# FIRST

Do No Harm

In this Issue:

Quality and Patient Safety Division, Massachusetts Board of Registration in Medicine

January, 2014

*Patient- and family-centered care is the focus in this edition of FIRST, which includes articles on patient engagement in ICU work rounds (North Shore Medical Center); first hand experiences of members of Patient and Family Advisory Councils (Dana Farber Cancer Institute) and the development by one health care system of its web-based quality report (Baystate Health).*

## Inviting Families to Daily ICU Work Rounds

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The initial reaction to the proposal was one of skepticism. People knew all the reasons why a proposal to include family members on rounds was a bad idea. Patients' families would become worried about information that shouldn't worry them. They would become distrustful because they would hear us (physicians, nurses, respiratory therapists) second-guessing ourselves. They would get lost in the details and miss the important message. It would be a waste of their time. It would be a waste of our time. It would grind rounds to a halt.

Those of us who believed in the concept responded by extolling transparency and patient and family centeredness, but we were unable to win approval to roll out our plan to invite the proxies and key family members of our patients to join us on daily ICU work rounds in the NSMC adult medical and surgical ICUs. We therefore decided on a small test of change. The small test agreed upon would have a couple of willing physicians invite the next few families of the ICU patients they cared for to join rounds. We figured that if the experiences were positive, the stories told could help begin to win over the skeptics. The commitment was to try it for a couple of weeks and then come back and tell the story.

When the group got back together the early adopters had great stories to tell. They reported that the families were extraordinarily appreciative. They shared that transparency paradoxically seemed to increase trust despite more openness about our uncertainty, our second-guessing, or our lack of consensus as to the treatments needed for their loved ones. And somewhat surprisingly, the physicians reported that rather than spending more time in family meetings they were spending less. Overall the amount of time spent in discussion with families present increased, but the amount of time that specifically had to be devoted to family discussions decreased. Most families found the discussions that took place on rounds to be completely sufficient to give them a good understanding of what was going on with their loved ones.

The experience with the small test led to a decision to systematically adopt a policy in our adult ICUs of having families join rounds. Over the past several years since the roll out, we've had hundreds of family members on rounds with us with uniformly positive experiences. Notable have been experiences with the families that were felt to be distrustful at the outset of the loved one's stay in the ICU. The concern was that letting them in on our uncertainty or indecision or second-guessing would result in even more distrust on the part of the family. We found that the opposite was true. Especially with these families, more transparency, even if it included sharing our uncertainty, seemed to help build more trust.

Caregivers report improved relationships with families since the start of our inclusion of families on rounds. A sense of team, and of collaboration between the physician, nurses and the patients' families is often present. The dread around family meetings also diminished. Rather than families needing to be caught up on two or three days of a patient's changing condition they were made aware of changes daily, sometimes twice daily, as they were at the bedside during morning and afternoon rounds. This kept them in touch real-time with what was going on with their loved ones. It meant that there was less need to catch them up during the family meetings or to bring them to a very different place in terms of the condition of the patient. Good relationships with the families had been built and the conversations around goals, if needed, were ones that could take place from a position of trust and familiarity.

A key principle for family presence on rounds is that the work rounds retain the same purpose and general content as they always have had. They exist primarily for the purpose of reviewing key data, including laboratory data and vital signs, and for the purposes of examining the patient and reviewing active problems and agreeing upon daily goals. Rounds were not simplified so that they could be understood by the layperson and we did not pause to ask questions about whether or not hematocrit or creatinine were terms that were understood. We assumed they were not. We spoke in the language of the healthcare worker. Always, however, we concluded our rounds on each patient with a summary of their daily goals. This was often an opportunity to clarify and sometimes put in clear language exactly what was planned for the patient for that day.

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What adjustments have we made with the learning from our several years of practicing this every day? First, we realized that even with our openness to patients joining us in rounds, not all families could join every day; some were out of town or for other reasons were unable to join at all. As a result, we decided that a member of our physician team would make daily phone calls to the family spokesperson with a brief update. It is a way to make sure they remain in touch if they are not present on rounds. Second, we realized that while the standard family meeting was no longer required in all situations, frequently there were reasons to sit down with the families to discuss goals of care. These discussions were not best had during rounds. If they were, they disrupted the flow of rounds and often resulted in the team taking far too long to see the other patients in a timely fashion. In addition they could not be scheduled at times that worked for the multiple caregivers that might need to be present. Dedicated family rounds were agreed to be necessary in selected instances.

