For the intern, the death certificate need not be worse than death itself

The death certificate can be one of the more intimidating experiences for the intern – one of those things they 'don't teach you in med school." It can sometimes be worse than an admission, when the administrator on call sits with you and says, "Oh for Pete's sake, you need to WRITE out the month, not in put it in numbers…" Here are some helpful hints to make the experience minimally painful:

1. What is the cause of death?
   - Cardiopulmonary arrest is synonymous with death as far as these certificates go. You should not put this as the primary cause of death, as it really describes the mode of death.
   - You should put on the first line (a) "Immediate Cause" the condition that lead to the arrest, such as endocarditis, pneumonia or sepsis – probably what lead to the hospitalization
   - The secondary diagnoses are some of the other more serious diagnoses which may have contributed to the "major diagnosis" which ultimately lead to the patient's death.
   - Other diseases which the patient had, but which may have been tangential to what lead to death can be listed in the blank space below (Part II – Number 30)
   - The time period on the right can be in terms of hours, days, weeks, years. Do not need a specific time (such as six hours, etc)
   - It is important to try to get diagnoses accurate, as death certificates are very often used in research studies that look at causes of mortality in the community.
2. Certifying MD
   - That is YOU (though it says "Attending").
   - Make sure you WRITE out the name of the month, not just in numbers.
   - Pronouncement forms do not apply to the hospital. This form is for the community and nursing homes – when an RN or NP may be the one that does that actual pronouncement.
   - The remainder of the form is completed by the decedent affairs office at BMC or by the Funeral Home.
   - Make sure to print; do not use cursive. Use black ink.

D Oates

We have a new comfort measures only pathway

Are you uncomfortable taking care of "comfort measures only" patients in their final hours or days? A new orderset was developed by Kim Woods, 7E Nurse Manager (ENC), to help you remember a significant number of the common issues that may arise in caring for CMO patients.

This orderset includes orders for mouth care, bowel regimens, urinary catheter, pain relief, bed sore prevention, skin care, agitation relief, nausea management, secretions management, limits on vitals being obtained, improved visitor policies, and a DNAR order. That's quite a bit to remember so the orderset is quite helpful.

To access the orderset, type in "CMO" or "Comfort Measures Only" in Sunrise Clinical Manager. Check or uncheck, as appropriate, the orders that will help create better care for your patient.

J Greenwald

THE INPATIENT TIMES

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Find old editions of The Inpatient Times at www.internal.bmc.org/medicine/it/it.html

The Inpatient Times

All the news that makes you more fit to treat

Vol 7; July 2004

A publication of the Department of Medicine and the Hospital Medicine Unit

Computerized signout at BMC: improving patient safety via information transfer

In July 2002, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) approved its first set of six National Patient Safety Goals, and all JCAHO accredited health care organizations will be surveyed for implementation of these recommendations. Goal #2, "*improve the effectiveness of communication among caregivers,*" follows recent data from JCAHO's Sentinel Events Database. This data indicates that communication failure is the leading root cause of all types of sentinel events, and it is the second most frequently cited root cause for medication errors.

There is great variation in communication practices among housestaff and faculty, especially when it comes to the patient signout. This process is pivotal when we transfer the care of our patients to Night Float, the weekend coverage team, or to another service. Until recently at BMC, the signout was created as a Microsoft Word document, the format commonly used in many institutions. Problems with the traditional signout include inaccuracy of important data (both demographic and clinical), the time required to create it (often duplicating work required to create other documents), and lack of confidentiality, as the documents are easily accessible on desktops all over the hospital.

At the cutting edge of information technology, BMC has joined the few institutions across the country using a computerized signout. Based out of SCM, the signout report is created directly from an open patient roster, which can be sorted by individual provider, firm, floor, service, etc. Data such as patient demographics, code status, allergies, and most importantly, the active medication list is automatically fed into the report and does not need to be entered. Information that does need to be entered includes PMH, PCP, HPI, hospital course, and "to do" list. Once PMH and PCP information is entered, it carries into future admissions. If a patient is re-admitted, old signouts can be accessed in order to cut and paste text from HPI and hospital course fields. Another time-saving feature is that the entire report can be exported into a Word document, parts of which can be cut and paste into a Discharge Summary, or the whole document can be edited and emailed to a colleague (useful for consult services or attending signouts). Also, some residents like to use the signout on work rounds to keep track of the main clinical issues, review med lists, or as the "scut list" for the day. To further enhance communication between providers and highlight the team approach to patient care, view and print access is available to faculty and nursing staff. This can facilitate identification of key issues, especially disposition. Last but not least, as the report is accessible only to those with access to COE, patient privacy is protected.

