Interclerkship Day 2005:

Improving Patient Safety
The release of the Institute of Medicine’s report “To Err is Human” in late 1999 spurred a flurry of activity geared toward improving quality and patient safety throughout the U.S. healthcare system. While of great importance in the practice of medicine, patient safety and quality improvement are rarely included in medical school curricula. On January 3, 2005, Jefferson’s 3rd year medical students attended the 2nd annual Interclerkship Day, a program devoted to improving patient safety, with nationally recognized speakers and focused workshops. Judging from their evaluations, the program succeeded in its goal of inspiring the medical students to recognize various opportunities to improve patient safety and challenging them to take action. The following articles offer summaries of the keynote talks and several workshop sessions.

Patient Safety – Why Bother?

Keynote Presentation by:

James P. Bagian, MD, PE
Director of the VA National Center for Patient Safety

In a thought-provoking presentation, Dr. James P. Bagian drew on his knowledge as current Director of the VA National Center for Patient Safety (NCPS), and past experience, as an engineer, medical student and doctor, and NASA astronaut and air force flight surgeon, to illustrate the issues surrounding patient safety.

The patient safety problem is a not new - research studies on serious and fatal injuries in hospitals date back to 1964 (Schimmel, 1964). However, it wasn’t until the Institute of Medicine report, To Err is Human, released in November 1999, that the public became aware of the problem. Dr. Bagian stated that the report’s focus on errors led policymakers to the typical change approaches of new policies, regulations, reporting systems, and training. He believes that more appropriate Action needs to take a preventative, prospective approach, moving away from emphasizing mistakes and placing blame, to realigning improvement and change activities to the goal of improving patient outcomes.

Using aviation, NASA, and even nuclear power management as models, health care needs to recreate itself and its culture to allow all levels of staff and providers a role in identifying and fixing concerns. “If you are not sure it’s safe, it’s not safe” is a motto that those in the Air Force live by, emphasizing that anyone, at any level, at any time can call a mission off if he or she has any concerns about a safety issue. Health care has yet to establish a culture that promotes and rewards the “whistleblowers” on errors, and near misses. The healthcare systems should not live with “no blood – no foul” as its sentiment, waiting until an injury or death, to occur to spur an organization into action.

There are many reasons and ways to transform the current punitive health care system into one that constantly aims to improve systems and processes for positive patient outcomes. Change must start with the acknowledgement that human error is only one element of a multifactorial problem that can lead to injury or death of a
The system in which individuals work is often the culprit that leads to unnecessary mix-ups and miscommunications. Utilizing a systems approach, with full support from leadership, management, providers and staff is the only way to comprehensively address and reduce problems and errors.

Regulatory and Legislative Issues Surrounding Patient Safety

Workshop Conducted by:
Jeffrey Greenawalt
Director of Public Health and Professional Licensure, Pennsylvania Medical Society

Jeff Greenawalt, Director of Public Health and Professional Licensure for the Pennsylvania Medical Society, discussed regulatory and legislative issues surrounding patient safety. After putting into context the magnitude of the patient safety problem, he discussed the Pennsylvania Legislature’s passage of the Medical Care Availability and Reduction of Error Act (MCARE), also known as Act 13.

Act 13 created the Pennsylvania Patient Safety Authority (PSA). The PSA, chaired by the Physician General, is an eleven-member, independent, state-supported agency. PSA established a statewide, web-based reporting system known as PA-PSRS (Pennsylvania Patient Safety Reporting System). All hospitals, ambulatory surgery facilities, and birthing centers within Pennsylvania are required to report “serious events” and “incidents” as defined by Act 13. A serious event includes one that “results in death or compromises safety and results in unanticipated injury requiring the delivery of additional health care services.” Incidents or so-called “near misses” are those that had potential for harm, but did not result in harm to a patient.

Act 13 also changed the continuing medical education (CME) requirement for physicians to include more activities involving patient safety issues. It also increased the authority of the state Medical Board to allow disciplinary action for a single case of negligence. Prior to this, the Board could only act in cases where physicians displayed a pattern of negligence.

Mr. Greenawalt also expounded upon future legislative issues in Pennsylvania, including the profiling of physicians on a Medical Board website that would include record of liability cases brought against the physician, in addition to disciplinary actions received for actual convictions. Generating most interest from the students was what Greenawalt referred to as a “three strikes law,” in which a physician accused of three complaints of negligence would be stripped of licensure by the state. A similar bill went before last year’s Pennsylvania Legislature and was not approved, although Greenawalt contends it is likely to be brought again before the Legislature.

Lastly, Greenawalt praised the Pennsylvania Medical Society for giving physicians a voice in the debate on patient safety issues. In addition to their Patient Safety Committee and sponsorship of CME related to patient safety, the Society aims to
ensure that future legislation truly promotes patient wellbeing, rather than merely lay blame.

