reducing inequalities in breast cancer care and improving outcomes. Unfortunately, the burden of cancer is often greater for the poor and underinsured patient population. Issues stem from limited access, lack of resources, marginalization, and social indifference.

Ideally, our nation’s health care system would guarantee that all breast cancer patients could access appropriate care and would receive this care in a timely fashion. This change begins with improving awareness of the existing deficiencies in our nation’s health care system and adopting the social will to truly transform care. Just as evidence-based medicine has improved clinical decision making in patient care, evidence-based policy should be used to inform decisions about health care reform in order to create a system that will benefit the entire population. The evidence indicates that eliminating financial barriers and improving access to care will improve the health of individuals with or at risk for breast cancer. Ultimately, with all of us working together, we can make a difference for our patients.

**REFERENCES**

Characterized by an irregular and often rapid heartbeat, atrial fibrillation (Afib) is strongly associated with other cardiovascular diseases, such as coronary artery disease, heart failure, valvular heart disease, hypertension, and diabetes mellitus. While it is unclear why cardiovascular risk factors predispose patients to Afib, atrial inflammation, metabolic stress, catecholamine excess, hemodynamic stress, and neurohormonal cascade activation are reported to promote Afib.* Several of the aforementioned factors are often seen with acute trauma.

Afib is the most frequently encountered cardiac arrhythmia, affecting an estimated 2.7 to 6.1 million people in the U.S. There is a strong age correlation affecting 4 percent of people ages 60 and older and 8 percent of persons older than 80 years old. Approximately one-quarter of individuals ages 40 and older will develop Afib in their lifetime. Afib is more common in men than in women and more common in Caucasians than in other races.

Rate control and anticoagulation remain the key principles of Afib management.

Patients symptomatically limited by Afib may undergo rhythm control. The decision between rhythm control and rate control depend upon the degree of symptoms, likelihood of remaining in sinus rhythm after cardioversion, presence of other comorbidities, and patient suitability as a candidate for ablation. Anticoagulation factors are based upon the 2014 American College of Cardiology/American Heart Association/Heart Rhythm Society guidelines for patients with nonvalvular Afib.* Using an assessment of risk factors determines whether a patient receives aspirin or formal anticoagulation.

Afib’s effect on trauma
To examine the occurrence of injured patients with a diagnosis of atrial fibrillation in the National Trauma Data Bank® (NTDB®) research admission year 2015, medical records were searched using the International Classification of Diseases, Ninth and 10th Revision, Clinical Modification codes. Specifically searched were records that contained diagnosis codes of 427.3/I48 (atrial fibrillation and flutter). A total of 1,234 records were found, of which 1,160 contained a discharge status, including 440 patients discharged

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Afib is associated with a 1.5- to 1.9-fold increase risk of death, in part because of the association with thromboembolic events.* In a trauma setting, patients arriving in Afib on anticoagulants present a unique challenge in treating their injuries, maintaining hemodynamic status, and consideration for reversal of their anticoagulation. While there is nothing irregular about their trauma, the presence of Afib definitely complicates management of these patients.

Throughout the year, we will be highlighting NTDB data through brief monthly reports in the Bulletin. The NTDB Annual Report 2016 is available on the American College of Surgeons website as a PDF file at facs.org/quality-programs/trauma/ntdb. In addition, information is available on the website about how to obtain NTDB data for more detailed study. If you are interested in submitting your trauma center’s data contact Melanie L. Neal Manager, NTDB at mneal@facs.org.

Approximately 1,900 individuals who contribute to hospital quality improvement (QI) programs attended the inaugural American College of Surgeons (ACS) Quality and Safety Conference, July 21–24 at the New York Hilton Midtown, NY. The rapid growth of ACS Quality Programs in recent years prompted the expansion of the College’s Annual National Surgical Quality Improvement Program (ACS NSQIP®) Conference to include a more comprehensive look at not only ACS NSQIP Adult and Pediatric, but also the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP®), the Children’s Surgery Verification (CSV) Quality Improvement Program, and the Surgeon Specific Registry (SSR).

With the theme of Achieving Quality: Present and Future, the conference featured nine interactive preconference workshops, five specialty-specific tracks, 12 general sessions, 37 breakout sessions, and nine specialty-specific and resident abstract sessions (see related sidebar, page 79, for a list of the winning abstracts). According to Clifford Y. Ko, MD, MS, MSHS, FACS, Director of the ACS Division of Research and Optimal Patient Care (DROPC), the conference was designed to provide attendees with insights into innovative processes to approach the evolving health care quality landscape and improve patient safety. “As leaders in the quality and safety arena, we must all continue to challenge ourselves to take the quality of care we provide to the next level,” Dr. Ko said.

ACS Quality Programs
Attendees had the opportunity to learn about new and existing initiatives, products, and services that the ACS offers to assist surgical professionals with quality improvement (QI) efforts.

Quality manual
Each conference attendee received a copy of the new ACS quality manual, Optimal Resources for Surgical Quality and Safety. The manual is intended to serve as a resource for surgical leaders seeking to improve patient care in their institutions, departments, and practices. Topics covered in the manual include the domains and phases of care, the role of the Surgical Quality Officer, peer and case review, the institutional infrastructure for QI, privileging and credentialing, patient-centered culture, data analytics, and other factors that influence the quality of care at health care institutions.

A key point made in Optimal Resources for Surgical Quality and Safety is that surgery is no longer considered an episodic event, with the surgeon acting as “the captain of the ship,” according to ACS Executive Director David B. Hoyt, MD, FACS. It is a multiphase, multidisciplinary
treatment process, each stage of which affects the others and the final outcome. Across all five phases of surgical care—preoperative evaluation, immediate preoperative, intraoperative, postoperative, and postdischarge—the surgeon bears the ultimate responsibility for patient care, Dr. Hoyt said.

The registry of the future
The notion that a surgeon’s actions throughout the delivery of surgical care determine the end result is as old as the ACS. “Dr. [Ernest Amory] Codman had a vision 100 years ago that surgeons should keep track of their results and use that information for a variety of purposes. I think we’re finally getting to a point where we’re accepting that responsibility,” Dr. Hoyt said. Surgeons of the future will need a means of collecting and analyzing their data and benchmarking their performance to meet a range of regulatory demands, he noted.

To help surgeons meet these expectations, the ACS has partnered with QuintilesIMS to create what Dr. Hoyt calls “the registry of the future.” The new registry platform will have a single data warehouse system to store all ACS quality registry data. As a result, users eventually will be able to incorporate relevant data across individual ACS Quality Programs, including ACS NSQIP, into the SSR. The foundation of this platform, the reconstructed SSR, launched earlier this year.

Dr. Hoyt noted that the transition to the new SSR platform has had some rough spots. “What we’ve learned in this transition is that it’s very important to determine how a registry of this type supports the actual workflows,” he said. Dr. Hoyt said that the ACS and Quintiles are working to fix every problem that users have encountered. Amy J. Sachs, Senior Manager, Registry, DROPC, provided details on the project and its status.