We also realized that while some patients were not able to participate in rounds because they were not cognitively aware, many were. Thus, we decided that for those patients we should endeavor to move rounds into the room, not hold them just outside the room with the family present, but in the room with the family, and the patient, at the center. We are doing rounds in the rooms with patients and families more and more. To make it possible for both the patients and the families to be fully part of the conversation we often need to slow down or speak up.

Our small test of change has led to a fully integrated process for family inclusion in daily rounds in our adult medical and surgical ICUs. We have learned that the complexity of ICU care is not a barrier to including families in our ICU work rounds. Skepticism has given way to a recognition that transparency builds trust.

*If you have questions or comments, Dr. Kitch can be reached at bkitch@partners.org.*

## How Patients Can Help Ensure Quality and Safety

Dana-Farber Cancer Institute is known for its model of patient- and family-centered care, in which patients, families, and staff members work together to help improve the patient experience, from reducing wait time to planning a new facility.

At the heart of this patient-centered philosophy are two Patient and Family Advisory Councils. The adult council addresses care provided through Dana-Farber/Brigham and Women's Cancer Center, and the pediatric group focuses on Dana-Farber/Boston Children's Cancer and Blood Disorders Center. Here, two members of these councils share their wisdom in how to help an organization continually improve quality and safety of care.

### Helping Improve the Experience of Children and Families

By Julia Pettengill

I joined the Pediatric Patient and Family Advisory Council (PPFAC) after my daughter Sophie completed 25 months of treatment for acute lymphoblastic leukemia, to help ensure that the "voice of the patient and the family" was continually represented in the Institute's mission to have a patient-centered care model.

From the day of Sophie's diagnosis when she was age 2½, we felt included in every aspect of her treatment. This partnership was crucial in empowering us as caregivers and our daughter as a patient, even at her very young age. Every decision regarding her protocol and care were made in partnership with us and in accordance with Dana-Farber's focus on the safety and quality of the care they provided.

In addition, it was important for me to directly contribute to improving the quality and safety of cancer care provided to other pediatric patients and their families during and following treatment. The PPFAC provided the best structure and platform for me to remain involved, allowing for the opportunity to work directly with hospital leaders in addressing patients' needs and concerns, in addition to serving as a resource on patient-related issues.

I joined the council in March 2013 and have personally contributed to: improving the safety of caregivers administering cancer drugs at home; offering my guidance on the renovation of the Jimmy Fund Clinic, with a focus on optimizing flow, safety, and best practices; and improving the transition off treatment for patients and families.

As part of the council's *Weekend Initiative* at Boston Children's Hospital, I have the opportunity to hear directly from patients what their needs and concerns are while they are inpatients, and relay that information to hospital leaders. My participation on the council continues to be a tremendously rewarding experience.

### Advocating for Patient- and Family-Centered Care

By Evelyn Fowler

While my husband, Joe, was undergoing treatment for cancer, I was always impressed by the number of patients I saw at Dana-Farber undergoing various levels of care. As I sat with him, I thought how important the quality of his care was, and I noticed the number of staff members involved and the safety measures that needed to be in place.

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Every staff member we encountered was always willing to answer the many questions we had, and encouraged us to bring up issues or concerns. Responses were always clear and honest.

After Joe's treatment ended, I felt compelled to give something back, because I believed strongly that his caregivers had included me in every aspect of his treatment plan. I knew that Dana-Farber followed a patient- and family-centered model of care, but I did not fully understand how much this concept was integrated into their quality and safety mission until I joined the Adult Patient and Family Advisory Council.

As I approach the sixth and final year of my tenure, I have witnessed how the patient and family voice is an integral part of Dana-Farber's mission. Patients and family members are not only heard; they are actively encouraged and often sought out, to speak frankly and provide their insight and input to current operations or future planning.

