Clinical Alarm Safety: A New Joint Commission National Patient Safety Goal

Gary S. Rudolph, MD FACEP, Senior Associate Chairman, Department of Emergency Medicine, North Shore University Hospital

The Joint Commission (TJC) National Patient Safety Goals (NPSGs) program was established to help health care organizations address specific areas of concern related to patient safety. An expert panel including physicians, nurses, pharmacists, risk managers, and patient safety experts, the Patient Safety Advisory Group, is responsible for the development and annual updating of the NPSGs.

The current 2013 NPSGs include: Improve the accuracy of patient identification; Improve the effectiveness of communication among caregivers; Improve the safety of using medications; Reduce the risk of health care–associated infections; Identify patients at risk for suicide and Prevention of wrong site wrong procedure, wrong person surgery. Each of these goals contain multiple process requirements which must be implemented by health care organizations. These “elements of performance” are reviewed during Joint Commission surveys.

In April, 2013 TJC published a Sentinel Event Alert entitled “Medical Device Alarm Safety in Hospitals.” The alert noted that TJC’s Sentinel Event database, which contains voluntarily reported adverse patient events from hospitals across the country, includes reports of 98 alarm-related adverse events between January 2009 and June 2010. Eighty of the 98 events reported resulted in patient death and 13 in permanent loss of function. Ninety-four events occurred in hospitals, with the majority occurring in telemetry, intensive care, general medicine, and emergency department (ED) areas. Major contributing factors noted included:

- Absent or inadequate alarm system (30)
- Improper alarm settings (21)
- Alarm signals not audible in all areas (25)
- Alarm signals inappropriately turned off (36)

In addition, device manufacturers filed 216 reports with the FDA on monitor alarm-related deaths between January 2005 and June 2010. TJC subsequently approved a new NPSG (06.01.01) “Improve the safety of clinical alarm systems” in June 2013. This new goal will be implemented in two phases:

Phase I (beginning January 2014), hospitals will be required to:
1. Establish alarms as an organizational priority
2. Identify the most important alarms to manage based on the following:
   - Input from the medical staff and clinical departments
   - Risk to patients if the alarm signal is not attended to or if it malfunctions
   - Which specific alarm signals are needed and which unnecessarily contribute to alarm noise and alarm fatigue

Phase II (beginning January 2016), hospitals will be expected to develop and implement policies and procedures for managing the alarms identified in Phase I and at a minimum address the following:

Potential for patient harm based on internal incident history
Published best practices and guidelines

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Our annual Scientific Assembly at The Sagamore Resort on Lake George was once again a rousing success, surpassing previous records in registrants. The weather was beautiful, the venue continues to impress (and relax us) and the quality of the educational program was top notch. Congratulations to Board members Penelope Lema, MD RDMS FACEP (University of Rochester) and Kaushal H. Shah, MD FACEP (Elmhurst Hospital Center) for putting together an outstanding program. Congratulations and thanks as well to our intrepid Executive Director JoAnne Tarantelli and her marvelous staff – Betsy Hawes and Timothy Pistor.

The assembly also saw your Board and Committees in action and was attended by several dignitaries from our national organization, including ACEP’s President, Dr. Andrew Sama (North Shore/LIJ) and Executive Director Dean Wilkerson as well as several ACEP board members and candidates for office on the national ACEP board. Indeed, a visit to the Sagamore seems to have become crucial to a successful election campaign to national ACEP office. As many know, two of the last three ACEP Presidents have been New Yorkers and the New York delegation has earned significant national clout.

A particularly memorable highlight was the awards presentations during the annual meeting where (from left to right) Frederick M. Schiavone, MD FACEP (Stony Brook), Stephan G. Lynn, MD FACEP and Gerard X. Brogan, Jr., MD FACEP (North Shore Forest Hills) were honored for their service and contributions to emergency medicine.

Read more about New York ACEP’s prestigious awards and other highlights from the Scientific Assembly on page 10.

If you have never been to the Sagamore for our annual assembly, or if you haven’t been there recently, I strongly encourage you to attend. It is a rare opportunity to network, learn and relax with your family and friends simultaneously. The hotel continues to invest in renovation year after year. Mark your calendars now for July 7-9, 2014. ■
Ultrasound Evaluation for Intussusception

Guest authors: Mary Emborsky, DO, Clinical Assistant Professor, Women and Children’s Hospital of Buffalo, Division of Emergency Medicine
Juliana Wilson, DO, Emergency Medicine Ultrasound Fellow, University of Buffalo, Department of Emergency Medicine

Indications
• Abdominal pain.
• Palpable mass.
• Unexplained lethargy in a pediatric patient.

Technique
• Use a high-frequency linear transducer.
• Child should be supine.
• If a palpable mass is encountered, place probe there first.
• Scan the abdomen starting from the right lower quadrant. Sweep up to the right upper quadrant, then over to the left upper quadrant and down to left lower quadrant.
• Use slow, graded compressions as you scan the abdomen in the transverse plane.
• Be attentive to small and large intestines as you scan.
• Large bowel intussusceptions will be approximately 3-4 cm in width on transverse view. Small bowel intussusceptions will be smaller and 1-2 cm in width. Both large and small intussusceptions will extend for several centimeters longitudinally.
• Most intussusception lead points are in the subhepatic region.

Figure 1. A transverse ultrasound view of an intussusception with a target sign. The target sign (arrow) is an external ring that consists of edematous bowel wall that is hypoechoic compared with the hyperechoic center.

Figure 2. A transverse ultrasound image of a large bowel intussusception with adjacent free fluid.
Ultrasound Evaluation for Intussusception

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Tips

- Have parents hold the child in their lap and have a toy for them to play with during the exam.
- Most positive findings will be superficial and only 1 to 2 cm below the surface of the skin.
- Be patient. Repeat scans to the right side of the abdomen may be necessary.

Pitfalls and Limitations

- False positives are common and include: stool, meckel’s diverticulum, psoas muscle, lymphadenopathy and volvulus.
- Stool is a common false positive, however it can be differentiated by a thin bowel wall, “dirty” shadows and bowel gas.
- Intraluminal bowel gas can often obscure ultrasound findings and make the examination difficult.

Figures 3. A large bowel intussusception is referred to as a crescent sign when the intussusception is imaged at an oblique angle.

Figures 4a (left) and 4b (right). Transverse ultrasound images illustrate the size difference between large (4a) and small bowel (4b) intussusceptions.

Figure 5. A longitudinal ultrasound image of a large bowel intussusception referred to as a pseudokidney sign.

Figure 6. A transverse ultrasound image of normal bowel. There are many false positives for intussusceptions. Stool is one of the most common and can be differentiated by a thin bowel wall and “dirty” shadows due to bowel gas.
Clinical Alarm Safety
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- Clinically appropriate settings for alarm signals
- When alarm signals can be disabled
- When alarm parameters can be changed
- Who in the organization has the authority to set alarm parameters
- Who in the organization has the authority to change alarm parameters
- Who in the organization has the authority to set alarm parameters to “off”
- Monitoring and responding to alarm signals
- Checking individual alarm signals for accurate settings, proper operation, and detectability

The ED will certainly be a focus area for this NPSG in future Joint Commission surveys. While the timeline for implementation of these recommendations is relatively long, the problem is real and a review of alarm safety in your ED should be a priority. The next time you are working in the ED stop for a minute, at the end a busy shift, and take note of the variety of chimes, beeps, buzzes, etc. that are emanating from monitors and equipment attached to the patients. Cardiac monitors with alarms for heart rate, BP, oxygen saturation and alarms on IV pumps, BiPAP devices, mechanical ventilators, even electronic thermometers all contributing to the cacophony. Were you aware of all these alarms sounding while you were on duty? Not likely.

Alarm fatigue is a major contributor to alarm related sentinel events. The sheer number of alarms can cause physicians, nurses and support staff to become desensitized. This can result in missed alarms and delayed alarm response potentially placing the patient at risk of harm. Of the hundreds of alarms that sound in a given unit, it is estimated that between 85 and 99 percent do not require clinical intervention.4

Strategies to decrease the potential for alarm fatigue, not surprisingly, include decreasing the number of false alarms, such as when alarm parameters are set in too narrow a range or default settings are not adjusted for the individual patient. Recommendations made by both the Association for the Advancement of Medical Instrumentation (AAMI) and the ECRI Institute,5 which researches the best approaches to improving the safety of patient care, include; developing and implementing guidelines for alarm settings on alarm-equipped medical devices used in high-risk areas and for high-risk clinical conditions (including identification of situations when alarm signals are not clinically necessary) and developing guidelines for tailoring alarm settings and limits for individual patients, which address situations when limits can be modified to minimize alarm signals and the extent to which alarms can be modified to minimize alarm signals.

The first step in any performance improvement initiative is to evaluate the current processes and protocols and identify opportunities for improvement. Take an inventory of the number and types of alarms/alarmed devices that are currently in your ED. Identify which are critical i.e. most likely to result in patient harm if they malfunction or are if not acted on. Assess the audibility of the various alarms in the ED environment. Identify who is presently responsible for responding to specific alarms, observe the current practice and measure the response times. Armed with this information you will have a better idea of where to focus your efforts.

TJC also recommends establishing a multidisciplinary team including physicians, nurses, clinical support staff, biomedical engineering, information technology and risk management to focus on alarm safety at your institution. The goal is to establish an ongoing process for continuing review of trends and patterns in alarm-related events to identify opportunities for improving alarm use and optimizing of alarm system policies and configurations. In addition, the development of a program of ongoing clinical staff education on safe alarm management, training on new alarmed medical devices, updates to existing alarmed medical devices, and a process to ensure that new members of the clinical care team receive training on the alarmed medical devices they will be utilizing is essential.

Endnotes
2. The Joint Commission, Sentinel Event Alert, Medical device alarm safety in hospitals: Issue 50, April 8, 2013 http://www.jointcommission.org/assets/1/18/SEA_50_alarms_4_5_13_FINAL1.PDF
3. Joint Commission Perspectives®, July 2013, Volume 33, Issue 7
4. Association for the Advancement of Medical Instrumentation: Alarms Pose Challenges to Healthcare Facilities, Horizons, Spring 2011

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In hospitals and particularly emergency departments, it has long been acknowledged that the work setting is interruption-driven and multitasking is considered a daily facet of our lives and the specialty of emergency medicine. To some extent this is accepted as an inherent part of our culture. Chisolm et al in 2011 studied the number of interruptions and breaks in task (interruptions requiring a change in task) in multiple emergency departments and correlated this with the number of patients being cared for per physician. To no surprise, the numbers of interruptions as well as breaks in task were high and correlated with the number of patients being simultaneously cared for. The authors reasonably speculate that interruptions during medical care are a major cause for error as already shown in the air line industry. In 2010, Westbrook et al reported errors in nursing medication administration based on interruptions. Each interruption was associated with a 12.1% increase in procedural failures (procedure of preparing the medication for administration) and a 12.7% increase in clinical errors. Interruptions then of any source reduce the safety and quality of care delivered to patients.