ACS NSQIP
QI is reliant on the quality team’s ability to collect data, analyze risk-adjusted outcomes, obtain provider feedback, and engage in QI planning, according to Bruce L. Hall, MD, PhD, MBA, professor of surgery and health care management; fellow, Center for Health Policy, Washington University; and vice-president and chief quality officer, BJC Healthcare, St. Louis, MO. The College’s flagship QI program, ACS NSQIP, provides 698 participating adult hospitals and 101 pediatric hospitals in 11 countries with the data they need to uncover and classify events and develop an action plan. “Participating hospitals know where they stand—as outliers or deciles—and know the benchmarks,” Dr. Hall said.

To get started on the QI journey, a quality officer will need to have the hospital’s Semi-Annual Report (SAR) from ACS NSQIP, access to the ACS NSQIP platform, and patient medical records, Dr. Hall said. Different institutions undertake this process for different purposes—to meet institutional imperatives, analyze worrisome trends over times, identify outliers, and so on. Whatever the reason, Dr. Hall said it is important to have an action plan that describes the purpose, rationale, specific aims, and anticipated outcomes.

DROPC staff provided details on specific elements of ACS NSQIP and how they can be used for QI. Mark E. Cohen, PhD, Senior Statistician/Data Analyst, described the risk-adjustment process and the ACS NSQIP Surgical Risk Calculator; Kristopher Huffman, MS, Statistician, explained how to use the SAR and Site
Summary Reports: **Yaomong Liu**, Statistician, spoke about outcomes and inclusion filters used in ACS NSQIP Adult modeling; and **Lynn Zhou**, PhD, Statistician, gave an overview of the ACS NSQIP Adult Participant Use Data File.

**Jacqueline Saito**, MD, MSCI, FACS, a pediatric surgeon at St. Louis Children’s Hospital, MO, and a Surgeon Champion, spoke about ACS NSQIP Pediatric SARs, noting that ACS NSQIP Pediatric can guide hospital QI by identifying high-risk procedures. When looking at their SARs, pediatric hospitals should “focus not just on outcomes alone, but couple high-quality care with efficient resource utilization,” because children generally have better outcomes than adult or geriatric patients, Dr. Saito said.

Many hospitals have found that participation in an ACS NSQIP collaborative can be helpful in improving quality of care for a specific specialty or across hospitals in a state or region. **Karl Y. Bilimoria, MD, MS**, Director, Illinois Surgical Quality Improvement Collaborative (ISQIC) and **Anthony D. Yang, MD, MS, FACS**, Associate Director, described the components of the ISQIC’s

### ABSTRACT COMPETITION

More than 500 abstracts were submitted for consideration at this year’s meeting, according to Dr. Ko. Winners presented their abstracts and are as follows:

**Resident Abstract Competition winner:**
Katrina Dukleska, MD, department of surgery, Thomas Jefferson University, Philadelphia, PA
Outcomes in Children Undergoing Lung Resection for Congenital Pulmonary Airway Malformations during the First Year of Life

**Resident Abstract Competition winner:**
Christopher Wolff, MD, PGY-4 surgery resident, department of surgery, Cleveland Clinic, Akron General Hospital, OH
Reduction in Colorectal Surgical Site Infections with a Bundled Perioperative Order Set

**SCR Abstract Competition winner:**
Kori Wolcott, BSN, RN, CPHQ, Golisano Children’s Hospital, Rochester, NY
ACS NSQIP as a Springboard: Sustaining the Gains, Moving Forward, and Lowering Cost

**Clinical Abstract Competition winner:**
Elan Witkowski, MD, MS, Massachusetts General Hospital, Boston
A Propensity Adjusted Analysis of Laparoscopic Sleeve Gastrectomy and Roux-en-Y Gastric Bypass from the MBSAQIP Participant Use Data File: A Report from the MBSAQIP Data Subcommittee

**MBSAQIP Abstract:**
Maher El Chaar, MD, bariatric fellowship director, co-medical director, bariatric surgery, St. Luke’s University and Health Network, Fountain Hill, PA
Outcome of Revisional Stapling Bariatric Procedures: First Review Based on MBSAQIP Registry

**ACS NSQIP Adult Abstract**
Lindsey Gade, MD, research year resident, New York Presbyterian/Queens
Sustained Decrease in Surgical Site Infections in Colorectal Surgery: Combining Broad Cultural and Focused Interventions

**ACS NSQIP Pediatric Abstract**
Kirk Richards, MD, MBA, Nemours Alfred I. DuPont Hospital for Children, Wilmington, DE
An EMR-Based Approach with Real-Time Feedback Can Improve SSI Bundle Compliance and Help Reduce Surgical Site Infections
“Dr. [Ernest Amory] Codman had a vision 100 years ago that surgeons should keep track of their results and use that information for a variety of purposes. I think we’re finally getting to a point where we’re accepting that responsibility,” Dr. Hoyt said.

Successful QI program, including the development and implementation of a quality and safety curriculum.

In addition, speakers described the following: how the Northern California ACS NSQIP Collaborative hospitals were able to reduce readmissions, how the Texas Alliance for Surgical Quality Collaborative Project implemented evidence-based guidelines to reduce surgical site infection, and how the Upstate New York Surgical Quality Initiative used the Enhanced Recovery After Surgery (ERAS) program to reduce length of stay and readmissions at participating hospitals.

Improved recovery

The ACS has partnered with the Johns Hopkins Medicine Armstrong Institute, Baltimore, MD, to launch the Agency for Healthcare Research and Quality (AHRQ) Safety Program for Improving Surgical Care and Recovery (ISCR). This program is modeled on the ERAS protocols that have been effectively used to improve outcomes in colorectal and other procedures. Stacy A. Brethauer, MD, FACS, associate professor of surgery, Cleveland Clinic Lerner College of Medicine, OH, described ERAS as representative of “a paradigm shift in perioperative care in two ways: it reexamines traditional practices and replaces them with evidence-based best practices when necessary; and it is comprehensive, covering all areas of the patient’s journey through the surgical process.”

Elizabeth C. Wick, MD, FACS, a colorectal surgeon at Johns Hopkins, said the goals of the ISCR program are to help hospitals achieve measurable improvement in patient outcomes in five surgical areas—colorectal, orthopaedics, emergency general surgery, bariatrics, and gynecology—reduce health care utilization, and improve the patient care experience. ISCR participation is open to all hospitals in the U.S. and its territories. Hospitals may participate in one or more of the five cohorts, and each cohort study will last one year.

Dr. Brethauer described a related initiative that is being conducted under the aegis of MBSAQIP, known as ENERGY (Employing New Enhanced Recovery Goals for Bariatric Surgery). The goal of ENERGY, which began pilot testing in November 2016, is to decrease variability and improve value by maintaining homeostasis in bariatric surgery patients throughout the perioperative period. ENERGY is being tested at 37 bariatric surgery centers.