In the era of increasing regulation of resident work hours, there are greater numbers of patient handoffs. With each handoff comes the potential for error. One study showed that 26% of adverse events in a single institution occurred during cross-coverage. Another study found the odds ratio for a preventable adverse medical event occurring during cross-coverage as opposed to primary provider coverage to be 6.1. Improving the quality of your signout has tremendous potential to improve the quality of care for your patients. If you have any questions or comments on the SCM Signout Report, please contact Heather Abban or Geralyn Saunders in IT.

N. Torres-Finnerty

Did you hear?
There is a smoking cessation order set!

Tobacco use is the leading preventable cause of death in the US, resulting in greater than 400,000 deaths per year. Nearly a quarter of all American adults smoke tobacco and nearly three thousand children and adolescents experiment with tobacco every day. As many as seventy percent of smokers want to quit, therefore healthcare providers are the link with successful screening, assistance and support. Smoking cessation interventions are less costly than other routine medical interventions. In fact, the average cost per smoker for effective cessation treatment is $166. Yet many providers fail to address or counsel patients regarding smoking cessation.

The Sunrise Clinical Manager order set for smoking cessation first asks you to consider the 5As Form which are: 1) Ask, 2) Advise, 3) Assess, 4) Assist, and 5) Arrange. Each of these 5As assists you in offering an appropriate therapy for the various phases as outlined below in Prochaska's (1982) model of change.

In the PRECONTEMPLATIVE stage the patient does not think of smoking as a serious health issue and does not see a need to quit. In the CONTEMPLATIVE phase, the patient has not planned any measures but does entertain the thoughts of quitting. Often a cost-benefit analysis approach may be helpful since many domestic cigarettes do cost nearly $5/pack. Utilize the pros and cons to tip the scales of ambivalence here to move into the determination and action phases swiftly. In the DETERMINATION phase cessation plans are discussed. The patient needs to know he/she has the tools to actually do this. Strong support and statements such as "this is the single best gift you can give to yourself and your family" may be helpful. It is clearly remarkable what patients can do (in the ACTION phase) when they are armed with clear and realistic goals, sufficient motivation, and positive reinforcement. Talking about triggers and ways to avoid them are paramount. Many times negative self esteem is at the core of unhealthy behaviors. Once a non-smoker, they enter into the MAINTENANCE phase. Congratulations and continued supports are in order.

Continued →

Unfortunately, many people will need to go through these stages many times until they achieve long-term smoking cessation. Caution patients that withdrawal generally peaks in 1-3 weeks. Therefore RELAPSE is a part of this continuum as well. Only 5% actually go directly from precontemplative to maintenance and only 50% actually succeed to long-term smoking cessation. Good strong motivational counseling is paramount to be successful in these endeavors.

So please utilize the order set in Sunrise and use it often. Always screen on your patients on admission. Then, if appropriate, type smoking in your order box and the order set will appear. It will ask you about the 5As and the stages of change then guide you through the nicotine replacement therapies and or bupropion and other agents. For the Clinical Practice Guidelines please visit the website below and download them.

C Williams

U.S. Public Health Service. *Treating Tobacco Use and Dependence—A Systems Approach*. A Guide for Health Care Administrators, Insurers, Managed Care Organizations, and Purchasers, 11/2000. www. surgeongeneral.gov/tobacco/systems.htm

Fiore MC, Bailey WC, Cohen SJ, et al. *Treating Tobacco Use and Dependence.* Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. June 2000.