To help improve a provider’s level of organization and quality of patient care, there has been an increasing dependence on electronic media for up to date resources. The availability of electronic medical records and electronic order entry has vastly improved efficiency in acquiring patient data as well as the safely entering legible orders with electronic dosing and allergy checks. Likewise, maintaining organization of patient flow using emergency department tracking boards with ready access to patient information has improved efficiency and lessened interruptions. Similarly, the availability of drug indexes, dosing guides, diagnostic calculations, and even diagnostic pictures on hand held devices has allowed users to improve memory “capacity” and lessen human error. There has also been an increased level of communication between providers by the use of either texting or voice activated communication systems enhancing our ability to efficiently and sometimes even quietly care for patients.

It all seems like a fairy tale. The ever improving electronic media availability will enhance patient care, decrease distractions, and lessen error. Or will it? As most of us are aware, privacy dangers abound when patient information is available on electronic media. This has generated awareness of the need to provide increased levels of protection against inappropriate use and loss of patient information. Advancement in technology can bring more than privacy risks for patients to the table, it also brings increased levels of distraction to those providing their care. In December 2011, an article appeared in the New York Times, “As Doctors Use More Devices, Potential for Distraction Grows” which brought attention to the unintended side effects of the invasion of computer and electronic technology into health care. The article primarily focused on the use of electronic devices for personal communication while medical staff is in the midst of rendering patient care. The article coined the new terminology “distracted doctoring.” This article set off a flurry of discussions especially in the lay media but now also in the professional health care media concerning minimally the appropriateness of all the technology but more concerning is the possibility of error this boon in technology has brought to our patients.

The literature also contains case reports of medical errors attributed to “distracted doctors” using electronic devices for personal communication. One such example is readily available via the AHRQ web site http://webmm.ahrq.gov detailing a medication error which occurred when a resident was distracted by a personal text during order entry. Despite such case reports, the issue does not appear to have been extensively studied in this particular context. Observational studies completed in prior years concerning distraction and medical error did include a component of error related to technology but this was before the explosion of personal electronic devices and media. Distractions from any source can contribute to error; personal electronic devices should be considered a common place source of those errors. A quick internet search using the term “distracted doctors” brings up one law firm after the next that clearly are banking on medical errors from electronic distraction contributing to their business growth.

Hospitals will in the near future be required to address this evolving safety concern. Many have already begun developing guidelines or codes of “econduct” to attempt to control work interruptions from mobile electronic devices. Approximately 38% of Healthcare Organizations have mobile technology policies in place. Guidelines do exist to provide assistance. A summary of a general approach would include the following guiding premises:

1. Maintain separate personal and professional devices. If this is not possible, then all personal devices used in the clinical setting to transmit protected health information must have appropriate security and be subject to the potential for erasure of all personal and work information should there be a data breach.

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A Distracted Culture
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2. Clinicians will refrain from using computers and eDevices at clinical work stations to conduct personal business. Focus should remain on patient care.

3. All devices should be in “silent” mode whenever in a patient room or discussing patient information with the patient/family. Focus should remain on the patient. If technology is needed, then it should be explained to the patient.

4. Delineate roles for clinicians when rounding including use of eDevices. If devices are needed for clinical communication, a team member will be specifically assigned to the individual device used.

Enforcing such a code of conduct may be a nearly impossible venture for any healthcare institution. Texting is used now between clinicians for the conduct of patient care and by many answering services for physicians. The first level of enforcement will need to be by the clinicians themselves on their own personal behavior. The potential danger to patient safety must first be recognized as well as the perception of the patients themselves when clinicians are using mobile devices in the patient care or work area. Healthcare personnel will need to police the use of such devices not only personally but within professional work groups as well. Dare it be said, we need to recognize the addiction and then assist each other in breaking it?

Yes, the word addiction should be utilized within this discussion of distracted doctoring. Who can argue that is not what we are dealing with? It is important to recognize the why behind the need to frequently access mobile devices in the patient care area for business that is unrelated to the current patient care work load. Many professionals are suffering from technology addiction and are convinced that multitasking is making us more productive; emerging research though says otherwise. Heavy multitaskers are experiencing more difficulty focusing, cannot shut out irrelevant information, and are experiencing more stress at work. The stress rises for professionals who are always on, always accessible, and always feel the need to immediately respond. Look around at the next meeting or lecture you are in attendance at, many in the audience will be distracted by hand held devices, checking email, texting, etc. Worse yet, look around the dinner table at your teenagers, significant other or yourself. If both of these phenomena bother you, consider what the patients are thinking. Research shows that those who check each email as it comes in are actually less time efficient than those who check email at designated times during the day.

There is a need for each healthcare institution to create guidelines for eDevices due to patient safety concerns, but perhaps it is also time to personally develop our own guidelines. Apply the same standard first at work, in the patient care environment, and secondly in our personal lives. Start with silent times or zones, or better yet, designated “off” times. Surprisingly, it may be found you will not miss information that cannot wait and you may just learn to enjoy the silence. Each of us needs to step forward, admit the addiction and do this for our patients, ourselves and our families. Let’s shed the label of “distracted doctors” before it sticks.

References


Opioids are commonly administered drugs in the hospital. Generally, they are well tolerated but can produce serious side effects. One of the most common of these is a non-immune mediated anaphylactoid reaction involving histamine release. This is in contrast to the immune mediated IgE Type 1 hypersensitivity that is seen in true anaphylactic reactions.

Morphine has been known to cause both by different pathways. The anaphylactoid reaction involves preformed histamine release from skin mast cells where the only findings would be pruritis and urticaria. In an anaphylactic reaction, mast cells are activated by IgE complexes and findings include widespread histamine release causing hypotension, tachycardia etc.

In a study by Marone, investigators isolated mast cells from human skin, lung and heart tissue and studied the effects of general anesthetic drugs upon each. Morphine was found to induce histamine release only from the human skin mast cells, not the others. It induced the release of preformed mediators. Furthermore, it was found that most mast cells do not have any of the previously well-known three histamine receptors (i.e. H1: smooth muscle, H2: regulators of gastric acid secretion, H3: found on neurons). Lipert et al found that human skin and leukemic mast cells express a newer H4 receptor, which is a possible site for immunomodulation of the allergic response. This may be a partial explanation for the skin findings found after intravenous injections of morphine.

Roscow et al conducted a study on patients pre-operatively and measured histamine release with infusion of different opioids. The morphine (1mg/kg) group had a significant decrease in MAP and SVR that correlated with the highest histamine levels. The fentanyl (50mcg/kg) group had no change in these parameters. Researchers proposed that the amount of histamine release could be related to the concentration of the drug at the mast cell membrane and since the concentration was low with more potent drugs (fentanyl), histamine release would also be low.

References
Record Attendance
The 2013 Scientific Assembly at the Sagamore Resort on Lake George was attended by over 236 emergency physicians from around the state. Forty-six companies participated through exhibits and support.

Awards
Each year New York ACEP honors individuals for contributions to the advancement of emergency care. For more information on these awards, visit www.nyacep.org.

Advancing Emergency Care
Frederick M. Schiavone, MD FACEP, (pictured with his wife Pat) Vice Dean for GME, Clinical Professor of Emergency Medicine, School of Medicine SUNY Stony Brook was awarded the 2013 Advancing Emergency Care Award. This award was created to recognize a New York ACEP member for significant contributions in advancing emergency care in New York State.

Physician of the Year
Gerard X. Brogan, Jr., MD FACEP (pictured with presenter Gary S. Rudolph, MD FACEP right) was awarded the 2013 Physician of the Year in recognition of outstanding dedication and commitment to the improvement of quality patient care and the advancement of emergency medicine in New York through clinical, research, educational and administrative activities.

Edward W. Gilmore Lifetime Achievement Award
Stephan G. Lynn, MD FACEP (pictured with his wife Susan) received the inaugural Lifetime Achievement Award for lifelong commitment and lasting impact on the specialty of emergency medicine and New York ACEP. (see tribute on page 11).

Research Forum Winners
Monday’s program began with the Research Forum featuring oral and poster presentations. Congratulations to the following research presenters that took the annual award in their category (read abstracts starting on page 13):

Oral Presentation
• Death in Simulation: Comparing the Stress to the Educational Value, Sean F. Geary, MD; Taylor R. Spencer, MD; Wendy L. Woolley, DO - Albany Medical Center Hospital

Poster Presentations
• Does a Patient Advocate during the Emergency Department Discharge Process Improve 48-Hour and 6-Week Post-Discharge Patient Satisfaction? Stephanie Haddad, MD; Natali Baner, BS; Robert Medairos, BS; Christina Sison PhD; Mary Frances Ward, MS RN ANP; Jason Z. D’Amore, MD - North Shore University Hospital
• Determining the Utility of Metabolic Acidosis in Trauma Patients, Andrew Summersgill, MD; Nicholas Caputo, MD; Robert M. Fraser, MD; Marc Kanter, MD - Lincoln Medical and Mental Health Center
• Can Bedside Sonography Replace Conventional Radiography for Confirmation of Above-the-Diaphragm Central Venous Catheter Placement? Robert Gekle, MD; Laurence Dubensky, MD; Stephanie Haddad, MD; Tracy Catlin, MD; Sean Stickles, MD; Vu Huy Tran, MD; Gaurav Patel, MD; Jason D’Amore, MD; Veena Modayil, MD; Christopher Raio, MD; Mathew Nelson, DO - North Shore University Hospital
• The Utility and Accuracy of Skype™ in Viewing CTs from a Remote Facility for the Diagnosis of Appendicitis in Pediatrics, Mahsa Akhavan, MD; Eric Boccio, BS; Jeanne Choi-Rosen, MD; William Krief, MD - Cohen Children’s Medical Center

Leadership Elected
Congratulations are extended to board members elected to serve second terms:
David C. Lee, MD FACEP
Gary S. Rudolph, MD FACEP
Kaushal H. Shah, MD FACEP

And to newly elected director, Nicole Berwald, MD FACEP from Staten Island University Hospital who joins officers and board members for the 2013-2014 program year. Christina N. Tran, MD from Beth Israel Medical Center was appointed resident representative to the Board of Directors by President Daniel G. Murphy, MD MBA FACEP.
Stephan G. Lynn, MD FACEP through his visionary leadership, commitment and tireless work has left a lasting imprint on the field of emergency medicine. Throughout his career, he has shaped and guided the development of Emergency Medicine at St. Luke’s Roosevelt Hospital Center, in New York City, New York State and nationally. He was among the pioneering leaders in the early 70s that understood that emergency medicine was a critical specialty with a unique body of knowledge and approach to patient care. He fully grasped that the development of systems to improve the evaluation and care of critically ill patients was essential. His efforts included everything from creating a residency program, developing pre-hospital care systems, mobilizing efforts to end emergency department overcrowding, developing guidelines for the design and construction of emergency departments as well as support for the founding of sexual assault and domestic violence programs. In recognition of Dr. Lynn’s pioneering spirit and career dedication to improve the specialty of emergency medicine New York ACEP honored Dr. Lynn in July with its first Edward W. Gilmore Lifetime Achievement Award.

