Refurbishing Menino Pavilion: Giving Menino a facelift while keeping patients safe

As many of you know, last week 7 East Menino Pavilion was closed for renovations. This process placed a significant stress on both Menino's and East Newton's Medicine service and Boston Medical Center in general. As such, the decision was made by BMC's administration to postpone the ongoing renovations for now.

Smooth flow of patients around the Medical Center is critical to being able to accommodate new patients while safely caring for those already here. Periodically, you may be requested to see if you can expedite transfers or discharges so as to assist in the flow of patients through Boston Medical Center. We understand that you are all working hard and consider safe and high quality care your first priority, as it should be. When the requests to expedite patient flow come to you, please do not think we want you to "kick patients out" or jeopardize exceptional care in any way. We hope, simply, that with an added understanding that the hospital as a whole is periodically struggling to accommodate the volume we receive, that you may be able to reorganize some of your workflow to be more efficient about throughput of patients.

The project to refurbish the rooms at Menino is a welcomed one. The facility needs the facelift that this project will provide. In the future, this project may be restarted. When that occurs, we hope that you will do everything within your power to assist the hospital with timely and efficient discharges where possible without jeopardizing patient care. We recognize and appreciate the added stress and strain these requests engender and would ask that you work together, nurses, case managers, and physicians, to do what you can to keep our patient flow as efficient as possible without sacrificing patient safety. Quality care in a safe environment is – and will remain – the highest priority of the inpatient Medicine Service. Thanks in advance for your cooperation in these matters.

J Greenwald

Looking out for each other at times of grief

As you have witnessed with patients, grief hits different people differently, depending on their background, experiences, and connection to the situation. It may reveal itself as sadness, anger, erratic behavior, disbelief or withdrawal. There is no way to predict which will be present and, often, more than one may surface simultaneously or in short order.

Be aware, not only of your colleagues reactions, but of your own. You are human too and playing the role of doctor and friend or family member concurrently is challenging if not undoable. Forgive others who may say or do things in grief that you do not like. Put an arm around a colleague who is having a hard time. Let them know, and know yourself, that they are not alone and that slowly, with time, they will begin to feel better.

Grieve, and let others grieve. It is important. It is real. It is normal.

J Greenwald

THE INPATIENT TIMES

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The Inpatient Times

All the news that makes you more fit to treat

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One of Our Own…

In memoriam

Ari Weissman

4/14/1973 – 7/22/2006

Death ends a life, but it does not end a relationship,
which struggles on in the survivor's mind toward some final resolution,
some clear meaning, which it perhaps never finds.
-- Robert Anderson.

Food and Nutrition Services: The Quick and Easy

As a new resident you may be feeling slightly overwhelmed as you embark on your first year at BMC. This article will provide you with guidelines to help you successfully find you way around placing diet orders, nutrition consults, TPN orders etc and help you gain a general understanding of the clinical nutrition department. Each unit is covered by a dietitian. Page the floor RD with any questions you may have.

Ordering Oral Diets, Tube Feeds, and Supplements

All patients must have a diet order, including patients with NPO status. To place a diet order:

1. In SCM go to "Enter Order" – the notebook icon
2. Select "Food and Nutrition" from the various orders at left
3. Select a diet order various categories i.e. Diabetic, Cardiac, NPO, Renal, Textured Modified diets etc.
4. Select the specific diet order from the sub-categories of that diet based on the dietitian's recommendations. If a dietitian has not seen the patient and you are unsure of an appropriate diet, place a nutrition consult (see below)
5. If special instructions are needed, select "View" which provides a space for limited text for more specific instructions.
6. **TUBE FEED ORDERS –** from step 2, select "Tube Feedings" and then select the desired formula and goal rate based on the dietitian's recommendations.
   a. Select the "View" tab for special nursing instructions (e.g.) cyclic feeds, advancing feeds, holding feeds before and after specific med dosing),

The Nutrition Services software Computrition, is interfaced with SCM and only allows for one diet order at a time. The most recent diet ordered chronologically would be the diet Nutrition Services would receive. However, discontinuing the last diet order chronologically does not automatically change the diet back to the previous diet. For example, discontinuing a NPO order does not automatically "kick in" the previous diet. All diet changes require a new diet entry and discontinuation of all previous orders.