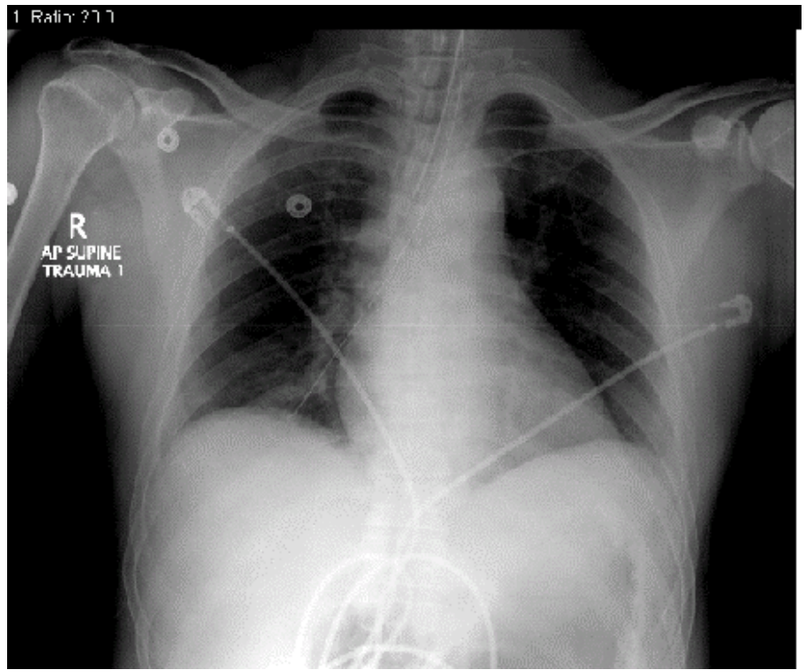
Does your patient have a PCP but can't see him/her as fast as you'd like after discharge to deal with a *specific issue*?

If they have a BMC PCP* (non-HealthNet), send them to the Post Discharge Clinic!

They can often be seen within 1-2 weeks.
Call 638-7970.

*All patients for this clinic **must** have a PCP to which they have been assigned even if they have never seen the PCP before.

ICU Case of the Month



Can you identify the abnormality?

Case: This 50-year-old male presented to the emergency department with nausea, vomiting and shortness of breath. He had a past medical history of psychogenic polydypsia and hyponatremia. Vomiting persisted in the Emergency Department and his oxygen saturations fell into the 80's. He was given succinylcholine and intubated with a number 7.0 endotracheal tube for, "airway protection." A nasogastric tube was subsequently passed with auscultation of bubbles in the epigastrum and aspiration of 200 cc of fluid. The above chest film was then obtained before the tube was used. The serum sodium subsequently returned at 96.

Answer: The endotracheal tube is positioned appropriately in the trachea. The nasogastric tube is seen in the right mainstem bronchus and extends through the bronchus intermedius and lower lobe bronchus into the diaphragmatic pleural space. The tube was subsequently withdrawn and replaced correctly.

Discussion: This case illustrates the lack of protection afforded by low-pressure cuffed endotracheal tubes. Endotracheal tubes allow control of the airway and serve as a conduit for mechanical ventilation. They do not protect against errant placement of nasogastric tubes or aspiration of liquids, secretions, saliva or gastric contents. There is some protection from aspiration of solids, but even these can be aspirated past an inflated cuff. For this reason, the standard of care before using any nasogastric tube for administration of fluids, feedings or medications is to obtain confirmation of placement with a radiologic study. Proper terminology for endotracheal tube placement is, "airway control" when a tube is placed in the absence of respiratory failure.

A Theodore

Reference: Theodore AC, Frank JA, Ende J, Snider GI, and Beer DJ: Errant Placement of Enteric Tubes : A Hazard in Obtunded Patients. Chest 1984 86(6): 931.

A new indicator for CHF: B-type natriuretic peptide

Sally is a 63 year-old woman admitted with complaints of dyspnea. Her history includes: COPD and a recent pneumonia, hypertension, two MIs, and diabetes. Her oxygen saturation is 86% on room air. She is restless and using accessory muscles. She leans forward in the bed and stares. "What is wrong? I cannot breath. Please help me." The differential diagnosis for this patient is seemingly endless. Is it recurrent pneumonia, a COPD exacerbation, another MI, or perhaps a PE? This article demonstrates how natriuretic peptides are both diagnostic as well as therapeutic (Nesirtide® is a synthetic natriuretic peptide) in the care of patients with systolic congestive heart failure.

According to the National Health and Nutrition Examination Surveys, an estimated 4.8 million Americans have congestive heart failure. Currently, CHF results in 3.5 million hospitalizations per year. One-third of these patients require repeat hospitalization within three months and 65,000 annually receive home care for the management of CHF. With ten percent of persons age 70 being diagnosed with CHF, it seems logical that we will be seeing more of this illness.