Patient Safety and Education Policy: Get Real

Keynote Presentation by:
David P. Stevens, MD
Director
AAMC Institute for Improving Clinical Care

Academic medicine’s response to the challenge of improving patient safety begins with understanding how the system works. Dr. Stevens, recently appointed Director of the American Association of Medical Colleges’ (AAMC) Institute for Improving Clinical Care, an initiative to improve the care of patients in academic settings, suggested that his presentation might be more aptly titled, “Assume Your Role as Active Change Agent in a Changing, Complex Healthcare System.”

In the last decade, medicine and health care have experienced an unprecedented number and variety of changes as new science and technologies have been introduced – genomics and proteomics, information science, systems, and safety to name a few. When the pace of new knowledge accelerates, new disciplines emerge initially as “orphans” (e.g., most institutions have no Division of Patient Safety). The new knowledgeable group includes a few expert scholars and all junior colleagues (e.g., most students could pass an exam on genomics whereas most practitioners would be unable to take the test.) Studies have shown that deference to the person with the most valuable information at any given moment is key in a high-risk organization. Traditional medicine does not work this way. The bottom line is that our traditional authority and knowledge gradients have been disrupted, and we must work to realign them.

As an indication that the medical community has taken responsibility for the system, Dr. Stevens cited two recent additions to the American College of Graduate Medical Education’s (ACGME) general competencies –

- Practice-based learning and improvement, and
- Systems knowledge

He offered a prescription for treating the system with steps oriented toward the individual physician, the micro-system (smallest replicable unit in health care – clinician, support staff and patient) and the macro-system (system that links micro-systems).

1. **Walk a process** – For example, walk a patient to X-ray, observe the procedure, get the report, and map out opportunities for improvement in the process.

2. **Report near misses from previous night on morning rounds** – It is estimated that near misses occur approximately 200 times more frequently.
than they are reported.

3. **Focus Mortality and Morbidity (M&M) discussions on aspects of safety and the system.**

4. **Form Medical Rescue Teams** – “Resuscitate the resuscitatable.” Work toward identifying signs of deterioration in patient conditions and develop clear instructions for calling the medical rescue team. Anyone should be permitted to call the team, but the call should come from the person with the best information.

In closing, Dr. Stevens asked the audience to think of ways in which the culture could be changed at Jefferson. A good starting point would be to consider why we make patient rounds in the way we do. It has been demonstrated that if rounds are made as a team effort, with the nursing staff contributing knowledge from a different perspective, the duration of a patient stay is reduced, hospital charges are reduced and patient safety is improved.

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**Practical Tools to Improve Patient Safety**

**Keynote Presentation by:**

**Peter Pronovost, MD, PhD**  
Director  
Quality and Safety Research Group  
Medical Director  
Center for Innovations in Quality Patient Care  
Johns Hopkins University

Dr. Peter Pronovost, a practicing anesthesiologist, critical care physician and leading safety researcher at Johns Hopkins University put a direct challenge out to the group. Dr. Pronovost outlined several practical tools to improve patient safety and encouraged all participants to incorporate at least one of the tools in the next month. Each of these tools have been developed by experts in the field, based on proven methods for improving quality in other industries and are being used by over 300 hospitals (part of a quality improvement effort by Dr. Pronovost and colleagues).

The first was a tool to guide individuals in investigating a medical error. Known as the “defect tool”, the tool helps to identify different system failures, rather than to assign blame to an individual. The tool highlights the common points of failure, including a mismatch between the provider skills needed and those that were available, medical equipment and device failures and communication errors between various members of the care team. The tool is not intended to replace a formal “root cause analysis” but, by decreasing the workload of each defect analysis, to allow many more investigations to occur, even by third year medical students.

The second tool was a “Daily Goals” worksheet. Since communication errors are one of the most common types, the worksheet is used each day by the rounding
team of physicians and the bedside nurse and several specific issues are briefly
discussed: 1) “What needs to happen for the patient to be discharged?”, 2) “What
work are we going to do today”, 3) “What are the safety risks today?”, and 4)
“What are the scheduled lab tests today?” The worksheet was developed for the ICU
setting, where it increased understanding of daily goals from less than 10% to over
90%, and it can easily be adapted for use in other inpatient settings [Pronovost,
2003].

The third tool, also designed to improve doctor-nurse communication, is holding a 2-
5 minute “AM Briefing” between the charge nurse, attending and resident physician.
Several specific topics are discussed during these briefings, including “What
happened overnight?”, “What patients are coming and going?” and “What am I
worried about during the day?” This tool also highlights some of the fundamental
problems that exist in communications between nurses and physicians in the
inpatient setting. Dr. Pronovost also noted that these communication tools greatly
improve the culture of medicine, helping physicians and nurses to feel more like
colleagues, rather than opponents, and improving the work satisfaction of
both parties, to the benefit of patients.