The default time for a diet order is the next meal. Also, if a patient is NPO for a test but will be allowed to eat at the next meal, a tray may be ordered for that next meal at the same time the NPO order is placed by selecting the start meal.

Nutrition Consults

Consults may be ordered for specific nutrition services such as enteral (tube feeding) and/or nutrition assessment. Consults are answered within 24 hours. Diet instructions should be ordered at least 24 hours prior to discharge to ensure adequate time for the instruction to be completed. After a consult is placed in SCM, please call 4-3837 for the Menino campus and 8-5945 for the East Newton Campus.

TPN Orders and Consults

TPN orders must be in SCM and verified by 1pm each day with no exceptions. When ordering a TPN consult, it is important to also contact the Metabolic and Nutrition Support Services Team allowing them to complete the consult in a timely manner. (Menino – Sandy Schoepfel, beeper 2022; East Newton – Laurie Kearns, beeper #9531.)

Nutrition On Call Schedule

A registered dietitian covers all weekends and holidays and is generally available between the hours of 7:00am to 5:00pm. Our website (see below) lists who is on call for the service.

Clinical Nutrition Services Website

The Clinical Nutrition Services website will provide you with important contact numbers, floor coverage, the enteral formulary, diet educations, and the on-call schedule. The website can be found at http://www.internal.bmc.org/nutrition/.

L Teuwen

Got an idea for an article for the Inpatient Times?

Contact Jeff Greenwald

Six Sigma (6σ) in Healthcare

What is Six Sigma?

In 1999, when the Institute of Medicine released its groundbreaking report, "To Err is Human: Building a Safer Health System," a national agenda was set to reduce medical errors and improve patient safety through design of a safer health care system. The report increased the urgency for everyone in healthcare to understand where the systems and processes fail and how to reduce the resulting errors. Hence, some in healthcare looked to the manufacturing world, and one of its most effective error-reducing tools – Six Sigma.

In the 1980s manufacturing adopted Six Sigma as a philosophy and methodology incorporating a toolbox full of statistical tools as well as best practices in the project management profession. Six Sigma focuses on identifying the customer needs, has a process-oriented and data-focused approach to problem solving. Statistically speaking, 6σ equates to 3.4 defects (errors) per million opportunities, and that is the ultimate goal to achieve in a process.

The Six Sigma methodology takes projects through five distinct phases: Define-Measure-Analyze-Improve-Control (DMAIC).

That is good for manufacturing; why healthcare?

Manufacturing focuses on fixing products and practices. Usually this translates to reducing reject rates and subsequently improving profit margins. In healthcare, instead of widgets, our focus is on humans. That makes it a moral imperative to apply a precise rigor to ensure our practices are safe and thrive to eliminate defects and variations and thus, reduce errors which can harm patients.

The Performance Improvement (PI) Department here at BMC primarily uses Six Sigma philosophy and methodology. The PI project managers are certified Six Sigma Blackbelts and Greenbelts leading performance improvement projects across the institution. They also provide 6σ awareness training to the BMC community. In the near future PI plans on delivering Greenbelt training to a wider group of employees, expecting them to incorporate the methodology in their everyday work setting. You can visit the PI website at www.internal.bmc.org/pi/.

What can I do?

Read about Six Sigma; learn the basics, learn the language; always keep the customer in mind; always look for defects and variations; work in teams and foster communications; collect and analyze facts and data; make decisions based on facts not anecdotes; pilot your potential solutions before you finalize them; and periodically revisit the process to make sure the solutions are working.

What are some healthcare examples where Six Sigma can help?

Six Sigma improvement opportunities in healthcare include but are not limited to the following: reducing risk of infection, reducing error in processing patient information or lab results, reducing turn around times, reducing cost, reducing patient waiting time, and eliminating wasteful practices.

