Interdisciplinary collaboration across multiple settings to ensure the continuum of care.

Interdisciplinary collaboration across settings is integral to the mission of Massachusetts General Hospital (MGH). It is through collaboration that clinicians seek to achieve optimal outcomes for patients and families. Mutual respect and collaboration are modeled among disciplines, which contribute to the development of strong interdisciplinary relationships. The framework for interdisciplinary collaboration begins with the structure of Patient Care Services (PCS) at MGH which extends beyond the realm of nursing, and includes numerous disciplines, and departments: Nursing, Occupational Therapy, Physical Therapy, Respiratory Care, Social Services, Chaplaincy, Orthotics & Systems Improvement, Speech, Language and Swallowing Disorders & Reading Disabilities, Volunteer Services, Interpreter Services, and the Office for Patient Advocacy. Nurses also work collaboratively with Case Management, Nutrition Services and Pharmacy based on individual patient needs. All inpatient and outpatient units within PCS have interdisciplinary teams that are established to address the needs of the specific population they serve and strive to improve performance in the delivery of patient care. The commitment to advancing clinical excellence, interdisciplinary collaboration, education and research, can be seen daily throughout the organization, across the continuum of care. Beyond the philosophy of collaboration, there are many established and ongoing initiatives that demonstrate one of the guiding principles for PCS, “We enhance patient care with the systems supporting that care as we work with others; We eagerly enter new partnerships with people inside and outside of the MGH.” (OOD 1).

The interdisciplinary culture is first introduced during the hiring process, and is evident to the Nurses from the first day of orientation. This culture is evidenced in their daily work lives, and is visibly apparent from the numerous groups of professionals that convene to address patient care issues and enhance the professional practice environment. Those groups include Collaborative Committees, Tiger Teams and many other work groups that are either led by or have representation from front-line Nurses. Throughout the organization, front-line Nurses are viewed as valued members and leaders of a wide variety of important interdisciplinary hospital committees, addressing important issues such as medication safety, physiologic monitoring, and the re-design of both the work of Nursing and the environment in which it is practiced.

Members of the interdisciplinary collaborative groups typically include: Nurses, Physicians, Advanced Practice Nurses, Social Workers, Nutritionists, Chaplains, Pharmacists, Physical Therapists, Occupational Therapists, and Respiratory Therapists. Depending on the specialty needs of the population, other team members may be involved, such as, Child Life Specialists, Lactation Specialists, Massage Therapists, and Art Therapists. All of the various disciplines provide services across the continuum of care, meeting the needs of patients and families before, during, and after their inpatient hospital experience.

Delivery of patient care involves numerous interfaces and patient handoffs among multiple health care practitioners and interdisciplinary teams; the continuum of care can include transfers to and from each unit, department or level of care. Collaboration is essential to communicate critical information accurately across all disciplines. As stated in the PCS vision statement, (OOD 1) “We believe in creating a practice environment that has no barriers.” The continuum of care at MGH extends beyond the walls of the institution to other acute care settings, rehabilitation hospitals, nursing homes, clinics, and wherever patients receive care.

At MGH there are several structures that ensure there is interdisciplinary collaboration across multiple providers and settings. The Case Management Department is key to ensuring the continuum of care, and Interdisciplinary Rounds contribute to the development of interdisciplinary plans of care. There are roles to ensure that there is continuity of care: the Case Manager, the Clinical Nursing Supervisor, the Clinical Nurse Specialist, and the Access Nurse Coordinator. The
following discussion will demonstrate how the structures, processes, roles and responsibilities ensure the interdisciplinary collaboration across multiple settings to ensure the continuum of care at MGH.

Case Management

There are many department, programs, and roles across multiple settings, whose structures facilitate collaboration to enhance the delivery of quality patient care. Case Management is one of many well established departments at MGH that collaborates with other disciplines in seeking to improve the quality of the patient’s experience. The following examples present several initiatives that describe Case Management’s role in facilitating the trajectory of patient care. The first initiative is the Care Management Demonstration Project (CMP) for the care of high-risk Medicare patients. The second initiative is the High Risk Care Management Program which is a collaborative effort with the Emergency Department (ED) to improve the management of care and the flow of information for patients who present for Emergency Care. Finally, two narratives will demonstrate how Case Managers ensure the continuity and coordination of care to achieve successful patient outcomes.

Case Managers (attachment EP 16.a) play an integral role in interdisciplinary collaboration across multiple settings to assure the continuum of care for patients. There are 70 FTEs allocated to the Case Management Department which includes both inpatient and outpatient practices. Case Managers are unit-based, which contributes to the development of their expertise within the specialty areas. They are considered an important member of the health care team, allowing for the development of collegial and collaborative relationships. At MGH, Nurse Case Managers act as the point-of-access to care for patients, working very closely with both patients and their families. They also serve as liaisons between patients and other members of the care team, monitoring patients’ health needs for home visits, office appointments and follow-up phone calls. In partnering with the interdisciplinary team, they attend patient rounds, patient and family conferences, and participate with the Nursing Staff on the development of the plan of care. Their focus is on the transition of care and a successful transfer to the next health care setting. Case Managers are committed to ensuring transitions of care that are effective, safe, timely, and complete.

Care Management Demonstration Project

MGH is committed to advancing efforts to improve transition, communication and continuity across the continuum of care. In 2005, the National Centers for Medicare & Medicaid Services (CMS) selected six organizations to conduct three-year demonstration projects to test ideas for enhanced care management in shaping a new model of care. The focus was to help improve the health of the sickest fifteen percent (15%) of Medicare patients, who account for more than seventy-five percent (75%) of the nation's health care costs. MGH was one of the institutions selected to participate in the initiative. The goal of the Care Management Program (CMP) was to explore

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opportunities to improve the overall care process for its high-risk Medicare patient population in an effort to improve quality of life, prevent complications of illness, encourage better health outcomes, and reduce expenses for some of the most medically-complex, high-cost, fee-for-service, Medicare patients. (attachment EP 16.b)

The program operates under the direction of the Project Leadership Team and involves approximately 200 Primary Care Physicians (PCP), 16 Nurse Case Managers along with representatives from various disciplines (attachment EP 16.c). The Nurse Case Managers are assigned by, and embedded within, the Physician Practices either on or off campus at MGH. Each Case Manager is assigned to the patients identified by CMS for the Primary Care Practices. The average case load for the program’s care managers is 200 patients. The program’s Case Managers are positioned to perform some functions that reinforce the PCP’s care plan, providing appointment follow-up, creating smoother transitions from one level of care to the next, and reviewing medication plans. All this is done as the Case Managers forge relationships with patients and their families.

Patients participating in this program are now scheduling appointments with their PCPs more readily. This allows the Case Managers to be more effective in the management of the patients’ trajectories of care.

Most importantly, the program has produced noticeable improvements in the quality of life for many of the hospital’s patients. The Case Managers actively engage patients in a conversation about their care goals, which includes a discussion of patients’ end-of-life wishes. Finally, the program has substantially improved access to Primary Care Practices. The Case Manager triages patients when they call with issues, allowing them to be seen by their PCP, rather than unnecessarily visiting the ED. From a utilization standpoint, this has helped to reduce ED use and readmissions to the hospital.

Results of the MGH Care Management Program (CMP)

CMS commissioned an independent evaluator, Research Triangle Institute (RTI), to assess the performance of the MGH CMP. RTI found MGH’s Program to be highly successful in targeting its interventions to the enrolled patients who offered the greatest opportunity to reduce costs and improve care. More specific results include:

Successful Enrollment and High Satisfaction
- 87% of eligible beneficiaries enrolled
- Improved communication between patients and health care team
- High patient and Physician satisfaction

Improved Patient Outcomes
- Hospitalization rate among enrolled patients was 20% lower than comparison
- Emergency Department visit rates were 13% lower for enrolled patients
- Annual mortality rate was 16% among enrolled versus 20% among comparison group

Achieved Savings Target
- 12.1% in gross savings among enrolled patients
- 7% in annual net savings among enrolled patients after accounting for the management fee paid by CMS to MGH
- Return on investment - for every $1 spent, the program saved at least $2.65
Recognition

The former Senior Vice President for the MGH Center for Quality and Safety; the Medical Director of the Massachusetts General Physician’s Organization (MGPO); the Associate Chief for Clinical Affairs for the MGH General Medicine Unit and MGPO Associate Medical Director for Primary Care, received the 2010 Nathaniel Bowditch Prize for their collaborative work that improved the coordination of care for more than 4,000 of the MGH’s sickest and most costly Medicare patients and cut Medicare costs by as much as 12 percent (12%). The team of Physicians presented the result of the Project at the White House, thus, establishing MGH’s CMP as a national model. (attachment EP 16.d). The program was extended for an additional three years, beginning in August, 2009. Due to its success, MGH and CMS sought to expand the program to determine if the model could successfully be replicated. In early 2010, the project was implemented at Brigham and Women’s Hospital, and North Shore Medical Center.

Case Management and the CMP Demonstration Project

The following is a wonderful exemplar written by a Case Manager who provided comfort and continuity for a patient in the CMP Demonstration Project:

L. was a home-bound, 57-year-old woman with health issues related to chronic obstructive pulmonary disease (COPD), depression, anxiety, and drinking. Her primary care physician had requested she receive skilled nursing care in the home that could also address her mental health needs. She was in a wheelchair and oxygen-dependent. As I completed my therapeutic assessment, it became clear that establishing a trusting relationship with L. was going to be a challenge. She was fiercely independent and adamant that she not depend on her family.

L. had many issues. She had inadequate insurance with no secondary insurance, and was ineligible for Medicaid. She had to pay 20% of her oxygen bill every month. She would frequently forget to apply for a benefit, and enlist my help in the re-application process. Eventually, she needed a hospital bed, which added yet another monthly financial burden. New government programs have been developed to assist patients with inadequate insurance. Finding programs, educating L., and helping her apply for them, was a time-consuming intervention, but one that paid off: L. was able to secure extra help for the cost of her medications and monthly Medicare D premiums. With my assistance, L. was able to maximize her financial benefits and negotiate a reasonable payment plan for many of her expenses.

L. required continuous re-assessment of her homecare support. I was able to tap into a small Care Management Program (CMP) fund created for patients with situational needs to help bridge the financial gap, and with her permission, I referred her to our CMP Social Worker, who established a therapeutic relationship with her. L. had not yet named a healthcare agent. I understood that the concept of a healthcare agent conflicted with her goal to remain independent. But gradually, her PCP and I discussed the ethical and moral issues with her, and she appointed one.

Housing was another issue. L. lived in subsidized housing that used 50% of her income and came with several accessibility issues, which increased her sense of isolation. She preferred to be in East Boston near her sister, so I referred her to the CMP Community Resource Specialist, and soon, L. moved into a smaller apartment in East Boston. Staying current with L.’s medical appointments, emergency-room visits, and admissions, required frequent medication reconciliation. Her PCP and I maintained an accurate list of medications identical to the one L. used. She would frequently call me with questions about side-effects, and I would collaborate with her PCP, Psychiatrist, MGH Therapists, and other Specialists, including her CMP Social Worker to answer her questions.

Three years into our relationship, L. developed breast cancer that required a mastectomy. Pre-operatively, I asked her PCP to order skilled home care to maximize mental-health support and physical conditioning, prior to surgery. I knew she wouldn’t have full use of her arm after surgery, so I asked the CMP Community Resource Specialist to arrange for a hospital bed to be delivered to her home. L. came through surgery fine, but the cancer had spread to other parts of her body. When her access to skilled home care ran out, L.’s sister began to call me at her request. This was a turning point. This was when her family, her PCP, the CMP team, and I became her support system.
L. was hospitalized for pneumonia. She was treated and discharged home. In my follow-up call, I determined that L. needed more skilled care than could be provided at home. I coordinated her return to the MGH Emergency Department for a medical evaluation, and then arranged for her to be transferred to a skilled nursing facility that could meet her care needs 24 hours a day. L. recognized her disease progression. The CMP Social Worker provided much-needed emotional support as I coordinated L.’s medical care.

I received many calls from L. over the next few days asking if she was going to have medical bills for the care she was receiving. Her history of struggling with medical bills motivated L. to reach out to her sister for help with her Medicaid application. I discovered that another hidden family issue had been a barrier to her Mass Health application, so I assisted the family in overcoming it. L. wanted to be in a facility closer to her elderly mother, so I arranged for her to be transferred, but the night before she was to be moved, she was rushed to the MGH Emergency Department again. I met her there, and we discussed her needs. She did not want more testing. She wanted to go to the facility near her mother as planned.

I contacted L.’s oncology team so they could hear her wishes. All invasive tests were cancelled, I coordinated her discharge with the hospital team, and L. was taken to the facility of her choice. L. asked me to convey her wishes to her family. She had not told them the extent of her illness. I explained that L.’s time was limited and that she would be going to a skilled nursing facility for symptom-management and end-of-life care. I suggested they treat her like ‘a princess’ for her remaining days. This opened the door for her family to rally around her, and they became the center of her life.

I visited L. in the skilled nursing facility, and helped her clarify her new goals. She understood it was time to rest, and let others care for her. L. passed away a few weeks later with her family at her side. When I visited her just days before her death, I got the sense that she knew she was valued by her family, by her healthcare team, and by me. It was rewarding to know that my care had made a difference in her life and in her death. Empowering L. to ask for help in one area of her life, enabled her to delve into other more fragile areas. L. taught me to meet patients where they are. She made a huge contribution to the development of my professional practice.

This is a wonderful illustration of the interdisciplinary collaboration that occurs between Nursing, (attachment EP 16.e) Social Services, (attachment EP 16.f), Physical Therapy, (attachment EP 16.g), and Clinical Case Management. While the Case Manager was a source of strength, guidance, and support for the patient in matters of everything from health insurance to her ability to remain independent, the Social Worker was also able to develop a therapeutic relationship with L. The Case Manager’s expertise allowed the patient to have options, make choices, and retain some control as her health began to decline. This narrative beautifully highlights her creativity, expertise, compassion and effectiveness in ensuring that L. was provided with continuity of care across the continuum. The interdisciplinary teams at MGH provide for the continuum of care ranging from specialty critical care units to home care and outpatient facilities. Nurse Case Managers at MGH are often involved in helping to transition patients from the hospital, to home, or to other facilities. The following demonstrates the role of the Case Manager in coordinating care across the continuum while, assuring that the delivery of care was personalized to meet the individual and specialized needs of the patient.