The fourth technique is a shadowing exercise, in which one provider follows another
provider around for a few hours, observing what they do during their day. Typically
the two providers are selected because they work closely and need to communicate
well. During this exercise, is used regularly by industry leaders such as Southwest
Airlines, the observer is asked to consider what they could do better to
communicate, after observing their colleague at work. Dr. Pronovost noted that
this is often an eye-opening experience and many hospitals can benefit from doing
this activity on a regular basis, perhaps every 6 months.

The last technique is one of the most proven, the use of checklists to standardize
certain aspects of care when clear standards exist. Doctors are human and humans
forget. Though physicians typically do not like, and are not accustomed to,
checklists, other high-functioning professionals, such as pilots, use them routinely to
assure that the correct things are done. Dr. Pronovost noted a particularly instructive
example in which 5 core recommendations from CDC guidelines for reducing ICU
catheter-related bloodstream infections were incorporated into the ICU at Johns
Hopkins University. The nurse was given responsibility for assuring that all 5
procedures were followed, such as handwashing and cleaning the area with an
antiseptic solution. The nurse was also given full authority to call a “time out” if any
of the procedures were followed. Though physicians were initially resistant, all
agreed that the procedures were in the patients’ best interest and adopted the
checklist, which led to impressive decreases in catheter-related infections.

This last example highlighted many of the barriers to incorporating patient safety
and quality improvement tools in the inpatient setting. Change is difficult and
uncomfortable, regardless of what’s being changed or who is doing the changing. Old
hierarchies must be overcome and power given to the person with the most
important information at the time, whether it’s a nursing student or the attending
physician. Nurses and physicians must find ways to work as a team, rather than as
opponents. By focusing on the common goal of improving patient care, Dr. Pronovost
has given us simple tools to achieve important safety and quality goals, as well as
the challenge to go out and give them a try.
Patient Safety and the MCare Law

Workshop Conducted by:
**Stanton N. Smullens, MD, FACS**
Chief Medical Officer
Jefferson Health System

Honest communication with patients promotes trust in the physician/patient relationship, and along with improved safety, is the best way to reduce liability exposure. This is one of the messages that Stanton Smullens, MD, tried to impress upon third year medical students at the Department of Health Policy-sponsored Jefferson Medical College Improving Patient Safety Interclerkship Day on January 3, 2005 at the Hotel Sofitel in Philadelphia, Pennsylvania. Dr. Smullens is Chief Medical Officer for the Jefferson Health System and Vice-Chairman of Pennsylvania’s Patient Safety Authority. His lecture, *Patient Safety and the MCare Law, focused on Pennsylvania’s MCare Law – Medical Care Availability and Reduction of Error Act*. The goals of the session were to discuss the Law, describe the components of the mandatory error reporting system, and share techniques of how physicians can improve their skills in talking to patients about adverse medical events.

Dr. Smullens began his lecture by putting the MCare Law into historical context. There were two main issues motivating the signing of the Act. First was the Institute of Medicine Report from 1999 called “To Err is Human – Building a Safer Health Care System.” This report estimated that between 44,000 and 98,000 preventable deaths occur each year as a result of medical adverse events. There was also growing discontent among physicians and hospitals in the state of Pennsylvania over the medical liability crisis. Governor Mark Schweiker signed Act 13 as a response to these issues on May 20, 2002. The Act became known as the MCare Law – Medical Care Availability and Reduction of Error Act. The Law is an attempt to combine efforts to improve patient safety and liability reform as a way to reduce the medical liability problem. Two of the main components of the Act include the mandatory reporting of serious events, incidents or near misses, and infrastructure failures in medical facilities, as well as written disclosure to patients when serious events occur. Among the mandatory error reporting forms currently in place in 20 states across the country, Dr. Smullens pointed out that Pennsylvania’s MCare Law is the most robust and is best suited to promote a culture of patient safety.

As he concluded, Dr. Smullens stressed that MCare is not about punishing people for committing errors or making mistakes. It is about finding vulnerabilities within the health care delivery system, analyzing them, and taking action to prevent their recurrence. By doing this, safety will improve and quality will rise. Dr. Smullens’s final charge to the students was that the changes the MCare Act intends to bring can only occur with a cultural change in the medical profession and it will be their responsibility in the future to embrace and promote this change.
Protecting Yourself From Lawsuits

Workshop Conducted by:

**Joanne Rosenthal, BSN, JD**
Associate Counsel
Office of University Counsel
Thomas Jefferson University

Joanne Rosenthal, BSN, JD, Associate Counsel and Corporate Compliance Officer at Thomas Jefferson University, presented a lecture on “Protecting Yourself From Lawsuits” as part of an extensive program on Improving Patient Safety. She prepared third-year Jefferson medical students by bluntly telling them they will likely be sued during their medical career and probably more than once. Focusing on the most common complaints and allegations doctors receive, she presented hypothetical examples and outlined what to do to prevent lawsuits before they occur.