S Razavi

As of August 1, 2006

Pantoprozole (Protonix) tablets will be automatically switched to:

Esomeprazole (Nexium) tablets

also

Pantoprozole (Protonix) IV solution will be automatically switched to:

Esomeprazole (Nexium) IV solution*

* Please note that the same restrictions will exist for iv esomeprazole that were present for iv pantoprazole: It is restricted to patients with non-variceal upper GI bleeding.

Note

40mg pantoprozole = 40mg esomeprozole

Read prior editions of The Inpatient Times online at:

www.bumc.bu.edu/Dept/Content.aspx?DepartmentID=461&PageID=10429

Communication – a key to great care: an illustrative case

Providing good clinical care is very challenging, especially when patients have dementia which can make it harder to understand a patient's wishes and often requires us to rely on family to help with these decisions. Emotions may run high and family members may disagree about certain decisions or have never faced or thought about these issues previously. Families and patients may be ambivalent about how they wish to proceed. Other times as a resident you may not be sure how to direct them or may be unsure as to what they wish to do. This a perfect time to talk with your attending who will be available to help you in establishing "goals of care." Below is an illustrative example of a situation in which an attending should have been called and may have been able to help develop the treatment plan.

An 84 year old patient with advanced dementia was brought into the ED by her daughter because she felt her mother was more confused and was having more difficulty walking. She had fallen out of bed earlier that day. Her PCP had seen her at home three days before and her daughter reported that the "doctor had gotten my mother to agree to nursing home placement."

The workup in the ED revealed the patient was hypovolemic and had a UTI. A renal ultrasound was done which revealed a "hyperechoic area." An MRI was recommended for further evaluation, but the patient's daughter reported "I don't want my mother to suffer or go through any invasive tests." The patient also complained of back and hip pain and appeared to be uncomfortable.

The Saturday night float admitting resident had further discussions with the patient's daughter about how ill her mother was and about advanced directives. The daughter reported that her mother would not want heroic measures, such as intubation or resuscitation. The resident interpreted his discussions with the daughter as they would only want "comfort." He ordered gentle IV fluids, antibiotics, and a morphine drip "titrated to sedation." He did not call the attending.

The following day the primary team spoke with the patient's daughter and grandson. *Continued →*

They found that while the family was concerned about the patient's pain and wanted it to be controlled, they did not want her terminally sedated. The night float resident could have – and should have – been more explicit about "goals of care" for this patient. In these situations, *you should speak with your attending who needs to be involved*.

Establishing goals of care is very important for every admission, but can be particularly important in geriatric patients who have multiple medical problems, including cognitive impairment. These goals can and should shape our treatment plans. Based upon these discussions, treatment plans may involve an aggressive diagnostic workup or, alternatively, may involve achieving comfort alone, with less concern about underlying causes.

In this case, you and your attending should consider what the family's "goals of care" are. Was this treatment plan congruent with the family's (and patients') "goals of care?" How could these goals have been further defined? Who can help if there is indecision on the part of the patient or family? To establish goals of care:

- Evaluate patients/families understanding of baseline medical/underlying medical conditions. ("Please tell me what your understanding is of your health before you got sick" or "What has your doctor told you about your health?")
- Find out how "aggressive" the patient and/or family wish to be. ("Your father is dehydrated. We can treat him with fluids through his vein. Some providers may recommend that he be admitted to an ICU to be more intensively monitored. Would he/you want that?")
- The patient/family may want education as to how their current illness may be part of the course of their underlying illness and what, if any, recovery may be expected with or without treatment. This may help them decide how aggressive they want to be.
- Discuss advanced directives or confirm with the patient/family what they have already decided with their PCP.

As illustrated by the above case – when in doubt please call the attending to discuss the case. We are available to help at all times!!

D Oates

Switching from IV→PO antibiotics?