Patients and family members serve on all major committees, including the Quality Improvement and Risk Management Committee, serving side by side with senior leaders. They are also actively involved in preparations for Joint Commission accreditation. Senior leaders, such as the chief medical officer and chief nurse, attend our monthly PFAC meetings, and hear first-hand issues of key importance to patient care. The council is successful because of its partnership with Dana-Farber and the desire of all members to make a difference in the experience of patients who come after them.

*Baystate Health describes the development of its Quality Report from a paper-based internal document to a report that provides up to date, understandable quality data on its public website.*

## Baystate Health: The Journey to Transparency

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### Background

Located in the heart of the Pioneer Valley in Springfield, MA, Baystate Health, Inc. (BH) is a hospital-based, integrated delivery system serving western New England. Along with its care-giving services, BH is also recognized as a major teaching and research facility.

### Performance Measurement

At its core, the BH Quality Report is a "report card" comparing our performance on key measures of quality, including core measures, patient safety, readmission, mortality, and patient experience against national benchmarks. The Quality Report is a compilation of data from a multidisciplinary environment: from external sources, such as Premier (our Core Measure Vendor), CMS, Leapfrog, and Healthgrades, to more than 40 internal BH teams.

### The Early Years

Baystate Health was among the first hospitals in the nation to embrace the idea of joining quality and transparency and to promote it both within and outside of the organization. Early on there was an understanding and appreciation that the "data is what the data is." All data is important: the good, the bad and the ugly. The "bad" and "ugly" give us directional data to improve our performance. The "good" data can always be "great."

Our earliest efforts began in 1999. Our intent was to have a central repository within the Division of Healthcare Quality for processing and disseminating quality data. At the time, outcome reporting was in its infancy. The first iteration of our Quality Report was a paper-based document designed to be viewed and used by healthcare professionals. The report highlighted key quality measures, areas of high volume and/or programs of distinction at the health system as determined by our clinical leaders. Our vision at the time was to begin a new era of clinical outcome tracking that reinforced our commitment to performance improvement. National benchmarks were the exception rather than the norm as they were not yet available for many fields. Nevertheless, we felt that it was important to begin to monitor and report aggregate data to our medical community in an effort to promote quality advancement.

Subsequently, our reports evolved over the next 10 years to engage our clinicians in quality measurement to continuously improve our healthcare delivery, and our focus expanded to represent our ongoing commitment to pursuing outstanding quality, patient safety and satisfaction, and innovative practices.

### Digital Format

In 2010, we made the leap from a paper-based report to an online format. Due to the prohibitive cost of printing thousands of reports, and our desire to be as transparent as possible, both internally and externally, we looked towards a digital format using the internet. The digital format not only allowed us to reach many more people, but it also allowed for easier updating of information. Historically, our reports were printed once a year. Since the migration to the online format, our reports are updated twice yearly.

Taking advantage of rapidly changing technology, we partnered with our e-Health and Information Technology departments to successfully transition to a dynamic online format in less than a year. It was a labor-intensive process to transition from the high-level, simplistic version of the paper-based format to the detail-oriented intricacies and technically advanced