**Case Management in Cardiology: Interdisciplinary Collaboration across the Cardiac Intensive Care Unit and the Cardiac Telemetry Units**

My name is JT and I have been a Nurse Case Manager for 14 years at MGH. I am consulted in the Cardiac Intensive Care Unit (CICU) and the Cardiac Telemetry Unit for a variety of issues, from referrals to VNA’s, or rehabs or hospice, and other acute care settings. I meet with families often times when their loved one is critically ill, and assist them as they navigate the healthcare system. I do my best to support them, answer their questions, and collaborate with them for safe transitions of care.
One recent patient, SD, was admitted to the Telemetry Unit for severe right-sided heart failure and acute worsening of her pulmonary hypertension (EP16.b). She was volume overloaded and needed diuresis. Although she had been followed in the pulmonary hypertension clinic, her condition had deteriorated, and now was being evaluated for IV epoprostenol (IV flolan). Her PMH was quite significant, and she had endured a very long hospitalization and rehab stay in the past, for psychiatric and trauma issues. SD had been living on her own, but, recently had moved to her sister’s home, which was closer to MGH. Her mother (in her 70s) and sister were very involved in her care.

When I first met SD, I saw a 50 year old woman, critically ill, who was very guarded, and barely made eye contact was. She deferred my questions to her mother and sister, so, I told her I would be back, when her family was there. I understood that she was tired from the whole admission process, and encouraged her to rest, as my assessment could wait. Over the next week, I got to know SD and checked in with her daily. Prior to becoming ill, she enjoyed gardening and photography, but progression of medical issues limited her ability to continue those activities. Over the next two weeks, the heart failure medications were being carefully titrated and SD was clinically improving, gaining her strength. I was thrilled to see a smiling SD able to ambulate in the hallway, as she pushed her IV pole with the IV flolan. SD was now able to begin the process of learning the CADD pump, IV flolan mixing, and care that is needed to independently manage this medication at home.

IV Flolan administration can be challenging. Patients need to mix the drug daily, learn the CADD pump, and demonstrate the ability to troubleshoot, and problem solve, as the half-life is less than five minutes. If the therapy is interrupted it can cause rebound hypertension and a crisis situation. SD was referred to a specialty pharmacy, Accredo, that would help manage this at home. The teaching sessions by Accredo RN’s (attachment EP 16.i) are very focused and intense. SD was having trouble, and the sessions had not been progressing as we had hoped. Many discussions ensued to strategize what the issues were. SD had said she was nervous about her mother, who was trying to ask questions and be part of the process. Other family members would show up to listen to the teaching and were trying to be supportive to SD. Despite repeated instructions, she was struggling with some of the basic techniques. Nursing and I conferred about the timing of the teaching sessions so that she would be better able to absorb the material. Factors such as the morning activity in a double room and her psychiatric medications were carefully examined. Our assessment was that some of the psychiatric medications increased her somnolence in the morning and so the medication regime required adjustment from the resident and the following psychiatrist. Tailoring the sessions to 1:1 with SD and the Accredo RN and providing a quiet room without interruptions seemed to help and slowly SD was making progress. I shared with her my past experience with other IV flolan patients where their initial feelings of frustration and being overwhelmed faded over time and much like driving a car, the process became second nature. I told her about a 17 year old patient with a learning disability that was able to learn the process, and make it to her senior prom. With encouragement and patience SD became more confident. The doctors suggested that she go to a rehab hospital for continued teaching, as she was not quite able to demonstrate the ability to manage in the home setting. She really didn’t have any PT or OT needs, and I felt that I needed to be the voice to advocate for her to be given more time in the learning phase here at MGH. In addition, SD had a difficult time in the past with a year long rehab and she told me that she did not want to go to rehab. There are very few rehabs that even take IV flolan and I had transferred only one patient, successfully in the past, to a rehab with IV flolan. I agreed with SD that it would not be in her best interest because of the difficult transition, and advocated on her behalf to stay on the Telemetry Unit until able to go directly to her sister’s home. I reminded the team that she was so sick when she first arrived with heart failure, that she couldn’t have been expected to start the teaching sessions any earlier. After much discussion with her physicians, the Accredo RNs, SD, her family and myself, I was able to avert the rehab transfer (attachment EP 16.j). Accredo RNs coordinated a pre-discharge visit to the home to go over things with the family, as we had found that SD was improving with just the 1:1 sessions. She was getting to know and trust the team. SD became more focused, was able to demonstrate the steps she had mastered to the junior resident and was practicing on her own. Her confidence was starting to surface. Upon discharge, she expressed her gratitude for my role in helping her to become healthier and more comfortable in her ability to manage her healthcare needs. I believe that partnering with SD, the team, and Accredo, was vital to her successful transition to home care. Her hope was
to get back to her own home in Connecticut, after a period of time at her sister’s home. I am confident that she has the determination to live independently, and will succeed in this area as well.

This is a wonderful example of the interdisciplinary collaboration that occurs across multiple settings to ensure the continuum of care. The interdisciplinary collaboration included the Case Manager, Nursing Staff from the Pulmonary Clinic, the Telemetry Unit, the Medical Intensive Care Unit, and the Same Day Unit. It was the patient- and family-centered focus and the implementation of team work that contributed to the successful outcome of this very challenging patient care situation.

Case Management and the Continuum of Care in the Emergency Department

Staff Nurse, Case Manager, Staff Nurse, Physical Therapist, Case Manager and Social Worker

Clinical Care Management and the Emergency Department (ED) team have established a collaborative effort to improve the management of care for patients who present frequently to the ED. The goal is to make sure that pertinent information is available and shared across the continuum, ensuring that the patients’ care experience is seamless, and that the Case Manager and Nurse have a mechanism for communicating. If the Case Manager has information about the patient that would make a difference in helping the ED staff care for the patient, the information is shared. The collaborative team is comprised of PCPs, ED Physicians, ED Nurses, Case Management, the Longitudinal Medical Record (LMR) Project Manager, the ED Psychiatric Clinical Nurse Specialist (CNS) and the Medical Director for Primary Care.

The ED utilizes an electronic alert system which is a custom built application that rapidly gathers and organizes salient patient information, resulting in better informed healthcare decisions. Queriable Patient Inference Dossier (QPID) is a search engine that can be used to extract detailed information from a single patient’s record or it can be run against an entire care unit census. Unique to QPID is the ability to search the Longitudinal Medical Record (LMR) by clinical concepts. QPID searches for the word "Acute Care Plan in the EMR" and if there is one, it flags the patient and when the flag is clicked on, the plan is displayed. For the patient who frequently seeks care in the ED, The Acute Care Plan (attachment EP 16.k) assures that the clinicians caring for the patient have the most recent information on the patient from a medical and bio-psycho-social perspective. The plan is prepared by a High Risk Case Manager, or an ED Staff Nurse. It is then reviewed by the patient’s PCP. The Acute Care Plan is designed to provide for the coordination of care and the delivery of the appropriate care for patients who have frequent and multiple admissions to the ED (EP 16.l).

The High Risk Care Management Program (iCMP), provides High Risk Case Managers with an IT System that helps them keep track of their patients as they present to different settings. The Case Manager gets an email and a page when their patient presents to the ED. They also get an
email when a patient is admitted to the hospital. There is a database that they can refer to daily to see if any of their patients have been admitted or discharged from any of the Partners’ entities. Once a week, they get a list of their patients’ appointments with their PCPs and Specialists, along with a notification of any “no shows” from the past week. An alert is sent to the Case Manager if they have not been in touch with one of their patients on their panel in the past four to six months. In addition, an icon was built into the EMR that is visible to all settings (inpatient, outpatient, ED). To access the name and contact information for the patient’s Case Manager, a right click on the mouse will identify the paging or email system (attachment EP 16.m).

Case Management in the Emergency Department: Interdisciplinary Collaboration from MGH to Spaulding Rehabilitation Hospital

This narrative describes a patient care experience, highlighting the interdisciplinary care and collaboration necessary to facilitate cost-effective, compassionate care for patients throughout the healthcare system. This story describes the collaborative practice in the ED as told by the Nurse, the Case Manager, the Social Worker, and the Physical Therapist.

Social Worker

As one of the Emergency Department Social Workers, I was consulted to meet with Mr. M. I was informed that Mr. M’s younger brother had died suddenly within the past couple of days coupled, with the loss of his elder sister, who had passed away in the last month. Social Work support in the ED often comes at times when patients are most vulnerable, adjusting to sometimes devastating circumstances. Medical issues, necessitating a visit to the ED, are not isolated events. A careful psycho-social assessment provides a better understanding of who a patient is, what he values, and what he might be experiencing. Mr. M was able to share with me many poignant stories about his familial experiences over his 82 years. His grief was palpable, as his tears flowed. I felt privileged to bear witness to the rich story of his life, and help him process ways he could begin to deal with life without his siblings.

Case Manager

Upon arrival to work the following morning, I was notified by Christine Greenwood of Mr. M’s status in the ED and plan for possible admission to Spaulding later that day. During my initial meeting with Mr. M, I was introduced to his nephew, George, who seemed very involved with Mr. M and very supportive. I was able to confirm the information obtained by Christine. I asked Mr. M if he would be agreeable to transferring to Spaulding if a bed became available that day. He was weak and distraught but said he would be agreeable. I spoke with his ED nurse, Christine Collins, and updated her about the plan to continue rehab screening for Mr. M. I contacted the Spaulding Liaison at MGH to have Mr. M evaluated for admission that day. Then I contacted the covering Physical Therapist (PT), Christine Rodday, to arrange a PT evaluation.

Staff Nurse

I was the Nurse caring for Mr. M in the ED. Early in the morning, I was approached by Diane Sands about transferring Mr. M to Spaulding. I knew Mr. M felt strongly about returning to home and independent living, so I advocated this to the team. George was with Mr. M in the ED and was a great resource in terms of knowing his medical and emotional needs. I collaborated with him throughout the day as plans progressed. My highest priorities were to treat Mr. M’s pain and support him in his grief. I medicated Mr. M as needed throughout the day and prior to his PT evaluation to enable him to comfortably participate in the assessment. I consulted the social worker and chaplain and arranged for them to meet with Mr. M for additional support.
Physical Therapist

I was contacted by Diane Sands, to evaluate Mr. M for discharge planning recommendations. After reviewing Mr. M’s clinical status, I met with him and his nephew, and confirmed Mr. M’s prior baseline status. Mr. M was able to ambulate household distances with a rolling walker, but he required assistance from his nephew for most activities of daily living. Mr. M expressed his desire to be able to independently ambulate with the walker again and his desire to remain in his own home. Upon examination, it was clear that Mr. M had an intense fear of falling, which would cause further deconditioning and lower-extremity weakness. He was clearly functioning below his baseline as was evidenced by his need for assistance to transfer and ambulate. I discussed my findings with Mr. M and his nephew, and voiced my concern about his ability to manage safely at home. My recommendation was for inpatient rehabilitation. Both Mr. M and his nephew agreed with this plan. I notified Christine Collins and Diane Sands about my findings and recommendation for rehab for Mr. M. I felt he would truly benefit from physical rehabilitation and pain-management in an inpatient rehab environment.

Case Manager

Mr. M was accepted by Spaulding and offered a bed for transfer later that day. George had left to attend the wake of Mr. M’s brother; Mr. M’s niece had arrived to take his place. Mr. M agreed to take the bed at Spaulding, and at his request, I called George and updated him about the plan. I contacted Dr. Weil, who returned to the ED to visit Mr. M. and initiate the discharge paperwork. When the transfer details were complete, I visited Mr. M again to offer him support and ensure he was comfortable with the plan. I arranged for Mr. M’s niece to travel in the ambulance with him to Spaulding to lessen his anxiety and ease the transition to his new surroundings. Through this collaborative effort, Mr. M was successfully transferred to Spaulding Rehabilitation Hospital.

This is a wonderful example of the team coming together in a united effort to ensure that their communication, collaboration, and knowledge of the system would allow Mr. M to retain as much independence and functionality as possible. This narrative clearly demonstrated the interdisciplinary collaboration that exists across multiple settings at MGH to ensure the continuum of care.

The Clinical Nursing Supervisor

The role of the Clinical Nursing Supervisor (attachment EP 16.n) at MGH is a key role in facilitating interdisciplinary collaboration across multiple settings to ensure the continuum of care. There are currently 14.5 FTEs allocated to this role, providing and supporting the necessary coverage throughout the hospital. In the area of administrative and clinical support, he/she acts as the central contact person in coordinating critical and intermediate patient placement and collaborating with the Admitting Department to triage patients to general care units. The Nursing Supervisor works with the staff of the patient care units, Emergency Department, Surgical and Interventional areas, to coordinate requests from outside hospitals requesting admission to these areas. As members of the MGH Capacity Committee, the Clinical Nursing Supervisors provide up to date information related to capacity and throughput concerns. They work collaboratively with other committee members and hospital leadership, to identify strategies and opportunities for improvement in the processes. The overall goal is to optimize the ability to effect timely and appropriate patient placement. Consistent daily communication is established and maintained throughout the day, with Nursing Leadership and Physician colleagues in the forms of scheduled rounds, and meetings, where patient census, acuity, and general bed capacity are discussed, and patients are prioritized, according to clinical needs and staff resources. In addition, attention is given to patients throughout the hospital, who require close monitoring, and may require transfer to a higher level of care.
One of the tools the Nursing Supervisor utilizes to ensure a safe transition for patients being transferred to MGH is the ICU Triage Supervisor Call-in Sheet (attachment EP 16.o). This tool is used to collect basic demographic information and clinical updates on the patient requesting transfer, in order to ensure that we are placing them in a patient care unit that can meet his/her needs, as well as remaining up to date on significant changes in patient condition (if needed) during the transfer process. It is a working tool, but not part of the Medical record, and does not replace direct conversation between provider (on both the MD and RN level) as care is transitioned from one hospital to another.

**The Clinical Nurse Specialist**

Patients may never be aware that behind the scenes, there are teams supporting the nurse to be able to provide the best possible care. As an integral part of unit leadership, the Clinical Nurse Specialist (CNS) (TL 2.c) helps to create the best possible environment in which nurses and others can effectively care for patients and families. CNSs inform the team using evidence-based practice, and draw in expert interdisciplinary resources from within the institution, and external resources from the intellectual community at large, to collaborate in providing best practices across the continuum of care. The following exemplar illustrates how a CNS sought to ensure that through collaboration and coordination of care across the continuum, this patient was provided with the kind of quality care that is aspired to at MGH.