Echoing Dean Nasca’s previous lecture, Ms. Rosenthal reinforced the idea that when dealing with medical errors, communication is key.

The most frequent claim Ms. Rosenthal encounters in her work is surgical negligence. Some errors and lawsuits arise from extremely complex procedures such as neurosurgery. However, there are also physicians who routinely make mistakes on the same procedure that is not necessarily as complicated. In order to prevent lawsuits arising from surgical negligence, it is necessary for a hospital or physician group to have a risk management plan. Identification of high-risk physicians and effective interventions including training, limitation of practice, or possibly removal are necessary.

Failure to diagnose is another common allegation and has many facets. According to Ms. Rosenthal, these lawsuits are often settled out of court because juries do not understand the notion of causation. Claims also require “deviation from the typical standard of care” which means prevention of these lawsuits demands precise charting, tracking of tests, and reviewing of results. Documentation is crucial for allegations of failure to diagnose even when it is due to a patient canceling an appointment or simply not showing up for an appointment. Written policies about communications are essential.

Lack of informed consent is another potential source of lawsuits for doctors. Again, communication plays a big role. Doctors may think they are communicating clearly, but the patient may not fully understand the consent form due to language barriers or other complications. Doctors and their staff must also ensure to use the correct forms. Ms. Rosenthal suggested writing progress notes that detail conversations about consent because often a signed consent form is not enough to
prevent lawsuits. With high-risk patients (those likely to sue a doctor), she advised videotaping the meeting or including a witness.

The final topic Ms. Rosenthal covered was corporate negligence. In these situations, often the failure of a team to work together results in medical error. Similar to Dean Nasca’s suggestion earlier, Ms. Rosenthal advised speaking up and “sticking your neck out” to help patients. Some institutional changes that may help these types of problems are improving policies and procedures, requiring attending physician presence, and introducing technology such as PDAs for ordering and tracking.

While lawsuits may be inevitable through the lifetime of a physician, Ms. Rosenthal addressed certain steps to try to prevent many from occurring in the first place. In addition to the examples above, she told students to be careful with email correspondence with patients, terminate patients when necessary and avoid seductive patients. Her final admonition was to be caring, competent, and communicative. Poor interpersonal skills from a doctor or his or her staff may directly result in a higher rate of lawsuits. Going through a lawsuit is a horrendous experience although preventing errors from escalating into legal challenges can be achieved.

Near Misses in Medicine: Case Studies

Workshop Conducted by: Rachel Sorokin, MD, FACP
Associate Medical Director of Clinical Efficacy
Thomas Jefferson University Hospital

In medicine a near miss is defined as “an event or error that does not harm the patient, but occurring again, could easily lead to patient injury.” By taking advantage of opportunities to identify and analyze near misses to help reduce errors in medicine, we ensure that analyses will be non-punitive and that potential solutions to avoid an error are implemented.

To illustrate how to use near miss analysis to improve care and care systems, four cases were presented. Below is one case, and student responses.

Case: A 25-year-old woman visits the resident clinic for a routine job-required physical. She works in a day care center. A systolic murmur is heard and the Echocardiogram reveals a ventricular septal defect (VSD), a hole between the 2 lower chambers of the heart, which may occur as a primary anomaly with or without additional major associated cardiac defects. The resident recommends a cardiology consultation. But, the patient forgets/neglects/misunderstands and does not make a cardiology appointment. The following year she returns the clinic for another job-required physical. She is seen by a different resident, who also detects the murmur but does not follow up with treatment or referrals. Three years later, she switches jobs and is covered by insurance allowing her to see a primary care physician. He detects the murmur, orders an ECHO and refers her to a cardiologist who performs a
surgical repair. What can we do to improve care to avoid what could have been a poor patient outcome.

**Discussion:** Students recognized several issues that could have contributed to the near miss and if modified could prevent similar occurrence in the future:

**Lost to follow-up** could be improved by implementing a referrals tracking system, e.g. if no consult report is received within a month of appointment initiate follow-up.

**Flag records** to indicate the referral was made and initiate follow-up.

**Chart VSD in problem list** in the front of chart, and organize chart so ECHO is easily accessible. Using computerized health records system would be ideal.

**Communicate** better the patient. Was her no-show to the referral due to lack of understanding of the problem or the need for the cardiology visit? Was it due to other patient factors, such is poor insurance coverage, or high anticipated co-payments or self-pay.

This is one example of how to think through what lead to a near miss and to create feasible, effective changes to avoid future incidents.