MBSAQIP

The mission of MBSAQIP is to “achieve surgical QI through rigorously collected, risk-adjusted outcomes,” said John M. Morton, MD, MPH, FACS, FASMBS, Chair, MBSAQIP Committee for Metabolic and Bariatric Surgery. According to Teresa Fraker, MS, RN, Program Administrator, MBSAQIP, ACS DROPC, the MBSQIP Data Registry is being overhauled to enhance the user experience for metabolic and bariatric surgical clinical registrars and the data and analytics experience for accredited centers. Work completed to date includes brainstorming for the registry design, reviewing each variable in the registry, conducting on-site visits at MBSAQIP-accredited centers, and improving logic checks to ensure more accurate data capture.

Pediatric surgery

As Diana L. Diesen, MD, FACS, assistant professor, department of surgery, University of Texas Southwestern Medical Center, Children’s Health Dallas, said, “Children are not little adults. Not all children can be treated the same.” She explained the different treatment modalities that need to be used in pediatric surgery in the preoperative, intraoperative, and postoperative phases of care.

In recognition of the unique needs of pediatric patients, the College has developed the CSV program. Keith T. Oldham, MD, FACS, CSV Chair, said the vision behind the CSV program is that “every child in need of surgical care in North America today will receive...
this care in an environment with resources optimal for his/her individual needs.”

“A large portion of children’s surgical care is provided in nonspecialized environments in the U.S. today,” he added. “A specialized environment is associated with better clinical outcomes for some patients,” especially neonates and children needing operations for congenital heart conditions and trauma, as well as some relatively simple pediatric surgical problems, such as appendicitis in children ages five and younger.

The overriding principle of the CSV is tiered accreditation for hospitals, much like the system used to accredit trauma centers; that is, Level III centers would be verified as meeting the program’s standards for complex procedures and diseases that require multidisciplinary care. The program officially launched in January.

Geriatric surgery
“Starting in 2012, 10,000 people will turn 65 each day. By 2030, 20 percent of the population will be over 65 years old, and by 2050, nearly 20 million people will be older than 85 years of age,” said Ronnie A. Rosenthal, MS, MD, FACS, Co-Principal Investigator, the Coalition for Quality in Geriatric Surgery (CQGS) Project. “More than 50 percent of people older than 65 years old will require some surgical procedure in the remainder of their lifetime.”

With this awareness in mind, the ACS and other stakeholders established the CQGS with funding from The John A. Hartford Foundation. The goals of the CQGS are to engage stakeholders, set standards, develop measures that matter to patients, develop a verification process to ensure quality, educate patients and providers, pilot the program, and launch a Geriatric Surgery Quality Campaign. Stakeholder organizations represent patients and families, advocacy and regulatory bodies, health care professionals, and medical and surgical specialties.

The CQGS has conducted field visits at 11 hospitals in seven U.S. cities, said Dr. Rosenthal, Co-Chair of the CQGS Standards Subcommittee. More than 100 hospital administrators, quality and safety team members, frontline providers, care transition team members, and patient navigators participated in interviews. The CQGS found that all of these providers share the perception that older adults require special care, but they were unclear what that meant. The subcommittee recently began beta testing standards of care.

Keynote Address: Resilience
According to Susan D. Moffat-Bruce, MD, PhD, FACS, professor of surgery, division of thoracic surgery, and professor of biomedical informatics and molecular virology, immunology, and medical genetics, The Ohio State University, Columbus, resilience is the ability to experience a significant loss and find a way to make something good come of it. An individual who exemplifies resilience, she said, is Blake Haxton, JD, who lost both of his legs to necrotizing fasciitis.

During his keynote address, Mr. Haxton described his journey from going to the local hospital’s emergency department with debilitating swelling and redness in his right leg to reclaiming his identity. After more than three months of intensive treatment and rehabilitation, Mr. Haxton had defied the odds and proven his body’s resilience throughout the ordeal. The question now was, what would someone who had previously...
identified as “athletic, tall, healthy, independent, attractive, confident, and humble,” do without both his legs? He found himself asking “Where does my value come from?” He learned that ultimately, “essential worth is intrinsic and unearned.” He went back to school and earned a law degree. He even returned to the sport he loves—rowing—emerging a champion. He was named the 2016 U.S. Rowing Male Athlete of the Year and is in training for the 2020 Paralympic games. As he looks to the future, he asks himself three questions: “Is it knowable? Is it controllable? What can I do about it right now?”

Other hot topics
Speakers at the conference addressed a number of hot issues in health care, including health policy, opioid abuse, patient-reported outcomes (PROs), and disparities in care.

Health policy
Health care professionals are increasingly affected by regulatory policies. According to Frank G. Opelka, MD, FACS, Medical Director, Quality and Health Policy, ACS Division of Advocacy and Health Policy, the ACS used to take a reactionary position on policy issues. “Our principle actions now are more proactive,” Dr. Opelka said. “Define a problem and bring policy solutions forward. Then work the politics to effect our principles, policies, and positions.”

The key policy development affecting physicians at present is implementation of the Quality Payment Program (QPP) established under the Medicare Access and CHIP (Children’s Health Insurance Program) Reauthorization Act. The QPP offers two pathways to participation—the Merit-based Incentive Payment System (MIPS) or the Advanced Alternative Payment Model. Most Medicare-participating surgeons will be seeking reimbursement through MIPS, at least initially. Payment under MIPS has four components: Quality (reported outcomes), Advancing Care Information (electronic health record [EHR] meaningful use), Clinical Practice Improvement Activities (CPIA), and Cost.

To comply with the QPP, “clinicians need consistent measurement infrastructure using advanced analytics, multiple data sources, and registries—all of which represent a much larger data ecosystem than the EHR alone can offer,” Dr. Opelka said. That’s where the College’s new database platform enters the value-based care equation. The SSR has been approved as a QPP MIPS-Qualified Entity for 2017, which means it can be used to fulfill the Quality and CPIA MIPS requirements, he noted.

Opioid abuse
A hot topic in the lay and professional media is the opioid epidemic. Jonah J. Stulberg, MD, PhD, MPH, assistant professor of surgery, Northwestern University Feinberg School of Medicine, Chicago, IL, noted that most states have passed legislation or are considering bills that establish prescription drug monitoring programs (PDMPs). Other states are making safe disposal easier to limit abuse by individuals who access opioids from people who have stopped taking the medications.

Dr. Stulberg suggested that surgeons rethink pain control, making greater use of NSAIDS, acetaminophen, Cox-2 inhibitors, gabapentin, nerve blocks, and alternative modalities such as massage and physical therapy as first-line methods of pain control. For patients needing

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more pain relief, surgeons can advance to oral opioids, reserving Class IV opioids for the most extreme cases.