**Clinical Nurse Specialist in Obstetrics: Bridging Outpatient to Inpatient**

The role of the clinical nurse specialist has been described as one of educator, consultant, researcher, and collaborator. On any given day, I find myself performing in any or all of these roles. It is a diverse and often challenging position to help staff carry out the most appropriate plan of care for their patients. Planning for the admission, delivery, and postpartum course for R.G. was challenging, but allowed me to utilize my knowledge and expertise as a Clinical Nurse Specialist (CNS).

R.G. is a woman with Muscular Dystrophy, who was scheduled to have her second baby via cesarean section. It was brought to my attention by the prenatal staff caring for her, that she had been displeased with her care during her first pregnancy, and felt that the care team did not meet her needs as a person with a disability. Since she has no mobility of her lower extremities and limited mobility of her upper body, she requires a wheelchair for mobility. She requested that an air mattress, Hoyer lift, and commode be made in order to meet her need. An interdisciplinary meeting was convened to insure that this birthing experience met her expectations.

Representatives from R.G.’s Obstetrician’s office, the Nursing Directors from Postpartum and Labor and Delivery, the Associate Chief Nurse, the CNSs from Labor and Delivery, Postpartum and the Nursery, an Occupational Therapist, staff from Equipment Management, and two Disability Specialists attended the meeting. All shared their concerns and offered approaches to meeting the needs of R.G. A plan, which would include R.G., was formulated. It was decided that the Labor and Delivery CNS and I would meet with R.G. when she came to the hospital for her next prenatal visit. At this time, we would ask for R.G.’s input regarding her needs and expectations and encourage her to verbalize any concerns that she might have at this time or during her hospital stay. We also planned a tour of the Family Birthing Unit.

The plan of care was conveyed to the Nursing Staff and I arranged for in-services on the use of the Hoyer Lift since many staff had either never used one or had not used one for a very long time. The Hoyer Lift was a necessity for transferring R.G. from place to place (i.e. commode, chair) and can be quite scary if it is not a part of one’s practice. It was essential that staff feel confident in its use, so as not to convey their fear to R.G. A primary goal was to have R.G. trust us during this very special time in her family’s life.

The preplanning for this patient resulted in a smooth delivery and postpartum course for this family. R.G. was happier with this hospitalization than previously, and the staff were able to deliver nursing care in a more confident and calm environment. It was a win-win situation for all involved.
The following exemplar narrative written by the Labor and Deliver CNS, demonstrates how one patient benefitted from the collaborative interdisciplinary efforts of the Cardiac Catheterization Lab, Surgical Intensive Care Unit, and the Obstetrical Service to deliver a healthy baby to a mother with complex medical issues.

**Clinical Nurse Specialist and Interdisciplinary Collaboration**

M. L. had a complex past medical history, significant for Idiopathic Thrombocytopenic Purpura (ITP) and anti-phospholipid antibody and a Pulmonary Embolus (PE) in 2004. She was a healthy, 32 year old woman, pregnant with her 3rd child when she had a routine chest X-ray to screen for TB, based on a history of a positive PPD. At the time she was 23 6/7 weeks pregnant. The radiologist noted changes suggestive of pulmonary hypertension and her Maternal Fetal Medicine (MFM) Specialist immediately consulted a pulmonary hypertension specialist to begin planning her care.

One week later, an interdisciplinary meeting was held with the patient in the health center to review her diagnosis, plan of care and prognosis. The initial plan was to admit the patient overnight to the antepartum service for a cardiac catheterization to establish a definitive diagnosis. On admission to the Mother/Newborn Unit, an L&D Nurse would travel to the Cardiac Catheterization Lab the next day with the patient. This served two purposes. The first was that if something happened to the patient while in the lab, there would be an L&D nurse there to be able to care for the patient and same Nurse would be able to care for the patient at time of delivery, providing continuity for her.

After the diagnosis of severe pulmonary hypertension (HTN) was made, another interdisciplinary meeting was convened, involving the Maternal Fetal Medicine team, the Pulmonary Hypertension Team, SICU Attending Physicians, Cardiac Anesthesia, Nurses from L&D, Antepartum and the SICU, the CNS teams from those units, and Social Services. The plan of care was discussed at great length, including coordination of outpatient visits, medications, and admission for any signs of decompensation; a planned admission at 34+ weeks for IV Prostacyclin treatment, central monitoring of cardiac and pulmonary status, and betamethasone for fetal benefit. The team also discussed, was induction of labor at about 36 weeks gestation, and the risks to both mother and baby, including death, both the induction and in the 48 hours following delivery.

M. L. was admitted as planned and both she and her baby were monitored as expected. The Social Worker saw them every day. From a medical standpoint, we had a stat Caesarian section kit outside her room, should we need to use it to save her baby’s life and not have time to travel to the Operating Room. We had several meetings throughout that week with the patient and her husband, MFM team, Social Services and Nursing, to ensure everyone was on the same page, and understood how critical her situation was. We ensured that she completed a Health Care Proxy, and encouraged her to have her daughters come in to visit her the weekend before the induction, which they did. The Saturday before her Monday induction, the patient experienced a hypotensive episode, and the baby had subsequent late decelerations. The episode resolved, and the decision was made to continue with the plan and continue to monitor both mother and baby.

On Monday, I went to the SICU to begin M.L.’s induction of labor. (EP16.q). The Nursing Director in the SICU had arranged for the patient to be moved to another room more centrally located, and for the room next door to be empty as well. This also necessitated that the wall between the two rooms be immediately removed; soon thereafter, a gentleman from the maintenance department arrived with drills and took down the glass wall, making one giant intensive care room. While they were doing this, Pediatric Surgery set up and saline-primed an Extracorporeal Membrane Oxygenation (ECMO) circuit, in the event that the patient decompensated following delivery. The delivery room team, consisting of Neonatology, the Neonatal Resource Triage (NRT) Nurse and Respiratory Therapist, also had their equipment set up, and checked in the second room, which included the transport isolette and the delivery warmer for resuscitation.

Before any medication was started, the Attending Anesthesiologist wanted to be sure the epidural was placed and running, to avoid having to bolus the patient, and potentially affecting her blood pressure. Once we were ready to begin her induction, things went smoothly. As her Labor Nurse, my job was to slowly titrate her medication to
achieve regular, strong contractions, while monitoring her baby, as her Surgical Intensive Care Unit (SICU) Nurse, (she had two of them), continued to monitor her hemodynamic status and oxygenation. Throughout the course of the day, I communicated with the Neonatal Team as the patient was examined to give them an labor progress updates, and the MFM Team continued to check in frequently. I was also in contact with our Patient Care Information Associates (PCIA) on the Labor Unit, as they would need to admit the baby upon deliver, before transfer to the Neonatal Intensive Care Unit (NICU).

As the patient progressed in labor, the decision was made to artificially rupture her membranes to hasten the labor process, as she had had two previous vaginal deliveries. In less than one hour, the patient was fully dilated, and was ready to deliver her baby. The NICU Team was called to the delivery and the Physicians were at the bedside and ready to do a forceps extraction, to avoid having the patient valsala. A second Labor and Delivery Nurse came down to the SICU to assist me. The baby was born easily and smoothly, and went loudly to the warmer where he dried by the waiting team. Mother and baby did quite well following the delivery, and there was a great amount of relief and satisfaction and relief shared amongst all members of the teams.

**Interdisciplinary Collaboration in Obstetrics**

Another example of interdisciplinary collaboration across multiple settings to ensure the continuum of care was demonstrated in the Labor & Delivery (L&D) Unit. An interdisciplinary meeting was held that included the Medical Director, the Nursing Director for L&D, the Clinical Nurse Specialist for L&D, the Anesthesiologist, the Nursing Director for the Neuro Intensive Care Unit (ICU), Maternal Fetal Medicine Fellows and Obstetric Residents (attachment EP 16.r). The purpose of the meeting was to discuss the care of a patient during her admission for an elective cesarean section (c-section). The patient was a 38 year-old woman with progressing glioblastoma multiformans s/p partial resection in the right front lobe currently undergoing neuroradiation.

A plan of care was developed (attachment EP 16.s) and the patient was admitted to the Neuro ICU in preparation for the c-section. A Neuro ICU nurse and an L&D nurse collaborated on the plan of care and provided post-operative care and support to the patient. The neuro nursing support facilitated the continuity of care when the patient was transferred to the Neuro ICU. The collaboration between all of the disciplines and the interdisciplinary teams is what ensured a successful outcome for both mother and baby.

**Access Nurse Coordinators**

The commitment to interdisciplinary collaboration to ensure the continuum of care across settings expands beyond the walls of the institution. It is well known to clinicians that outside hospital transfers are a vulnerable time for patients. They require that the “handoffs”, the communication of information, both written and verbal, be appropriate to support the transfer of care and responsibility for a patient from one clinician to another. As stated in our Credo, “Teamwork and clear communication are essential to providing excellent care”, as well as to, “Ensure that MGH is safe, accessible, clean and welcoming to everyone.”

MGH’s commitment to its’ Credo has been demonstrated by the establishment and success of Access Nurse Coordinators. Nurses that facilitate the transfer of patients, to ensure that patients are seen by the appropriate clinicians in a timely manner. There are currently 9.35 FTEs allocated to this role throughout Patient Care Services, with representation in the Cardiac Access Unit, the Emergency Department, the Heart Center, the Hematology/Oncology Outpatient Clinic, and the Pediatric Neurology Department. The role of the Access Nurse Coordinator ensures that
appropriate communication and coordination of care is maintained between the referring Physicians, and the MGH Physician staff. The Access Nurse Coordinator is responsible for directing and coordinating inquiries and referrals to the appropriate service/physician, for the appropriate diagnosis and treatment of various diseases and conditions.

**Access Nurse Coordinator in Cardiology**

The following is an excerpt from a narrative written by the Heart Center Access Nurse as she reflects…….

The interesting and fun part of this role is participating in the unexpected. It is problem solving with a heart. For example, I received a call from a small hospital in a rural area of New York State. They had a patient who was in severe Heart Failure and needed an Left Ventricle Assist Device (LVAD) in an academic medical center that usually accepts their unstable patients, however, but was unable to accept this patient. They said “no” and left this community hospital to “fend for themselves.” When I received the call, I immediately worked with them to find transport. We accepted the patient, and assisted them to ensure a safe and expeditious transfer. The “we” in this statement meant working with the MGH Surgeon, the MGH Cardiac Surgical ICU Nursing Staff, as well as the staff at the referring hospital, and the external company that transported this patient.

Another example of the value of the role the Heart Center Access Nurse is that of facilitating and guiding transfers as told in the following…. An MGH Staff Nurse paged me one day in tears. Her Dad was having a heart attach and was in a local community hospital. This Nurse was to be married in a few weeks and was quite distraught. She feared that her Dad would not be walking her down the aisle. I guided her through the transfer process. I found a Cardiologist to accept her father as a patient; we transferred him into the Cardiac Intensive Care Unit (CICU). Her father was cated, stented, sent home to recover, and was able to walk her down the aisle. That transfer required a few more phone calls than usual, but it was worth it!

And in the role of consultant, …Sometimes, I receive calls from referring Physicians to “just run something by me.” They seek my advice. I am the unofficial “Welcome Wagon” for MGH. My primary focus is on Cardiac Patients, but often I assist the community Physicians in finding the appropriate Physician in a different Specialty.

**Interdisciplinary Rounds**

Interdisciplinary rounds are an integral part of the efforts to coordinate care on the inpatient units. For example, on the Orthopedic Unit, Nurses, Care Managers, Occupational Therapists, Social Workers, Nurse Practitioners and Physicians meet every weekday to review patients on the unit, and provide input into their plan of care and discharge. This practice better coordinates efforts, and improves patient-focused communication among the different groups providing care. The focus is on coordinating the plan of care, promoting patient comfort, and functioning while preparing patients for a smooth transition to post-discharge care. One member of the team articulated that, “Interdisciplinary Rounds keeps everyone on the same page. Having everyone together at the same time, we all bear the same information and can craft our plans of care that’s best for the patient. It has definitely improved communication” (attachment EP 16.t).

Both at the bedside and behind the scenes, staff are continuously examining ways to improve the experience of patients and families. This extends from pre-admission throughout the continuum of care, including transitions within care settings to discharge. The interdisciplinary team works very closely together to anticipate the post-discharge needs of the various specialty populations. Depending on the patient’s needs, additional resources may be accessed to help optimize the plan of care and ensure that it is
carried out across settings and after discharge from the hospital. Greater participation by all disciplines has resulted in achieving better patient and family outcomes, increased early recognition of patients at risk, and improved communication among members of the healthcare team.

While this is one example of how Interdisciplinary Rounds are implemented, there are many other patient care settings throughout the organization where this model exists. Interdisciplinary Rounds have also been implemented on the 12 Innovation Units described in (TL 4EO). The collaboration that occurs by bringing all interdisciplinary staff together to share information and contribute to the plan of care, exemplifies a value held by MGH – collegiality.

**Cancer Center**

The collaborative effort to meet the needs of patients across settings is experienced at the Cancer Center where coordination and continuity of care is very important. The interdisciplinary collaboration across the inpatient and outpatient cancer units is committed to ensuring continuity of care across the continuum. The Associate Chief Nurse for Oncology, Women & Children, Mental and Community Health is accountable for both the inpatient and outpatient cancer units and meets regularly with the Nursing Directors for those areas. There is also strong collaboration and collegiality amongst the Nursing Staff who consider themselves as a unified team, and many have developed a skill and knowledge set to be able to practice in either the inpatient or outpatient setting. Patients are also cared for by the same physicians who also practice in both groups. The commitment is to knowing the patient to ensure that the care they receive is experienced as being seamless.

In the planning for the Lunder Building, staff and leadership of the Cancer Center realized that the Oncology patient population sometimes needed care outside of the normal hours of an ambulatory practice, and designed an infusion room with two chairs in the inpatient unit setting. This allows flexibility and continuity of care throughout the patient’s journey. Should a course of treatment as an outpatient occur over a weekend, the treatment is continued but in an inpatient setting, in the two ambulatory chairs. In addition, visits to the Emergency Department are often avoided by evaluating and treating patients with issues early on.

An example of the close collaboration across the inpatient and outpatient setting is reflected in the Hematology/Oncology/Bone Marrow Transplant Unit (Lunder 10- formerly Ellison 14) weekly rounds. On a weekly basis, the inpatients and pre-transplant patients are discussed by the multidisciplinary team, which is comprised of Nurses, Nurse Practitioners, Physicians, Pharmacists, Social Workers, Therapists, Chaplaincy, and Nutrition. The team also discusses the schedule for their admissions, as well as any anticipated problems. They communicate daily between units about the patients who are anticipated to be admitted so that all involved in the care are aware of the patient before their admission. There is a clear commitment to knowing the patient before the patient arrives.

