Physician’s Guide to Achieving Excellence in the ED

Three leading ED physicians engage in a frank discussion about the changing landscape of emergency care and the steps needed to achieve excellence in an increasingly challenging healthcare environment.
The physicians who make up our panel have a collective experience of more than 50 years practicing emergency medicine in a variety of different settings, including rural facilities, suburban medical centers and large city hospitals. Each has a unique perspective on the challenges and issues facing the emergency department (ED). All three have been deeply involved in a wide variety of ED improvement projects, including the selection and successful implementation of emergency department electronic medical record (ED EMR) systems.

The breadth of the panel's experience offers insights and lessons learned that are highly relevant to all physicians who practice ED medicine.

**Panelists:**

**Christopher Goode, MD**

Dr. Goode is the medical director and chief of Emergency Medicine at United Hospital Center in Bridgeport, West Virginia. He is also the vice chair for business operations and assistant professor of Emergency Medicine at West Virginia University. He currently is serving his second term as president of the West Virginia Chapter of the American College of Emergency Physicians (ACEP).

**Dan Sullivan, MD, JD, FACEP**

Dr. Sullivan is the president and CEO of The Sullivan Group, a medical risk mitigation and patient safety organization. He is a board-certified emergency physician and fellow of ACEP. Dr. Sullivan is a past president of the Illinois College of Emergency Physicians and is an associate professor of Emergency Medicine at Rush Medical College.

**Gary Zimmer, MD, FACEP**

Dr. Zimmer has been the chairman of Emergency Medicine at St. Mary Medical Center in Langhorne, Pennsylvania since 2005. He is a board certified physician and previously served as an assistant professor of Emergency Medicine at Johns Hopkins University. He serves as senior vice president for TeamHealth East.
What's Next for Healthcare?

Healthcare is in the midst of revolutionary change:

- Healthcare reform is underway and is having a profound effect on the delivery of care, especially in the emergency department
- “Meaningful use” legislation is a catalyst for new automation initiatives and is bringing with it new regulatory scrutiny
- The ICD-10 clinical coding system is scheduled to take effect in late 2013
- New models of care, most notably accountable care organizations (ACOs), are on the near horizon and the engine of these models of care will be health information exchanges (HIEs)

In addition to the macro changes facing healthcare, the ED is facing a set of significant challenges of its own.

Emergency Departments Face a Wide Range of Challenges

Emergency department visits are on the rise. There were nearly 124 million ED visits in 2008, and ED visits are up 14% from 2007 to 2010. One of our panelists, Dr. Dan Sullivan, sees these numbers skyrocketing in the future: “If we move forward with healthcare reform, we are going to see tens of millions of additional ED patients. In the short term, say through 2014, we’re likely to see as many as 15 million more insured patients in the ED.”

Dr. Gary Zimmer concurs: “There is enough literature from the Massachusetts Health Reform experience that suggests that increasing health insurance results in increasing ED utilization. I don’t see a decline in ED volume in the next five years; I think we are going to have an increase.”

Emergency physicians around the U.S. agree. In a recent survey, more than 80% said emergency department visits were increasing, with roughly half reporting significant increases. More than 90% of the respondents expect increases in the next year.

Ambulance diversion is linked to increased mortality. One of the consequences of ED overcrowding is ambulance diversion. According to a study published in the Journal of the American Medical Association, lengthy periods of ambulance diversion are associated with higher mortality rates for heart attack patients. Furthermore, critically ill emergency department patients with a greater than six-hour delay prior to transfer to the intensive care unit had an increased hospital length of stay and higher intensive care unit and hospital mortality.

The ED is one of the top hospital departments for malpractice suits. Overcrowding and the often chaotic pace of the ED, coupled with the lack of available data about new
patients, makes the ED fertile ground for malpractice suits. Nearly 44% of emergency physicians said the fear of lawsuits is the biggest challenge in cutting emergency department costs. According to a recent *Wall Street Journal* report, escalating diagnostic errors account for 37% to 55% of malpractice cases in studies of closed claims. In addition, the article cites insurance broker Aon Corp., which estimates malpractice suits arising from ED incidents in 2009 will cost hospitals $1 billion.