When is it appropriate to convert a patient from intravenous to oral antibiotics? There are three major types of conversions to consider which may influence when it is recommended to convert a patient: sequential therapy, switch therapy, and step-down therapy. Sequential therapy is when intravenous therapy is replaced by an equally potent oral formulation of the same medication, for example metronidazole IV to metronidazole PO. Switch therapy is when intravenous therapy is replaced by an equally potent oral agent with different active ingredients. Step-down therapy is when intravenous therapy is replaced by a less potent oral agent after the patient is stabilized or has met certain parameters for improvement, for example ceftriaxone IV to cefpodoxime PO.

Sequential therapy requires that the patient is able to tolerate and absorb oral medications. Oral antibiotics involved in sequential therapy conversions are highly bioavailable agents that achieve concentrations similar to those achieved by the intravenous formulations. When a patient is able to tolerate and absorb oral agents, it is generally safe to convert them to the oral formulation. Most fluoroquinolones, doxycycline, metronidazole, fluconazole, linezolid, and others fall into this category.

An example of sequential therapy at BMC is the automatic IV→PO conversion for levofloxacin, ciprofloxacin, metronidazole and fluconazole which is performed by the pharmacy. Patients must meet certain criteria for conversion (i.e. tolerating oral fluids and/or diet and taking other oral medications) prior to conversion by the pharmacist. Patients who are not candidates for conversion include those who may have alterations in GI function which may inhibit the absorption of oral medications and those who may have food-drug interactions with oral medications that cannot be avoided (e.g. administration of oral fluoroquinolones must be spaced with antacids, enteral nutrition and multivitamins by at least 2 hours).

Switch therapy requires that the patient is able to tolerate and absorb oral medications and has improved clinically. *Continued →*

Switch therapy is used when there is no equivalent oral formulation of the antibiotic that is being used intravenously. Examples of such medications are penicillins and cephalosporins. Most penicillins and cephalosporins are degraded in the acidic environment of the stomach and therefore oral formulations of penicillins and cephalosporins achieve lower therapeutic concentrations compared to their intravenous counterparts. If the condition being treated requires the maintenance of high therapeutic concentrations, then switch therapy to a different antibiotic that achieves high therapeutic concentrations when given orally may be considered. The oral agent chosen should have a similar spectrum of activity or activity against the documented (or suspected) pathogen.

Step-down therapy requires that the patient is able to tolerate and absorb oral medications and has improved clinically. Step-down therapy involves changing therapy to a less potent oral agent; therefore, the patient must be stabilized and improving prior to step-down therapy.

A common example of an infection in which step-down therapy is often used is the treatment of community acquired pneumonia. The American Thoracic Society recommends switching patients to oral therapy when the following four criteria are met; improvement in cough and dyspnea, afebrile on two occasions > 8 hours apart, decrease in WBC and functioning GI tract with adequate oral intake. If the overall clinical response is favorable, it may not be necessary to wait until the patient is afebrile[1, 2] before converting to oral antibiotics.

In any intravenous to oral conversion, it is important to consider the therapeutic concentrations required for treatment and the therapeutic concentrations achieved by the antibiotic in order to appropriately convert a patient from intravenous to oral antibiotics.

D Whitney

References

1. Guidelines for the management of adults with community-acquired pneumonia. *Am J Respir Crit Care Med* 2001;163: 1730-54.
2. Ramirez JA, Vargas S, Ritter G, et al. Early switch from intravenous to oral antibiotic and early hospital discharge: a prospective observational study of 200 consecutive patients with community-acquired pneumonia. *Arch Intern Med* 1999;159:2449-54.

Have you participated in at least one medication error on *each* of your patients today?

A report out from the Institute of Medicine, says it is pretty likely you will. This study, available at: www.nationalacademies.org/morenews/20060720.html, says that there are at least 1.5 million preventable adverse drug events (ADE) annually. It also suggests that, on average, inpatients are subject to one medication error each day.