The Bone Marrow Transplant Clinic (Cox 1) is where the patient meets his/her team for the first time. The team invests in knowing the patient and the family prior to the need for inpatient admission. Once a patient is admitted, the same team follows them over the course of their treatment. There is a firm commitment to ensure that the patient is cared for by the same team over time. For example, a patient who was in remission and recently experienced a relapse was admitted and treated by the very same team that had provided care for him over one year ago.

Upon discharge, information is communicated back to the Bone Marrow Transplant Clinic (Cox 1) describing the latest course of treatment and status of the patient’s condition. Patients have access to their team 24/7; communicating with the clinic during business hours, and with the inpatient team on the Hematology/Oncology/Bone Marrow Transplant Unit (Lunder 10- formerly Ellison 14) on evenings, nights and weekends. MGH is currently planning a pilot program that will
provide accommodations for patients who live far from the hospital, to be housed for a period of time in an outpatient setting, which will decrease their time in the hospital.

Another pilot project, the Cancer Center-Bulfinch Medical Group (BMG) Pilot Handoff, is currently underway. The goal is to improve collaboration, develop clear channels of communication, and ensure continuity of care between the Cancer Center and BMG, a primary care and consultative medicine practice at MGH. When a patient finishes active cancer treatment, they may be confused about who will providing care for them— their oncologist or primary care physician, and may fear they will be forgotten by the healthcare system. To allay this fear, a Staff Nurse from the Cancer Center informs the patient that the information about their hospital course will be communicated to their Primary Nurse at BMG. The patient is also told to expect a call from their Primary Nurse at BMG within one week. During the call, “A Care Handoff Checklist” (attachment EP 16.u) is completed by the BMG Primary Nurse which includes: a review of the diagnosis, treatment course, current condition and any questions/concerns. The Longitudinal Medical Record (LMR) medication list is reconciled at the end of the call, documenting and any discrepancies resolved. If the patient is not yet scheduled for follow up, the Primary Nurse will assist the patient in making an appointment; the goal is within two weeks. At the end of the call, the Case Manager will mail the patient a Care Team photo, along with Patient Education Materials, and communicate the necessary information and updates to the patient’s primary care provider.

In the following narrative, the Clinical Nurse Specialist on the Medical Oncology Unit illustrates an interdisciplinary collaborative effort to transition a patient from the acute care setting to an acute rehabilitation setting. Spaulding Hospital is a member of the Partners HealthCare System.

I first met Mr. W. in June 2011 when he was admitted to the Inpatient Medical Oncology unit from an outside hospital, for consideration of Chemotherapy for Mantel Cell Lymphoma. At the outside hospital, he had undergone repair of a gastric perforation related to his Lymphoma, which was wrapped around his bowel. Two days after admission to MGH, he developed an acute episode of hypoxia, tachypnea, tachycardia and hypotension requiring transfer to the Medical Intensive Care Unit. Mr. W. had developed two massive Pulmonary Emboli (PE). The next five weeks involved seven inter-unit transfers for Mr. W to manage septicemia, infection, Cardiogenic Shock requiring Vasopressor Therapy and four days of Extracorporeal Membrane Oxygenation (ECMO). Mr. W. survived these complications and returned to the Medical Oncology Unit in the beginning of August, 2011, at which time, I became an integral part of his care team.

Over the course of his hospitalization Mr. W. had developed a Stage Four Sacral Pressure Uler. Prior to his transfer, I spoke with two Clinical Nurse Specialists colleagues, involved in evaluating and planning his care. By the time of his transfer, we had clear assessment data, and the background information needed to help Nursing Staff understand his situation and the rationale for treatment goals and plan. Shortly after assessing Mr. W, I sought out my interdisciplinary colleagues to assist in developing a plan of care for Mr. W. The initial team consisted of the unit-based Dietitian, Physical Therapist (PT), and the Co-Director of the Outpatient Wound Clinic. In addition, the specifics related to wound care were discussed with the Plastic Surgery and Medical Team Physicians prior to his arrival on the Oncology Unit. The Patient and his family were also actively involved in discussions related to his plan of care. Now that Mr. W. emerged from a state of being critically ill, he and his family were very focused on developing an optimal plan to promote wound healing.

In discussing wound management strategies the team had to consider the timing of chemotherapy and anticipate side effects including increased risk for infection during his treatment. Nutrition, pressure relief, and mobility, were all central to the plan of care. Physical Therapy and Nursing determined that the benefits of an air fluidized bed outweighed the risks associated with the loss of mobility due to the structure of the bed. It was agreed that the ceiling lift would be used to transfer Mr. W. to a chair, and PT would work with him from the chair. PT provided the patient with a RoHo cushion to optimize pressure relief when he was out of bed. Education was also done
with the patient and family about the importance of strictly limiting the time spent sitting in the chair or at the edge of the bed, for mealtimes only. The Clinical Nurse Specialist on wound care was particularly instrumental in helping the patient and family understand the pathophysiology of pressure injury, and the rationale behind our interventions.

The patient received his second cycle of chemotherapy which he tolerated well and the team worked together with the family to plan his discharge to Spaulding Acute Rehabilitation Center. Because of the complexity of his care, a meeting was held with Mr. W’s Wife and Brother, representatives from Spaulding Rehabilitation Hospital, the Medical Oncology Case Manager, the Lymphoma Nurse Practitioner, representatives from Nursing, and myself to outline Mr. W’s care needs in anticipation of discharge. The purpose of the meeting was to develop a plan to ensure continuity of care across settings. The recommendations and plan for wound management and pressure relief would be continued at Spaulding, who would provide the specialty bed and Robo cushion for the patient. In addition to reviewing the plan of care (attachment EP 16.v) with the wound nurse at Spaulding; I made sure the nurses were also prepared to care for other aspects of his care, including his PleurX catheters. Follow up appointments would be coordinated by the nurse practitioner so that multiple trips to the hospital could be avoided. The patient and family were very concerned about the trip to Spaulding, because of the pain associated with lying on his sacrum. The Care Manager reached out to the ambulance company that would be transporting the patient to Spaulding, and a representative came to visit the patient, to complete a pre-discharge assessment and develop a plan with him to optimize his comfort during transport. Mr. W was successfully transferred successfully within a week of completing his chemotherapy, with his comfort needs met. Several weeks later, in October 2010, Mr. W came back for his fourth cycle of chemotherapy. His sacral wound was completely healed, and he had resumed his active lifestyle at home.

This narrative described a patient’s successful transition from MGH to Spaulding Rehabilitation Hospital (SRH). Many of MGH’s Oncology patients are discharged to SRH and in an effort to improve this process, a Pay for Performance (P4P) initiative regarding warm handoffs (verbal handoff, clinician to clinician) continues as part of the Innovation Unit initiative on the Oncology Unit; 81% of the cases that are transferred on weekdays have met the criteria. An interdisciplinary team comprised of representatives from MGH and SRH meet on a regular basis to discuss how to better provide continuity of care for both patients and families during the transition to a less acute setting. (attachment EP 16.w).

Case Management in Oncology

Another excellent example of interdisciplinary collaboration across the continuum of care is illustrated in the following narrative by the Case Manager on the Gynecology/Oncology Unit (Phillips House 21- formerly Bigelow 7). This narrative reflects the importance of initially establishing trust with the patient and later her family. It also exemplifies the role the Case Manager plays in coordinating the plan of care by facilitating collaboration between Physicians, Nurses, Social Workers, non-acute providers, and Interpreters.

Mrs. M was a 59 year old woman of Haitian Creole heritage. I first met her after her initial surgery for Stage IV, undifferentiated endometrial carcinoma. She was transferred from an outside hospital that had been managing her long term Anticoagulation regimen when she developed vaginal bleeding. She had already started the process of evaluation for endometrial cancer and was scheduled to be seen in the office. However, in view of the active bleed, she was emergently admitted. Mrs. M also had a significant past history of diabetes, coronary artery disease, and underwent coronary artery bypass graft (CABG) in 2007 that was complicated by a stroke.

When I first met Mrs. M for my initial assessment, I found a very pleasant, middle aged woman who easily understood and spoke English. She related to me that, after her stroke, she had to completely relearn English, and that she still had some short-term memory deficits. She was however, able to return to work, manage her activities of daily living (ADLs) and live independently, with the support of her wonderful husband, Louis. Her post-operative course was fairly straightforward, and in collaboration with Nursing, I made the recommendation for the Visiting Nurse Association (VNA) Services at discharge for wound evaluation in view of her medical co-morbidities.
Mrs. M then commenced a course of outpatient treatment, including chemotherapy, and occasional paracentesis to manage her symptoms. The next time I saw her, she had started to exhibit symptoms of progression of disease, with re-accumulating ascites, worsening renal function, and hypertension management issues. The plan, once again, was to refer her back to her VNA to assist her with new medication changes, symptom management, and hypertension management. It was at this admission that I got to meet her husband, Louis, who I found to be very caring and involved.

About one week later, I received a phone call from the physician’s office nurse, to discuss options/plans for readmission overnight for placement of an intra-peritoneal PleurX catheter. It was obvious that the patient now required frequent taps to manage her re-accumulating ascites. As there were no available beds on the Bigelow 7, the Gynecology/Oncology Unit, at the time, I emailed my colleagues to alert them to the admission and plan of care. I also alerted her VNA Agency so they could prepare for managing the new PleurX. I followed up the next day, and communicated directly with the covering case manager. This facilitated her plan of care and she was discharged as planned.

Unfortunately, the short term relief of having an IP PleurX in place was surpassed by a rapid progression of disease and deterioration in Mrs. M’s condition. She was readmitted two days after this procedure with poorly controlled pain, partial bowel obstruction due to tumor, and worsening labs. In view of the rapid decline, I made a recommendation for a family/team Meeting to discuss goals of care and options. This would be the first of several family meetings to be held. At this point in time, Mrs. M was still able to converse in English, so the meeting was set up with the patient, her husband Louis, Dr. Growdon, her Attending Physician and her Nurse, Social Work, Palliative Care, and the Oncology Fellow and resident were also asked to participate. After extensive discussion, it was agreed to plan for palliative chemotherapy and a transition to hospice care.

When I returned the next day to continue the conversation with the patient and her husband, it became very evident that she had no recall of the events of the previous day. When I broached the subject of hospice planning, she could not understand why we were discussing this, stating “I am a young and healthy woman. I can take care of myself.” This was very concerning as Mrs. M demonstrated very poor insight or understanding of her current needs and the extent of her illness. Her husband confirmed that the patient was experiencing memory loss and confusion. I immediately contacted the team to alert them to this change in her condition and spoke with the attending suggesting a follow up meeting to review the events and plan of care. This time, I also planned to include a Haitian Creole Interpreter, as I could not be sure that the patient was still able to process information in English.

We had a repeat family meeting with the Interpreter the following day. Mrs. M’s condition had deteriorated even further and she was minimally able to participate in a conversation; however, it was obvious that it was helpful for her to hear the information in her native tongue. Louis, who was listed as the Health Care Proxy, actively assumed the role at this time. He was appropriately sad and concerned, and agreed that a hospice plan of care was appropriate. Social Work was involved in providing support to both the patient and her husband (attachment EP 16.x). In view of the patients’ condition, I made a recommendation that he consider an inpatient hospice setting, for general inpatient level of care, with a goal to transition to home hospice care as soon as any opportunity arose. He agreed with this plan, and I began the referral process, starting with her VNA, which had a hospice program.

The next few days were spent trying to identify and locate a facility, as close to home as possible that could manage her care. It was at this time that Louis confided in me that he was having difficulty convincing the rest of the family of the seriousness of the situation. He was receiving a lot of pushback from her son, who lived in Georgia, as well as her brother who lived locally. Part of the problem, it turned out, was the patient was still able to converse in Haitian Creole and spoke with her family on the phone. She kept telling them that she was fine, and able to take care of herself. In reality, she was becoming more confused as she became more encephalopathic with progressive renal and liver failure. I offered to call her son and arrange for another family meeting, this time, to include the local relatives as well. Louis was greatly relieved and accepted my offer.

We met the next day with Louis, the patient’s son, brother and mother, Dr. Growdon and the patient’s nurse. At this point in time, the patient was no longer able to participate in a coherent conversation in either language. This meeting was enormously helpful as it allowed the other family members to see, hear and process the information.
they were given. We were able to discuss their concerns, and support their spiritual needs, and at the conclusion of the meeting, all agreed to proceed with a plan for placement, at an inpatient hospice facility close to her home.

Throughout all these family meetings and discussions, I always made sure to make time to see Mrs. M directly to provide reassurance and support and to let her know how we were planning to continue her care. She was always able to smile and appreciated the visits. By the time, I was able to secure an inpatient hospice bed for her, Mrs. M was able to tell her Nurses “I am going to meet God. I am ready.” We were able to secure a space for her at Chilton House, a free standing hospice house, with a home-like atmosphere, which was also close to her home in Somerville. Louis had the opportunity to visit the Facility before a bed offer was accepted, which helped him to feel more comfortable with the decision to make this move. She passed away shortly thereafter.

In this narrative, the Case Manager was able to honor and respect the patient’s cultural and spiritual needs, and bring together an interdisciplinary team to assist her in transitioning to a place of peace and solace.

**Outpatient Dialysis**

MGH has long-standing and well-established close relationships with other providers in the community, and within the City of Boston, that helps ensure the continuum of care across care settings. The Hemodialysis Unit (Bigelow 10) at MGH provides Hemodialysis Therapy for patients with acute kidney injury or chronic renal failure. A majority of the patients treated in the Hemodialysis Unit are diagnosed with end stage renal disease (ESRD) and will initiate hemodialysis therapy in the hospital setting. The Hemodialysis Unit also provides dialysis treatment for other patients with ESRD who may require medical/surgical interventions within MGH’s acute care setting. Patients, who have initiated treatment at the MGH unit and are stable, will transfer to an outpatient end-stage renal disease (ESRD) facility that is closest to their residence, where the patient’s primary medical management will ensue.