Uncompensated care continues to rise. One of the most significant economic issues in emergency medicine is uncompensated care. Due to charity care provided to uninsured patients and inadequate reimbursement from private and public insurance plans, more than half of emergency medical services go uncompensated.

The ED will be at the center of ACO initiatives. It is widely accepted that the emergency department is the largest admission center for most hospitals and is often the largest outpatient center for most health systems. As such, it is an area of tremendous importance as health systems work with payers to improve outcomes and reduce the cost of care through the application of ACO care models.

With less than 2% of the nation’s healthcare expenditures dedicated to emergency medicine and new challenges posed by healthcare reform, achieving and maintaining excellence in the ED will require strong physician leadership and creative solutions.

The Changing Role of ED Physicians

While the exact outcome of healthcare reform, meaningful use and proposed new models of care is uncertain, what is clear is that the role of the ED physician is changing and will continue to do so. Practicing medicine, especially in the ED, is now multidimensional and includes not only direct patient care but also a growing understanding of and involvement in technology, systems methodology and communications strategy.

Nine years have passed since Dr. Christopher Goode graduated from medical school, and he sees the focus on technology as being the single greatest change in the practice of medicine. “When I started nine years ago, nobody thought about using a computer, except for viewing digitized picture archiving and communication system (PACS) images. Now technology is a way of life, and we are grappling with how to properly adopt it and integrate it into the ED in a way that helps us improve patient care instead of hindering it.”

Like most ED physicians, Dr. Goode also sees reimbursement, including uncompensated care, as a major issue facing ED medicine and ED physicians. “As the economy has changed, and with people unable to get in to see their primary care doctors, we are seeing a slightly different mix of patients in the ED,” said Dr. Goode. “Going forward, you can’t help but wonder how we are going to be reimbursed and what it will be based on. Are we going to be paid for performance, for throughput or for quality?”

Dr. Zimmer has a slightly different take on the continuing evolution of the ED physician and the emergency department. “There are too many moving parts to know what the end-game is going to look like, but we could evolve to be a combination of gatekeeper, keeping
people away from the hospital, and diagnostic testing center, as people get frustrated with the test approval process. At the same time, we’ll continue to be a safety net for anybody who needs services that they can’t get otherwise.”

Dr. Sullivan foresees a more widespread change in the practice of emergency medicine with the eventual adoption of the ACO care model and its emphasis on overall quality of care: “We are going to see a fundamental change in the provision of healthcare. Today when I see a patient in the ED for a laceration, I focus on treating that laceration. Tomorrow, as a part of a group of people remunerated based on the quality of care, I am going to look at the entire problem list and treat the patient more holistically. Laws will change the way care is delivered, and for the first time quality and dollars are going to be aligned appropriately.”

While the role of an ED physician is undoubtedly changing, the ultimate goal of emergency medicine remains the same: to provide the highest quality of emergency care for every patient.

What an ED Physician Can Do to Drive Excellence

How can you as an ED physician help drive excellence in your emergency department? Here are three areas that our panelists determined were worth serious consideration.

Provide Proactive Leadership

The days of practicing medicine in isolation have long since passed, especially in the ED. In order to meet the looming clinical, operational and financial challenges, ED physicians must be proactively engaged. This can have a significant effect on your career and the care and treatment of your patients. All ED physicians need to be leaders and champion excellence in the ED. As a physician leader, you must work to ensure that the ED’s point of view is incorporated into overall hospital planning and strategy. Being prepared to rigorously present a business case backed by solid empirical data is essential to making the ED’s voice heard.