This report suggests there are several necessary strategies to minimize the occurrence of these ADEs. These include:

1. Empower your patients and their families to participate in care. This implies increased education of patients by nurses, pharmacists, and physicians about their medications and encouraging them to ask questions.
2. Communications about the medications is not a one time event but an ongoing process with opportunities for the patient to demonstrate understanding and ask questions. You and the team will begin this process which should be continued by the outpatient care providers. Remember to utilize our pharmacy staff to assist in this process.
3. Encourage the patient to ask what medications he or she is receiving in the hospital and why. This will help educate the patient about the medications and also act as a double check on the system.
4. Ensure both the provider and the patient have an updated copy of the medication list, including over the counter and herbal products. This is the Medication Calendar at discharge. The patient should be encouraged to bring this list to all medical encounters so it may be verified and updated as needed.
5. Providers should ask for the medication list and update it as needed at each encounter.
6. Use point of care decision support for prescribing (e.g. Epocrates) to minimize errors.
7. Computerized physician order entry (CPOE), like SCM as used at Boston Medical Center, is also recommended as it eliminates errors related to handwriting.

Continued →

8. Reconcile medications across the continuum of care. For new trainees, you will do a brief online training on this in the coming weeks.
9. Electronic systems which can provide decision support (e.g. allergy checking, drug-drug interactions, and dose verification) can minimize error. Both SCM and Logician provide some of these features.
10. Report ADEs and near misses. At Boston Medical Center, you can report these events online using the "Incident/Medication Safety" link on the intranet's homepage. It only takes abut 2-3 minutes to complete and can be anonymous if you choose. Remember, the point is not to blame others but rather to look for system errors that can be fixed so that the error does not recur.

The IOM report shows significant variability in medication errors. Thanks for trying to ensure that Boston Medical Center patients always get the safest care that we can provide.

J Greenwald

Are you getting you down?
Talk with your fireside chat program director, another attending or chief resident, or contact Dr Berenbaum (Psychiatry) at 638-8670.

Help is available and can be anonymous if you want.

You are not alone. Get help!

Want an HIV test for your patient?
Text page Project TRUST
The beeper is TEST (8378)
Monday through Friday 8:30-4:00.

Get rapid HIV results in under 30 minutes!

What you may or may not know about the Pharmacy…but should!

What you may know:

The Department of Pharmacy provides a number of services that can assist in optimizing patient's medication management. Pharmacy staff is available on the units to assist with pharmacotherapy management and serve as a resource for medication related information. Programs the pharmacy staff participates in daily include managing all aminoglycoside therapy when ordered per protocol and auto converting targeted medications from intravenous to oral formulations. Along with these functions, the Department offers a number of specific programs which are outlined below. Lastly, providers can always refer to the pharmacy website (www.internal.bmc.org/pharmacy) for drug information resources such as approved medication guidelines, formulary information and important telephone numbers.

What you may not know:

The Pharmacy Department opened a **Drug Information Center** (DI Center) which can assist BMC providers with obtaining answers to complicated drug information requests. Requests to the DI center should include those more complicated than routine inquiries. Examples include the evaluation of complex drug interactions, off-label uses of medications, evaluation of unusual or rare medication-related adverse effects, etc. The DI Center provides services to employees of BMC exclusively. For legal and practical reasons, patients and outside healthcare providers should not contact the DI Center. To contact the DI Center dial extension 8-5858 weekdays from 8:00 to 4:30.

The Pharmacy Department's **Ambulatory Care Specialists are available by appointment** to provide pharmaceutical care to patients. The goal of the service is to develop a multi disciplinary environment resulting

Continued →

in optimized medication management for our patients. Some activities include medication evaluation, monitoring, education, patient medication adherence assessment and counseling, adverse drug reactions and drug interactions screening, monitoring vitals and laboratory values, and promoting the use of cost-effective and safe medications. Patients commonly seen by the ambulatory specialists include those taking >5 medications daily, patients requiring education on proper medication use (e.g. inhalers, eye drops, blood glucose monitoring) and patients requiring frequent drug therapy monitoring due to regimen changes. To schedule an appointment contact:

Primary Care ACC: Lori Arena, Pharm.D. (X47049 Pager 3272)

Primary Care DOB: Anthony Ishak, Pharm.D., BCPS (X45612 Pager 3892)

Family Medicine: Harita Patel, Pharm.D. (X86715 Pager 8655)

The Pharmacy Department also can assist with providing **discharge medication counseling**. Criteria include those admitted to an Internal Medicine team at ENC who are currently prescribed: antibiotics, around-the-clock opioids, HAART, anticoagulants, or greater than five around-the-clock prescription medications for chronic conditions. Additional patients who meet criteria are those who have a primary admission diagnosis of: CHF, COPD or asthma exacerbation, hypo/hyperglycemia. Patients need to be going home and administering their own medications on discharge. Julie Mannello or Constance Law are available most weekdays from 10am to 6:30pm at extension 4-4217 or pager 6634. They will provide verbal and written information to patients meeting criteria prior to discharge. In addition, they will call English-speaking patients within 72 hours after discharge. They will identify and resolve problems that arise over the telephone. Assistance with providing discharge medication lists early in the day will assist in expediting the delivery of these services.

The pharmacy staff is here as a resource to all BMC providers and is eager and willing to assist with optimizing medication use in our patients.

L Arena, G Burniske, J Forgione

The E.A.S.Y. Method: the laboratory improvement initiative for Internal Medicine

The leaders within Boston Medical Center have identified four goals for the hospital this past year VSSC – increasing volume, improving patient safety, increasing patient satisfaction, and reducing cost. One of the areas to reduce cost, improve patient safety, and increase patient satisfaction is focusing on laboratory services. Laboratory incidents such as misplaced specimens, computer malfunctions, or delayed processing have led to frustration among all staff members and suboptimal care to the patient. By applying the E.A.S.Y. method, the Hospital Medicine Unit (HMU) plans to work collaboratively with laboratory medicine and internal medicine to decrease laboratory incidents by 50% within one year.

In 2004, the pediatric inpatient service was facing similar challenges as internal medicine with approximately 8,827 errors per 1,000,000 laboratory transactions. Based on Six Sigma, the **E.A.S.Y**. method was created.

E: Identify the **Error**. The physician identifies the error and places an incident report in STARS. An email is sent to the EASY team. (chicheng.huang@bmc.org)

A: **Address** the specific issue. The EASY team investigates the root cause of the problem.

S: Fix the **System**. The EASY team drills down or corrects the root cause.

Y: Follow up with **You**. The EASY team provides the physician timely follow up with the case.

The EASY team met with phlebotomy, microbiology, chemistry, information technology, transport, and laboratory medicine every two weeks from 2004-2006 and have decreased laboratory incidences on the pediatric inpatient service by 70%. As with any multi-step process, the root causes of lab errors were multi-factorial and complex. After meticulous analysis of specific pediatric lab incidences through a collective effort, we identified the frequency of incidences lie in laboratory errors [36%], medical staff errors [24%], *Continued →* information technology errors [17%], phlebotomy staff errors [15%] and transport staff errors [7%].

The HMU, represented by Chi Huang, in cooperation with Janet Means, plan to roll out the E.A.S.Y. initiative October 2006 to various inpatient internal medicine firms. The method will be disseminated to the house staff at intern and resident reports, and to the hospitalists at the monthly HMU meetings who will share the information with other ward attendings. Success will hinge on the cooperation of house staff reporting the lab incidents and a team's full buy-in to the initiative. By applying the E.A.S.Y. method, better and more efficient care will be provided to patients with a goal of a fifty percent decrease in laboratory errors within one year.

Please feel free to contact Chi Huang (chicheng.huang@bmc.org) with any questions or comments.

C Huang

A few important facts about the BMC Department of Pathology

The Department of Anatomic Pathology processes and reports out on submitted surgical specimens, biopsies and cytology specimens for Boston Medical Center, East Boston, Roslindale and Upham's Corner Health Centers. The department has specimen submission sites at Menino 2093 and Newton H3800. Please page the pathology administrator for RUSH services (1027). Most inpatient samples should be RUSH status.