In order to treat and understand CHF it is often helpful to view this illness as a complex picture of various compensatory measures that yields a plethora of neuroendocrine responses. Generally speaking, the care of a patient in an acutely decompensated state of CHF requires therapies that promote vasodilatation and increase cardiac output while decreasing symptomatic hypotension. Many of the signs and symptoms as well as pharmacology revolve around sodium and water, aldosterone, angiotensin, and renin as well as natriuretic peptides.

The B-type Natriuretic Peptide [BNP] is one component of the neuroendocrine cascade. BNP is released at times of high ventricular wall stress (as in CHF) by cells in the ventricles. A natriuretic peptide is an endogenous protein which prohibits sodium reabsorption from the glomerular filtrate. Therefore, sodium and water are trapped in the tubules and excreted. *Continued* →

In addition, BNP decreases blood pressure and extracellular fluid volume by decreasing the secretion of aldosterone (normally associated with sodium retention) and renin causing vasodilatation. These actions decrease systemic vascular resistance, pulmonary and right atrial pressures. This leads to improved cardiac output with out increasing heart rate (preserving myocardial demand for oxygen).

Approved by the FDA in 2000, there is a 15-minute BNP blood test (which costs about $25) now being used to assist in the diagnosis of CHF. A value >100 pg/mL diagnosed HF with a sensitivity, specificity of 90%, 73% respectively.[1] A value below 50 pg/ml is a fairly good predictor that this presentation is not CHF. The normal values tend to increase with age and to be higher in women than men; however, levels above 400 pg/ml are highly suggestive of heart failure. Genetics may also cause variability. BNP levels may also be elevated in elders, patients with diastolic dysfunction and renal insufficiency. Therefore, good clinical judgment is always the best approach when viewing lab data.

Remembering Sally above, her BNP was found to be 505 pg/ml. This assisted the practitioner to look more closely for corroborating data to support the diagnosis of CHF versus pulmonary pathology and to begin directed therapies.

In closing, recalling that BNP is only produced by myocardial cells assists the clinician in rapid identification of patients with heart failure. Reminder! - The BNP is to aid the health care provider in diagnosing the patient and is to be correlated with clinical observations.

D Gauthier
C Williams

[1]McCullough, P.A., Nowak, R.M., McCord, J.H., Herrmann, H.C., Steg, P.G., Duc, P. B-type natriuretic peptide and clinical judgment in emergency diagnosis of heart failure; analysis from the Breathing Not Properly (BNP) Multinational Study. *Circulation* 2002; 106(4): 416-22.

The Pen is Mightier than the Sword!

Write for The Inpatient Times!

Talk to Jeff Greenwald.

BU Medicine Residency Program welcomes 3 new junior residents

The Residency Program would like to welcome 3 new members to our junior resident class: Brian Adams, Francina Chinodakufa, and Mauro Sarmiento.

Brian received his undergraduate degree from Franklin and Marshall College (PA), and pursued further studies in Florence, Italy. He then received his medical education at Jefferson Medical College, and completed a preliminary year at St. Elizabeth's Medical Center in Boston. Brian is well acquainted to BMC after spending last year in the BMC Emergency Medicine Residency. Brian's enlightenment occurred while rotating in the CCU at ENC as a ED resident.

Francina was born in Harare, Zimbabwe and pursued her medical training at the University of Zimbabwe. She completed her Internship at Mercy Catholic Medical Center (PA) where she excelled. Looking to expand her opportunities to participate in immigrant health care, she applied to BU and we are happy to have her complete her residency training with us. Her husband Edwin Zishiri who is a member of our Intern class joins her.

Mauro received his B.S. in Biochemistry from SUNY Albany. He then entered Albert Einstein College of Medicine for a Ph.D. in biochemistry (2001), and a medical degree from the University of Medicine and Dentistry-New Jersey Medical School. He completed his Internship in Internal Medicine this past academic year at The University Hospital of UMDNJ. Mauro is always looking for a challenge, this self proclaimed Yankee's fan decided he wanted to further his post graduate training in the middle of enemy territory. We wish him well.

We are very fortunate to have these enthusiastic physicians join us, and I ask all of you to welcome them.

D Halle

Disaster response: what every HO should know!