“There is no option in this day and age other than to have an engaged medical leadership,” said Dr. Zimmer. “If the existing group that manages the ED is not driving change, then that group has failed the hospital. The leadership and management of the ED must be engaged with the hospital to build the right processes and dedicate the necessary resources to make them work.”

The emergency department is a microcosm of what is happening in the healthcare system. “Due to our interactions with internal and external departments and physicians, we often identify issues and problems much earlier than our counterparts,” said Dr. Goode. “Given the many silos that exist within a typical healthcare organization, the ED is uniquely situated to lead change. Many of our counterparts on the medical staff are experts in one particular field, whereas we have experience across all specialties.”

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Dr. Zimmer, MD FACEP, Chairman of Emergency Medicine, St. Mary Medical Center, Pennsylvania.
Embrace Change

It is human nature for most people to resist change. However, given the challenges facing emergency medicine, organizational and personal change is unavoidable. Future success in the ED will require changes in processes, behavior, policies and systems.

“We must recognize that there will be a paradigm shift, and not only will we be part of it, we should embrace it and lead it,” said Dr. Sullivan. “In many cases, we are not handling well what we are doing today. It is not possible to handle larger volumes without the application of every possible method of improving efficiency, quality and safety.”

Dr. Zimmer added: “Change is inevitable. The more we are proactive about managing that change, the more it will serve our needs as opposed to us serving its needs.” He went on to say that he sees competitiveness as a common thread among the personality types of physicians. “Physicians don't like to fail and when you present us with irrefutable data of whatever flavor, it will drive change without having to ask.”

In order to keep up with change, continuous process improvement is mandatory. Departments must find ways to improve patient and clinical satisfaction as measured by key metrics such as:

- Length of stay
- Left without being seen
- Time to doctor
- Time to doctor to decision
- Decision to discharge
- Decision to admission

Using these metrics as a benchmark, hospitals must make continuous refinement to their processes, policies and systems in order to improve performance. In addition, ED physicians must be prepared to embrace changes brought on by meaningful use, new models of care like ACO and other challenges facing the ED.

Facilitate Better Communications

Enhanced cross-departmental and interdepartmental communications can have a significant positive effect on ED performance on several levels. Some examples are:

- Collaboration between emergency medicine and radiology improves workflow and promotes better patient care
- More comprehensive clinical communications with primary care physicians and specialists enhances coordination of care
• Working closely with ED case managers helps facilitate proper documentation for admission/observation-status decisions, as well as other hospital reimbursement considerations.

• Continuous collaboration with hospital leadership ensures that goals are aligned.

In fact, if we don't develop these relationships and break down the silos, reimbursement will suffer in the long term.

Improved communications between doctors and nurses is vital. According to a report from CRICO/RMF Strategies, a patient safety and medical malpractice company owned by and serving the Harvard medical community, missed or delayed diagnoses in the emergency department are the leading cause of malpractice liability in emergency medicine. The report went on to say that in most cases, essential pieces of information were not available at the time the clinician made a decision. Gaps included missing medical history, no record of abnormal vital signs, lack of timely access to radiology and lab reports, and information lost in shift changes and handover of patients. The report concluded that optimizing communication between ED physicians and nurses is an effective strategy to address this risk.³⁹

Physicians need to take the lead in pushing for better communications, both face-to-face and electronic. This can take the form of inserting structured communications events into your care processes and leveraging automated emergency department systems to provide vital information, when and where it is needed. Dr. Zimmer concurred, saying that streamlining communications between staff members was essential for better patient care. He went on to say that facilitating communications among providers through HIEs is the next logical step in the evolution.