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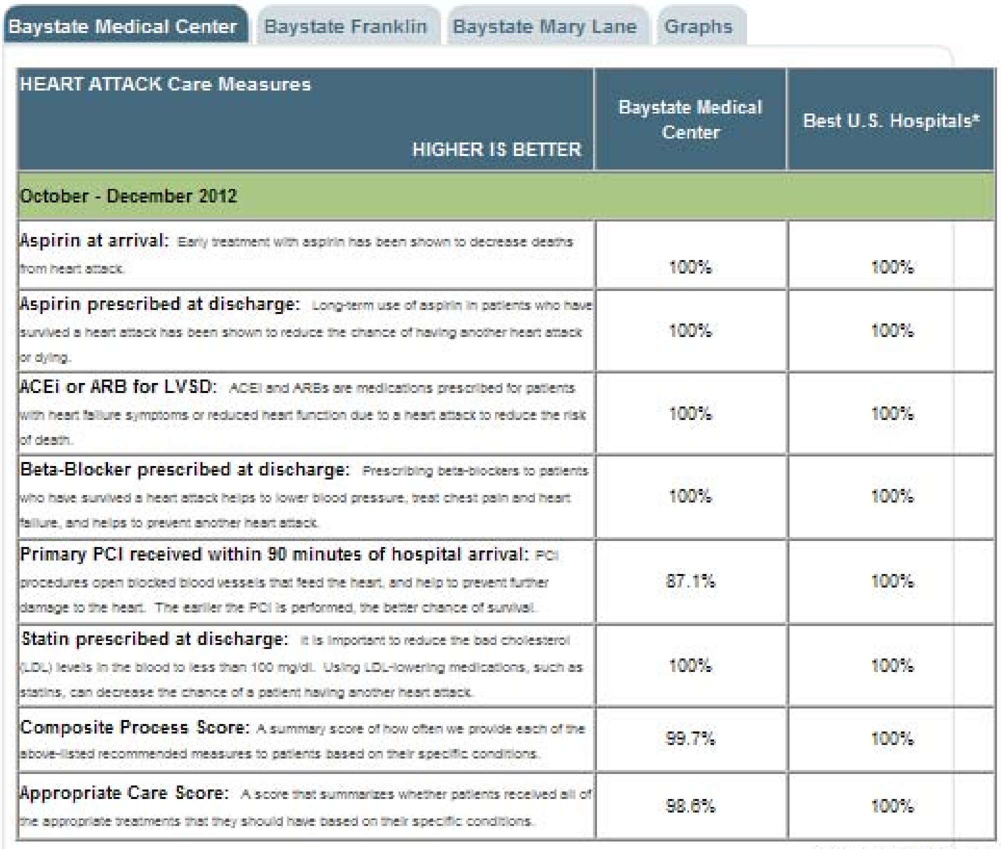
world of the digital version. e-Health created more than 80 web pages to display our data and graphs. In our initial report, each service area had its own tab, and all Baystate Health entities were represented on one continuous page, with a narrative summary for each entity followed by a bullet list of accomplishments and data. Static graphs were embedded to highlight important areas.

Several MS Office programs are used to create the web version of the Quality Report. Much of the narrative is created in Word for ease of formatting, especially tables, and over 120 graphs are created in PowerPoint and Excel, saved as jpegs, and imported into the online program. In an effort to be LEAN, our IT team created a routine whereby a hyperlink was created to existing graphs [on our intranet] and embedded in the body of the online report. This eliminated the need to recreate the graphs in PowerPoint and have them uploaded.

While this was a definite improvement over the paper-based version, we found that there was too much information presented, with too much detail, and it was hard to navigate. Additionally, our original reports were geared towards clinicians and the language was reflective of that. However, when we decided to become transparent to our external customers, we looked at user-readability statistics to determine our health literacy level and found that most of our report was at or above the 16th grade level. With the intent to be transparent to our patients, we embarked on becoming more user-friendly, with an appropriate literacy level. The addition of an embedded survey link for consumer feedback on the Quality Report allowed us to be responsive to the needs of consumers.

In 2013 we revamped our report once again, streamlining narrative sections to be less technical and more readable, while still providing data for dialoguing with providers. In several areas, we were able to attain our goal of an acceptable literacy level (Grade 6). We changed our data presentation from a lengthy bullet list to a summary table format, comparing our performance against "best hospitals'" performance. Most importantly, we separated out all BH entities, giving each their own tab on the web page, with 151 web pages in all, making the report much easier to navigate. (Examples of our web pages are shown in Figures 1, 2, and 3.)

The Baystate Health Quality Report has evolved from a static, paper-based internal document to a dynamic, digital, educational tool allowing for transparent accountability to our community on our successes and opportunities to improve. As we continue our journey, we will concentrate on achieving a standard literacy level, streamlining narratives further, and simplifying summary tables. With each iteration, we strive to make it more user-friendly and more meaningful, while maintaining our commitment to transparency.