The Resource Nurse, in collaboration with the patient’s attending Nephrologist, the inpatient Case Manager, Social Worker and the ESRD dialysis facility, coordinates the discharge planning. The amount of information shared is very comprehensive when a newly diagnosed ESRD patient transitions from the hospital setting to an outpatient ESRD Facility. Upon patient discharge, the Nurse Practitioner (NP) completes the MD/NP written hemodialysis discharge summary (attachment EP 16.y) with a list of any medications that will need to be administered at the outpatient facility. The Staff Nurse then provides a Nursing discharge summary (attachment EP 16.z) and verbal report. (attachment EP 16.aa). The verbal report provides information about the dialysis treatment, laboratory results, medications administered and the patient’s ability to tolerate the treatment. In addition, the medical notes written by the renal fellows or the attending Nephrologist which contain relevant hospital medical summaries are then faxed to the outpatient facility. The interdisciplinary collaboration of all members of the renal teams in the hospital setting as well as the ESRD outpatient facilities ensures the continuum of care and a smooth transition for patients as they enter their next phase of treatment.

**Anticoagulation Management Services**

The Anticoagulation Management Services (Professional Office Building 1) provides another example of a well-established collaborative relationship with other providers in the community that contributes to the sharing of expertise amongst institutions and optimizes the care of MGH patients (attachment EP 16.bb). The Anticoagulation Management Services (AMS) provides monitoring and management for patients who require anticoagulation therapy and collaborates with staff in outside residential facilities, long term care facilities, and assisted living facilities (attachments EP 16.cc,
The Anticoagulation Management Service (AMS) is a nurse-run clinic using the Primary Nurse Model of care to provide comprehensive education to patients and families as well as ongoing management and monitoring of anticoagulants. It is not uncommon for AMS nurses to care for residents in other facilities, such as, long term care facilities. The Staff Nurse, D, identified problems and weaknesses in workflow when caring for these patients, related to their placement, and failed communications between providers. She learned more about the relationships between the facility’s medical and nursing staffs, including Nurse Practitioners. She explored how the communication coming from AMS could be improved to facilitate care for patients at this facility. Through her leadership and determination, a number of meetings between key players at both sites occurred. She developed a collaborative and highly respectful relationship with the Medical Director at this Facility. They identified key issues and D, working closely with AMS leadership, initiated meaningful changes in the AMS and facility work processes. This has been periodically evaluated over time. Throughout this experience, D shared and updated information with both staffs, including formal presentations for staff at both sites. As a result of D’s focused efforts, the quality of care and the standard of practice, as a whole, for patients who reside in that Facility have been elevated. The innovative and practical interventions helped to improve physician and nurse satisfaction at both practice sites well. Because of the success here, D has continued similar efforts at additional long term care facilities that care for AMS patients. The Medical Director of the Spaulding North End facility, Terrence O’Malley, MD, wrote about his experience of working with Diane.

“We began working two years ago on a project to improve the safety and effectiveness of Anticoagulation Management of long term patients at the Spaulding Nursing and Rehabilitation Center in the North End (SNE). D identified inconsistencies in reporting or follow-up of lab values and lack of communication pertaining to changes in patient clinical status, thus putting these patients at risk.

Her knowledge and expertise in the details of Anticoagulation Management was instrumental to identify gaps in care as well as to propose solutions. This involved a meticulous review of the details of the processes of anticoagulation management at SNE, and within the AMS. Together we identified common problems and collaborated to produce a streamlined process to improve reliability in patient care and nurse communication.”

“This project is significant not only for the direct impact it has on the care of the SNE patients, but also because it is the first project within Partners to look at cross-institutional management of anticoagulated Patients.”

The CNS of the AMS relayed the story of how a Staff Nurse in the department effectively collaborated with the medical and nursing Staffs at outside facilities and improved the collegial relationships and care for residents in long term care facilities.
Scope of Position:
The R.N. Care Manager, as a member of the health care team, is imbedded in the Primary Care Practice. The role collaborates to enhance the delivery of patient care services along the continuum of care. The Care Manager meets patient’s needs efficiently and expeditiously by continuously improving the patient’s experience, helping to ensure the institutional standards of high quality patient care, reducing cost and ensuring reimbursement. Through broad knowledge of clinical care and systems management, the Care manager evaluates, predicts, and facilitates the trajectory of patient care. The position requires a high degree of flexibility, independence, and willingness to participate in multiple activities and provide support to all members of the project team.

The model has a Care manager panel ratio of approximately 1/200 patients. The care is supported by a team that includes Social Workers, Pharmacist and Community Resource Specialists.

Principal Duties and Responsibilities:

- Performs a comprehensive nursing/psycho-social assessment on a targeted patient population as defined by MGH/MGHPO and contractual constituents.
- Identifies key barriers to care and patient’s ability to manage their health and wellness through initial and on-going assessments.
- Develops a comprehensive plan of care in conjunction with the patient’s PCP.
- Implements a plan of care, appropriately utilizing the menu of services for enrollees, as well as, insurance approved, community and practice-based and MGH services.
- Ensures the timely implementation of the plan of care.
- Ensures that all elements critical to the plan and trajectory of care have been communicated to the patient/family and members of the Interdisciplinary Team.
- Monitors the patient’s progress, intervening as necessary and appropriate to ensure that the plan of care and services provided are patient focused and friendly, high quality, efficient, and cost effective
- Works with Interdisciplinary Team to assess patients referred for direct admission to skilled nursing facilities.
- Works with partnering Non-Acute facilities to transition patients being directly admitted from home, physician’s office or hospital.
- Monitors patients in Non-Acute facilities in collaboration with the PCP Care Manager.
- Documents in the medical record as appropriate, as part of the Interdisciplinary team.
Massachusetts General Hospital
Care Management Department
Job Description

- Identifies patients/families with complex psychosocial and non-medical discharge planning issues; refers to iCMP team, as appropriate
- Assesses patient/family continuing care needs in collaboration with the interdisciplinary team in the review/revision of the therapeutic plan to expedite and arrange non acute care.
- In collaboration with iCMP team, monitors the patient’s progress and plan of care with the aid of internal and external utilization and quality guidelines. Identifies, documents, and reports issues and system barriers.
- Complies with Care Management Standards of Practice, based on assignment.
- Evaluates, coordinates, manages and documents all activities related to clinical approval/denial processes and communicates relevant information to patients/families, members of the multidisciplinary team, hospital departments, and payers.
- Participates in On Call coverage per Department guidelines.
- Performs other duties as assigned.

Job Elements
- Facilitates access to the health care delivery system along the continuum, by navigating any barriers to care and advocate on the patient’s behalf.
- Acts as the liaison by consulting and collaborating with members of the health care team including Inpatient Care managers, practice-based staff, and other provided to promote continuity of care as patient move through the continuum.
- Promote wellness and patient self-management.
- Collects data as designed by the projects for ongoing analysis.
- Participate in practice-based Medical Management meetings, as appropriate.

Patient Population Served: “The staff member must be able to demonstrate the knowledge and skills necessary to provide care appropriate to the age of the patients served on his/her assigned unit”. Check all that apply.

If Pediatric Assignment:
- Neonates (birth-1 month)
- Infant
- Early Childhood (12 mths-5 yrs)
- Adolescence (13 to 17 yrs)

If Medical/Surgical Assignment:
- Young Adult (18 to 25 yrs)
- Senior Adult (55 to 64 yrs)
- Geriatric (65 yrs and up)

If PCP/Admitting/Emergency Department Assignment:
- All age groups

Qualifications:
- RN with current license to practice in Massachusetts.
- Minimum five years experience in a Medical/Surgical setting, three of which must be related.
Skills/Abilities/Competencies Required:

- Acute hospital experience preferred.
- Related Care Management experience preferred
- Strong assessment and problem solving skills.
- Strong interpersonal skills.
- Ability to work independently with minimal supervision.
- Goal oriented and accountable.
- Demonstrated organizational skills.
- Demonstrated ability to work in a complex setting.
- Ability to work in an interdisciplinary team based environment.
- Strong oral and written communication skills.
- CM Certification desirable
- Strong Computer skills

See Appendix A for the skill/competencies required to provide care appropriate to the age of the patients served on the assigned unit.

Working Conditions:

- 90% of time is spent in primary care practice outpatient setting (iCMP/ CM)
- Travel to other MGH sites, as needed.

Approval:

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<th>Name</th>
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<td>Joanne Kaufman</td>
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MassGeneral Care-Management Program
CMS Demonstration Project

In an effort to improve quality of life, prevent complications of illness, encourage better health outcomes and reduce expenses for some of the most medically complex, high-cost fee-for-service Medicare patients, the national Centers for Medicare & Medicaid Services (CMS) selected six organizations to conduct three-year demonstration projects to test ideas for enhanced care management. Massachusetts General Hospital was one of the institutions selected to participate in the initiative. The program has since been extended for an additional 3-years beginning in August of 2009.

Only a small percentage of patients account for the majority of health care costs, with the very sickest patients dealing with multiple chronic diseases, numerous medications, frequent hospitalization and repeated visits to emergency rooms. According to CMS, 15 percent of Medicare fee-for-service patients are responsible for approximately 75 percent of total Medicare health care costs. And as health costs continue to rise, so does the concern among families, the challenge for employers and the pressures on public officials. Clearly, as a nation, we need to find effective ways to address this difficult situation.

The MGH/MGPO demonstration program – called the Massachusetts General Care Management Program – was formally launched Aug. 1, 2006. The overarching goal of the program is to improve care to patients while controlling the cost of that care. A multidisciplinary team, led by Gregg Meyer, MD, and Tim Ferris, MD, has been working for to plan, structure and organize the project. Eric Weil, MD, is serving as the medical director for the program.

The Massachusetts General Care Management Program seeks to determine whether providing additional services to approximately 5,000 of the sickest fee-for-service Medicare patients associated with one of our primary care practices can actually reduce overall costs of care. The patients who qualify for the program have been selected using CMS claims data along with a special algorithm that projects the costs of care going forward. These identified patients will be given an opportunity to participate in the project at no additional cost or change in their Medicare coverage.

Through the program, each enrolled patient is assigned to a nurse care manager, who serves as the new point of access to care. The care manager helps these medically complex patients streamline their care and services and navigate the health care system more effectively. The care manager is practice-based and highly proactive, checking in with patients regularly to ensure that the patients, families and others understand the relevant diseases and comply with the care plan that has been carefully developed to meet the patient’s individual needs.
The care manager work very closely with the patient’s primary care physician to coordinate various services, including diagnostic tests, treatments, and appointments with specialists, psychiatric services and social work resources. He or she assures that communication and coordination occurs between and among all caregivers who are involved with the patient.

The effectiveness of the program will be assessed through standard quality metrics, patient surveys and provider surveys. Costs of care and services will also be closely monitored. The patients enrolled in the program will be compared with the experience of a matched control group that will include patients from other non-Partners Boston teaching hospitals. The control patients will be matched on costs, demographics and diagnostic groupings. At the end of the six-year project timeframe, CMS will conduct a comprehensive evaluation of the program’s performance compared with the established standards and goals.

The MGPO and MGH are under a significant level of financial risk if the established performance standards for achieving savings to Medicare are not achieved. The federal government will not spend more on these patients than it would have spent in the absence of the project. If the program works as anticipated, however, the costs of the additional medical management services will be recouped from savings that occur from better care to the patients, fewer hospitalizations, fewer emergency visits and improved coordination of care. If the project is successful, the MGPO and MGH will earn a portion of the savings. If the project isn’t as successful as projected, then the MGPO and MGH will bear the cost of the added infrastructure.

The Massachusetts General Care Management program dovetails well with various medical management efforts that are under way or under consideration at the MGH. We know that the health care market is demanding that we all do a better job taking care of the sickest and most frail patients, ensuring that they have access to the services they need. And we know that we must find ways to do all this without letting the costs of that care get out of hand. The MGPO and MGH are pleased to be part of the process of finding creative solutions to address this highly complicated and multi-faceted problem.

We believe that better care management and more support can help ensure continuity of care and decrease the fragmentation of services that happens frequently with medically complicated patients. By creating a more cohesive system of care, we are hopeful that patients will get the care and services they need to prevent complications, avoid hospitalization and enjoy a higher quality of life. And we are hopeful we can do this while controlling the costs of care.
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<td>Wendy Atamian</td>
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<td>Becklyn Augustin</td>
<td>Community Resource Specialist</td>
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<td>Veronica Carroll</td>
<td>RN Care Manager</td>
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<td>Anna Carson</td>
<td>RN Care Manager</td>
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<td>Joanne Doyle Petrongolo</td>
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<td>Fran Drysdale</td>
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<td>Kristen Emde</td>
<td>Admin. Assistant</td>
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<td>Ann Erwin</td>
<td>Data Analyst</td>
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<td>Karen Fung</td>
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<td>Terri Gangloff</td>
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<td>Dr. Ryan Thompson</td>
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<td>Dr. Eric Weil</td>
<td>Medical Director</td>
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<td>Deborah Wood</td>
<td>RN Care Manager</td>
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Navigating the complicated maze of patient care can be difficult for both patients and caregivers. Add to that equation a patient with multiple health problems and the maze becomes even more complicated.

On Sept. 24, Gregg Meyer, MD, senior vice president for the MGH/MGPO Center for Quality and Safety; Tim Ferris, MD, MPH, medical director of the MGPO; and Eric Weil, MD, associate chief for Clinical Affairs for the MGH General Medicine Unit and MGPO associate medical director for Primary Care, received the 2010 Nathaniel Bowditch Prize for their collaborative work helping patients navigate this difficult path with the Centers for Medicare and Medicaid Services (CMS) Demonstration Project.

The program improved the coordination of care for more than 4,000 of the MGH’s sickest and most costly Medicare patients.

Meyer said that when he began as medical director of the MGPO, there were many excellent programs available to help patients better manage their diabetes or high blood pressure, but there was no program in place that helped patients with a multitude of medical issues. The CMS Demonstration Project was the answer that he, as a primary care provider, was looking for.

Working with MGH Case Management, Social Services, Information Systems, Psychiatry and other departments throughout the hospital, members of the CMS Demonstration Project were better able to anticipate and provide for the needs of these patients. “This program not only changed the way we deliver care here at the MGH, but it also created a national model,” Meyer said.

Weil said his patients have noted the difference that coordinated care makes for them. “Several months ago, a patient actually told me that [the case manager] makes me a better doctor. Across the entire program we have a wonderful group of case managers and social workers who really raise the bar on the care we can provide.”

Ferris, who presented the results of the project at the White House on Sept. 30, shared information that the team had just received about the financial benefits of the CMS Demonstration Project. By better coordinating care for the 4,000 patients, the MGH project cut Medicare costs by as much as 12 percent.