BMC has 4 phases of disaster response. PHASE A is an administrative alert that an event is occurring that could escalate. PHASE B is an actual event with limited numbers of victims and uncomplicated injuries and illnesses that can be managed by on-duty personnel. PHASE C is an event that requires the full mobilization of all BMC personnel resources but city resources such as utilities and structures are intact. PHASE D is an event that overwhelms the facilities and operations of both BMC and the City of Boston and requires regional, state, and federal resources.

Phase A requires no immediate action on your part. If you are on duty during phase B, C, or D, report to your immediate supervisor for assignment. If you are off duty, and an event occurs that would be a phase C or D; do not wait to be called in. Ensure the safety of your families and then report at the earliest opportunity to the staffing pool (normally the Hebert Lounge unless otherwise directed by security). Keep your ID with you at all times at you will need it to pass through city checkpoints and enter into the hospital.

M McMahon

PE's ??? DVT's ??? An ongoing clinical trial

Although Vitamin K antagonists are the preferred treatment for prolonged anticoagulation, they are inconvenient for several reasons, including delayed onset of action, influence of the patient's diet, numerous interactions with other drugs, and need for regular monitoring of the INR.

SanOrg34006, a novel anticoagulant drug, is a sulfated pentasaccharide. In contrast to animal sourced heparins, SanOrg34006 is fully manufactured by chemical synthesis. It is a selective inhibitor of factor X (factor Xa). Due to it's half-life, it can be administered once-weekly and laboratory monitoring is not required. A study of SanOrg34006 is underway for DVT and PE patients at BMC. If identify patients with these problems, immediately contact Mary Ellen McDonough, RN (bp: #5606) *before* starting warfarin.

M McDonouah

The face of HIV is getting gray hair

Current estimates reveal that approximately 11-15% of people in the United States with HIV infection are over the age of 50. This population is made up of (1) patients who were infected at a younger age and whose lives have been extended by HAART and (2) patients with newly diagnosed infection (which is often delayed). Prevalence data from Africa (Tanzania) among inpatients over age 55 approaches 20% among men and 15% among women. A blinded seroprevalence study in NYC among patients over age 60 who died in the hospital of other causes than HIV revealed an HIV-positive rate of 5% (none of these patients were ever suspected of being infected). The data on mode of transmission and risk behaviors is conflicting and is often reported as missing in the elderly. MSM (men who have sex with men), IDU (injection drug use) and heterosexual contact are now more common than transfusion among the elderly. The fastest growing risk groups are African American men and women who are often at increased risk during heterosexual intercourse due to vaginal wall tears from decreased hormonal support.

The elderly typically undergo extensive medical evaluations prior to a diagnosis of HIV often times because diseases that older people get (anemia, myelodysplasia, dementia, and occult malignancy) can present in similar fashion to HIV. It is estimated that up to 10% of cases of HIV among the elderly present with HIV dementia. While our younger patients often request HIV testing themselves, studies show that age is directly correlated with lack of HIV awareness and that HIV testing in the elderly is almost always based on provider recommendation not patient request. While many health care providers do not acknowledge it, older people are having sex and they are not having sex safely. When the same risky behaviors are compared across age groups, older patients are 1/6 as likely to use condoms than younger patients, and often because there is no concern for pregnancy risk.

Older patients are diagnosed later in the course of their infection, often with AIDS (CD4 count

Continued →

<200); this means that many patients have had HIV for at least 10 years placing their sexual partners at risk. The elderly present with the same opportunistic infections (OI's) as their younger counterparts. Indeed, they receive HAART therapy less often even though studies have shown they are often more compliant than younger patients. The elderly often have reduced drug tolerance due to decreased renal and hepatic function and typically experience more adverse drug reactions to antiretrovirals.

FAST FACTS ON HIV & THE ELDERLY

1) Account for at least 11-15% of HIV cases in the US
2) Are sexually active and do not perceive their risk for HIV infection
3) Are diagnosed with advanced disease and lower CD4 counts
4) Women and African-American men with HIV are growing in number
5) Have reduced survival compared with their younger counterparts
6) Mount a weaker immune response and progress faster to AIDS
7) Typically do NOT request HIV testing despite high-risk behavior
8) Often undergo extensive work-ups before HIV is diagnosed
9) Experience more adverse events from HAART
10) Have chronic conditions which often complicate their HIV care

C Cullinane

What's the scoop?