Dr. Lynn began his career in 1978 and in 1979, one year after his surgical training, became Director of the Roosevelt Emergency Department. Coincidentally, 1979 was also the first year that Emergency Medicine was recognized by the American Board of Medical Specialties. At that time Emergency Medicine was in its early stages of development as a specialty. Roosevelt Hospital, like many hospitals, had an Emergency Room which contained little or none of the things any of us would expect to find in an Emergency Department. Care was fragmented often delivered by House Officers, Fellows or Attendants who were trained in other specialties. None of these physicians had a commitment to Emergency Medicine as a specialty. The field was often a Division of the Department of Medicine or Surgery with little or no voice in the hospital or beyond. The right and responsibility to evaluate patients presenting to the Department before their private physician arrived or to independently admit patients to the hospital were battles that needed to be engaged and won. What we now take for granted as the unique body of knowledge and approach to patient care that is Emergency Medicine was in its infancy.

Nationally and in New York transforming Emergency Medicine from the dark ages to a modern specialty was a concept held by a few visionary leaders. Dr. Lynn was among those leaders and in 1984 became the first physician in the Columbia University system to be boarded in EM. His tireless dedication to his patients and his specialty has helped transform Emergency Medicine. Dr. Lynn, like many of the founders of our specialty had a vision of the future that included Emergency Medicine as an academic independent department with a respected and valued position in the house of medicine. It is a vision that through his efforts and those of his colleagues is a reality for those of us practicing today.

Throughout his career Dr. Lynn has been an active and vital member of New York ACEP which he joined in 1976. He participated in the National ACEP Council for many years working to establish policy and electing its officers. He also served for seven years as a faculty member at ACEP scientific assemblies. His work with ACEP culminated with his term as President from 1992-1994. His effort to end hospital overcrowding in the late 80s is in many ways illustrative of Dr. Lynn’s approach to an issue. He defined the issue in the EM literature, became Chairman of the ACEP task force on hospital overcrowding and his coordinated national seminars. He advocated for his viewpoint with members of congress and he appeared on the McNeil Lehrer Newshour explaining to the country that there was a crisis in the nations EDs. His success is evidenced by The Joint Commission requirement going into effect in January 2014 that hospitals must have plans to avoid overcrowding in their ED in order to maintain certification.

One of Dr. Lynn’s accomplishments that will have the most enduring legacy is the creation of the Emergency Medicine Residency at St. Luke’s-Roosevelt. It became clear to Dr. Lynn in the 80s that the best way to advance Emergency Medicine at SLR was to train residents. Doing so he could attract quality faculty to teach and mentor residents. He could create a department that was academic, challenging and exciting. The community, the hospital and emergency medicine in New York would all benefit. The residency started in 1993 with eight residents. The program now has 42 residents and offers fellowships in Ultrasound, Simulation and Pre-hospital care. Two-hundred and twelve graduates of the program now work in EDs across the country including leaders in Pre-hospital Care, Toxicology, Critical Care, and Palliative Care. As with all Dr. Lynn’s endeavors over the years the residency is an unqualified success.

Dr. Lynn has also devoted his time and energy to work with New York City and New York State EMS. He elevated the Regional EMS Council of New York City to a functional, active body. He became the Chair of the Regional EMS Council of New York City, the state designated agency responsible for emergency care in the City and was the founding Chair of the New York City REMAC. He served on the committee that defined trauma center standards for New York City and later New York State.

Dr. Lynn has also been actively involved throughout his career with the Greater New York Hospital Association, SAEM’s Governmental Affairs Committee, The American Red Cross, American Heart Association and a seemingly endless array of hospital and medical school committees. His work as a member of Physicians for a Violence-Free Society shaped his efforts to bring the issue of domestic violence to the attention of emergency physicians. This led directly to his participation in the founding of the Crime Victims Treatment Center at SLRHC which has served as a model of similar programs throughout the State.

In short, Dr. Lynn is a visionary who has spent a career viewing every challenge as an opportunity; an opportunity to mobilize the energies of others, to craft solutions and to implement programs. His has always been the world of an activist and patient advocate, constantly striving to change the
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Death in Simulation: Comparing the Stress to the Educational Value

OBJECTIVES: Simulation is a modality to teach, practice and master many skills. However, the inclusion of death in simulated patient scenarios has been debated. Experts question whether the experience outweighs potential psychological harms to the learner. Given that unexpected death is a reality in Emergency Medicine (EM), death notification is a skill that must be learned by EM providers. Excluding this during their training may delay and amplify the psychological harms when facing this in practice. We examined whether EM residents find the learning opportunity of the unexpected death of a simulated patient, and subsequent “family” notification, outweighs the stress of this situation. In recognizing that death, even in simulation, is stressful for learners, we also studied how variation in the clinical presentation affected the learners’ satisfaction and stress. The goal is to create scenarios that maximize educational value while minimizing stress.

METHODS: This study was a randomized controlled trial of two different “breaking bad news” scenarios. Scenarios were run on a high-fidelity simulation mannequin who either arrives interactive but in severe distress and progresses to arrest (“distress”), or who has decompensated during transport and is pulseless at time of initial learner contact (“arrest”). In both cases, the residents must then inform the “family” (portrayed by a live actor) of the patient’s unexpected death. Twenty-seven residents from a single three year residency were divided into 9 teams, one resident from each post graduate year, and each team was randomized to one of the scenarios. The senior residents were the scenario leaders responsible for directing case management and the actual delivery of the bad news. The junior residents executed the case and supported the senior resident during the bad news delivery. Each resident then completed a survey tool that gauged self-reported stress, perceived educational value, and perceived overall value on a visual analog scale. We examined the educational value in light of the perceived stress and overall resident satisfaction with the activity. Using an unpaired two tail Student’s t-test, we then compared the different variations of the scenarios to examine the impact both on the perceived stress and the educational value of the scenarios based upon the arrival status of the patient.

RESULTS: Overall, residents found the case had more overall value (87.58 vs 76.95, p=0.006) and more educational value (85.77 vs 71.71, p= 0.022) in the “distress” scenario compared to “arrest”. In contrast, there is only a nonsignificant trend towards more stress (75.18 vs. 64.58, p = 0.111). In general, the level of satisfaction exceeded the perceived level of stress in all situations. Residents find significantly more educational value (78.37 vs. 59.70, p= 0.025) to the live actor encounter when the patient arrives in distress, but also significantly more stress (81.83 vs. 52.39, p= 0.003).

CONCLUSIONS: EM residents perceive the psychological stress imposed by the death of the simulated patient to be outweighed by the educational value of practicing this valuable skill. In fact, we demonstrated that the more stressful scenario had higher levels of satisfaction and educational value especially during the death notification. At least for EM residents, attempts at mitigating stress by eliminating the patient deterioration resulted in less educational value.

Congratulations to the following research presentations that took the annual award in the poster category.

Does a Patient Advocate During the Emergency Department Discharge Process Improve 48-Hour and 6-Week Post-Discharge Patient Satisfaction?

BACKGROUND: Patient satisfaction has become an increasingly important aspect of health care. Hospitals must aim to achieve and sustain higher patient satisfaction and improve the patient experience.

OBJECTIVES: The purpose of this study is to assess whether the engagement of a Patient Advocate during the ED discharge process can increase patient satisfaction assessed 48-hours post-discharge, and also result in a sustained improvement in patient satisfaction 6-weeks post-discharge as reported by Press Ganey Surveys.

METHODS: This was a prospective, cluster-randomized trial conducted in a suburban ED between 10/17/11- 3/23/12. Eligible study participants included all patients ≥ 18 years discharged from the ED during regular business hours. Study days were randomized to intervention (Patient Advocate present) or control using a permuted block design. On intervention days, eligible patients were approached by Research Interns during the discharge process with a 5-question survey to assess readiness to be discharged. On control days, patients were not approached by Patient Advocates. All patients received a 48-hour post-discharge phone survey to assess communication in the ED, overall satisfaction, readiness of discharge, safety, and understanding of discharge instructions. Mean scores were calculated and a mixed model with an unstructured covariance structure was used to compare scores between intervention and control groups.

Press Ganey Scores for Doctor/Overall Assessment categories were retrospectively obtained for all study days. Mean scores were calculated for intervention and control days in each of the 18 categories and compared using the Mann-Whitney Test.
RESULTS: The study enrolled a total of 335 participants (215 control and 120 intervention). At 48-hours, participants in the intervention group had significantly higher (0.46 points) mean satisfaction scores as compared to those in the control group (P < 0.0039). There were no significant differences in scores between intervention and control groups on the 6-week Press Ganey survey.

CONCLUSION: Although the presence of a Patient Advocate during the ED discharge process significantly increases patient satisfaction 48-hours after discharge, it does not improve 6-week Press Ganey scores. Further studies should be conducted to elucidate the factors that influence this lack of sustainability in satisfaction scores.

Determining the Utility of Metabolic Acidosis in Trauma Patients

Andrew Summersgill, MD; Nicholas Caputo, MD; Robert M. Fraser, MD; Marc Kanter, MD - Lincoln Medical and Mental Health Center

BACKGROUND: Metabolic acidosis has been proposed as the gold standard to define shock in trauma patients. Other studies determine the presence of shock by use of serum lactate. Not all medical centers have the ability to utilize point of care lactate at bedside. This study seeks to determine the relationship of serum lactate to metabolic acidosis in trauma patients, and it’s use in predicting the need for massive transfusion protocol (MTP). We hypothesize that determination of metabolic acidosis will be strongly correlated to lactate levels and can be used to determine the presence of shock.

METHODS: Design: Prospective observational cohort study.

SETTING: Level-1 academic, urban trauma center.

PARTICIPANTS: This study took place from July 1, 2012 to March 1, 2013. Inclusion criteria were any patient >18 years old who presented for trauma. Exclusion criteria were any patients whom lost vital signs before reaching the trauma bay.

OBJECTIVES: To demonstrate that dynamic ultrasonographic visualization of the saline flush on the right side of the heart after CVC placement can serve as an accurate, safe, and rapid confirmation of above-the-diaphragm CVC placement.