| HEART ATTACK Care Measures<br>HIGHER IS BETTER | Baystate Medical Center | Best U.S. Hospitals* |
|---|---|---|
| October - December 2012 | | |
| **Aspirin at arrival:** Early treatment with aspirin has been shown to decrease deaths from heart attack. | 100% | 100% |
| **Aspirin prescribed at discharge:** Long-term use of aspirin in patients who have survived a heart attack has been shown to reduce the chance of having another heart attack or dying. | 100% | 100% |
| **ACEi or ARB for LVSD:** ACEI and ARBs are medications prescribed for patients with heart failure symptoms or reduced heart function due to a heart attack to reduce the risk of death. | 100% | 100% |
| **Beta-Blocker prescribed at discharge:** Prescribing beta-blockers to patients who have survived a heart attack helps to lower blood pressure, treat chest pain and heart failure, and helps to prevent another heart attack. | 100% | 100% |
| **Primary PCI received within 90 minutes of hospital arrival:** PCI procedures open blocked blood vessels that feed the heart, and help to prevent further damage to the heart. The earlier the PCI is performed, the better chance of survival. | 87.1% | 100% |
| **Statin prescribed at discharge:** It is important to reduce the bad cholesterol (LDL) levels in the blood to less than 100 mg/dl. Using LDL-lowering medications, such as statins, can decrease the chance of a patient having another heart attack. | 100% | 100% |
| **Composite Process Score:** A summary score of how often we provide each of the above-listed recommended measures to patients based on their specific conditions. | 99.7% | 100% |
| **Appropriate Care Score:** A score that summarizes whether patients received all of the appropriate treatments that they should have based on their specific conditions. | 98.6% | 100% |

*Benchmark is HQID Top 10%

*Figure 1*

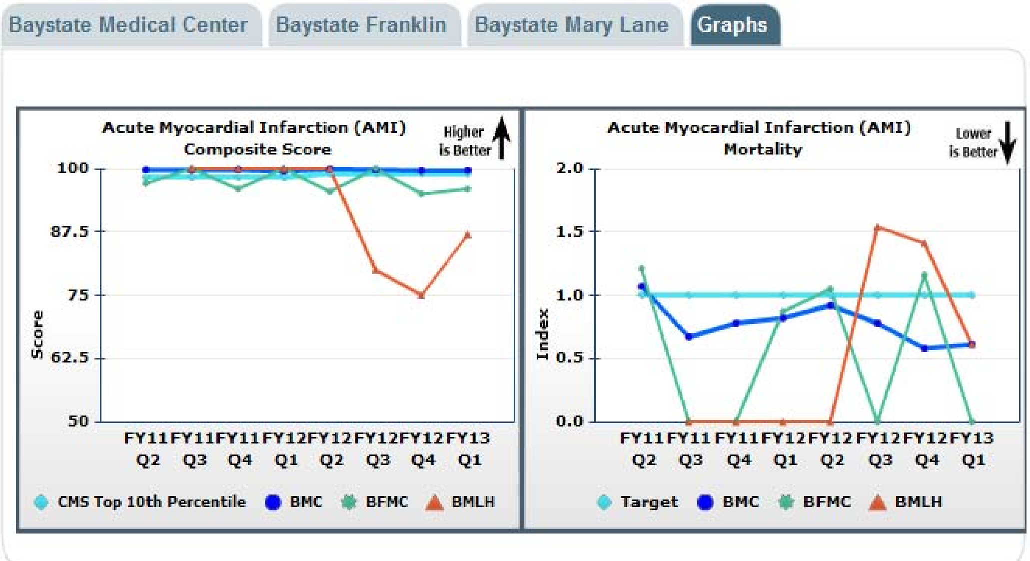
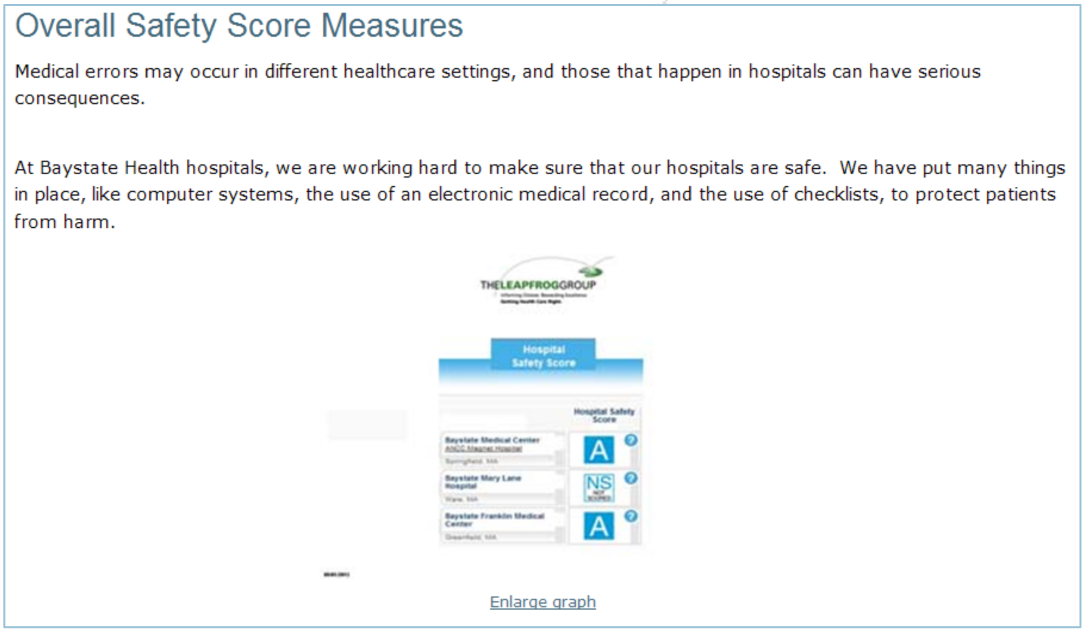