Essential contact phone numbers: Pathology reports and frozen section service: 638-6990 or 414-5310. Cytology reports and fine needle aspiration service 414-4277. A staff pathologist is on call after 4 pm and on weekends at page 0784. Please see our intranet site for specimen submission protocols, contact information and a weekly schedule at www.internal.bmc.org/pathology/.

To review pathology slides, coordinate teaching conferences and/or M&M rounds, pursue academic collaboration or image microscope slides please contact the Pathology Chief Resident at 414-5311 or the main office at 414-5310.

C Andry

Outsmarting SCM! Helping cardiac patients get their meds

Have you ever come by in the morning on rounds to find that your patient's meds have not been given yet that morning because they have been scheduled for 11am and 11pm or, perhaps just 11pm for a once daily medication? This makes it hard for you to assess the effect of this new or changed medication and costs the patient and you time. Ugh!

We rely on morning rounds as our chief decision making and planning time. When we are unable to assess the impact of a therapeutic intervention, delay in care and diagnosis occur. Additionally, these problems can contribute to medical errors if we are not sufficiently diligent to be aware that the patient has not had the intended medication yet because we have not checked the EMAR.

Why does this happen? When an order goes into SCM for a medication, the timing of the initial order helps determine when the medication delivery is scheduled. That's why some daily medications get given to patients at midnight, because the nightfloat put in their orders around then. You can change that in SCM if you are mindful of these issues.

In a new effort which will go into effect soon, led by Deborah Whalen, Cardiology NP, and Toby Trujillo, Cardiovascular Pharmacist, SCM will soon be setting times for certain cardiac medications so this problem should largely be mitigated. Additionally, the preset times will trigger a dose at 6am so that the patient will be well on their way to demonstrating the effect of the dose by the time of morning rounds so you may make decisions about titration and testing you need for the day, relatively comforted by the fact that the patient's medication doses are as you expected.

Nonetheless, a quick check of the SCM EMAR is always the safest and most effective way to make sure that your patient, cardiac or not, is getting the appropriate doses and that your medical decisions are based on knowing exactly what your patient *really* got.

J Greenwald

Are you protecting patients from DVT? SCM can help!

Did you know that pulmonary embolus is the #1 cause of preventable in-hospital deaths in the United States? Originating predominantly from lower extremity deep venous thromboses, this spectrum of disease is now referred to as venous thromboembolism or VTE.

Fortunately, effective prophylaxis exists to reduce the risk for your patients of developing DVT which can lead to PE. The VTE prophylaxis armamentarium includes unfractionated heparin, low molecular weight heparin, pneumatic compression stockings, warfarin, and fondaparinox. Of note, TED stockings are not considered a VTE prophylaxis modality that should be used as monotherapy but may be used in conjunction with other therapies with unclear benefit.

So with this long list of therapeutic options, which one should you use? According to the American College of Chest Physicians recommendations, it is important to stratify your patient according to specified risk categories and for each risk category, one or more prophylactic options exist. VTE risk assessment has also now become a JCAHO requirement on all patients.

What are these categories and what are the therapies? Who can remember! So why not use Information Technology to help you out. That's why the SCM team, in conjunction with a team led by Dr Jack Ansell, recently built a reminder tool right into the admission orders. Just look at the list of risk categories, find the one that makes most sense for your patient, and click it. When you do so, you will see the recommendations pop up immediately and you will know what options you have for best practices VTE prophylaxis. Then just order one of them when you place your admit medication orders. It's that simple!

We hope at some point in the future to be able to place orders directly off the recommendations screen but cannot do that yet. One other issue, please avoid using unfractionated heparin at a dose of 5000 units q12. The appropriate dose in most adults is 5000 units q8 hours as is reflected in the recommendations online.

J Greenwald

So what is the Boston HealthNet?