**PROs**
According to Andrea Pusic, MD, MHS, FACS, professor of plastic and reconstructive surgery, Memorial Sloan-Kettering Cancer Center, New York, PROs “are reports that come directly from patients about how they function or feel in relation to their health condition and its therapy.” Patients specifically provide feedback on their experience, postoperative quality of life, and symptoms. PROs are important because traditional outcome measures, such as length of stay, mortality, urinary tract infection, and surgical site infection (SSI), “don’t capture the full range of ways that patients are affected by disease and treatments,” Dr. Pusic said. “PROs represent the missing piece.”

**Disparities**
Adil H. Haider, MD, MPH, FACS, Vice-Chair of the ACS Committee on Health Care Disparities, said, “[Surgeons] have unconscious preferences or implicit biases that impact how we interact with patients.” To counteract these biases, surgeons need to become “culturally dexterous.” Dr. Haider elaborated, “Cultural dexterity is the adept use of mental and physical skills to understand and adapt to each unique patient in order to provide patient-centered care.”

Dr. Haider provided a “checklist for cross-cultural communication,” which, among other responsibilities, calls upon surgeons to humanize their patients, identify and monitor conscious and unconscious biases, respond thoughtfully to patient complaints, and hold their institutions accountable for providing culturally dexterous care.

**Culture**
For any QI effort to succeed, it has to evolve in a culture that accepts change, acknowledges shortcomings, uses data to find strengths and weaknesses, and demonstrates the same resilience that Mr. Haxton showed in overcoming necrotizing fasciitis. Two cultural changes that surgical teams have experienced in recent years include a greater emphasis on process improvement and checklists.

According to Lillian Kao, MD, MS, FACS, professor of surgery at The University of Texas Health Science Center at Houston (UTHealth), and chief, division of acute care surgery, McGovern Medical School at UTHealth, “There is a well-defined, step-by-step, iterative process for performing QI.” The first step is to develop a problem statement that indicates who is affected, when the problem was discovered or arose, where the problem is occurring, the frequency of the problem, what happened, and what didn’t happen. Next, set SMART (Specific, Measurable, Attainable, Realistic, Timely) goals, identify stakeholders, and achieve buy-in. The next step is brainstorming, followed by problem solving. One approach to PI Dr. Ko discussed is DMAIC—define, measure, analyze, improve, control.

Checklists have become ubiquitous in hospitals as a means of ensuring that precautions are taken to ensure patient safety. KuoJen Tsao, MD, FACS, The Children’s Fund Distinguished Professor in Pediatric Surgery, department of pediatric surgery, UTHealth, discussed how to use surgical safety checklists to achieve and sustain QI. He said the surgical safety checklist should serve as an opportunity for communication in the OR and should be used to confirm, not dictate, that safety precautions have been taken. “Not all checklist items may apply to all cases, but all cases benefit from items within the checklist,” Dr. Tsao said.

Culture is dependent on the attitudes and values of the people functioning in it. The disruptive surgeon is anathema to a culture of safety, according to Oscar Guillamondegui, MD, FACS, professor of surgery,
vice-chair, quality, safety, and risk prevention, department of surgery, Vanderbilt University School of Medicine, Nashville, TN. He defined disruptive behaviors as actions that “undermine a culture of safety and prevent or interfere with an individual’s or group’s work or ability to achieve intended outcome.” Such behaviors range from verbally or physically aggressive actions, to passive-aggressive behaviors, such as intentional miscommunication and condescending tone, to failure to follow institutional guidelines and protocols.

Rachel R. Kelz, MD, MSCE, FACS, associate professor of surgery, University of Pennsylvania, Philadelphia, encouraged workplaces to develop a “culture of companionate love.” In this environment, emotions are encouraged and people care about each other. Workplaces that have this culture have more engaged employees, improved patient outcomes, and a greater likelihood of being recommended by caretakers. ♦

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Conference participants in general sessions, abstract posters sessions, and networking breaks
Making quality stick:  
**Optimal Resources for Quality and Safety**

Editor’s note: In July, the American College of Surgeons (ACS) released *Optimal Resources for Surgical Quality and Safety*—a new manual that is intended to serve as a trusted resource for surgical leaders seeking to improve patient care in their institutions and make quality stick. Each month, the Bulletin will highlight some of the salient points made throughout the manual.

In recent years, the public demand for quality medical care has heightened. The ACS has been well-positioned to play a leading role in this movement given its more than 100 years of experience in quality improvement and in applying what Ernest Amory Codman, MD, FACS, described as the end result idea. *Optimal Resources for Surgical Quality and Safety* is grounded in the same philosophy that has inspired quality for generations of surgeons: set the standards, build the right infrastructure, use the right data, and verify that appropriate care is provided through external review.

Health care policymakers and professionals who have studied quality, safety, and reliability also have increasingly found that the best way to reduce complications and variations in patient care is through a coordinated, physician-led, team-based approach. And while the individual surgeon may no longer make autonomous decisions, he or she remains at the center of the team and ultimately is responsible for the patient’s safety across the continuum of care, starting with the preoperative evaluation and obtaining informed consent and ending postdischarge.

The five phases of surgical care and the surgeon’s responsibilities in each are described in detail in *Optimal Resources for Surgical Quality and Safety*. The notion that it is the surgeon—working in concert with other professionals on the patient-care team, the patient, and the patient’s family—who must take steps to ensure a positive end result is timeless, and it is the message that resonates consistently throughout this manual.

Be sure to read next month’s overview of *Optimal Resources for Surgical Quality and Safety*, which will focus on the role of the Surgical Quality Officer and case review and peer review.

*Optimal Resources for Surgical Quality and Safety* is available for $44.95 per copy for orders of nine copies or fewer and $39.95 for orders of 10 or more copies at web4.facs.org/eBusiness/ProductCatalog/product.aspx?ID=853. The manual also can be purchased on Amazon.com for $44.95 plus shipping and handling.

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**Coming next month in JACS and online now**

**Examining ACS NSQIP Surgical Risk Calculator accuracy for emergent and elective colorectal operations**

Andrea L. Lubitz MD, MPH; Elaine Chan, MD, FACS; Daniel Zarif, MD; et al found that the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP®) Surgical Risk Calculator is valuable in aiding in shared decision making between patients and surgeons and predicts outcomes accurately in elective colorectal cases. However, it underestimates serious complications and length of stay and overestimates discharge to skilled nursing facilities in emergent cases.

This article and all other *Journal of the American College of Surgeons (JACS)* content is available at www.journalacs.org.

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The Governors are the eyes and ears of the College, serving a critical role as liaisons between the Board of Regents and the Fellows. At present, 279 individuals serve on the American College of Surgeons (ACS) Board of Governors (B/G), including 139 Governors-at-Large, representing each U.S. state and Canadian province; 96 specialty Governors, representing surgical associations and societies; and 44 international Governors. These data include the Governor from the newest chapter, Bangladesh. In addition, two new Governors will be added in October, representing the new Kuwait Chapter and the country of Qatar.

Executive Committee
The B/G Executive Committee meets regularly via conference call. In June, the Executive Committee held the third annual strategic planning retreat in Chicago, IL, during which committee members evaluated the future plans of the B/G, including adding another member to the Executive Committee so that each pillar is represented.