The Bowditch Prize has been given annually since 2000 to a person or persons who has or have completed significant work improving patient care while reducing costs, said Andrew Warshaw, MD, surgeon-in-chief, chair of the Department of Surgery and chair of the Bowditch Prize Committee. Those considered for the award are nominated by their peers, with the top idea earning a $5,000 cash prize. This year’s recipients agreed that the cash award would be donated to the care managers who have made the program a success.

MGH President Peter L. Slavin, MD, nominated the CMS Demonstration Project team for this year’s award. He praised the program for addressing one of society’s greatest issues: the cost of health care. “By better integrating and coordinating care, we can make care better and more efficient,” Slavin said. “I’m proud that this hospital has defined a path that others can follow.”
Nursing Progress Note

Enter name and unit number on both sides of EVERY sheet. Addressograph plate to be used when available. Name and unit number to be written distinctly when plate is not available. Signature should be legible and include name, licensure & pager #.

Date: 09/04/10  
Shift: 7a-7p  
Time: 1900

Ineffective Airway Clearance: Sats > 90% on 2L, 3L for ambulation per PT suggestion, increased to 4L d/t SOB & desating to low 80s w/ minimal ambulation/exertion. Using commode to minimize exertion. CXR from 9/3 showing new patchy airspace opacity in right middle lobe consistent with pneumonia. Sputum sample ordered, pt so far unable to cough up sputum. Encouraged to CDB & use IS, given albuterol neb X1 d/t SOB, Guifuensin given X1 for dry cough this AM. Plan: continue to monitor respiratory status.

Pain: back/shoulder/neck pain well controlled to 1-2/10 w/ 5mg oxycodone PRN. Plan: continue to assess pain, medicate as needed.

Risk for Infection/Alteration in skin integrity: Tmax 100.9 PO @ 8am, given Tylenol w/ decrease in temp, remaining afebrile for rest of shift. WBC 3.0, blood ox from 9/1 no growth x 3days, cont on clarithromycin PO BID. Plan: continue to monitor for s/s of infection, administer ABX as ordered, Tylenol PRN for fever, send sputum sample when available.

Coping/Knowledge deficit/Discharge Planning: Pt continues to be updated on plan of care, discharge date unknown at this time, to resume home 02 w/ Lincare. CM involved. Pt anxious both about returning home and about staying at the hospital. Reassurance provided, Clonapin given X1 at patient's request. PT consulting, given walker to use while inpatient. Plan: Continue to update patient, answer questions as they arise, follow up w/ PT & CM re dispos planning.

☑️ Resp. cx sent.

UNACCEPTABLE ABBREVIATIONS: Applies to all handwritten and electronic 'free text' entries

QD  QOD  MS  MSO₄  MgSO₄  hs  ss  µg  U  IU  os  qn  bt

1/2 (i.e., use 0.5mg)  1/2 (i.e., use 1mg)  Apothecary Symbols (e.g., amp, grain)
Social Work Note

8:45 am Client (redacted) spoke with outpatient SW. SW (redacted) refers patient to community resources as needed. Please page (redacted) in the event team discuss goals of (redacted).
Name: 

**Balance:** Maintains static standing without UE support x 1 min; with ambulation and IV pole variable path of progression with R crossover step x 3 for LOB; with ambulation and RW no LOB

**Gait:** decreased foot clearance (may be influenced by slippers) L-R, decreased step length, push off, cadence

### EDUCATIONAL NEEDS ASSESSMENT

**Ready to Learn:** ___ Yes ___ No

**Current Level of Understanding/Learning:** ___ Needs reinforcement ___ Demonstrates/Understands information

**Preferred Method of Learning:** ___ Verbal ___ Demonstration ___ Practice ___ Reading/Handouts ___ Other:

### EVALUATION:
Pt is a 60 yo F who presents to PT for prevention/risk reduction for LOB and falling. She does demonstrate significant balance impairments on exam which are improved with support of RW. Pt reports fall at home was with lights off and although she demonstrates intact sensation to light touch and proprioception pt may rely on her vision for balance. Recommended she utilize bedside light or night light in the future. Her other significant impairment is her aerobic capacity- she demonstrates elevated resting HR nearing 70% of her max, and SpO2 desaturation to 82% with short distance ambulation on her regular home O2 use of 2L. Pt will benefit from an additional PT visit for self pacing instruction this admission as she admits this is an area where she has difficulty. PT and patient agree that she will also benefit from home PT services when medically appropriate for discharge.

**Impairments:** (anticipated): Aerobic Capacity/Endurance; Arousal; Attention; Cognition; Balance; Gait; Integumentary Integrity; Motor Function; Muscle Performance; Posture; Range of Motion/Muscle Length; Ventilation; Gas Exchange

**Functional Limitations:** (anticipated): Transfers; Ambulation; Stairs; Self-Care; Home Management; Recreation/Community Activities

### Anticipated Goals and Expected Outcomes: (1 additional visit)

1. Pt will ambulate 100ft c RW, without LOB.
2. Pt will ambulate 100ft c appropriate hemodynamic response.
3. Pt will perform stand step transfer bed<>chair.
4. Pt will verbalize understanding of DOE scale.
5. Pt will verbalize strategies for self pacing based on DOE scale and identification of symptoms.

**Goals/Plan discussed with and agreed to by patient?** Yes

### Plan Of Care:

**Frequency:** 1 additional visit

**Further Assessment:** balance with variable conditions- EO, EC, altered surface

**Functional Mobility:** gait training with RW

**Aerobic Training:** interval gait progressed in accordance to hemodynamic response

**Education:** DOE scale, self pacing strategies, home mobility recommendations, role of home PT

*The patient's progress will be assessed at each session. The frequency may be increased or tapered as treatment progresses based on the therapist's judgment of factors including but not limited to: co-morbidities, tissue healing, patient/caregiver independent self-management, ability to participate in/receive therapy due to medical stability and/or competing care priorities.

**Recommendations:**

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<td>Bed &lt;&gt; Chair</td>
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<tr>
<td>Ambulation</td>
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<td>RW</td>
<td>&lt;100ft, SpO2 monitoring</td>
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**Fall Prevention/Safety:** Above noted recommendations for mobility

**Intervention Provided:**

- Education on role of PT, plan of care, and recommended discharge disposition. Education on use of RPE/DOE scale and symptom identification for self pacing of aerobic activity. Education on regulation of balance and influence of sensation and vision, recommendation for night light. Communication: with RN for coordination of care.

**Response to Intervention:** Patient verbalizes and demonstrates understanding.

**Date:** 9/1/10 **Time:** 14:40-15:15 **Patient Location:** E19 26b

**WNL = Within Normal Limits** **ABN = Abnormal** **NE = Not Examined**

Date: 9/1/10
Nursing Progress Note

8/24/2011 5:22 AM

50 y.o. famale w/ b/o severe idiopathic PAH, schizoaffective disorder and b/o suicide attempt 2007, traumatic event, hit by train followed by long hospital course pulmonary HTN, presented directly from pulmonary HTN clinic with s/o of R heart failure (elevated JVP, edema, LE edema) and LE rashes, admitted for diuresis prior to likely IV Epoprostenol. Has been on trial of Bosentan and Sildenafil. Continues to diurese on intermittent Lasix IV push. Now awaits Hickman placement and subsequent transfer to ICU for initiation of IV Epoprostenol.

#1 Alteration in Tissue Perfusion r/t IPAH - BP 87/51, HR 70's, SR w/o VEA's, sats 93% on 3L O2/NC. Pt has been off Bosentan d/t elevated LFTs, continues on Sildenafil 30mg TID and daily IV Lasix 40mg TBB last 24 hours. Early am labs were K 4.1, Mg 2.6, creat 1.21 (from 0.93). Continues with headaches after each dose of Revatio. Hickman placement and Floxin initiation re-scheduled for today. Plan - Continue to assess for s/o of volume overload. Monitor V/S, daily weight, K&O's, lab tests. FR 1500/mL/day. NPO since midnight for Hickman line placement then to MICU for initiation of IV Epoprostenol.

#2 Pain - Received Ibuprofen for headache in prior shift with moderate effect. Continues on Neurontin for pain control on lower extremities. Slept through the night. Plan - Continue to assess pain and medicate appropriately as needed.

#3 Risk for Injury: bleeding r/t anticoagulation - Off Coumadin and maintained on IV Heparin in anticipation of Hickman placement. PTT at midnight came back at 40.6, Heparin drip increased to 1200 units/hr from 800 units/hr at 2:30 am. No overt s/o of bleeding. HCT 35.8 this am. Reported having formed stool last night, failed to gain. Plan - Continue to assess for evidence of bleeding. Monitor HCT/PTT/INR. Timing of stopping IV Heparin for procedure.

#6 Risk for Injury: Falls - Pt attached to IV therapy and O2/NC with extension tubing. Per report, pt not always aware of her surroundings. Has been getting up OOB to BR independently. Has been ambulating in hallways with IV pole and O2 per report. Pt slept through the night, not seen OOB. Bed low and locked with call light in reach, non-skid footwear on. Frequent safety checks done. Plan - Maintain fall precautions.

#10 Skin Integrity - Pt with improving red rash on lower extremities from feet to mid-calf. Per report said rash has been there prior to starting Revatio. Currently continues on Neurontin for pain on lower extremities. Plan - Continue to assess skin integrity and provide care per NCP.

#11 Ineffective Coping r/t b/o Psychotic disorder - Pt with long standing Schizo-affective disorder on complex psychogenic medication regimen. Currently calm and cooperative, no issues overnight. She would always ask for Benadryl despite Psychotic medications taken at bedtime. Slept through the night. Plan - Continue to assess coping and offer support and reassurance as needed.

UNACCEPTABLE ABBREVIATIONS: Applies to all handwritten and electronic "free text" entries

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Date: 8/24/2011
Shift: 1200-1500
Time: 3:43:14 PM

Nursing Admission Note:
Patient is a 50 yo female with a PMH: idiopathic pulmonary hypertension, schizoaffective disorder, anxiety, suicide attempt in 2007, and low back pain. Patient was a direct admit from the pulmonary clinic with worsening shortness of breath, increased weight gain, and increased BLE edema and rash. Patient was admitted to E/10 for diuresis and to start Flolan. Patient tolerating diuresis, and went to IR to have a Hickman catheter placed. Patient was transferred to the MICU for Flolan administration. She is a full code with allergies to Clozapine.

1. **altered tissue perfusion/risk for bleeding**: Patient's HR in NSR, no ectopy noted, BP hypotensive upon arrival. Flolan administration deferred due to hypotension. Patient with no s/s of cardiac distress. Restarted on Heparin gt and to be bridged to Coumadin. Gt restarted at 1400units/hr, PTT due at 2100. No urine or bowel movement since arrival. PERL, able to move all extremities. Plan: Continue to assess for any s/s of cardiac distress, heparin as ordered, monitor VS, and PTT at 2200.


3. **Knowledge deficit**: Patient A+Ox2, mother and sister at bedside. All questions answered and plan of care reviewed. Plan: Continue to assess and address for any knowledge needs.

4. **Discharge planning**: Patient to be started on Flolan prior to discharge. Plan: Collaborate with medical team, case management, and patient to ensure a safe discharge.
NURSING PROGRESS NOTE 9/1/2011 6:42 PM

50 yo F with a history of severe idiopathic PAH, schizoaffective disorder who is directly admitted from pulmonary HTN clinic for symptomatic volume overload.

Alteration in Tissue Perfusion: A: Tele SR without VEA. Na+ low at 130. No c/o chest pain or SOB on 3L at rest or 4 L with ambulation. Voids in hat in bathroom for Is/Os. Patient continues on 1500 cc fluid restriction and daily Lasix dosing, now increased to 40 mg BID. TBB trending negative although she exceeded her fluid restriction and was spoken to by Kellie Melander, RN from Dr. Channick’s service. Flolan at 6 ng/kg in a new 5,000 mg/kg concentration with a rate of 5.52 ccs; additional syringe in refrigerator and next syringe to be changed at 2 AM. P: Home with Flolan when stable.

Pain: A: Patient complains of HA with each dose Revatio. She has been receiving PRN Motrin and oxycodone which seems to help. She is also on Neurontin for chronic pain following a traumatic injury in 2007.

Risk for Injury: Bleed r/t Anticoagulation: A: INR 1.0 and Hct stable at 31.5 on daily Coumadin. Per Kellie Melander, RN, it’s known that patient is slow to respond to anticoagulation therapy. Right chest wall Hickman dressing CDI and changed yesterday. P: Continue to monitor.

Risk for Injury: Falls: A: Fall precautions in place. Patient is steady on her feet, but needs assistance with O2 tubing and IV pole, etc. P: FT following and will be back before lunch tomorrow.

Knowledge Deficit: A: Patient and her family are aware of plan of care. Patient and her mother express frustration with Flolan teaching by Acceo and say that information is too fast for them to grasp the concepts, etc. Kellie explained to patient that teaching is 2-3 lessons in the hospital and the rest is done at home. Patient’s mother says she will not take patient home until it is fully understood. They had a 2 hour session today and say they gained no benefit from the teaching. Dr. Channick’s nurse and CM aware. P: Continue to assess learning needs.

Risk for Impaired Skin Integrity: A: Rash and erythema noted around adhesives and Tegaderm dressing areas that itch and require more frequent changing. HO aware. P: Continue to monitor.

Discharge Planning: Lives in CT, but has been residing with her sister in Andover. CM following; Acceo to come in tomorrow for another teaching session at 1:30.
CASE MANAGEMENT - PROGRESS NOTE

9/8/2011 1:24:01PM

WEEKLY UPDATE
Chart reviewed, plan of care discussed with the team. Multiple conversations w/ team over last several days as well as pt and family. pt is receiving ongoing teaching from Acrodeo Therapeutics and they will cont to see her today. Thursday, Friday Ruth RN will do the teach and Sunday (Carol RN) and cont to evaluate her progress w/ the IV flow rate administration. on Saturday Carol Kampa from Acrodeo will visit the pt's sister's home in Andover and do a teach w/ the sister and mother. Pt is requesting that I make a referral to Home Health VNA as well as she had before and I will call them today to let them know of the Dc plan. Monday will need to call and fax at Dc to Acrodeo and Home health VNA. ACrodeo RN will do the hookup at DC at MGH prior to DC. Cm will follow.
Acute Care Plan (DRAFT)

***Note – Clinical management is ultimately determined at the discretion of the clinician caring for the patient

Date Acute Care Plan Last Reviewed and Author:

Ambulatory Care Team:
(PCP, RNCC, SW, VNA, hospice; contact info. If resident PCP, include preceptor as well.)