RESULTS: Over the study period 100 patients were enrolled. The average age was 34 (IQR 24-42), and 82% were male. Forty patients were found to be acidic (pH<7.35). Table 1 demonstrates the difference between the two groups in terms of lactate level, ISS, and percentage who received MTP. The relative risk for pH to predict MTP need was 0.96 (95% CI 0.46-2). Table 2 demonstrates that pH is as good an indicator for the need for MTP as lactate. The correlation of lactate is stronger in patients with acidosis (Pearson -0.79, r²=0.62) than those that are not acidotic (Pearson= 0.07, r²=0.005).

Table 1

<table>
<thead>
<tr>
<th>Lactate</th>
<th>ISS</th>
<th>Percentage who received MTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.08</td>
<td>6</td>
<td>0.98</td>
</tr>
<tr>
<td>8.01</td>
<td>16</td>
<td>0.81</td>
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Table 2

<table>
<thead>
<tr>
<th>pH</th>
<th>Lactate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>8.01</td>
</tr>
<tr>
<td>6.00</td>
<td>1.08</td>
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</tbody>
</table>

CONCLUSION: This study demonstrates that metabolic acidosis is a good indicator for need of MTP of trauma patients and is strongly correlated to elevated serum lactate.

Can Bedside Sonography Replace Conventional Radiography for Confirmation of Above-the-Diaphragm Central Venous Catheter Placement?

Robert Gekle, MD; Laurence Dubensky, MD; Stephanie Haddad, MD; Tracy Catlin, MD; Sean Stickles, MD; Vu Huy Tran, MD; Gaurav Patel, MD; Jason D’Amore, MD; Veena Modayil, MD; Christopher Raio, MD; Mathew Nelson, DO - North Shore University Hospital

BACKGROUND: Resuscitations in the emergency department often require rapid access with central venous catheters (CVC). Chest x-ray is the gold standard to confirm proper placement of the CVC and exclude pneumothorax after placement. However, radiographs are often untimely and expose patients to ionizing radiation. Studies have shown that visualization of the saline flush through a central line to the right side of the heart can be used to confirm appropriate central line placement.

OBJECTIVES: To demonstrate that dynamic ultrasonographic visualization of the saline flush on the right side of the heart after CVC placement can serve as an accurate, safe, and rapid confirmation of above-the-diaphragm CVC placement.

RESULTS: There were 24 patients enrolled into this study; two patients were excluded from data analysis because of missing data. The average time to confirmation of CVC placement by ultrasonography (saline flush visualized and pneumothorax excluded) was 9.3 minutes (95% CI: 6.3- 11.7). The average time to confirmation of CVC placement by chest x-ray interpretation by the emergency physician was 26.8 minutes (95% CI: 21.2- 32.4). On average, the sonographic confirmation of proper line placement occurred 17.4 minutes sooner than by chest x-ray. The saline flush was visualized in all patients, and no discrepancy existed between ultrasound confirmation and CXR confirmation. No adverse effects were reported.

CONCLUSION: Confirmation of CVC placement by dynamic ultrasonographic visualization of the saline flush with exclusion of pneumothorax is accurate, safe, and more time efficient than the conventional confirmation by chest x-ray. This allows the central line to be used immediately, positively affecting patient care. As such, the
results of this study have the potential to alter standard practice for CVC confirmation following placement.

The Utility and Accuracy of Skype™ in Viewing CTs from a Remote Facility for the Diagnosis of Appendicitis in Pediatrics

Mahsa Akhavan, MD; Eric Boccio, BS; Jeanne Choi-Rosen, MD; William Krief, MD - Cohen Children’s Medical Center

BACKGROUND: Teleradiology has been used to provide greater coverage of imaging services when on-site reading is not possible or practical. Current teleradiology programs require high communication bandwidth and technological networks. These systems involve expensive equipment and constant maintenance by IT support staff. Skype™ is a voice over internet protocol technology available as freeware, which enables secure peer-to-peer video transmissions. Skype™ may provide an easy to use, cost effective alternative to the expensive and complex teleradiology programs currently being employed by medical centers.

PURPOSE: The purpose of this study is to determine if abdominal CT scans performed for the diagnosis of appendicitis in children can be accurately interpreted by a pediatric radiologist through transmission via Skype™ as compared to PACS interpretations.

METHODS: This is an interim analysis of a retrospective, comparative study of abdominal CT interpretations for pediatric patients who visited a large Level I pediatric emergency department and were suspected to have or diagnosed with appendicitis. A consecutive sample of CT images from pediatric patients who obtained an abdominal CT with oral and IV contrast over a one year period was gathered. CT studies were evaluated on two separate occasions by a pediatric radiologist who was blinded to the original radiologist report and diagnosis. During the first review, the abdominal CT studies were accessed, viewed, and interpreted by the radiologist directly from a PACS radiology system. During the second review, the same abdominal CT studies were obtained and transmitted to the radiologist from a remote facility using the screen sharing function on Skype™. The CT reviews were separated in time to prevent involuntary memorization by the radiologist. During each study review, the radiologist interpreted the abdominal CT as positive, negative, or inconclusive for appendicitis. In addition, the completion time for each study review was recorded.

RESULTS: There were 50 subjects for whom a PACS and Skype™ abdominal CT interpretation were performed. There was moderately good agreement between PACS and Skype™ (κ = 0.79, 95% CI: 0.64 to 0.95). The sensitivity and specificity of Skype™ with respect to PACS were 84.6% and 91.9%, respectively. The NPV of Skype™ was 94.4% (95% CI: 81.7% to 98.5%). The median times to make the diagnosis were 100sec (IQR=118) and 167sec (IQR=199) for PACS and Skype™, respectively (p < 0.004).

CONCLUSION: Abdominal CT scans performed for the diagnosis of appendicitis can be accurately interpreted by a pediatric radiologist through transmission via Skype™. While PACS interpretations of CTs to evaluate for appendicitis are more accurate and quicker than those performed over Skype™, the availability and associated costs of a pediatric radiologist and/or teleradiology system may be factors to consider in determining local practice.
In 2012, the Accreditation Council for Graduate Medical Education (ACGME) designated ultrasound (US) as one of 23 milestone competencies for emergency medicine (EM) residency graduates. With increasing scrutiny of medical educational programs and their effect on patient safety and health care delivery, it is imperative to ensure that US training and competency assessment is standardized. In 2011, a multiorganizational committee composed of representatives from the Council of Emergency Medicine Residency Directors (CORD), the Academy of Emergency Ultrasound of the Society for Academic Emergency Medicine (SAEM), the Ultrasound Section of the American College of Emergency Physicians (ACEM), and the Emergency Medicine Residents’ Association was formed to suggest standards for resident emergency ultrasound (EUS) competency assessment and to write a document that addresses the ACGME milestones. This article contains a historical perspective on resident training in EUS and a table of core skills deemed to be a minimum standard for the graduating EM resident. A survey summary of focused EUS education in EM residencies is described, as well as a suggestion for structuring education in residency. Finally, adjuncts to a quantitative measurement of resident competency for EUS are offered.


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Magnitude of D-Dimer Matters for Diagnosing Pulmonary Embolus.


Objective: The objective of this study is to determine whether the magnitude of the d-dimer correlates with a higher likelihood of pulmonary embolus (PE).

Methods: We performed an electronic chart review at our academic, tertiary care center, annual emergency department (ED) census greater than 100,000. All patients with a chest computed tomographic (CT) scan with intravenous contrast and an elevated d-dimer level obtained in the ED between January 2001 and July 2008 were identified. Specific, predetermined, pre-defined data elements including sex, age, d-dimer level, and final ED diagnosis were recorded by a hypothesis-blinded extractor using a preformatted data form. D-dimer level less than 0.58 μg/mL constitutes the normal laboratory reference range for our hospital. Using a hypothesis-driven methodology, we identified the d-dimer, and final ED diagnosis were recorded by a hypothesis-blinded extractor using a preformatted data form. D-dimer level less than 0.58 μg/mL constitutes the normal laboratory reference range for our hospital. Using a hypothesis-driven methodology, we identified the d-dimer.

Results: We identified 544 subjects who had both a chest CT scan performed and an elevated d-dimer level obtained in the ED. Fifty-eight subjects (10.7%; mean d-dimer, 4.9 μg/mL) were diagnosed with PE, and 486 (89.3%; mean d-dimer, 2.0) did not have a PE. The percentages of PE diagnoses for d-dimers in the ranges 0.58 to 1.0, 1.0 to 2.0, 2.0 to 5.0, 5.0 to 20.0, and greater than 20.0 (n = 11) were 3.6%, 8.0%, 16.2%, 35.3%, and 45.5%, respectively. The positive predictive value of PE for d-dimer cutoffs of greater than 0.58, greater than 1.0, greater than 2.0, greater than 5.0, and greater than 20.0 was 10.7%, 14.6%, 22.2%, 37.8%, and 45.5%, respectively. Increasing d-dimer values were strongly correlated with the presence of PE (odds ratio, 1.1685 per stratum; P < .001).

Conclusion: Increasing magnitude of d-dimer correlates with increasing likelihood of PE diagnosed by CT angiography.

Update on Urinary Tract Infections in the Emergency Department.


Purpose of Review: To review recent changes in the diagnostic and therapeutic approach to pediatric urinary tract infection in the emergency department.

Recent Findings: Updated guidelines from the American Academy of Pediatrics have significantly changed the approach to UTI, risk-stratifying patients according to their likelihood of UTI, and re-defining criteria for diagnosis of UTI. New studies have delineated important risk factors for concomitant bacteremia and adverse events. Procalcitonin has emerged as the inflammatory marker most predictive of upper versus lower urinary tract infection and renal scarring. Delays in empiric antibiotic therapy are associated with increased rates of renal scarring. Corticosteroids are a potential adjunctive therapy to antibiotics.

Summary: Timely diagnosis and therapy of UTI are essential. New guidelines may alter the traditional approach to evaluation and management. Future studies will likely focus on the impact of the new guidelines, further delineate the role of procalcitonin in predicting UTI, and explore the role of corticosteroids as an adjunct to antibiotic therapy.

Teaching Medical Students a Clinical Approach to Altered Mental Status: Simulation Enhances Traditional Curriculum.

INTRODUCTION: Simulation-based medical education (SBME) is increasingly being utilized for teaching clinical skills in undergraduate medical education. Studies have evaluated the impact of adding SBME to third- and fourth-year curriculum; however, very little research has assessed its efficacy for teaching clinical skills in pre-clerkship coursework. To measure the impact of a simulation exercise during a pre-clinical curriculum, a simulation session was added to a pre-clerkship course at our medical school where the clinical approach to altered mental status (AMS) is traditionally taught using a lecture and an interactive case-based session in a small group format. The objective was to measure simulation’s impact on students’ knowledge acquisition, comfort, and perceived competence with regards to the AMS patient.