Dr. Goode believes that HIEs will help decrease costs through the shared access of information across institutions. He said patients often undergo repeat laboratory and radiology testing because results cannot be viewed and/or confirmed, which leads to increased costs. An HIE can help mitigate that cost by proactively sharing patient images and results across the community. According to a recent article in Health Data Management, a study of emergency department visits at ten Milwaukee hospitals finds average savings of $29 per visit when the attending physician can access historical medical encounter information from a patient's insurer via an HIE.¹⁰

Dr. Goode also said that another key factor driving the need for better communications is the trend toward larger emergency departments. “In an ED with a large footprint, it is impossible to have communications like we used to have in a small department. I now have three different nurses’ stations. So where does the chart live? At the nurses’ station? With the physician? Or in the examining room? Technology gives everyone access. The information you need is only as far away as the nearest electronic device.”
ED Automation: Why It’s Important to You

One subject that is now especially important to ED physicians is emergency department automation and workflow management. With the signing into law in 2009 of the Health Information Technology for Economic and Clinical Health (HITECH) Act, which authorizes the Centers for Medicare and Medicaid Services (CMS) to provide a reimbursement incentive to hospitals that demonstrate meaningful use of an electronic health record, ED automation is no longer a question of if, but a matter of when.

According to Dr. Goode: “The decision is no longer if we are going to go electronic or not. The government has made that decision for me. The decision is now whether to implement the ED module of an enterprise system or to choose a best-of-breed system designed specifically for the ED and its workflow.”

Effective automation can play a significant role in helping ED physicians confront issues such as overcrowding, malpractice suits, reimbursement and regulatory requirements. As information technology becomes more entwined with the practice of ED medicine, physicians need to make sure they have a seat at the table when important ED automation decisions are made.

Six Steps to Ensure ED Automation Excellence

1. Participate in the selection process

Our panel of physicians unanimously agreed that ED physicians must help drive major automation decisions, especially the selection of the ED EMR. They believed that implementing the right system could help:

- Reduce malpractice suits
- Improve communications with staff
- Improve billing and reimbursement
- Most important, help clinicians positively impact patient care

“Technology choices are absolutely critical,” said Dr. Sullivan. “Some of the choices in electronic medical records, in effect, just reproduce paper. They may do a great job with billing and coding, but they don’t really do anything for the practitioner or the patient. Other systems out there can dramatically change the physician and patient experience.”

According to Dr. Goode, system selection can directly impact your professional reputation: “The downfall of not being engaged is that you will be dealt a system that may put your long-term career viability and your patients’ care at risk. You, as the physician in the physician group, have a financial interest in this also. You have to ask yourself: ‘How is this going to affect my productivity? How is this going to affect my providing patient care?’”
Dr. Goode added: “The ED automation decision cannot be made in the C suite alone. If you are going to pick a quality ED EMR, then you have to involve the end user. You have to ask, ‘What is best for the person who is going to use the system 24 hours a day and seven days a week?’ You have to have a seat at the table to get what you want.”

2. Advocate for a system designed specifically for the ED

The ED poses a distinct set of challenges not faced by any other clinical care area of the hospital. With its fast-paced environment and high volume of patients, the ED requires a system that can easily adapt to change and will help clinicians drive clinical quality, patient satisfaction, departmental efficiency and financial performance. Among the functions needed in an ED EMR system are advanced patient tracking, quick and easy nursing and physician documentation, CPOE, medication reconciliation, integrated risk mitigation, automated charge capture and powerful reporting tools.

As referenced earlier, the CRICO/RMF Strategies white paper emphasized that gaps in information, such as missing medical history, no record of abnormal vital signs, lack of timely access to radiology and lab reports and information lost in shift changes and handover of patients contributed to missed or delayed diagnoses in the ED. An ED EMR tailored to the specific needs of your emergency department will provide the applications and instant clinical information needed to dramatically improve communications in these important areas.

“Physicians have to understand the huge variability that is out there in terms of technology solutions,” said Dr. Sullivan. “The right choice can make a big difference to the patient, the provider, the department and — because of the efficiencies it can create — to the community. Physicians must make a conscious effort to identify a system that is viable for the future.”