Planning for the October meeting of the Governors is under way and will include discussion of Maintenance of Certification (MOC) and how to improve effective communication with all Governors and Fellows in this era of information overload. The results of the B/G survey will be presented at the meeting.

The Executive Committee hosted three New Governors Orientations—one webinar each in December 2016 and January 2017 and a face-to-face meeting at the 2017 ACS Leadership & Advocacy Summit in Washington, DC. Two additional webinars focused on an orientation for the workgroup leadership and for all Governors in advance of the summit to update them on the College’s legislative and regulatory priorities.

Governors’ responsibilities
Governors’ responsibilities include the following:

- Attend meetings and events
  - Domestic Governors are expected to attend the spring Leadership Summit (International Governors are welcome, as well)
  - Participate in B/G meetings, Convocation, and the Annual Meeting of Members at Clinical Congress
  - Attend chapter or specialty society meetings

- Communicate across all strata of the College
  - Provide bidirectional communication between the B/G and constituents
  - Provide reports to chapter or specialty society and B/G Executive and Communications Committees

- Welcome and engage Initiates and Fellows from the Governor’s area/organization into the ACS
  - Promote ACS Fellowship in state and specialty societies

- Participate in B/G activities
  - Actively participate in at least one B/G Workgroup
Complete the Annual Survey

Participate in local Committee on Applicants meetings and interviews

Be an active participant in the Board of Governors online Community site

**Pillar updates**

Following is an update on the activities of the Board of Governors Pillars and their respective workgroups. The Governors are aligned along five pillars according to the mission of the ACS.

**Advocacy and Health Policy Pillar**

**Nicole Gibran, MD, FACS, Pillar Lead**

The Advocacy Pillar continues to focus on myriad health care policy and advocacy issues at the local, state, and national level. The two workgroups work to align closely with the Division of Advocacy and Health Policy to facilitate communication with the ACS community. Overall, the pillar’s aim is to address issues that relate to the following four core ACS principles:

• Quality and safety

• Patient access to surgical care

• Reduction of health care costs

• Medical liability reform

**Health Policy and Advocacy Workgroup**

Scot Glasberg, MD, FACS, Chair
Amalia Cochran, MD, FACS, Vice-Chair

This workgroup seeks to advance issues that ACS members have at the state or specialty society level and to enhance the relationship with College leadership in the response to regulatory and legislative initiatives, and collaborate with College leadership and Regents to ensure that Fellows’ perspectives are available to help formulate College policies and positions.

Past projects have focused on the following issues: workforce shortage of general surgeons; the changing practice environment, with surgeons moving from private practice to hospital employment; and videotaping of surgical procedures. Last year the workgroup produced a white paper about out-of-network billing, which advanced to the ACS Health Policy and Advocacy Group for consideration as an ACS advocacy priority.

**Grassroots Advocacy Engagement Workgroup**

Shelly Timmons, MD, FACS, Chair
Marty Schreiber, MD, FACS, Vice-Chair

The purpose of the Grassroots Advocacy Engagement Workgroup is to enhance bidirectional communication between the ACS leadership and members regarding important legislative and regulatory issues that affect surgical patients, surgeons and their practices, and society. As such, we have established a B/G e-mail tree to personalize communication from the Washington Office to the Governors—especially when we have timely opportunities to contact our congressional representatives about pressing issues that relate to the four core ACS principles.

• Board of Governors Committee seats:

  • Health Policy and Advocacy Group—Nicole Gibran, MD, FACS

  • Health Policy Advisory Council—Susan Mosier, MD, MBA, FACS

  • Legislative Committee—James Goldszer, MD, FACS

  • Coding and Reimbursement Committee—Chris Senkowski, MD, FACS

  • ACSPA-SurgeonsPAC—Mika Sinanan, MD, FACS

Visit the Advocacy section of the ACS website (facs.org/advocacy) for more information.
Communications Pillar

S. Rob Todd, MD, FACS, FCCM, Pillar Lead

The Communications Pillar continues to focus on the bidirectional communication of the ACS, from the Fellows through the B/G to the Regents and, likewise, from the Regents through the B/G to the Fellows. This mission is accomplished via the Newsletter and Survey Workgroups.

Newsletter Workgroup

Russell Nauta, MD, FACS, Chair
Rohan Jeyarajah, MD, FACS, Vice-Chair

The Newsletter Workgroup continues to produce *The Cutting Edge: News and Notes from the Board of Governors*, the quarterly, fully electronic, mobile-friendly newsletter of the B/G. Newsletter stories range from College business to human interest stories. Moving forward, the Newsletter Workgroup is looking at how to better disseminate the news of the Regents and Board of Governors to both the Governors themselves and the Fellows of the College. Past issues of the *Cutting Edge* are available at facs.org/about-acs/governance/board-of-governors/resources.

Survey Workgroup

Juan Paramo, MD, FACS, Chair
David Welsh, MD, FACS, Vice-Chair

The Survey Workgroup published the results of the 2016 Board of Governors Annual Survey in several College formats over the last year, including in a series of articles in the *Bulletin*. The results of the 2017 survey are being analyzed. In addition to routine demographic data points, survey topics included: the Stop the Bleed® campaign, work-related injuries/ergonomics of surgery, the role of advanced practice providers, and the opioid crisis. This workgroup also submitted a proposal for Clinical Congress 2018 on the data from the 2016 Governors Survey related to acute care surgery.

- ACS Website Representative: Bryan Richmond, MD, MBA, FACS
- ACS *Bulletin* and ACS NewsScope Representatives: George Shires, MD, FACS, and Peter Andreone, MD, FACS
- ACS Communities Representative: Bryan Richmond, MD, MBA, FACS

Education Pillar

Daniel L. Dent, MD, FACS, Pillar Lead

As the result of the work of the Governors on the Education Pillar Workgroups, the ACS has advanced a number of initiatives this past year, as follows:

- ACS Website Representative: Bryan Richmond, MD, MBA, FACS
- *ACSM Bulletin* and ACS NewsScope Representatives: George Shires, MD, FACS, and Peter Andreone, MD, FACS
- ACS Communities Representative: Bryan Richmond, MD, MBA, FACS

Continuing Education Workgroup

William Richardson, MD, FACS, Chair
Randy Woods, MD, FACS, Vice-Chair

The members of the Continuing Education Workgroup have continued to collaborate with the ACS Division of Education to provide guidance in the development of a learning content management system that will help fellows navigate the numerous educational offerings of the ACS as they work to maintain state licensure and specialty certification. The workgroup submitted proposals for Clinical Congress 2018 addressing postoperative opioid guidelines, video coaching for quality improvement, and how to develop a new skill/transition in practice.