METHODS: AMS simulation exercises were added to the lecture and small group case sessions in June 2010 and 2011. Simulation sessions consisted of two clinical cases using a high-fidelity full-body simulator followed by a faculty debriefing after each case. Student participation in a simulation session was voluntary. Students who did and did not participate in a simulation session completed a post-test to assess knowledge and a survey to understand comfort and perceived competence in their approach to AMS.

RESULTS: A total of 154 students completed the post-test and survey and 65 (42%) attended a simulation session. Post-test scores were higher in students who attended a simulation session compared to those who did not (p<0.001). Students who participated in a simulation session were more comfortable in their overall approach to treating AMS patients (p<0.001). They were also more likely to state that they could articulate a differential diagnosis (p=0.03), know what initial diagnostic tests are needed (p=0.01), and understand what interventions are useful in the first few minutes (p=0.003). Students who participated in a simulation session were more likely to find the overall AMS curriculum useful (p=0.001).

CONCLUSION: Students who participated in a simulation exercise performed better on a knowledge-based test and reported increased comfort and perceived competence in their clinical approach to AMS. SBME shows significant promise for teaching clinical skills to medical students during pre-clinical curriculum.

Health in Fragile and Post-Conflict States: A Review of Current Understanding and Challenges Ahead.


Health systems face enormous challenges in fragile and post-conflict states. This paper will review recent literature to better understand how, within a context of economic volatility, political instability, infrastructural collapse and human resource scarcity, population health deteriorates and requires significant attention and resources to rebuild. Classifications of fragile and post-conflict states differ among organizations and reviewing the basic consensus as well as differences will assist in clarifying how organizations use these terms and how statistics on these nations come about. Of particular interest is the increase in local conflicts within states that may not affect national mortality and morbidity but pose heavy burdens on regional populations. Recent research on, sexual and reproductive health, children’s health and mental health within fragile and post-conflict states highlights the effects of healthcare systems and their breakdown on communities. We propose a research agenda to further explore knowledge gaps concerning health in fragile and post-conflict states.

Disasters and Women’s Health: Reflections from the 2010 Earthquake in Haiti.

Bloem CM, Miller AC; Department of Emergency Medicine, State University of New York Downstate Medical Center and Kings County Hospital Center, Brooklyn. Prehosp Disaster Med. 2013 Apr;28(2):150-4.

INTRODUCTION: Increasing attention is being focused on the needs of vulnerable populations during humanitarian emergency response. Vulnerable populations are those groups with increased susceptibility to poor health outcomes rendering them disproportionately affected by the event. This discussion focuses on women’s health needs during the disaster relief effort after the 2010 earthquake in Haiti.

REPORT: The Emergency Department (ED) of the temporary mobile encampment in L’Hôpital de l’Université d’Etat d’Haiti (HUEH) was the site of the team’s disaster relief mission. In February 2010, most of the hospital was staffed by foreign physicians and nurses, with a high turnover rate. Although integration with local Haitian staff was encouraged, implementation of this practice was variable. Common presentations in the ED included infectious diseases, traumatic injuries, chronic disease exacerbations, and follow-up care of post-earthquake injuries and infections. Women-specific complaints included vaginal infections, breast pain or masses, and pregnancy-related concerns or complications. Women were also targets of gender-based violence.

DISCUSSION: Recent disasters in Haiti, Pakistan, and elsewhere have challenged the international health community to provide gender-balanced health care in suboptimal environments. Much room for improvement remains. Although the assessment team was gender-balanced, improved incorporation of Haitian personnel may have enhanced patient trust, and improved cultural sensitivity and communication. Camp geography should foster both patient privacy and security during sensitive examinations. This could have been improved upon by geographically separating men’s and women’s treatment areas and using a barrier screen to generate a more private examination environment. Women’s health supplies must include an appropriate exam table, emergency obstetrical and midwifery supplies, urine dipsticks, and sanitary and reproductive health supplies. A referral system must be established for patients requiring a higher level of care. Lastly, improved inter-organization communication and promotion of resource pooling may improve treatment access and quality for select gender-based interventions.

CONCLUSION: Simple, inexpensive modifications to disaster relief health care settings can dramatically reduce barriers to care for vulnerable populations.

Experience Curves as an Organizing Framework for Deliberate Practice in Emergency Medicine Learning.


Deliberate practice is an important skill-training strategy in emergency medicine (EM) education. Learning curves display the relationship between practice and proficiency. Forgetting curves show the opposite, and demonstrate how skill decays over time when it is not reinforced. Using examples of published studies of

continued on page 30
Let MMP turn your chaos to calm.

If your day-to-day operations are chaotic, Medical Management Professionals (MMP) can deliver state-of-the-art billing processes, sophisticated chart reconciliation, denial management and payor specific coding services to your practice. In fact, it has billed over 93 million visits since its inception. The results for emergency medicine practices are increased revenues, reduced compliance risk and reduced stress for administrators and physicians.

Counter your chaos with a calming force.
Case 1
An 8 year-old girl is brought to the ED after putting her arm through a broken window. She was given morphine by EMS with a large and complicated arm laceration. In the ED, the laceration repair is attempted with local infiltration of lidocaine and intravenous fentanyl. However, after several attempts, the patient is too anxious and it is decided to proceed with procedural sedation. Once pre-sedation protocols were completed, procedural sedation is performed using a 50/50 mixture of nitrous oxide, which subsequently fails as she remains uncooperative.

The providers next proceed to a sedation using ketamine.
She is given fentanyl for pain. As the ketamine is being administered, she becomes apneic. You go to bag the infant but realize you have the wrong size mask, and it takes 30 seconds to find the appropriate equipment. You subsequently realize his weight was given to you in pounds, not kilograms. You don’t have the correct equipment and you have just overdosed your patient.

Case 2
A full term one-month old presents with an incarcerated inguinal hernia. He has been having normal bowel movements. No fevers or vomiting. He is uncomfortable in appearance. Physical exam reveals an inguinal hernia with mild surrounding erythema. You decide to reduce it.

The neonate is given 14cc of intravenous fentanyl. Shortly after, he becomes apneic. You go to bag the infant but realize you have the wrong size mask, and it takes 30 seconds to find the appropriate equipment. You subsequently realize his weight was given to you in pounds, not kilograms. You don’t have the correct equipment and you have just overdosed your patient.

Case 3
A 4 year-old has a “bad” forearm fracture that will need ED reduction. After checking his PMH, anesthesia history, and NPO status, he is given intravenous ketamine. Two minutes later he starts grunting as he goes into laryngospasm. You try bagging through it…but the sats start to drop quickly…..89%....76%....63%.... and panic sets in.

Introduction
Procedural sedation is commonly performed in our emergency departments, as it facilitates care of our patients needing painful or uncomfortable procedures. Emergency department sedations allow us to take better care of our patients, especially kids, by maximizing pain control and reducing anxiety. In general, the medications we most frequently use in the emergency department are safe, however, there are known side effects and potential complications that we must anticipate and be ready for. Ketamine and propofol are two perfect examples of commonly used sedating agents in our emergency departments.

How are we doing with propofol?

This was an interesting study that looked at adverse events encountered during pediatric procedural sedation (using propofol) which was supervised by emergency medicine physicians. The authors reviewed over 25,000 sedations of patients between the ages of 1 month and 20 years. Serious adverse events such as airway obstruction, desaturation, apnea, and laryngospasm, occurred in about 2.3 % of the cases. “Other adverse events” such as coughing, suctioning, vomiting, prolonged recovery etc., occurred in 3.55% of patients. In this review, there were 125 cases of apnea, 28 cases of laryngospasm, one unplanned intubation and one cardiac arrest.

Dr. Mallory and colleagues found that independent predictors of serious events were upper respiratory condition (OR 4.7), prematurity (OR 4.0), co-administration of a benzodiazepine (OR 3.1), ketamine (OR 2.6), anticholinergics (OR 2.2) or opioids (OR 2.2). Children with an ASA of >2 and those with a weight less then 5kg were also risk factors. Performance of a painful

continued on next page
procedure decreased the risk of serious adverse event (OR 0.6). In conclusion, serious adverse outcomes were rare in this large patient population when emergency medicine physicians used propofol for sedations.

**Predictors of Airway and Respiratory Adverse Events with Ketamine Sedation in the Emergency Department: An Individual Patient Data Meta-analysis of 8,282 Children.**


This excellent meta-analysis reviewed over 8,000 children who received ketamine. This study found that in children sedated with ketamine 3.9% had an adverse airway or respiratory event. This included 0.3% of children with laryngospasm and 0.8% with apnea. Children less than two years of age and those 13 and older were independent predictors. Additional predictors of adverse events were co-administering of benzodiazepines and/or anticholinergics. Patients receiving an initial dose of >2.5mg/kg or total dose > 5 mg/kg also suffered more adverse events.

**In regards to laryngospasm, what does the evidence tell us?**

**Laryngospasm During Emergency Department Ketamine Sedation.**


There were 22 reported cases of laryngospasm in this large meta-analysis of 8,282 ketamine sedations. The authors looked for any clinical predictors of ketamine associated laryngospasm, yet did not find any evidence of association with age, dose, route, ASA score or anticholinergic use. Dr. Green and colleagues went on to state “our data support the contention that ketamine associated laryngospasm is an idiosyncratic entity that may not be possible to anticipate or prevent. Accordingly, clinicians administering ketamine sedation must be continually prepared to rapidly identify this condition and provide effective management.”

Although rare and unpredictable, laryngospasm remains a dreaded complication. A calm and quick approach is needed to treat this potentially deadly situation (see box below).

**What is Retroauricular Digital Pressure? Laryngospasm-The Best Treatment.**

*Larson C.P.; Anesthesiology V 89 No 5, November 1998.*

Dr. Larson elegantly describes using a “pressure point” technique to stop laryngospasm. This correspondence article is really worth the quick read. Briefly, the middle finger of each hand is placed in the “laryngospasm notch” (the retroauricular depression), which is located behind the pinna of each ear. It is surrounded by the ascending ramus of the mandible, base of skull, and posteriorly by the mastoid process. Firm pressure with a jaw thrust is supposed to halt the laryngospasm. Dr. Larson goes on to say that he has used it “countless times with complete success.” An easy and potentially lifesaving technique to know!

**Some common sedation and airway pitfalls in our previous cases:**

- Not using mg/kg or using pounds as a weight
- Medication error
- Failure to have appropriate equipment ready and at the bedside
- Failure to anticipate and prepare for an adverse event
- Failing to identify and quickly treat laryngospasm

Procedural sedation is commonly performed in our emergency departments. It is important to have an appropriate understanding of the potential pitfalls of sedation, and be prepared and readily able to treat complications and adverse events.