According to ACEP: “Best-of-breed ED EMRs are designed specifically for EDs and usually offer better workflow, content and functionality.” In many organizations, the emergency department is under pressure to implement the ED module of the hospital’s enterprise system, but most of these systems have proven to be far too limited for the ED environment. KLAS, which independently monitors vendor performance through the active participation of thousands of healthcare organizations, noted in its December 2010 report on ED EMRs that “The ED has very specific needs from a system, needs that haven’t always been met by enterprise ED EMR vendors.” With today’s interface and connectivity tools, information can flow seamlessly between systems and allow a specialty ED EMR to meet enterprise interoperability requirements.

3. Make sure that automation does not impede care

The last thing that the ED needs is the insertion of technology that does not contribute to overall process improvements and/or inhibits patient care. According to Dr. Sullivan: “In selecting an ED EMR you have to ask, ‘Which EMR is optimal to bring clinical decision support to the bedside when you need it? Which one allows you to create a medical record
quickly?’ — because many of them take 10 to 15 minutes. If you take today’s workload and you employ technology that adds 10 to 15 minutes per record, you have added two and a half hours to a 10-hour shift. Obviously, that’s unacceptable, but I’ve seen it happen.”

Dr. Zimmer offered the following example of automation that would help clinicians enhance care. “On the front end, data entry should be as streamlined and as rapidly flowing as possible, without sacrificing important information. On the back end, the information sent back to the provider should be synthesized into chunks that can be easily and quickly digested.”

Dr. Goode concurred that a proper ED EMR improves care and efficiency by streamlining things that are done consistently and often in the ED. Utilizing order sets for laboratory and radiology orders and medications can improve time-to-test-ordered and incorporate best practice (i.e. antibiotic choice) into every patient visit. These order sets also assist in compliance with payer-driven best practice guidelines.

Hospitals that force a one-size-fits-all system can adversely impact the clinician’s ability to provide quality care and the amount of reimbursements. Out-of-the box functionality that meets the unique needs of the ED, without a lot of customization, sets best-of-breed ED EMRs apart from enterprise system modules.

Our panel also agreed that continuous process improvement requires the support of an agile system that tracks key performance metrics (e.g., length of stay, left without being seen, time to doctor, etc.) and provides the analytic tools to easily extract the data needed to benchmark performance and subsequently help improve patient care.

4. Take advantage of advanced clinical decision support

Even the most highly qualified doctors and nurses cannot be expected to stay current on all the subspecialties that present in the ED. Risk mitigation systems and other clinical decision support tools need be integrated into your ED EMR to help reduce medical errors and malpractice claims, improve documentation and promote better coordination of care between physicians and the nursing team. The right system can offer medical resources at the point of care and help expedite triage management of high-risk patients in the ED.

“Even the smartest and most dedicated emergency professionals cannot keep in the front of their minds everything they need to know to make the correct decisions all the time,” said Dr. Sullivan. “We need to embrace best practices and evidence-based medicine. That means providing clinical decision support and doing it within the mental workflow, while the physician is working with a patient on a clinical template, allowing the physician to call up the relevant patient information at the point of care.”

Dr. Goode also felt clinical decision support was important and emphasized that the tools should not be intrusive: “Risk mitigation tools make you smarter and provide the added benefit of never having to leave the system to do research. However, to be effective, there can’t be any hard stops. The system should notify you and make suggestions but not stop you.”
5. Champion system adoption by all physicians

Your department cannot realize the full benefits of an ED EMR without physician partici-
pation in every step of the decision process. All our panelists agreed that the physician
team must participate in the system setup and implementation, including having input on
workflow and navigation, templates, quick lists and timesaving macros.

“Physician engagement in the selection and the build process is the only way to
ensure that the system meets the needs of physicians and other users,” said Dr. Zimmer.
“Earlier in my career, I was involved with a hospital that overlooked physician concerns
during ED system selection and had little physician involvement during the build process.
What wound up happening was that they turned the system off after only three months.
The system failed, in no small part, because they hadn’t engaged the physicians. I know
of another case recently where the ED module of an enterprise system was implemented
with no physician involvement and they saw a 40% productivity decline after going live.”