BACKGROUND

Boston HealthNet was established in 1995 to create an integrated health care delivery system among its members. This network quickly became a major focus of the public debate around Mayor Thomas M. Menino's plans to merge its two hospital partners, Boston City Hospital and Boston University Medical Center Hospital. The creation of the Boston HealthNet network with its community health center partners was often sited as an essential element in protecting the public mission of Boston City Hospital in the new merged institution, Boston Medical Center. The network continues to fill that role today. The goals of the network are to:

- develop a coordinated, integrated delivery system of health care services,
- provide services and programs that benefit service area communities,
- provide participating health centers greater access to capital resources and improve their fiscal health,
- enhance and promote the ability of members to enter into managed care arrangements,
- promote and advance medical education and the training of primary care physicians.

With these goals in mind, in 1997, Boston HealthNet established a Rounder System at BMC. The Rounder System brings together physicians from the health centers and the BMC Department of Family Medicine to care for patients from these sites while they are in the hospital, thereby, coordinating and enhancing the quality and continuity of care. When first established, the Rounder System included five health centers and BMC's Department of Family Medicine. Today, a total of twelve health centers and BMC's Department of Family Medicine participate in the Rounder System. Boston HealthNet has become one of the fastest growing and most influential community health care networks in the area serving Boston's underserved and working class neighborhoods.

MEMBERSHIP

In late 1995, eight community health centers, Boston University Medical Center Hospital and Boston City Hospital began discussions concerning the development of a community health care network in Boston. Today, the network has grown to include fifteen HealthNet community health centers and BMC.

The network's primary partner health centers are: Codman Square Health Center in Dorchester, Dorchester House Multi-Service Center, East Boston Neighborhood Health Center, Greater Roslindale Medical and Dental Center, Harvard Street Community Health Center in Dorchester, Health Care for the Homeless, Mattapan Community Health Center, South Boston Community Health Center, Upham's Corner Health Center in Dorchester, and Whittier Street Health Center in Roxbury.

Harbor Health Services, Inc. (which includes Geiger-Gibson Community Health Center and Neponset Health Center, both in Dorchester), Manet Community Health Center in Quincy, Roxbury Comprehensive Community Health Center, and the South End Community Health Center are secondary partners which means they have a primary relationship with another hospital, but strong programmatic linkages with BMC. Manet's four sites extend HealthNet's reach as far south as Hull, Massachusetts.

R Kalish

Boston HealthNet Sites

Harvard Street Neighborhood Health Center	632 Blue Hill Avenue, Dorchester, MA 02121	617-822-5512
Dorchester House Multi-Service Center	1353 Dorchester Avenue, Dorchester, MA 02122	617-288-3230
East Boston Neighborhood Health Center	10 Gove Street, East Boston, MA 02128	617-569-5800
Health Care for the Homeless	729 Massachusetts Avenue, Boston, MA 02118	617-414-7779
South Boston Community Health Center	409 West Broadway, South Boston, MA 02127	617-269-7500
Greater Roslindale Medical and Dental Cntr	6 Cummins Highway, Roslindale, MA 02131	617-323-4440
Mattapan Community Health Center	1425 Blue Hill Avenue, Mattapan, MA 02126	617-296-0061
Uphams Corner Health Center	500 Columbia Road, Dorchester, MA 02125	617-287-8000
Whittier Street Health Center	1125 Tremont Street, Roxbury, MA 02120	617-427-1000
Codman Square Health Center	637 Washington Street, Dorchester, MA 02124	617-825-9600
Neponset Health Center	398 Neponset Avenue, Dorchester, MA 02122	617-282-3200
Manet Community Health Center	110 West Squantum Street, North Quincy, MA 02171	617-376-3000
South End Community Health Center	1601 Washington Street, Boston, MA 02118	617-425-2000
Geiger Gibson Community Health Center	250 Mount Vernon Street, Dorchester, MA 02125	617-288-1140
Roxbury Comprehensive Comm. Health Cntr	435 Warren Street, Roxbury, MA 02119	617-442-7400