*Figure 2*



Overall Safety Score Measures

Medical errors may occur in different healthcare settings, and those that happen in hospitals can have serious consequences.

At Baystate Health hospitals, we are working hard to make sure that our hospitals are safe. We have put many things in place, like computer systems, the use of an electronic medical record, and the use of checklists, to protect patients from harm.

Enlarge graph

*Figure 3*

The Institute for Patient- and Family-Centered Care's Core Concepts of Patient- and Family-Centered Care: *

**Respect and dignity.** Health care practitioners listen to and honor patient and family perspectives and choices. Patient and family knowledge, values, beliefs and cultural backgrounds are incorporated into the planning and delivery of care.

**Information Sharing.** Health care practitioners communicate and share complete and unbiased information with patients and families in ways that are affirming and useful. Patients and families receive timely, complete, and accurate information in order to effectively participate in care and decision-making.

**Participation.** Patients and families are encouraged and supported in participating in care and decision-making at the level they choose.

**Collaboration.** Patients and families are also included on an institution-wide basis. Health care leaders collaborate with patients and families in policy and program development, implementation, and evaluation; in health care facility design; and in professional education, as well as in the delivery of care.

*The Institute for Patient- and Family-Centered Care at http://www.ipfcc.org/

## SAFETY AND QUALITY REVIEW CORNER

### Unfamiliarity With Medication Contributed To Prolonged Bleeding.

### The Event

An elderly patient was admitted to the hospital with fever. Her past medical history included COPD, breast cancer, atrial fibrillation, chronic heart murmur and recent hospitalization for treatment of a bacterial pneumonia. Blood cultures were positive for MSSA and the patient was treated with vancomycin followed by kefzol. She was started on Arixtra (fondaparinux) for DVT prophylaxis. The patient did not have any risk factors that would have made fondaparinux the preferred agent for DVT prophylaxis over more conventional treatment with lovenox or heparin. It was decided to place a PICC line on HD#12, 69 hours after the patient's last dose of fondaparinux. This interval, in the absence of renal insufficiency and patient age >75, was felt compatible with an acceptable bleeding risk. When the line was placed, the patient developed heavy bleeding from the site. Vitamin K was given, and the patient was transfused. The patient ultimately stabilized and was discharged with no further sequelae.

### Internal Review Findings

The hospital's Pharmacy & Therapeutics Committee had initially approved the use of fondaparinux; their approval recommended restricting the use to specific patients, generally on the orthopedic service. The monitoring of these recommendations was not tight, and providers were able to order the drug outside of the guidelines.