Dr. Goode, who recently implemented an ED EMR system in his ED, agreed that
physician involvement is critical to success. “It’s all about setting expectations within your
group. If you’re not involved, you are going to lose the right to complain. We started five
months in advance and sat down as a group and started building order sets. Everyone
participated as a team. Our physicians continue to be involved in improving the system,
and I get regular emails requesting refinements to the setup. The system we have now is
very different from the one we had when we went live, and that’s a good thing.”

6. Push to keep your system on the cutting edge

To meet the daunting challenges facing emergency care, your department and the auto-
mation tools that support it must continually evolve. According to our panelists, the ED
physician leadership team, with input from the medical staff, needs to:

• Ensure that you are maximizing the functionality of your system
• Push the system vendor to continue to add new technologies and capabilities
• Communicate regularly with others in ED EMR user communities to learn from their
successes and failures

“I call it the ever-evolution of the system,” said Dr. Goode. “If the system we are
using in a year has not progressed beyond the system we are using now, we are not doing
our jobs. Our goal has to be to capture the proper information in the chart with the least
amount of intrusion into the care provider’s time. It is all about how fast the doctors and
the nurses can do their jobs.” He added: “What we have to do is work harder to make
the computer work for us. The system has to become an extension of you, just like your
smartphone.”

However, technology for the sake of technology does not justify change. When you
embrace new technology, you need to be sure that it fits into the overall goals of the
emergency department. The end game is to ensure that technology promotes improved
performance and patient-centered care.
Conclusions

Healthcare is in the midst of revolutionary change. For the ED, these changes include a sharp rise in the number of visits, increased mortality from rising ambulance diversions, a greater potential for malpractice suits and a surge in uncompensated care.

The role of the ED physician is changing as well. Technology has expanded from diagnostic and billing applications to the point where it infuses every aspect of the ED. The role of the ED in the medical care continuum is also evolving, with a new mix of patients who come to the ED with different expectations. All this presents new challenges to ED physicians in the quest to provide the highest standard of care, avoid the risk of litigation and ensure proper financial compensation.

Excellence in the ED starts with proactive leadership. The ED has unique needs not shared by other departments. Engaged leadership can ensure that these needs are met by:

• Making sure the ED’s point of view is incorporated into overall hospital planning and strategy
• Embracing change
• Facilitating better communications among ED staff, other hospital departments and other care providers such as primary care physicians and specialists
• Incorporating best practices into ED operations

To support the achievement of excellence, ED physicians must also be actively engaged in the selection and implementation of automation designed specifically for the ED. The right system can help the ED meet current and future challenges by:

• Helping clinicians make informed, timely decisions
• Helping clinicians promote the best possible care for each patient
• Incorporating risk mitigation tools into care protocols
• Improving communication throughout the health care continuum
• Reducing uncompensated care
• Supporting new regulatory requirements and models of care

A best-of-breed specialty ED EMR that addresses the ED’s unique challenges and requirements can be a key ally in the evolution of the ED and the quest for excellence.

The ED is the front door of the hospital and responsible for more than 50% of admissions and 45% of the hospital’s revenue. With sharp growth in the number of patient visits, ED physicians are increasingly challenged to provide appropriate patient care within the demands of an often-chaotic environment. The quest for efficiency and excellence in the ED benefits everyone — ED staff, the entire hospital and, most important, the patients.
By leading the effort to maintain and grow the department’s levels of excellence, ED physicians are working to achieve the ultimate goal: providing the highest quality of care. As Dr. Sullivan put it, “What this is really all about is shaking a hand, talking to a patient, understanding what’s wrong and then having the support to get the right answer and provide the necessary care. It’s about making patients well. We must always focus on that.”

References

1. National Hospital Ambulatory Medical Care Survey 2008, Emergency Summary Tables.
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