Patient Education Workgroup

Terry Sarantou, MD, FACS, Chair
Marc Rubin, MD, FACS, Vice-Chair

The Patient Education Workgroup has developed a presentation for Governors to provide communication back to their chapters or societies. In addition, the workgroup is working with the Young Fellows Association (YFA) and the Patient Education Committee to improve awareness of the patient education resources available to Fellows and their patients. One such activity was participation in the Chapter Speed Networking Session at Clinical Congress 2016. The workgroup
submitted a proposal for Clinical Congress 2018 on patient education in the 21st century.

Surgical Training Workgroup
Fred Luchette, MD, FACS, Chair
David Berger, MD, FACS, Vice-Chair

After seeking input from the Association of Program Directors in Surgery and the Association for Surgical Education, the members of the Surgical Training Workgroup finalized a standardized letter of recommendation for applicants to surgery training programs. Four educational modules for teaching faculty also are now available as the result of the efforts of this workgroup. The letter, modules, and other resources are available on the ACS website at facs.org/about-acs/governance/board-of-governors/resources.

The workgroup is finalizing a statement regarding medical student involvement in electronic health records and development of a billing and coding course for residents. Lastly, the workgroup submitted four proposals for Clinical Congress 2018 addressing treatment modalities for gastroparesis, tips for effective teaching, going into surgical practice, and burnout.

The three workgroups in the Education Pillar submitted eight proposals for panel sessions at Clinical Congress 2018.

Member Services Pillar
Francis D. Ferdinand, MD, FACS, Pillar Lead

In the last year, the Member Services Pillar has continued to strengthen both domestic and international chapters by updating resources, creating a chapter performance metric, and surveying all the chapters about their activities and needs. The pillar also conducted extensive outreach for this year’s Surgical Volunteerism and Humanitarian Awards and fine-tuned selection criteria and the nominations web portal.

Chapter Activities
Domestic Workgroup
Frank Padberg, Jr., MD, FACS, Chair
Terry Buchmiller, MD, FACS, Vice-Chair

The members of the Chapter Activities Domestic Workgroup continued to implement important initiatives. A Resident and Associate Society (RAS-ACS) and Young Fellows Association (YFA) initiative is under way to ensure RAS and YFA representation (51 and 45 percent, respectively) on the Executive Council of every domestic chapter to facilitate the development of ideas for programs, projects, and activities that are attractive to residents and young surgeons. A set of metrics for chapter performance has been developed and a recent chapter survey is being used to measure the health of the chapters. The metrics measure chapter viability relative to finances, membership, advocacy, and a website to better aid the College in providing services to strengthen and grow the chapters.

In addition, the workgroup has accomplished the following:

• Updated and finalized the Chapter Guidebook and Meeting Toolkit with links to key resources
• Presented a Chapter Officer Leadership Program in conjunction with the 2017 Leadership & Advocacy Summit

Chapter Activities
International Workgroup
Jamal Hoballah, MD, FACS, Chair
(Jorge) Esteban Foianini, MD, FACS, Vice-Chair

The Chapter Activities International Workgroup has established communities for four international regions to increase communication and as a first step toward creating individual International Chapter Communities. The international chapters conducted valuable educational events at regional meetings in Munich, Germany; Lima, Peru; and Beirut, Lebanon, with College leadership participation. In addition, data collected from international chapters in the Annual Report/Survey was reviewed to identify next steps to strengthen and grow chapters.

• A list of interested International Governors has been provided to the Program Committee to increase their participation as moderators and/or speakers at Clinical Congress.

• A new process was implemented this year to get Governor feedback on applicants for Fellowship from their respective countries. Plans are under way for Governors to begin participating in interviews of applicants for Fellowship beginning in 2018.

• Work is in progress to increase collaboration between the international chapters and their respective regional Committees on Trauma.

• Regional meetings are planned for 2018 in Rome, Italy, and Sydney, Australia.

Surgical Volunteerism and Humanitarian Awards Workgroup
Frank Sellke, MD, FACS, Chair
David Spain, MD, FACS, Vice-Chair

The members of the Surgical Volunteerism and Humanitarian Awards Workgroup released a new nominations website in January 2016 and have fine-tuned the nomination fields and criteria. Outreach through the ACS Communities, the Bulletin, military Governors, and Advisory Councils was aimed at increasing awareness of these awards, which resulted in a historically high number of nominations: 54 in 2017 versus 44 in 2016.

• The workgroup has selected five recipients, which were presented to the B/G Executive Committee at the June retreat. The awardees will be honored at the Board of Governors Dinner at Clinical Congress 2017.

• The workgroup will continue to collaborate with the military Governors and the Military Health Services Strategic Partnership ACS to better define the criteria for the military award and to reach out to the Excelsior Surgical Society for nominations.

• Board of Governors Committee seats:
  – ACS Committee on Diversity Issues: Kenneth Simon, MD, FACS
  – ACS Women in Surgery Committee: Annesley Copeland, MD, FACS
  – YFA: Shoaib Sheikh, MB, BS, FACS
  – RAS: Glen Franklin, MD, FACS
  – International Relations Committee: Katsuhiko Yanaga, MD, PhD, FACS

Quality, Research, and Optimal Patient Care Pillar
Steven Stain, MD, FACS, Pillar Lead

The Quality Pillar has three workgroups that have worked
to ensure that ACS Fellows are able to provide the best care to surgical patients.

Best Practice Workgroup
Therese Duane, MD, FACS, Chair
Christine Laronga, MD, FACS, Vice-Chair

• Continues to review Evidence-Based Decisions in Surgery modules

• Developed standard template and timeline for creating annual guidelines

• Created new guidelines on perioperative anticoagulation management; a Clinical Scholar, Melissa Hornor, MD, has been assigned this task

• Submitted a proposal on perioperative anticoagulation management for Clinical Congress 2018

Physician Competency and Health Workgroup
David Welsh, MD, FACS, Chair
Reid Adams, MD, FACS, Vice-Chair

• Encouraged all workgroup members to serve on one of three subcommittees—ergonomics, disruptive surgeon, and wellness

• Provided ergonomics questions for the Board of Governors Survey, including the addition of questions on injuries in the OR

• Sponsored Clinical Congress 2017 session on The Disruptive Surgeon

• Submitted Clinical Congress 2018 proposals on well-being to include the following:
  – Well-Being: How Do I Do It, and How Do I Compare?
  – Aging in Surgery: Denial Is Not the Best Approach

Surgical Care Delivery Workgroup
Mika Sinanan, MD, PhD, FACS, Chair
Kimberly Davis, MD, FACS, Vice Chair

• Drafted a policy on maintaining surgical access with a locum tenens surgeon for review by the Board of Regents

• Updated the following ACS Statements:
  – Statement on the Rationale for Emergency Surgical Call
  – Statement on the Development and Use of Proprietary Guidelines for Accountable Patient-Centered Care

• Submitted proposals for Clinical Congress 2018 Panel Sessions on the following:
  – Telehealth
  – Communication in the Digital Age

• Locum Tenens

• Immediate Solutions to Surgical Workforce Needs

• My Patient Is Reading His Operative Note and Making Editorial Suggestions: Opportunity or Risk?