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As a newly graduated physician in a new career with new goals the future may be intimidating. Many questions arise regarding the chosen pathway, how to progress, and how to reach new goals. The Professional Development Committee took on this task and went to the experts for their advice.

Stephan G. Lynn, MD FACEP, Retired Chair and former Residency Program Director, St. Luke’s-Roosevelt Hospital Center, Associate Professor of Clinical Surgery (Emergency Medicine), The College of Physicians and Surgeons of Columbia University:

Dr. Lynn has been an emergency medicine teacher, role model and mentor for over three decades and offered the following advice to graduating residents on making the emergency department a better place.

As I have watched emergency medicine residents grow in both competence and confidence as they have advanced through their training programs for over twenty years, I have noted that the residents perceive a peak of confidence at the end of their training . . . and, then, as they prepare to enter the world beyond residency, there is great trepidation. Will I know what to do? Will I remember what I’ve learned? Will I succeed at my professional and academic goals?

Confidence usually returns about two weeks after arriving in a new setting; you learn the politics, personality, and practices of your new environment and then those well engrained EM skills and thought processes carry you through. To further succeed, I think there are simple principles:

1. The patient in front of you is always your highest priority; then, always think of the “next” patient that has not walked through the ED door.

2. Demand and expect the most of yourself, and, then, you will be able to demand and expect the same from your colleagues and your environment.

3. “Seek and ye shall (easily) find” either areas of interesting unanswered questions for research and study or administrative problems that need resolution in the ED. Share them with appropriate colleagues and set out to resolve them.

4. Work closely with your colleagues, respect and treat as equals the MDs and RNs with whom you work, and actively participate in the functions and conferences of your Department.

5. Don’t spend too much time in the initiation of your career looking for and planning for future directions; the correct path will usually become apparent more quickly than you think.

Julia M. Huber, MD FACEP, National ACEP Well-Being Committee; Bourbon Community Hospital, Paris, KY:

What are some suggestions/tools to help EM physicians avoid burnout?

The main question I have for anyone reading an article on burnout is this: if you were to read this article about burnout three years from now, what will have had to happen in your career or your life to feel like things had improved dramatically? In other words, what are you willing to do now, and in the immediate future, that will push you into a place of feeling more refreshed, more committed to your career, or happier with the choices you make about your partner or your family?

I think that as emergency physicians we have the tendency to look at burnout as an inevitability in our career; if we reject that notion and start out from a commitment to career and personal longevity, we can make choices that will reflect that commitment. Otherwise, we risk reading the same old stuff about “work life balance”, and continue to slog along without making any real and concrete changes in our lives.

What will it take to live your life, and to have a life well lived? If you can’t answer these questions, then I invite you to do so NOW, and to engage other people in your life to do the same.

Sara McCullogh, MD, Chair, National ACEP Wellness Section, St. Alexius Medical Center, Bismarck, ND:

This is a difficult question with a complex answer that has not been well defined. (I believe that there was a proposed study on resilience for emergency medicine physicians and I have not seen the outcome, but it would be interesting.) I think that if you like your job, you are less likely to burn out. There are multiple components to liking your job.

You need to work with people that you like and with whom you have similar philosophies. Pick a job that fits your personality. You may like teaching or not, a busy ED or not; choose whatever works for you. It is important to be in a hospital environment that respects physicians and the emergency department.

Live in a community that you enjoy and have interests outside of medicine. Do not choose your job based solely on money. Working less hours or seeing fewer patients may result in being able to work more years.

Also check out http://www.acep.org/content.aspx?id=34102 and the wellness section of ACEP for “Wellness Book.”

Eric G. Shaw, MD FACEP, Assistant Professor, SUNY Upstate Medical University

What are the differences between working for an academic vs. a community emergency department? What are the pros and cons of each?

Academic
• Higher acuity: usually acts as a referral center, thereby concentrating higher acuity, more rare disease.

continued on next page
Ask the Experts

continued from page 21

- Backup: Large amount of specialists.
- Practice of medicine: colleagues and consultants are generally up-to-date with current advances in practice.
- Monetary: less $/hr, after factoring in for further obligations.
- Obligations: clinical, administrative, teaching, research hours.
- Politics: academicians are more opinionated, and more public with their opinions.
- Policies are usually robust and may be aggressively enforced.

Community
- Lower acuity, in general, can lull one into complacency. Must remain vigilant for zebras.
- Backup: fewer specialists to rely upon. Conversely, this improves sense of independence and self-reliance.
- Practice of medicine: colleagues and consultants are typically less up-to-date, but are representative of the “standard of care”.
- Monetary: usually more lucrative, but not always.
- Depending on location, may qualify for designation as “underserved” and loan-repayment benefits.
- Obligations are usually limited to clinical duties.
- Politics: more local: “This is how we do it here at ____ general hospital.”
- Policies are less robust, more “tradition” than formal “policy.”

New York ACEP’s Professional Development Committee is creating a mentorship program to further help new physicians with these questions and any others regarding new careers and development. For more information, go online to http://nyacep.org/about-new-york-acep/committees/professional-development or email nyacep@nyacep.org Look for future articles of “Ask the Experts.” Have questions? Email us!
Jeffrey C. Moon, MD MPH, University of Rochester

I want to immensely thank New York ACEP for enabling me to represent my state and profession at the national Leadership and Advocacy Conference. There were two main goals of the conference, and both were met: (1) to learn and hear about hot topics in health policy, and (2) lobby legislators, staffers and regulators to better emergency medicine.

Washington, DC politicians all agree the emergency department is a necessary societal safety net. But many believe we are overused, overcrowded and over priced. We need to defend these accusations.

Here are two ways to advocate for ourselves: present data from studies that show our clinical and cost efficiencies and present emotionally-evocative stories that anyone can relate to. At best, we need to combine both when we meet with government officials.

The best study to refer to is the very recent 2013 RAND report that found we control, rather than escalate, health care costs. It can be summarized as this: the largest portion of the federal government’s budget is Medicare/Medicaid, whose main expenditure is hospital admissions. Since more than 50% of all hospital admissions are decided by emergency medicine doctors, we have a pivotal influence over the federal budget and thus tremendous responsibility to the public.

This study highlights data, but we need to make it meaningful. We all know this is true: studies can be boring to listen to. Data is critical, but the way you present it matters. Politicians will glaze over when you start talking too many numbers. It also gives them an excuse to defer a decision and say, “OK, I’ll read your [long] report. Thank you for your time.” Therefore, lobby with vivid, easy-to-understand patient stories as well. Stories that could happen to anyone’s father, or grandmother or child. “One of your parents may get heart failure. It’s the number one admission in elderly patients. If they come into the local ED and can’t breathe, I can save their life by putting them on a machine called BiPAP. Most of the time, I don’t have to intubate them. That would force them into an ICU. I’m comfortable using BiPAP, and it prevents ICU admissions and saves thousands of dollars every time.”

Another: “My bedside ultrasound may avoid a CT scan, which is very expensive, and exposure you to radiation. Ultrasound doesn’t have radiation. And it’s cheap.”

Both tactics—mentioning the RAND study and patient stories—work. Both tactics were well received and listened carefully to.

As a second year resident in Rochester, I have a long career ahead of me in emergency medicine. I want it to remain one of the most fascinating and thrilling jobs in the world. But we need to make sure the government, and those that run it, are on board. Lobbying in Albany and Washington DC helps accomplish this. This year’s Leadership and Advocacy Conference was wonderful, and I thank New York ACEP again for letting me join in this vital work.

Katherine M. Nacca, MD, SUNY Upstate Medical University

All of us as residents experience busy work schedules bombarded by studying, lectures and clinical hours. On top of this, we are under new pressures to understand business, management and politics. Having focused on medicine I was never well versed in the political climate going on around me but as I approached my career, found the issues unable to be ignored and more and more consequential and scary. As an intern, a good friend introduced me to the EMRA political committee and I got more and more involved. One of my fellow attendings was also very active and seeing their work and the important need to be informed, I was drawn in.

Attending the Leadership and Advocacy Conference has been an opportunity to renew my involvement and stay informed and on track. The lectures at the conferences are incredibly educational helping define a complicated system.

Meeting with our representatives gives an extra sense of reality for those people that are working for us in the Capital. I feel a real sense of making a difference and standing up for my voice when on the Hill. It is incredible to be surrounded by such intelligent and involved like-minded physicians. I learned an amazing amount from both the conference itself and the people I met. It is awe-striking to see a group of dedicated physicians take on a cause.

This opportunity was only a reality because of a grant from New York ACEP which I am truly lucky to have received. While there are many pressures surrounding residents and physicians today, the new reforms are real and will affect our career. I have come to see how important it is and getting together with a group of physicians who are feeling those growing pressures keeps my eyes open. I have attempted to inspire my fellow residents and I do hope they also take up the opportunity to not only join in and get involved, but also go to Washington and see the reality of it all.
Billing Structure for Patients Receiving Observation Care

Salvatore Pardo, MD FACEP, Associate Chairman, Emergency Department, Long Island Jewish Medical Center; Assistant Professor, Hofstra School of Medicine

1) All patients are evaluated in the ED upon presentation.
2) The Emergency Department (ED) attending physician will designate an appropriate ED Current Procedural Terminology (CPT) code (99212, 99281, 99282, 99283, 99284, 99285, 99291, or 99292) in compliance with CMS guidelines on the ED record superbill.
3) If the patient is deemed appropriate for observation (OBS) status by the ED attending physician, the following shall occur:
   a. The order for OBS status will be indicated in the disposition note.
      i. It shall read “transfer to OBS status”.
      ii. It shall identify the Clinical Decision Unit (CDU) attending of record (same group, same specialty).
      iii. It shall indicate the date and time of the change in status. This will indicate the start of OBS status.
4) A CDU chart is generated to represent the time and clinical interventions during OBS status.
   a. If the patient spends at least 8 hours AND is discharged home, the CDU attending will designate the appropriate CPT code (99234, 99235, or 99236) in compliance with CMS guidelines on the CDU chart.
   b. If the patient spends more than one calendar day, the CDU attending will designate the appropriate CPT code (99218, 99219, or 99220) in compliance with CMS guidelines.
      i. If the patient is discharged to home or returns to their sending facility, the CDU attending will designate the discharge code from OBS status (99217).
      ii. If the patient is admitted to an inpatient service from OBS status the CDU attending will designate the appropriate CPT code (99224, 99225, or 99226) in compliance with CMS guidelines.
5) The coders will validate and submit the designated OBS codes (99234, 99235, 99236, 99218, 99219, 99220, 99224, 99225, 99226, or 99217) for professional services in compliance with CMS guidelines in lieu of the 9928x code.