Find it in

The Inpatient Times

Join the team.

Contact: Jeff Greenwald

Physicians & pathways: a love-hate relationship

Why did you go to medical school? So you could take care of patients the best way you know how to, right? So what's with all the care pathways? Isn't that just cookbook medicine?

Unfortunately, there is now ample literature on inter-physician variability in caring for similar problems and this variability is not always desirable or advantageous. There is a difference between someone putting one's style (the "art" of medicine) into how one cares for a patient and totally or partially ignoring best practices, established by the data and consensus of the field (the "science" of medicine).

No one is arguing to get rid of the art of medicine nor is anyone arguing that care pathways will be the answer for every patient or every situation. Nonetheless, Boston Medical Center's collection of care pathways were designed by teams of knowledgeable physicians, nurses, and pharmacists, in consultation with the up to the minute literature, to create high standards for the practice of care for each clinical topic.

Care pathways are living documents with ongoing reviews and updates, as new data arises and changes are warranted. Recently, the cardiology pathways, Acute Coronary Syndrome, Low Probability Chest Pain, ST elevation MI, and Heart Failure, have all undergone review and revision. New pathways are currently available for your use. Please look them over carefully and not the changes within each one. The Community Acquired Pneumonia pathway is the newest member of the pathway family and is available now for your use.

Each pathway includes and SCM orderset (accessed by typing the pathway's title on the order line) and a paper pathway. Many also include patient teaching documents. These documents will help you remember some of

Continued →

the details which separates good care from best practices

When discharging a patient on the pathway, each pathway has a discharge order specially designed for it. These discharge ordersets achieve two purposes: they offer you final reminders for details you might have forgotten for elements of care that need doing. They also allow Boston Medical Center to track how well we are doing at adhering to the guidelines and best practices. Please use the appropriate pathway discharge set so you can get the reminders and BMC can obtain its tracking information.

Remember, pathways are meant to assist you in caring for your patients as helpful guidelines and convenient time-savers. They are not meant to substitute for your own judgment or to be set in stone. Minor modifications, based on your patient's current situation, are often needed when implementing them.

New pathways are in the works. An asthma pathway is in development and others will follow. If you have questions or comments about the cardiology pathways, please contact Deborah Whalen, NP, from Cardiology. Regarding the Community Acquired Pneumonia pathway, please contact Jeff Greenwald with questions or comments.

J Greenwald

WANTED!

This man is wanted in connection with a string of crimes against residents including: feeding them tuna fish sandwiches repeatedly, forcing them to wear scrubs that don't match their shoes, and claiming categorical superiority of his athletic ability to all residents. Anyone seeing this man should report the sighting immediately to:

1-800-I-GOT-BAT

The Inpatient Times Cares What You Think

As The Inpatient Times prepares for its third year, it is important to the staff of the paper that the voices of its readership is heard. We want to know what you want to read. What have you liked, enjoyed, learned from and been amused by? What don't you want to see; what bored you; what couldn't hold your interest?

Please take a minute (or 2!) to fill out the survey below. Tear it out and send it via interoffice mail to:

Jeff Greenwald
Editor, The Inpatient Times
NIF 6West

Your opinion counts. We want to hear it!

The Staff of The Inpatient Times

The Inpatient Times Reader's Survey

Please rank (1=like the most; 8=like the least)*:

1. Information on new hospital programs _____
2. Information on research projects _____
3. General clinical topic reviews _____
4. Case of the month _____
5. End of life care corner _____
6. Physical diagnosis tips _____
7. Update on inpatient projects/services _____
8. Topics in geriatric inpatient medicine _____

I would be interested in writing for or editing upcoming editions of The Inpatient Times:

YES _____ Name: _____ Beeper: _____

NO _____

Additional comments/suggestions: _____

_____

_____

_____

Please send your survey to: Jeff Greenwald, Editor, The Inpatient Times, NIF-6W

*Note, not all of the sections mentioned (#1-8) are present in every edition of The Inpatient Times.

Discharge Summaries: holy grail or holy hell of internship

Have you learned to hate writing discharge summaries? Don't burn out yet; this is just the beginning.

The discharge summary is as much art as it is science but one must keep in mind a few simple guidelines for its creation.