After Hours Clinical contact:

Key Specialists:
(Specialist name and problem[s] managed – only include those with frequent involvement)

Key Caregivers/Contact Info:
(Family members, in-home caretakers, day program contacts)

#1 If patient presents for acute care, please consider:  Date Revised:

Guide: (remove instructions before you print for LMR)
This section should highlight the 4-5 key points that will be useful to ED/inpatient clinicians at time of patient presentation, e.g.:

- Particular member of ambulatory care team who should be called early in the course of evaluation (include title/role, contact information)?
- Specific intervention that might prevent an admission or return to ED/inpatient?
- Any concrete steps/ action plan that may facilitate evaluation and/or return home?
- Contact specific outpatient provider for input? (OK to page after-hours?)
- Admit to specific service/floor?
- Pain medication recommendations/restrictions? (be specific)
- Continue regular medications?
- Consult pain service? Other services?
- Specific follow-up instructions if patient discharged home?
- Notify specific clinician if patient discharged home?
- Literacy issues that might impact safe/successful transition home?
- Transportation issues that might impact timeliness of follow-up?

(Patient should be aware of plan of care; should be reviewed and reinforced often with patient.)
# 2 Current Clinical Management Plan

Immediate Active Problems (see LMR for detailed problem list):

Guide: (remove instructions before you print for LMR)
- What problems have patients been presenting with recently?
- Which issues that are being actively managed could lead to an ED or inpatient visit?
- Which issues have required recent major medication changes?

# 3 Current Management Plan:

# 4 Pain Management

Pain/Prescriptions Managed By:

Pain Management Care Plan:
Guide: (remove instructions before you print for LMR)
(details, providers involved)
- Specific pain management recommendations if pain is presenting symptom?
- Details of any existing pain contract?
- Follow-up plan and/or patient instructions if patient discharged home?
- Clinician(s) to be contacted regarding patient follow-up if discharged home?
- Pain management recommendations if patient admitted?
- Any insurance or prescription issues?
- Narcotics: Person who is the prescriber for narcotics: Name________________
  Contact info____________________
  (must be able to be reached)

# 5 Behavioral Health

Active issues:

Behavioral Health Contract:
(details, providers involved)

Preferred inpatient unit:
#6 Substance Abuse

- SA Hx:
  (Include Hx. OD, withdrawal, DT's)
- Agree to detox: Yes or No:
- Facility that usually agree to accept patient (provide name)
- Banned from facilities: (provide name)

Treatment Hx.

Consider tox screen upon presentation to ED/inpatient.

#7 Important Psych and Psychosocial Elements

(Free Form text)

Is there a treatment contract in place?

#8 Prescription Issues

Guide: (remove instructions before you print for LMR)

- Special circumstances around medication delivery, specific pharmacy, hours of operation?
- History of difficulty obtaining/affording prescriptions?
- Specific prescription problems that may interfere with care plan (health literacy issues, prior approval problems, etc.)
- True allergies: (Allergic to everything but...)

#9 Advance Care Planning

HCP: (Name contact info)
Code Status:

#10 If patient discharged home from ED

Guide: (remove instructions before you print for LMR)

[Be as specific as possible: e.g. “Email PCP so s/he can arrange follow-up within XX days,” or “Page PCP during business hours,” etc.]

- Patient to follow up with PCP/pain specialist within XX timeframe, how best to arrange
- Pain medication to be written for ____ days to maintain coverage until f/u appt, OR patient should not receive pain medication from ED for chronic pain issues
- CC Practice Based Case Manager
# 11 If patient admitted to MGH: *(see above re: discharge from ED)*

Referrals needed or made:

**Care Plan Endorsed By:** [PCP, also preceptor if resident PCP]

Copy and paste the Continuity of Care plan into an LMR note: Make sure the Label is Acute Care Plan so it can be recognized by QPID.

3/30/12
Instructions for viewing a patient’s Acute Care Plan:

1. While working in EDIS, note when a patient has a red "Q" indicating an urgent QPID alert (see below).

2. Click on the red “Q” and select “QPID – key” from the drop down.
3. The QPID ED Summary will display. If the patient has an “Acute Care Plan” the heading will be bolded. Hover over the heading to display the information in the Acute Care Plan. The Plan will provide key information about the patient’s care team, who to contact, etc.
Case Manager Icon in EMR

Clicking on the icon produces the following screen:

ENROLLED Member, MassGeneral Care Management Program
Practice Case Manager: Luongo, Bonnie  Send Email
Pager: 14029

Please page for assistance with any care related issues
8AM - 4:30PM, M-F

For more information: http://www.massgeneral.org/caremanagement/
MASSACHUSETTS GENERAL HOSPITAL

Job Title: CLINICAL SUPERVISOR, NURSING

Job Family:

Job Code: 000438  Grade: 058  FLSA Status: Exempt

Department: Nursing  Reviewed By: Maureen Schnider

Position Reports To: Nursing Director, Central Resources

Date Description last revised: 3/2011

GENERAL SUMMARY/ OVERVIEW STATEMENT: Summarize the nature and level of work performed.

The Clinical Supervisor provides a key administrative and clinical support role in the Department of Nursing.

PRINCIPAL DUTIES AND RESPONSIBILITIES: Indicate key areas of responsibility, major job duties, special projects and key objectives for this position. These items should be evaluated throughout the year and included in the written annual evaluation.

1. Triage Role- Acts as the central contact person in coordinating critical and intermediate patient placement and collaborates with Admitting Staff to triage patients to general care units.

   1.1 Facilitates admissions to critical care, intermediate care and general care, provides overview of capacity to nursing, physician and administrative leadership, and generates triage report each shift for hospital-wide distribution.

   1.2 Collaborates with cardiac access nurse in the placement of cardiac access patients and provides coverage for the Cardiac Access Nurse role as determined by the Nursing Directors of the respective programs.

   1.3 Establishes and maintains consistent daily communication with Nursing Directors and Operations Coordinators.

   1.4 Participates at service-specific bed management meetings.

   1.5 Anticipates/proactively responds to capacity demands.

2. Resource Role – facilitates access across all units

   2.1 Deploys Central Resource Team (CRT) resources, coordinating staffing resources to respond to demand.

   2.2 Collaborates with Admitting Department, Emergency Department and Patient Care Units to expedite patient admissions.
Job Description

2.3. Provides an overview of general care bed capacity to the Triage Supervisors

2.4. Collaborates with Triage Supervisors and Nursing Directors to identify efficient, effective and timely solutions to patient access/patient placement.

2.5. Coordinates patient observer program on evening and nights, weekends and holidays.

3. Patient Care Management - Services as a clinical resource in the management of patient care.

3.1. Performs the role of central code call nurse, is a member of the Rapid Response Team and responds to patient care emergency situations.

3.2. Provides clinical consultation to staff

3.3. Assists staff in managing unit activity.

3.4. Collaborates with other departments to facilitate/support patient care.

4. Administration - Provides nursing administrative support on the evening, night, and weekends and on holidays.

4.1. Serves as onsite resource.

4.2. Initiates appropriate actions during internal and/or external disaster situations.

4.3. Communicates with Chief Nurse, Associate Chief Nurse, Nursing Directors, other department heads, and/or administrator on call as deemed necessary.

5.0 Professional Development - Assumes responsibility for own professional development.

5.1 Identifies learning needs and goals and designs a plan to meet them.

5.2 Completes annual training requirements.

SKILLS/ABILITIES/COMPETENCIES REQUIRED: Must be realistic, objective, measurable and related to essential functions of this job.

Requires strong clinical, communication and interpersonal skills, with the ability to work effectively and collaboratively with all professional and support staff.
Requires strong organizational and problem-solving/issue resolution skills.
Job Description

LICENCES, CERTIFICATIONS, and/or REGISTRATIONS (if applicable): Specify minimum credentials and clearly indicate if preferred or required

Licensure as a registered nurse in the Commonwealth of Massachusetts.

EDUCATION: Specify minimum education and clearly indicate if preferred or required

Baccalaureate degree in nursing or higher degree in nursing required.

EXPERIENCE: Specify minimum creditable years of experience and clearly indicate if preferred or required


SUPERVISORY RESPONSIBILITY (if applicable): List the number of FTEs supervised.

FISCAL RESPONSIBILITY (if applicable): Indicate financial “scope” information, i.e.: size of budget, volume, revenue, etc.; Indicate total physician/non-physician FTE scope

WORKING CONDITIONS: Describe the conditions in which the work is performed.

APPROVAL:

(NAME) Department Mgr. _________________ Title: ______________ Date: _______

(NAME) Other, As Appropriate __Nursing Executive Operations Team__ Date: __3/2011_____

The above is intended to describe the general contents and requirements of work being performed by people assigned to this classification. It is not intended to be construed as an exhaustive statement of all duties, responsibilities or skills of personnel so classified.
**ICU TRIAGE SUPERVISOR CALL IN SHEET**

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**OSH DAILY UPDATES:**

- Family request
- heroin addict
- 4/1 8/7 AM
- Pulmonary infiltrate
- Resp Failure intubated
- Pneumonia
- Antibias

- Branch specimens
- legs
- blood
- urine
- culture
- pnp testing
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<td>CODE STATUS:</td>
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OSH DAILY UPDATES:

leaving at 5 PM
MULTI-DISCIPLINARY MEETING:

Attendees:
- Representatives from Maternal Fetal Medicine
- Representatives from Division of Pulmonary Hypertension
- Representatives from Nursing staff Ellison 13, Blake 14

Additional consultants:
- Representatives from Cardiac anesthesia
- Representatives from SICU
- Representatives from Social work

Currently at 27 weeks 6 days with diagnosis of severe pulmonary hypertension confirmed by right heart catheterization this pregnancy (Pulmonary artery pressure 121mm Hg without evidence of right heart failure). The patient was diagnosed at 24 weeks gestation following an incidental finding of abnormal chest x-ray suggestive of pulmonary hypertension which was performed for PPD. Currently she remains asymptomatic as outpatient.

The patient's medical history is summarized briefly to include: 2 full term vaginal deliveries followed by presentation in 2004 with extensive bilateral pulmonary embolisms. Workup for her embolisms revealed Protein S deficiency and laboratory abnormalities to rule in antiphospholipid syndrome. The patient carries a diagnosis of ITP with PLTs in 20k range in 2004. The patient's coumadin was discontinued given risks of supratherapeutic levels. Additionally, the patient is obese. Diabetic screening has been negative. The patient has documented intermittent chronic hypertension without need for medications. She has been normotensive this pregnancy with low-normal platelet counts. Fetal estimated weights have been reassuring.

Currently, the patient is managed on oral phosphodiesterase inhibitor, therapeutic Lovenox and will be started on inhaled Prostacyclin.

Today the multi-disciplinary staff discussed the following:

ANTEPARTUM
- Continue outpatient fetal surveillance with intermittent estimated fetal weights and closer surveillance closer to 32 weeks
- Monitor platelet counts, blood pressure, urine dipsticks
- Close monitoring of pulmonary status/symptoms of any decompensation
- Weekly outpatient prenatal visits
- Admission to SICU with any suspicion of cardiac/pulmonary decompensation with sooner pulmonary vasodilator treatment

- Planned Admission to SICU on December 6th at 34+ weeks for 7-10 days of IV Prostacyclin treatment for maximum medical management
- Central monitoring of cardiac and pulmonary statuses in SICU
- Betamethasone steroid administration for fetal benefit
- IV Heparin drip; discontinue Lovenox
- Intermittent fetal heart rate evaluation

INTRAPARTUM:
- Induction of Labor at approximately 36 weeks per standard protocol with standard obstetrical intrapartum fetal monitoring and possible assisted second stage of labor with forceps/vacuum
- Labor and Delivery nursing support in SICU as needed
- Anesthesia to be determined by anesthesia team
- Continue central monitoring
- Typical obstetrical Indications for cesarean delivery. If urgent cesarean needed, Main OR to be site of delivery
Pediatric presence for delivery

POSTPARTUM:
- Continued close observation in ICU at least 72 hours given significant risk of cardiac decompensation, need for diuresis in postpartum period
- If decompensation, will consider need for bypass and other interventions
- Continue IV Prostacyclin
- Postpartum nurses to assist with routine postpartum care
- Transition to Ellison 10 cardiac step-down unit

Contact OB
is a pleasant 32 year-old female with history of PE, ITP, intermittent systemic HTN who is a
G4P2 34 5/7 gestation female with incidentally discovered severe pulmonary HTN after finding of +++.
She was admitted to the SICU on 12/6/10 for administration of IV prostacyclin with plan for induction on
12/15/10.

PMH:
Obesity
Pulmonary embolism 10/2004: + antiphospholipin IgM and IgG, low protein C
Idiopathic thrombocytopenic purpura
Abnormal cervical smear
Pulmonary HTN (TEE: 9/24/10: LVEF 85%, pulmonary systolic pressure of 154mmHg; Right Heart Cath
10/4/2010: 115 /6, CO 7.7, CI 4.43)
HTN - untreated
h.o Chlamydial cervicitis

Patient is now ICU day # 5 and remains in the SICU for continued IV Epoprostenol and Heparin for
management of her PPH and ITP. The following are a list of her current Nursing Problems:

Problem #1: High Risk Pregnancy/Delivery: After a Team Meeting on Thursday 12/9/10, plans have been made for the
following:
- Friday 12/10/10: Meeting with patient and husband as well as the OB Teams and SICU team to discuss plans.
- Sunday 12/12/10: Travel to Cath Lab for placement of PA line under Furo with Dr. Rosenfeld; possible room
change in the event that she need ECMO post-partum. Will need a room that can be opened up with sliding doors
off so that there is a room for Mom and Baby so both teams can have adequate access. OB Floor will have delivery
bed sent to SICU.
- Monday 12/13/10: Epidural to be placed and induction will start; a warmer for the baby with intubation equipment
will be provided by the OB CNS, a STAT C-Section kit will be outside the room.

UNACCEPTABLE ABBREVIATIONS: Applies to all handwritten and electronic 'free text' entries
QD OOD MS MSA MgSO4 hs ss µg U IU os mg dt
5 (i.e., use 0.5mg) 1.0 (i.e., use 1mg) Apothecary Symbols (e.g., amp, grain)
**Problem #2:** High Risk for Bleeding 4/4 Anticoagulation: Patient is currently on Heparin infusion with goal PTT of 60-84. Last PTT at 01:15 was 83.5. So Heparin was titrated down by 100 units to 2000 units/hour from 2100 units/hour. CBC and platelets remain stable this morning. No obvious signs of bleeding noted. Plan: Due for repeat PTT at 07:15 this morning. Titrate Heparin per sliding scale and continue to recheck every 6 hours until therapeutic.