Frequently Asked Questions

Billing Scenarios:

Case 1
A patient was transferred to observation status to observation at 10 pm June 1 and discharged home June 2 at 1 pm.
This should be billed as initial observation code (99218-99220) plus the discharge code of 99217.

Case 2
A patient is transferred to observation status on June 1 at 10 am and is discharged on June 1 at 10 PM resulting in an observation stay of greater than 8 hours on the same calendar day.
Bill a CPT code, 99234-99236. These codes are to be used for a same-date admission and discharge in the observation status with a stay of at least 8 hours.

Case 3
A patient is transferred to observation status on June 1 at 10 pm. By June 2 at 10 am, the second calendar day, the patient shows no improvement so the decision is made to have the patient admitted for further evaluation and treatment.
This should be billed as an initial observation code for June 1 (99218, 99219, 99220) and a subsequent day observation code on June 2 (99224, 99225, 99226) rather than the discharge from observation code 99217.

Case 4
A patient is transferred to observation status on June 1 at 10 am and is discharged home on June 1 at 4 pm resulting in an observation stay of less than 8 hours on the same calendar day.
If the patient is discharged home after fewer than eight hours in observation status, bill only an initial observation care code, 99218-99220.
Q: What are the total RVUs for each of the observation codes compared to the higher level ED codes?

A: For year 2013 the RVUs are as follows:

<table>
<thead>
<tr>
<th>ED codes</th>
<th>Initial OBS Service</th>
<th>Same Calendar Day D/C</th>
<th>Two Calendar Days***</th>
</tr>
</thead>
<tbody>
<tr>
<td>RVU Total</td>
<td>RVU Total</td>
<td>RVU Total</td>
<td>RVU Total</td>
</tr>
<tr>
<td>09218</td>
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</tr>
<tr>
<td>09219</td>
<td>3.88</td>
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<td>5.35</td>
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<tr>
<td>09220</td>
<td>4.97</td>
<td>99220</td>
<td>6.41</td>
</tr>
</tbody>
</table>

*** The two-day codes are always to be used in combination with an initial OBS code.

The scenario where a patient was admitted to observation on one day and discharged on the following day, the 99218-99220 codes would usually be assigned with the discharge code, 99217. The combined RVUs for these code pairs would be as follows: 4.83 for 99218 plus 99217; 5.87 for 99219 plus 99217; and 7.29 for 99220 plus 99217.

In the scenario where a patient is admitted from OBS to Inpatient on day two of the observation status the subsequent observation care codes (99224-99226) would be utilized in addition to the initial OBS code (99218-99220). The combined RVUs for these code pairs would be as follows: 3.91 for 99218 plus 99224; 5.87 for 99219 plus 99225; and 8.19 for 99220 plus 99226.

Q: How should I code services rendered to a patient admitted to observation status on one date, then admitted as an inpatient?

A: The coding for the scenario you describe should be billed using:

• An initial observation care Current Procedural Terminology (CPT) code, 99218-99220, on the first date, when the patient is in observation status. Any evaluation and management services in another setting, such as the office or an emergency department, that are related to the admission to observation status cannot be billed separately, as they are considered part of the initial observation care service.

• You cannot report the observation care discharge service code, 99217, in conjunction with a hospital admission. You can report the subsequent observation care code, 99224, 99225, 99226, if you admit to different specialty and/or group.

Q: What if I admit a patient to observation status and then send him or her home the next day?

A: If the patient is admitted to observation status on one calendar date and discharged on the next date, bill an initial observation care code, 99218-99220, for the first date of service and the observation care discharge service code, 99217, for the second.

Q: What about admission and discharge from observation to home on the same date?

A: Bill a CPT “Observation or Inpatient Care Services (Including Admission and Discharge Services)” code, 99234-99236. These codes are to be used for a same-date admission and discharge in the observation status.

Q: Does Medicare require a minimum number of hours on observation status before a physician can bill 99234-99236?

A: Yes. A patient must be in observation status at least eight hours for a physician to bill a same-date admission and discharge code. Medicare rules differ from the instructions in the CPT code book for this scenario and, thus, are more likely to differ from private-payer billing rules.

For Medicare:

• If the patient is admitted to observation status and is then discharged home on the same date of the observation stay that lasted at least eight hours (but fewer than 24 hours, since it must be on the same date), bill a code from the 99234-99236 range.

• If the patient is discharged home after fewer than eight hours in observation status, bill only an initial observation care code, 99218-99220.

The Medicare eight-hour minimum rule for observation status pertains to same-date admission and discharge only. If, as happens rarely, a Medicare beneficiary is admitted to observation status and is discharged in fewer than eight hours on a different date, bill an initial observation care code, 99218-99220, for the first date of service and the observation care discharge service code, 99217, on the second date. ■
The active and growing membership of New York ACEP continues to provide us an active voice for the College’s government agenda without which we would not be able to continue to achieve the back-to-back successes of exempting emergency physicians from the burdens of unworkable and unnecessary requirements on your practice as proposed and implemented on many by Albany.

The 2013 regular Legislative Session came to an end in the early morning hours of Saturday, June 22. Provided below is an update on current issues that Weingarten, Reid & McNally (WRM) is working on with New York ACEP and a summary of pertinent bills that passed both houses.

**Issue Update**

**Out-of-Network S2551 (Hannon)/A7253 (Montesano)**

New York ACEP strongly supports legislation to provide fair payment to emergency physicians. New York ACEP supports S2551 (Hannon)/A7253 (Montesano) to regulate billing, reimbursement and consumer disclosure for health care services provided to patients by “out-of-network” (OON) health care providers who do not participate in a patient’s health insurance plan. The OON bill passed the Senate. Unfortunately, the bill died in the Insurance Committee in the Assembly.

The bill defines Usual and Customary Cost (UCR) as the 80th percentile of all charges for health services performed by a provider in the same or similar specialty and provided in the same geographic area as reported by FAIR Health. Insurers that provide coverage for out-of-network services are required to offer at least one policy or contract option in each geographical region covered which provides coverage for at least 80% of the UCR cost of out-of-network services after imposition of a deductible.

In addition, the bill establishes an independent dispute resolution process for a health care plan or patient who alleges that a physician charged an “excessive fee” for emergency services. “Excessive fee” is defined as greater than the UCR.

A health plan may not submit a dispute for review unless they have fully paid the physician’s fee, except for the patient’s co-payment, coinsurance or deductible for the services rendered. If the independent dispute resolution entity determines that the fee charged is excessive, the entity shall determine a reasonable fee for the services which shall not be less than the UCR. The determination made is binding on the health care plan, physician and patient and is admissible in any court proceedings between the parties or any administrative proceedings between the state and the physician.

**Nurse Practitioner Independent Practice S4611-A (Young)/A4648-A (Gottfried)**

New York ACEP was successful this year in working to defeat legislation to eliminate the requirements for written collaboration agreements and practice protocols between Nurse Practitioners (NPs) and physicians. During the February 12 Lobby Day, New York ACEP and Weingarten, Reid & McNally met with key staff and legislators in opposition to NP independent practice. That effort led to the defeat of a State Budget proposal. An action alert was issued to New York ACEP members in the final weeks of the Legislative Session asking for phone calls to legislators in opposition to the bill. This bill remained in the Higher Education Committees in both houses.

**Date of Discovery A1056 (Weinstein)/S744 (Fuschillo)**

A last minute maneuver by the Trial Bar to change the statue of limitations for medical liability from two and half years to the “date of discovery” was also blocked. The bill, which received widespread media coverage from the Daily News and other publications, was discharged to the Assembly floor three days before the Legislative Recess. New York ACEP issued a memorandum in opposition. Weingarten, Reid and McNally lobbied against the bill at the Capitol until the Legislature gavelled out at 5:00 am on June 22. There was no vote taken on the bill on the Assembly floor. In the Senate, it remained in the Judiciary Committee.

**Retail Clinics S4069 (Hannon)/A5124 (Paulin)**

Legislation to allow for-profit health care clinics to be located in pharmacies, shopping malls, and other corporate establishments did not pass either house this Session. The Senate brought the bill to the floor but did not vote on it. In the Assembly, the bill died in the Health Committee. As noted below, legislation (S4493-A (Hoylman)/A6838-A (Gottfried) directing New York State Department of Health to study these models passed both houses.

**Bills Passed Both Houses**

**Required Offering of Hepatitis C Testing S2750-A (Hannon)/A1286-A (Zebrowski)**

The bill requires that individuals born between 1945-1965 be offered a hepatitis C screening test or hepatitis C diagnostic test by hospitals when patients are receiving inpatient or outpatient care or in a diagnostic and treatment center and by primary care practitioners in the fields of family medicine, general pediatrics, primary care, internal medicine, primary care obstetrics or primary care gynecology. The bill was
amended to exempt emergency departments from these requirements. This amendment was made after New York ACEP issued a memo requesting it and Weingarten, Reid & McNally addressed the impracticality of offering this test in emergency departments with the bill sponsors.

Further under the bill practitioners are not required to offer such testing if they reasonably believe that the individual:

- is being treated for a life threatening emergency;
- has previously been offered or has been the subject of a test; or
- lacks capacity to consent for a test.

If the individual accepts the offer to be tested and the screening test is reactive, the bill requires health care providers to either offer follow up care or refer the individual to another provider for care. Such follow up shall include a hepatitis C diagnostic test. The bill requires the New York State Department of Health to evaluate and report on the impact of the legislation to the Governor and the Senate and Assembly Health Committee Chairs by January 1, 2016. The law sunsets on January 1, 2020.

**Patient Notice of Observation Services S3926-A (Hannon)/A7257-A (People Stokes)**

This bill requires hospitals to provide oral and written notice within 24 hours of a placement of a patient in observation services. The written notice must include:

- a statement that observation status may affect the patient’s Medicare, Medicaid and/or private insurance coverage for hospital services, including medications, and coverage for any subsequent discharge to a skilled nursing facility or home and or home and community based care; and
- that the patient should contact his or her insurance plan to better understand the implications of being placed in observation status.

The Commissioner of the New York State Department of Health is charged with developing and making available guidance on the notice.

**Study on Health Care Delivery Models S4493-A (Hoyman)/A6838-A (Gottfried)**

The bill directs the New York State Department of Health to conduct a study of current innovations in the delivery of health care services not presently required to undergo state certificate of need processes or required to obtain authorization to conduct office based surgery. Entities to be studied shall include, but not be limited to, clinics operating within pharmacies, medical offices open for extended hours without an appointment (urgent care centers), and physician practices (whether in one location or multiple locations) whose physicians are linked directly or indirectly in an economic relationship.

The study is required to examine the impact or impacts of the respective entities on the delivery, quality and cost of health care in the respective communities and regions in which they are found. The New York State Department of Health shall report its findings to the Governor and Legislative Leaders within one year of the effective date.