The most important features of a discharge summary are the discharge medications, the results of tests, and follow up plans with outstanding issues. I shall make a few comments about these areas.

The **discharge medications** should largely be cut and pasted from your sign-out, requiring only minor tweaking so that they are truly up to date and reflect durations of therapies and, with controlled substances, information about the number of tablets prescribed.

Test results are particularly important if the patient is not cared for by a physician at Boston Medical Center and therefore cannot look up full test results on line. In general, however, it is not necessary or desirable to cut and paste the entire test result when the important pieces of information and conclusions can be excerpted. For example, don't paste the entire CT report if you can as easily write: The abdominal CT showed gallstones but was otherwise normal.

Follow-up plans are critical to the docs seeing the patients after discharge. The more specific you can be the better, here. Note the clinic, care provider, or service's name, date, and time of follow-ups, if known.

Outstanding issues are also critical so the outpatient care-givers know what loose ends still exist. Be thorough and extensive here.

You'll note I did not include the hospital course. Yes, it is important, but it should be concise and give an overview of the course rather than a blow-by-blow description. One or two paragraphs will usually suffice with a basic chronological summary usually working best.

Writing discharge summaries may not be glamorous but, if done well, is quite useful to care givers who see your patients subsequently.

J Greenwald

The new view of HIV testing at Boston Medical Center

As many of you know, Boston Medical Center is the only hospital in the country to offer routine HIV testing on a large scale to its inpatients (at Menino Pavilion). We have been offering this service since 2001 and since its inception, HITS, or the HIV Inpatient Testing Service, has identified over 100 cases of HIV infection.

In January of this year, HITS began offering OraQuick® Rapid HIV tests which use a drop of blood, like a blood sugar check, and only takes 20 minutes to run. All non-reactive tests with OraQuick® are considered negative but all reactive tests require confirmation with a venipuncture blood sample sent for Western Blot.

Given the convenience of the test and it simplicity, in addition to the counseling expertise of the HITS counselors, HITS is now to be considered the first line HIV testing method for all situations in which care-givers on the inpatient service need HIV testing performed. That is, HITS will continue to offer HIV testing to all inpatients (door-to-door, seeing all patients admitted as time permits), but will also expect referrals from physicians regarding testing patients who are at either high risk for HIV infection or who may have HIV infection as a cause of or contributor to their hospitalization.

To refer a patient to HITS for an HIV test, just page the HITS beeper at TEST (8378). The counselor will take the patient's information and your name and beeper so you may be informed of the test results when completed. Such referrals are considered highest priority by HITS staff and you should have your results within an hour or two, in most situations.

At ENC, routine (door-to-door) testing is not yet available but HITS will see your patients there on a referral basis.

In the outpatient clinics, the HIV Outpatient Testing Service (HOTS) is also available for screening and testing your patients. This beeper is HOTS (4687).

Remember, all initial HIV testing at BMC should now be going through the HITS/HOTS system. Any questions: call Jeff Greenwald, Medical Director, HITS/HOTS. *J Greenwald*

CODE LACTATE

Roles	Responsibilities	
Leader 	▪ 1st HO til ICU arrives. Then ICU res. ▪ Clearly identifies self as Leader. ▪ Delegates all tasks required roles. ▪ Only person to give orders. ▪ Does not do manual tasks. ▪ At the foot of the bed with monitors facing him/her. ▪ Assists with crowd control. ▪ Requests notification of 1° team. ▪ Announces rhythms on tele.	▪ Confers with Advisor, 1° team. ▪ "Calls" the code when over. ▪ Debriefs Code Team with Advisor. ▪ Writes Code and ICU transfer notes and completes/signs BMC Code Audit Report. ▪ Talk with the patient's family, attending, PCP, and 1° team.
Airway 	▪ Medical House Officer *prior* to Anesthesia/Respiratory's arrival ▪ Performs ABC's. ▪ Hooks up O_2. ▪ Places oral/nasal airway prn. ▪ Ensures suction is available. ▪ Begins artificial respiration with Ambu bag prn.	▪ Listens for bilateral breath sounds. ▪ Checks O_2 sat. ▪ After Anesthesia/Respiratory arrive, Airway should check with Code Leader if other help needed. Otherwise, leave the code scene.
Compressions 	▪ Med student or House Officer ▪ Performs chest compressions as requested by Leader ▪ Obtains assistance to check that compressions yield femoral pulse. ▪ Notifies Leader if fatigued.	
Technician 	▪ Medical House Officer ▪ Performs "Quick Look" prn. ▪ Confirms patient on all needed monitors. ▪ Places defib/pacer pads prn.	▪ Defib/cardioverts patient. ▪ Starts transcutaneous pacer. ▪ Obtains blood/ABG as instructed.
Access 	▪ Medical HO for central line. ▪ Medical HO/student for periph iv. ▪ Reports initial iv access status to Code Leader. ▪ Minimum: 2 iv ports needed.	▪ Places additional iv lines prn. ▪ If role assumed by surgery, check with Code Leader if other help needed. Otherwise, leave code scene.
Teacher 	▪ Senior House Officer, Chief Resident, fellow, or Attending ▪ Reviews pt chart if 1° team not present. ▪ Gives input on code as requested. ▪ Assists with debriefing Code Team and gives feedback to Code Leader	