• Board of Governors Committee Seats:
  – Committee on Perioperative Care: Mika Sinanan, MD, FACS
  – Commission on Cancer: Helen Pass, MD, FACS
  – Committee on Trauma: Christine Cocanour, MD, FACS

The Committee to Study the Fiscal Affairs of the College, chaired by Susan K. Mosier, MD, MBA, FACS, B/G Secretary, continues to review and monitor the fiscal health of the College.

The Board of Governors home page, available at facs.org/about-acs/governance/board-of-governors on the ACS website, has a rotating series highlighting the activities of individual Governors and suggestions for finding additional resources. For more information about the Board of Governors and to comment on these and other activities, contact governors@facs.org.
New Jersey Chapter engages in state advocacy efforts

The New Jersey Chapter of the American College of Surgeons (ACS) has organized a collaborative effort to oppose S. 1285, the Out-of-Network Consumer Protection, Transparency, Cost Containment and Accountability Act, which was under consideration at press time in the New Jersey Legislature. More specifically, the New Jersey Chapter helped to organize and lead the Access to Care Coalition—a diverse group of physicians and health care facilities that opposes efforts to limit out-of-network benefits and thus undermine consumer choice and access to care.

The New Jersey Chapter has sought to raise awareness of this issue, retained the services of a state lobbying group to help protect the interests of patients and surgeons in the state, and works closely with the ACS Division of Advocacy and Health Policy on this matter. The chapter has been appreciative of ACS State Affairs staff efforts, as well as those of David B. Hoyt, MD, FACS, ACS Executive Director, who sent a letter to members of the New Jersey State Senate opposing the out-of-network legislation.

For more information, go to nj-acs.org.

Indiana Chapter leaders attend licensing board workgroup meeting on opioids

Officers of the Indiana Chapter of the ACS spoke on behalf of chapter members on July 12 at an informational and comment session of the Indiana Medical Licensing Board 2017 Indiana Senate Enrolled Act (SEA) 226 Workgroup. SEA 226 requires all Indiana health care providers, with limited exceptions, to restrict the prescribing of opioids to new patients to seven days for both children and adults.

At the session, Stephen Bodney, MD, FACS, Immediate Past-President of the Indiana Chapter, provided feedback received from chapter members regarding the impact of SEA 226 and the ability to deliver quality care to surgical and trauma patients. Bradford Barrett, MD, FACS, Chapter Secretary/Treasurer, spoke about the implications of SEA 226 for surgeons in eastern Indiana. Don J. Selzer, MD, FACS, Chapter President, provided a prepared statement referring to the recently released ACS Statement...
on the Opioid Abuse Epidemic, available at facs.org/about-acs/statements/100-opioid-abuse. In an effort to reduce regulatory requirements burdening chapter members, Dr. Selzer lobbied the workgroup to consider adding major surgical procedures and trauma to the list of exemptions.

Other organizations that have provided statements on SEA 226 include the Indiana Academy of Family Practice, Indiana Hospital Association, Indiana Pharmacy Alliance, Indiana Academy of Physician Assistants, and the retail pharmacy chain CVS. Individual practitioners who specialize in pain treatment also have commented.

Nevada Chapter hosts meetings on key issues
The Nevada Chapter of the College (NV ACS) met June 21 in Las Vegas. Deborah Kuhls, MD, FACS, NV ACS Chapter President, convened the meeting, which more than 50 individuals attended.

Vinita Ollapally, JD, Regulatory Affairs Manager, ACS Division of Advocacy & Health Policy, spoke on the Merit-based Incentive Payment System and global codes data reporting for Nevada. In addition, Wydell L. Williams, Jr., MD, MA, FACS, Desert West Surgery, Las Vegas, gave a presentation titled Fundamentals of Surgical Bioethics: Are We Influenced by Incentives, Nudging, Autonomy, or Paternalism?

The NV ACS held an additional meeting in northern Nevada on June 22 in Reno. Dr. Kuhls also convened this meeting and discussed plans for the first statewide meeting of the NV ACS October 7 in Las Vegas.

Tennessee Chapter meeting a success
More than 160 surgeons, residents, and other health care professionals attended the Tennessee Chapter of the ACS (TNACS) 2017 Annual Meeting August 4–6 in Nashville. Educational programming included a Continuing Medical Education session on pain management from a surgical perspective, as well as a session on best practices from the Tennessee Surgical Quality Collaborative; the latest developments in trauma, cancer, basic, and clinical science; an update on new Maintenance of Certification guidelines; and Stop the Bleed®. State Rep. Sabi Kumar, MD, FACS, spoke at the meeting, and ACS President Courtney M. Townsend, Jr., MD, FACS, gave an update on College activities. Surgical Jeopardy was a highlight of the meeting, with the winning team hailing from the University of Tennessee College of Medicine at Chattanooga, which included Brent Soder, MD, chief resident, and G. Alan Hyde, MD, fifth-year resident.

Louisiana Chapter holds annual meeting
The Louisiana Chapter of the ACS held its annual meeting June 3–4 in New Orleans. The meeting began with mock orals for third- and fourth-year residents, organized by the Louisiana Young Fellows Association Chair Lance Stuke, MD, FACS. More than 40 residents and faculty participated. A feedback session was provided to examinees as an opportunity to interact with examiners and to improve exam-taking skills.
The meeting included a paper competition, invited guest speakers, and Resident Surgical Jeopardy. Stop the Bleed training also was provided with the goal of training each meeting attendee so they could go back and teach bleeding control techniques to their staff, colleagues, and members of their community.

The chapter’s Humanitarian Award was presented to M. Hosein Shokouh-Amiri, MD, FACS, an internationally renowned transplant surgeon from Willis Knighton Health Systems, Shreveport. The award recognizes a chapter member who has dedicated significant time to humanitarian medical outreach both locally and abroad. Dr. Amiri has been involved in charitable work since 2000. He has founded transplant programs in developing nations, including a liver transplant program at Mashhad University, Iran. In 2009, he aided in the development of a living-related liver program at the International Medical Center of Cairo, Egypt. He also is involved with community capacity building in Central American countries, such as Honduras. Dr. Amiri’s charitable endeavors have saved countless lives.

**Chile Chapter holds General Surgery Review Course**

The Chile Chapter of the ACS held its first Spanish-language version of the ACS Comprehensive General Surgery Review Course in Latin America, with the support of the ACS Division of Education, during its July 28–29 chapter meeting in Santiago, Chile.

The Chilean course committee, led by Guillermo Rencoret, MD, FACS; Victor Bianchi, MD, FACS; Karen Schönfeldt, MD; and Federico Oppliger, MD, translated 150 cases, created a Spanish-language workbook, and standardized the PowerPoint presentations of the cases and discussions. A group of Chilean surgical specialists, most of whom were ACS Fellows, were the course faculty.