**Surgical Technologists S5185-A (Savino)/A7419-A (Cahill)**

The bill establishes requirements for certification of surgical technologists working in healthcare facilities and defines surgical technology to mean the following surgery related tasks and functions:

- assisting healthcare professionals to prepare the operating room and sterile field for surgical procedures, including assisting health care professionals to set up sterile supplies, instruments and equipment using sterile technique and ensuring that surgical equipment function properly and safely;
- assisting healthcare professionals to move and position patients for surgery;
- assisting healthcare professionals to perform non-invasive prepping of the skin’s surface and draping patients for surgery;
- assisting the surgeon’s provision of hemostasis during surgery by handing instruments;
- holding a retractor after placement by a healthcare professional;
- anticipating instrument needs of a surgeon; and
- other tasks incidental to surgery that do not fall within the scope of practice of a licensed profession, as directed by the surgeon.

The bill requires surgical technologists to perform surgical technology under the direction and supervision of an appropriately licensed healthcare professional participating in a surgery. Also the bill requires surgical technologists functioning in healthcare facilities to be certified or complete an appropriate training program for surgical technology in the U.S. military and to complete 15 hours of continuing education annually, with some exceptions.

**Licensure of Perfusionists S5353-A (DeFrancisco)/A526-B (Magnarelli)**

The bill extends the existing authorization of temporary permits for perfusionists until 2016, provides for the licensure of perfusionists in the Education law and sets forth licensure requirements including application, education, examination and fees and establishment of a State Committee for Perfusion.

“Perfusion” is defined as the provision of extracorporeal or intracorporeal patient care services to support or replace the circulatory or respiratory function of a patient, including the administration of pharmacological and therapeutic agents, and blood products, and the management, treatment and monitoring of the physiological status of a patient during the operation of extracorporeal circulation equipment or intracorporeal equipment that replaces or supports circulatory or respiratory functions.

The bill requires that all perfusion services shall be pursuant to the order and direction of a physician and such services may be performed in a general hospital or during the transport of patients or organs supported by extracorporeal or intracorporeal equipment.

**Qualifications of Central Services Technicians S697-A (Grisanti)/A878-A (Bronson)**

This bill requires central service technicians to meet certain requirements including successfully passing a nationally accredited exam, obtaining accreditation from a national accrediting central body and annually completing 10 hours of continuing education. The legislation contains limited exceptions to these requirements. A central service technician is defined as a person who provides for the decontamination, preparation, packaging, sterilization, and storage and distribution of reusable medical instrumentation or devices in a hospital or a diagnostic and treatment center (D&TC) that provides ambulatory surgery services.

continued on next page
Certification of Clinical Nurse Specialists (CNS) S3145 (Krueger)/A826 (Lifton)

The bill establishes a certification for a clinical nurse specialist and criteria for such, including application filing, license requirements, education (master’s or doctoral degree, or a post-master’s certificate from a program acceptable to the department which prepares graduates to practice as CNSs and which is accredited by a national nursing accredited body acceptable to the department) and certification fees.

Signed into Law

Signed into Law

Accountable Care Organizations (ACO) S2080 (Hannon)/A1989 (Gottfried)

Chapter 461 of 2012 created a workgroup to be convened by the Commissioner of Health to develop a proposal whereby an ACO could directly serve Medicaid, Family Health Plus or Child Health Plus enrollees. Prior to Governor Cuomo signing the bill, he and the Assembly and Senate leadership agreed to pass legislation to adjust that charge so the workgroup will consider whether such activity should be enabled, rather than directing it to develop such a proposal.

The agreement also called for adding representatives of health plans that serve those programs, as well as advocates for persons enrolled in those programs to the ACO workgroup.

This bill enacts these changes that were agreed to by all parties.

Excess Medical Malpractice Insurance S5704 (Seward)/A7388 (Cymbrowitz)

The bill extends the excess medical malpractice insurance program for five years to July 1, 2018. The legislation was transmitted to the Governor for consideration June 26, 2013.

Emergency Medical Technician Extension S5152 (Seward)/A7170 (Sweeney)

This bill extends until July 1, 2018, the emergency technician five-year re-certification demonstration program. This demonstration program was enacted in 2001 to change the re-certification requirements from three to five years for emergency medical technicians and advanced emergency medical technicians. This bill was transmitted to the Governor on June 24 for consideration.

Emergency Services Loan Account S3728-B (Seward)/A5120-B (Magee)

The bill increase the amounts of loans allowable under the emergency services loan account for the purchase and repair of firefighting and rescue equipment, vehicles and facilities. All caps on loans (usually 75% of project costs) remain in place.

Finally, all of us at Weingarten, Reid & McNally (Partners: Marcy Savage, Shauneen McNally & Bob Reid) look forward to continuing to work with the New York ACEP Board, Government Affairs Committee and entire membership on your legislative goals and priorities to ensure patient access to the highest quality emergency services throughout the State.

Honoring Dr. Stephan Lynn

world for the better. All of us who have had the opportunity to work with Dr. Lynn have had our careers and professional development enriched. He has served as our teacher, role model and mentor. He has for decades stood for the principled belief that all people deserve access to quality health care and more specifically quality emergency services. He has actively engaged in any, and seemingly all, activities that fostered this mission. He has tirelessly encouraged us all to become activists in our own right.

At St. Lukes-Roosevelt we have chosen to honor Dr. Lynn with the establishment of The Stephen G. Lynn, MD F ACEP Annual Lecture for the Advancement of Emergency Medicine. This Grand Rounds series will focus, in Dr. Lynn’s own words, on “making the ED a better place.” Dr. Lynn has graciously and I think very appropriately agreed to give the first lecture.

It is absolutely fitting that New York ACEP chose to honor Dr. Lynn with their first Edward W. Gilmore Lifetime Achievement Award. Congratulations Dr. Lynn!
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"Delivering the highest quality clinical and management expertise to serve patients, hospitals and staff..."
Perfect Intracranial Hemorrhage After Traumatic Brain Injury in Low and Middle-Income Countries: A Prognostic Model Based on a Large, Multi-Center, International Cohort.


BACKGROUND: Traumatic brain injury (TBI) affects approximately 10 million people annually, of which intracranial hemorrhage is a devastating sequela, occurring in one-third to half of cases. Patients in low and middle-income countries (LMIC) are twice as likely to die following TBI as compared to those in high-income countries. Diagnostic capabilities and treatment options for intracranial hemorrhage are limited in LMIC as there are fewer computed tomography (CT) scanners and neurosurgeons per patient as in high-income countries.

METHODS: The Medical Research Council CRASH-1 trial was utilized to build this model. The study cohort included all patients from LMIC who received a CT scan of the brain (n = 5669). Prognostic variables investigated included age, sex, time from injury to randomization, pupil reactivity, cause of injury, seizure and the presence of major extracranial injury.

RESULTS: There were five predictors that were included in the final model; age, Glasgow Coma Scale, pupil reactivity, the presence of a major extracranial injury and time from injury to presentation. The model demonstrated good discrimination and excellent calibration (c-statistic 0.71). A simplified risk score was created for clinical settings to estimate the percentage risk of intracranial hemorrhage among TBI patients.

CONCLUSION: Simple prognostic models can be used in LMIC to estimate the risk of intracranial hemorrhage among TBI patients. Combined with clinical judgment this may facilitate risk stratification, rapid transfer to higher levels of care and treatment in resource-poor settings.

The Association Between Self-Reported Exercise Intensity and Acute Coronary Syndrome in Emergency Department Chest Pain Patients.


BACKGROUND: Regular exercise is thought to be protective against coronary artery disease. As a result, some physicians believe that the likelihood of acute coronary syndrome (ACS) in patients with acute chest pain is reduced in those who exercise regularly. We studied the association between self-reported frequency of exercising and the likelihood of ACS in patients presenting to the Emergency Department (ED) with chest pain.

METHODS: A multi-center prospective, descriptive, cohort study design was used in ED patients to determine whether the risk of ACS was reduced in patients who self-reported regular exercise.

RESULTS: There were 1,093 patients enrolled. Median (interquartile range) age was 57 (48-67) years; 506 (45.7%) were female. ACS was diagnosed in 248 (22.7%) patients. Patients who did not exercise at least monthly were more likely to be diagnosed with ACS than those who did (129/466 [27.7%] vs. 119/627 [19.0%]; odds ratio 1.52, 95% CI 1.10-2.10). After adjusting for age, gender, body mass index, smoking, and prior history, limited exercise was still associated with ACS (adjusted odds ratio 1.52, 95% CI 1.10-2.10). There was no apparent association between frequency and intensity of exercise and risk of ACS.

CONCLUSION: Oral oxycodone has an elevated abuse liability profile compared to oral morphine and hydrocodone.
september
11 Education Committee Conference Call, 1:30 pm
11 Professional Development Conference Call, 3:30 pm
12 Practice Management Conference Call, 3:00 pm
18 Government Affairs Conference Call, 11:00 am
18 Research Committee Conference Call, 3:00 pm
19 EMS Committee Conference Call, 2:30 pm
19 Board of Directors Meeting, Albany Medical Center
25 Resident Research Conference, Mount Sinai
27 2013 LLSA Review, 8:00 am-1:00 pm, Mount Sinai

october
9 Education Committee Conference Call, 1:30 pm
9 Professional Development Conference Call, 3:30 pm
10 Practice Management Conference Call, 3:00 pm
12-13 ACEP Council Meeting, 8:00 am-5:30 pm, Sheraton Seattle Hotel, Seattle WA
14 New York ACEP Member Reception, 6:00-7:00 pm, Cirrus Room, Sheraton Seattle Hotel, Union Street Tower (35th floor), Seattle WA
14-17 ACEP Scientific Assembly, Washington State Convention Center, Seattle WA
16 Government Affairs Conference Call, 11:00 am
16 Research Committee Conference Call, 3:00 pm
17 EMS Committee Conference Call, 2:30 pm

november
6 Emergency Medicine Resident Career Day & Job Fair, 7:30 am-1:30 pm, New York Academy of Medicine,
13 Education Committee Conference Call, 1:30 pm
13 Professional Development Conference Call, 3:30 pm
14 Practice Management Conference Call, 3:00 pm
20 Government Affairs Conference Call, 11:00 am
20 Research Committee Conference Call, 3:00 pm
21 EMS Committee Conference Call, 2:30 pm

december
11 Education Committee Conference Call, 1:30 pm
11 Professional Development Conference Call, 3:30 pm
12 Practice Management Conference Call, 1:00 pm
18 Government Affairs Conference Call, 11:00 am
18 Research Committee Conference Call, 3:00 pm
19 EMS Committee Conference Call, 2:30 pm

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