Improving Codes:
Using LACTATE to Stop Chaos

Sadly, not all codes run the way they do on E/R on television. We don't always have veteran docs and well honed teams working together so that the defibrillation, intubation, and central access is completed in the thirty seconds before the commercial break.

No, chaos seems much more commonly to dominate our arrest scenes. A myriad of well-intentioned house officers and students try to cram into the 8x10 space to lend a hand, often causing more obstruction and noise than being helpful.

In an effort to improve the codes at Boston Medical Center, a resident code taskforce was created to evaluate how to improve this scene. A number of barriers to code functioning were identified (lack of experience, too much noise, too many people, poor communications, poor leadership, etc…). In an effort to combat the chaos that can ensue when these barriers become significant, the taskforce created Code LACTATE, a quick list of physician roles and responsibilities that are needed during codes so all involved would know exactly what they were supposed to be doing and – equally importantly – when they could/should leave the scene.

Here are the basics.

You need a ***Leader*** (L): This is the "brains" of the group, delegating all of the other roles and calling out for needed meds, procedures, and clinical information. This person must be clearly audible and standing at the foot of the bed where the patient and the monitors are clearly visible. The leader must remain calm and feel comfortable asking those not directly assigned a role in the Code LACTATE team to leave the area to minimize crowding and noise.

You need an ***Airway*** person (A): As with all the positions that follow, this person is assigned by the leader. This person manages the airway, begins Ambu bagging, and assesses for oral/nasal airway needs. This person may leave when anesthesia/respiratory arrive if the →

leader no longer needs assistance.

You need someone to do ***Compressions*** (C): This assignment may go to a student or house officer. This person does chest compressions til fatigue overtakes him/her and makes sure that a pulse can be felt with compressions.

You'll need a ***Technician*** (T): This person hooks up monitors, defibrillators, and pacer pads (now built into the defibrillators) with the assistance of nursing and obtains blood and ABGs as requested by the Leader. Once this is done, the Technician may be excused by the Leader.

Next comes the ***Access*** (A) person: Not surprisingly, this person is responsible for placing peripheral or central ivs if necessary. If surgery is present to do the lines, the leader may excuse the Access person.

Then every good plan needs as ***Teacher*** (TE): Ok, a bit corny as titles go, but the acronym works well. This person is supposed to be the "little bird" on the Leader's shoulder, whispering suggestions and also providing feedback to the Code LACTATE team after the code is over. Feedback is critical for improving your coding skills.

Not so complicated is it. You need six docs to work a code ideally (or maybe 5 and a student) with the nurses. A few of those jobs may disappear rapidly (Airway, Technician, and Access) so numbers in the room may be small.

The key is for the Leader to:

1. Identify him/herself loudly and clearly
2. Delegate the responsibilities by role name (e.g. "Joe, you are the Technician; Mary, you are on Access," etc…)
3. Be the only one ordering things from nursing. Have all requests come through you.
4. Work collaboratively with the nurses
5. Keep the noise in the room down
6. Get rid of excess personnel

Don't worry. You do not have to remember everything. The House Officers will be getting a Code LACTATE card (like the one on the opposite page) from the Residency Office soon and a refresher during MICU and CCU rotations. With defined roles, chaos will be reduced and codes will run more smoothly.

J Greenwald