After a two-month promotion, the 100 available seats were filled up one month before the start of the course. For each case presented, keyboards...
Kuwait Chapter conducts inaugural event

The recently established Kuwait Chapter of the ACS, chartered in June, hosted the Kuwait Association of Surgeons’ (KAS) four-day Kuwait Medical and Surgical Innovation Conference. Surgeons from all surgical specialties in Kuwait, as well as international, regional, and national clinicians, scientists, manufacturers, and regulators, were in attendance. The conference focused on hot topics in surgical/interventional care in various clinical areas and celebrated the continuing work and collaborative efforts of the KAS and the Kuwait Chapter. Some of the notable guests included ACS President Dr. Townsend; Past-President Carlos Pellegrini, MD, FACS, FRCSI(Hon), FRCSEd(Hon), FRCS; and other experts in the field of surgery.

The conference promoted innovation in surgery, which is one of the main challenges in health care, and provided an evidence-based approach to determining the value of new technology, procedures, and devices. The event included plenary lectures intermixed with parallel educational sessions and opportunities for surgeons and scientists to discuss hot topics in surgery and present their own innovative work.

Nigeria Chapter hosts clinical conference

The Nigeria Chapter of the ACS held its second Clinical Congress at the Trauma Center, National Hospital, Abuja, in conjunction with the Association of Surgeons of Nigeria and the Trauma Society of Nigeria, July 6–8. The theme of the Congress was Developing a National, Surgical, Obstetric and Anesthesia plan for Nigeria, with a sub-theme of Disaster Management. The Congress President was Oluwole Olaomi, MB, ChB, FACS.

On the last day of the Congress, a symposium of all the surgical associations in Nigeria with representatives from government, the National Postgraduate Medical College, and the West African College of Surgeons with the Harvard School on Global Surgery was held. A total of 38 Fellows of the ACS attended the Congress. The subcommittees set up on the National Surgical Obstetric and Anesthesia plan are already at work and the reports will be collated in mid-October.

A pre-Congress Comprehensive General Surgery Review Course for residents in surgery took place July 3–5. The thematic areas were oncology, education, quality assurance,
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V102 No 10 BULLETIN American College of Surgeons
For several years, the American College of Surgeons (ACS) International Relations Committee has suggested uses for funds from a generous donor for surgical education intended to benefit young international surgeons. Initially, support was provided to a few international surgeons to attend the annual Clinical Congress. More recently, the committee proposed that the College’s international chapters compete to develop and present original surgical education courses using local and international Fellows as faculty. The Dr. Pon Fund International Chapter Opportunity program, named for Pon Satitpunwaycha, MD, FACS, who is funding the program, has thus far assisted two international chapters in presenting an original surgical education course.

The Brazil Chapter of the ACS offered the first program, Trauma and Acute Care Surgery Review Course, September 29–October 1, 2016. The 200 participants included 80 medical students, 60 surgical residents, and 60 surgeons. Highlights of the program included a study of digestive hemorrhage and a discussion of “damage control surgery.” Faculty members were from Brazil and several other Latin American countries, in addition to the U.S. The course was offered at Universidade de Santo Amaro, Sao Paulo. The Brazil Chapter presented a plaque commemorating the course to ACS Executive Director David B. Hoyt, MD, FACS, at Clinical Congress 2016.
to be forwarded to Dr. Pon with the chapter’s gratitude.

The Greece Chapter presented its course, Global Surgery Emergency Case Studies, May 26–28, 2017. Numerous surgeons, residents, and medical students participated in the course, which incorporated both didactic and hands-on training with realistic mannequins and focused on treatment for a variety of trauma injuries and situations. The chapter’s goals were to help participants become acquainted with the basics of emergency surgery, refresh their knowledge of diagnosis and technique in low-resource settings, and develop awareness and sensitivity in humanitarian surgery. The course was presented at the National and Kapodistrian University of Athens, and participating faculty included 32 Greek surgeons and 13 Fellows from the U.S. and other countries.

At press time, the Lebanon Chapter was preparing to give its presentation, Principles of PeriOperative Safety and Efficiency, as a one-day intensive course in September. The next application deadline for this special program is January 15, 2018. Program requirements are available at facs.org/member-services/chapters.

The International Relations Committee and the awarded chapters are grateful for this opportunity to encourage surgical education and are unanimous in thanking Dr. Pon for his generous spirit. ♦
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Calendar of events

*Dates and locations subject to change. For more information on College events, visit www.facs.org/events or facs.org/member-services/chapters/meetings.

**OCTOBER**

**Nevada Chapter**
- **October 7**
  - Las Vegas, NV
  - Contact: Camille Spennier, camillespennier@gmail.com, nevadaacs.org

**Argentina Chapter**
- **October 9–12**
  - Buenos Aires, Argentina
  - Contact: Dr. Alberto Ferreres, capitulo@aac.org.ar, www.facs.org.ar

**Delaware Chapter**
- **October 11**
  - Newark, DE
  - Contact: Kristi Walters, defacs@ymail.com

**Minnesota Surgical Society**
- **October 13–14**
  - Stillwater, MN
  - Contact: Janna Pecquet, janna@mnssurgicalsociety.org, www.mnssurgicalsociety.org

**Connecticut Chapter**
- **October 20**
  - Farmington, CT
  - Contact: Christopher Tasik, info@ctacs.org, ctacs.org

**NOVEMBER**

**2017 ACS Coding and Reimbursement Workshop**
- **November 2–3**
  - Chicago, IL

**South Korea Chapter**
- **November 2–4**
  - Seoul, South Korea
  - Contact: Dr. Hyung-Ho Kim, hkhkim@snubh.org, ackss.or.kr

**Keystone Chapter**
- **November 3**
  - Allentown, PA
  - Contact: Lauren Newmaster, lnewmaster@pamedsoc.org, www.keystonesurgeons.org

**Wisconsin Surgical Society**
- **November 3–4**
  - Kohler, WI
  - Contact: Terry Estness, wisurgical@att.net, www.wisurgicalsociety.com

**DECEMBER**

**Massachusetts Chapter**
- **December 2**
  - Boston, MA
  - Contact: Brittany Fiore, bfiore@prri.com, www.mcacs.org

**New Jersey Chapter**
- **December 2**
  - Iselin, NJ
  - Contact: Andrea Donelan, njsurgeons@aol.com, www.nj-acs.org

**JANUARY 2018**

**Southern California Chapter**
- **January 19–21**
  - Santa Barbara, CA
  - Contact: Tracey Dowden, socalsurgeons@gmail.com, www.socalsurgeons.org

**Montana, Wyoming, and Idaho Chapters Annual Meeting**
- **January 26–28**
  - Big Sky, MT
  - Contact: Cyan Sportsman, csportsman21@outlook.com

**FUTURE CLINICAL CONGRESSES**

- **2017**
  - **October 22–26**
    - San Diego, CA

- **2018**
  - **October 21–25**
    - Boston, MA

- **2019**
  - **October 27–31**
    - San Francisco, CA