A survey of nurses was done following this event: 90% had heard of fondaparinux, 65% had administered it and only 5% were aware that its anticoagulant effect was not reversible. Similarly, a less formal survey of physicians outside the orthopedic department showed generally poor knowledge of the drug, its mechanism of action, and issues regarding bleeding complications. Providers were specifically unaware that fondaparinux is contraindicated in the setting of bacterial endocarditis (which this patient likely had), due to risk of cerebral hemorrhage. Providers were unaware that fondaparinux was only approved for use in post-op orthopedic patients for DVT prophylaxis or treatment of DVT/PE. Providers were unaware that fondaparinux is less effective than lovenox 30 mg sc bid.

A study of hospital data for patients who received fondaparinux showed that some received the drug appropriately in the orthopedic setting and in heparin induced thrombocytopenia, but others had no appropriate indication. Providers were unaware that Vitamin K is ineffective in this setting, as is fresh frozen plasma. Optimal management of the acute bleeding issue would have included the following: consultation with Hematology; consultation with Surgery regarding hemostasis; transfer to a higher level of care; earlier intervention with IV fluid support for hypotension; and earlier intervention with packed red blood cells to avoid severe anemia.

### Improvement Plan

A task force was formed to address issues with newer anticoagulants (including fondaparinux.) Staff was educated in the mechanism of action of the newer anticoagulants. A "tip card" was distributed to nurses and physicians with information regarding issues related to fondaparinux. The Pharmacy & Therapeutics Committee established clear guidelines for restricted use of the newer generation of anticoagulants. Notifications were placed in the electronic medication ordering system to alert providers on the issues with fondaparinux usage. Staff was educated through multiple hospital-wide grand rounds.

The Quality and Patient Safety Division recently released an Advisory on Venous Thromboembolism and Prevention. The Advisory is available at the Board's Quality and Patient Safety link: http://www.mass.gov/eohhs/docs/borim/physicians/pca-notifications/vte-risk-assessment.pdf.

On a related note - the *Physician-Patient Alliance for Health & Safety, the Institute for Healthcare Improvement and the National Perinatal Association* announced the release of safety recommendations targeting the prevention of venous thromboembolism (VTE) in maternal patients. To learn more and download the recommendations go to: http://ppahs.org/2013/12/05/new-vte-safety-recommendations/.

## Events Reported in Safety and Quality Reviews

Here are some examples of the types of events reported to the QPS Division during the past year.

**Acute Care Hospital**

Delayed diagnosis of spinal abscess
Inpatient suicide
Colon perforation post PEG placement
Ruptured tendon during physical therapy
Endocarditis following aortic valve replacement
Venous laceration during colon resection
Intra-operative burn
Stroke following ERCP
Delayed diagnosis of colon cancer
Delayed diagnosis of C-diff infection
Endocarditis s/p colonoscopy with polypectomy
Aspiration during anesthesia induction
Severe adverse reaction to vancomycin
IVC filter migration
Pericardial effusion post ablation procedure
Toxic medication reaction (flecanide/sertraline)
Burns from hypothermia pads
Neurosensory deficits after epidural injection
Central line infection
Death following admission for small bowel obstruction
Paresthesia following epidural catheter placement
Delayed treatment of alcohol withdrawal symptoms
Robotic surgery complications
Laceration of vena cava during AICD removal

**Ambulatory Surgery**

Endoscopic perforations
Hospital transfer for ventricular fibrillation
Respiratory complication associated with tonsillectomy
Post-procedure acute care hospitalization for:

- hemorrhage;
- surgical site infection;
- stroke;
- sepsis.

**Rehabilitation/LTAC**

Unanticipated bowel perforation
Severe hyponatremia
Acute care transfers for:

- respiratory decompensation;
- myocardial infarction;
- hypotension;
- low hematocrit;
- seizure.

“The epidemic of patient harm in hospitals must be taken more seriously if it is to be curtailed. Fully engaging patients and their advocates during hospital care, systematically seeking the patients’ voice in identifying harm, transparent accountability for harm, and intentional correction of root causes of harm will be necessary to accomplish this goal.” James JT. *A New, Evidence-based Estimate of Patient Harms Associated with Hospital Care.* J Patient Saf. 2013; 9 (3):122-128.

**CONTACT THE QPSD**

**To be added to the QPSD Newsletter and Advisory mailing list, update hospital contact information, submit an article, request an SQR form, or obtain additional information, contact QPSD: Jennifer.Sadowski@state.ma.us or (781) 876-8296.**

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