**Problem #3:** Pulmonary HTN: Patient continues on IV Fiolan infusion for management of her PPH. Dose is being slowly titrated daily for goal dose of 10ng/kg/min by Monday. She is currently on 5ng/kg/min. Patient denied N/V, headache and diarrhea overnight. Her face and trunk are however flushed. Plan: PA line to be placed on Sunday in the cath lab under flouro. Continue Fiolan with slow titration as tolerated.

**Problem #4:** Risk for Hemodynamic Instability: Patient has been hemodynamically stable overnight with stable NIBP readings. Her heart rate at rest is in the 80's but will go as high as 120 when stimulated. She stated that when she gets sad or scared, her heart races. Her electrolytes were repeated overnight as needed. UOP adequate when she voids in the commode. Plan: Continue NIBP monitoring. Plan for PA on Sunday.

**Problem #5: Knowledge Deficit:** Plan to meet with patient and husband today to discuss impending induction on Monday. Patient has had some information given to her via POP translator as well as by Dr. DeMoya who speaks Spanish. She does get teary at times but is hopeful that all will turn out well. I explained to her the importance of just having things ready in the event that they are needed in an emergent situation. She has a lot of faith and a wonderful group of people who are involved in her life that have been extremely helpful to her. Plan: Continue to provide support and information.

---

**UNACCEPTABLE ABBREVIATIONS:** Applies to all handwritten and electronic 'free text' entries

| OD | QOD | MS | NSO₄ | MgSO₄ | hs | ss | Hg | U | IU | OS | ap | iu |
|----|-----|----|------|------|----|----|----|---|---|----|----|----|----|
| .5 (i.e., use 0.5mg) | 1.0 (i.e., use 1mg) | Apothecary Symbols (e.g., amp, grain) |
This meeting was convened by Dr. Riley and Susan Caffrey to develop plan of care for patient [redacted] is a 38 yo G 2 P 1001 with progressing glioblastoma multiformans s/p partial resection in right frontal lobe currently undergoing neuroradiation who is scheduled for delivery at 37.0 weeks on 8/20/12 by repeat Cesarean section.

The following Items were discussed.

Neurosurgical Concerns: Dr. Curry summarized this patient's neurosurgical history and discussed neurosurgical concerns for the elective c-section including minimizing vasalva associated with general anesthesia. Mass affect is not a concern given the resection cavity in the right frontal lobe. It was also discussed ensuring the patient receives her daily keppra.

Anesthesia: The patient will undergo general anesthesia. The discussion included balance at the time of extubation between treating her as a "full stomach of pregnancy" (which typically entails an extubation with the patient very awake with a strong cough reflex) with the goal of minimizing valsalva. The plan tentative plan includes extubating the patient in the Neuro ICU to allow for a "slower" wake-up and extubation. An outstanding question is whether the patient will be extubated by the Neuro ICU team or Anesthesia.

Maternal Fetal Medicine: Dr. Riley provided an update on the patient's current functional state at the time of the last office visit. The patient recently experienced a fall at home, while in the shower. The patient's need cuing for physical movements such as getting on the scale or sitting were discussed. The patient has been alert and oriented x 2. The patient is scheduled for an elective c-section on Monday, August 20 at 9:45a.
**Nursing:** The patient will be admitted to Blake 13, following standard admitting procedures. A Neuro ICU RN will be present at the time of admission, and during the c-section, to provide neuro nursing support and to provide continuity of care when the patient is transferred to the Neuro ICU. A member of the Blake 13 nursing staff will accompany the patient to Lunder 6 to provide post-partum nursing care for two hours post-operatively. The primary nurses will include Maureen Carrigan, RN (Labor and Delivery) and Robyn Mackey, RN (Neuroscience Nursing). L&D nursing documentation will be maintained on Blake 13 and the Neuro ICU flow sheet will be maintained on Lunder 6.

The nursing needs of the patient post-partum were discussed. The goal is to transfer the patient to Ellison 13 after an over-night staff in the Neuro ICU. The patient will require standard nursing care with a focus on monitoring level of consciousness. It was agreed that at the time of transfer, the sending and receiving nurse would complete a neuro assessment together to fully communicate the baseline neurological status at the time of transfer.

**Psychosocial:** The patient has a supportive network of family and friends. The primary spokesperson is the patient’s husband. The patient’s mother is closely involved as well. A need for social work support was identified. It is believed that the patient and husband have met with the Oncology Social Worker. A social work consult for the in-patient stay will be placed.

The patient’s current code status was discussed, this was unknown by the team members present. Dr. Riley will address code status and advanced directive prior to the procedure.

**Physician Coverage:** The patient will be admitted under Dr. Riley to Blake 13 at 6:30a on August 20 for an elective cesarean section scheduled for 9:45. Following the c-section, the patient will be transferred to the Neuro ICU under the care of Dr. Curry. The responding clinicians will be neurosurgery and the Neuro ICU team, with close consultation by Maternal Fetal Medicine. Care will be transferred to Maternal Fetal Medicine following transfer out of the Neuro ICU. Sue Caffrey, RN agreed to work with the Clinical Supervisors and Admitting Office to coordinate bed availability and Attending Physician Coverage.

**Safety Concerns:** Safety concerns were discussed including fall risk and the ability of the patient to alone with the baby. The patient is often lethargic and is not agitated, however the need to monitor and support the patient in the hospital environment was discussed, including accompanying the patient to the bathroom. The need for a sitter will be evaluated at the time of admission to Ellison 13. Sue Caffrey raised the issue of providing [redacted] with an identification band to be left alone with the baby. The group felt this should not happen.
Visitation: Following the delivery, the newborn will be admitted to the Ellison 13 nursery. A visitation plan for the newborn will be established and supported by the Ellison 13 nursing staff.

A Nursing Plan of Care will be established. Please see August 15, 2012 CAS notes by Drs. Riley and Leffert for additional information.
An interdisciplinary meeting including:
Laura Riley, MD, Medical Director L&D  William Curry, MD, Neurosurgery
Sue Caffrey, RN, Nurse Director, L&D  Pat Connors, RN, CNS, EI 13
Kathy Gavazzi, NP, Clinical Nurse Specialist, L&D
Lisa Leffert, MD, Anesthesia
Tara Tehan, RN, Nurse Director, Neuro ICU
Maternal fetal medicine fellows
Obstetrics residents

was held on August 15, 2012 to discuss the care of patient [redacted] during her admission for an elective cesarean section. [redacted] is a 38 yo G 2 P 1001 with progressing glioblastoma multiformans s/p partial resection in right frontal lobe currently undergoing neuroradiation who is scheduled for delivery at 37.0 weeks on 8/20/12 by repeat Cesarean section

**Problem: Altered Neurologic Status**

The patient will be admitted to the Neuro ICU, under Dr. Will Curry, following elective c-section for overnight monitoring. The patient is reported to be alert and oriented to x 2 at home, with increasing sleepiness during the day.

Plan: Monitor/assess for decreased LOC, and changes in exam q 2 hours. Monitor neuro signs Q2 hours. Re-orient patient to environment and hospitalization frequently. Include general assessment of patient post c-section delivery including flow and fundus.

**Goal: Maintain current neurological status.**

**Problem: Knowledge Deficit**

Dr. Laura Riley will be in contact with the husband prior to the c-section. She will update the family on plan of care.

Plan: Orient and reorient pt/family to hospital environment as needed. Review hand hygiene, infection precautions, and respiratory care. Assess patient and family level of understanding due to plan of care, illness, treatments, procedures, and lab data.

**Goal: Ensure husband is update on plan of care.**

**Problem: Respiratory**

Pre-operative plan is for general anesthesia and extubation in the Neuro ICU.

Plan: Assess for readiness to extubate. Encourage deep breathing and coughing. Using pillow splinting over abdomen to help with surgical discomfort.
Goal: Patient to be extubated in Neuro ICU.

Problem: Discharge Planning

Plan: Patient will be admitted to the Neuro ICU from Blake 13 for overnight monitoring. The plan is to transfer the patient to Ellison 13, on Tuesday, August 21.

Goal: Collaborate with the health care team to ensure safe transition between Blake 13, Lunder 6, and Ellison 13. Review neuro exam with post-partum staff on arrival to receiving unit.

Problem: Pain

Plan: Monitor/assess for signs/symptoms of pain. Continue to reposition frequently to assist with comfort. Q2 hours or more often per patient request. Monitor for signs of anxiety or altered mental status in response to pain medications. Document post pain assessments in EMAR.

Goal: Assess and manage post-operative pain.

Problem: Ineffective Patient/Family Coping

The patient has a supportive network of family and friends. Her husband is the primary spokesperson and her mother is very involved. The patient and husband have met with the Cancer Center Social Worker, Jennifer D’Alotto, MSW, LCSW.


Goal: Assess patient and family’s coping. Provide psychosocial support. Allow newborn-mother visitation in accordance with patient and family wishes.

Problem: Risk to Fall

It is reported that the patient fell at home, in the shower, two weeks ago.

Plan: Educate pt/family regarding fall precautions and safety plan. Bed in low position. Review medications for those that increase fall risk. Communicate plan with Critical care technician and encourage patient rounds. The need for a sitter will be assessed at the time of transfer to Ellison 13.

Goal: Ensure patient safety.
The Nursing Plan of Care will be evaluated at the time of admission and modified based on the patient's status and assessment.

Mary Guanci, RN, MS, CNRN
Clinical Nurse Specialist

Tara M. Tehan, RN, MSN, MBA, NE-BC
Nurse Director
Several years ago, nursing director, Kathie Myers, RN, and clinical nurse specialist, Joanne Empoliti, RN, implemented inter-disciplinary rounds on the White 6 Orthopaedics Unit. The goal was to ensure a coordinated plan of care for patients by involving all disciplines in morning rounds. Myers recalls, “At first, I spent a great deal of time just making sure everyone showed up. But I knew once they did, they’d appreciate the value of having everyone together to share information.” White 6 has been selected to be an innovation unit where their inter-disciplinary rounding will be key to ensuring timely, coordinated care for all patients.

Every weekday morning, nurses, case managers, physical and occupational therapists, social workers, and either a nurse practitioner or physician review patients on the unit and have input into their plan of care and discharge.

Physical therapist, Catherine Royal, PT, says, “Inter-disciplinary rounds keeps everyone on the same page. We identify the target discharge date and discuss the post-hospital plan. Having everyone together at the same time, we all hear the same information and can craft our schedules accordingly in a way that’s best for the patient. It has definitely improved communication.”

Inter-disciplinary rounds on White 6 will be led by Jean Stewart, RN, and Kelly Brown, RN, who will share attending-nurse responsibilities for patients on their unit. Stewart has participated in inter-disciplinary rounds since their inception but notes that being an attending nurse has changed the way she presents patients.

Says Stewart, “By the time rounds begin, I’ve already consulted with nurses, so I’m better able to address any issues that arise during rounds. And because I have more in-depth knowledge about patients and their conditions, I’m better prepared to support patients and families as we work toward recovery and a timely discharge.”

For more information about how inter-disciplinary rounds were implemented on White 6, call Kathie Myers at 6-5319.

“You cannot discover new oceans unless you have the courage to lose sight of the shore.”

—Anonymous

Inter-disciplinary rounds
ensuring all disciplines are on the same page

At inter-disciplinary rounds on White 6: (top photo l-r): Joan Mathews, OTR/L, occupational therapist; Brianne Lynch, PT, physical therapist; Jean Stewart, RN, attending nurse; Karen Smith, RN, case manager; Robert Dorman, PT, physical therapist; Susan Streeter, LICSW, social worker; and Joanne Empoliti, RN, clinical nurse specialist (front).
CA Center to Primary Care Handoff Checklist

This section to be filled out by oncology staff
Oncology Team and primary contact person:
Pager/Phone #:

Code Status:
Health Care Proxy:

Diagnosis:
Prognosis:

Brief synopsis of treatment course/plan (noting any complications):

Current Condition:

Pain Level
  Location:
  Treatment:

Side Effects (please note treatment rendered or services consulted):
  Anemia
  Appetite changes
  Bleeding Problems
  Constipation
  Diarrhea
  Fatigue/Weakness/Lethargy
  Hair Loss
  Infection
  Memory changes
  Mouth/Throat Changes/Thrush
  Nausea/Vomiting
  Nerve Changes
  Sexual/Fertility changes
  Skin/Nail changes
  Swelling
  Urinary changes
  Other:

Current medication list:

Additional services involved in care (please list provider for each if applicable):
  Palliative
  PT/OT
  Social Work
  Nutrition
Psychiatry
Other

Primary support person(s) for patient:
Support services in place:

Oncology F/U Plan
  Appointment with oncology team:
  Appointment with specialist(s):
  Imaging needed:
  Lab work:
  Other:

*For verbal portion report*
Any additional information for primary care team (i.e. fall risk, notable family dynamics, psychosocial issues, language barrier, transportation issues, financial)
8/8/1730 CNS Skin & Wound follow up note:
Pt completed cycle 2 of Rituximab/bendamustine on 8/3. He is now day 6 with nadir anticipated day 14-21. Pt is receiving Neupogen daily which is elevating WBC falsely to 42K. Hct stable at 30.1. No recent albumin or pre-albumin. Creatinine 0.8, BUN 18, Glucose 86.

Current Precautions:  Fall
A: Tmax/24hrs .99.1 PO
Nutrition: Pt being followed by Jen Lerman, RD. Taking protein supplements (BeneProtein) 2 x day, appetite has been decreased due to nausea and some vomiting (last emesis 8/5) since chemotherapy which has improved with RTC compazine. Pt reports having some dizziness and being started on a scopolamine patch. Compazine being tapered to PRN. Pt reports appetite is improving
Elimination: Continent; fluid balance even but less than 2L in/out over past 24hrs and prior to that pt negative x 48hrs. PleurX catheters draining 500-600 ml straw colored fluid daily.
Activity: Pt is OOB to chair, ambulating in halls.
Skin: No evidence of pressure injury noted in area of head, elbows or heels. Skin generally pale, moist, intact.

Wound Measurements:

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<thead>
<tr>
<th>Location</th>
<th>Wound #1</th>
<th>Wound #2</th>
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<tr>
<td>Sacrum</td>
<td>IV</td>
<td>II</td>
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<tr>
<th>Stage (Pressure Ulcer Only)</th>
<th>Wound #1</th>
<th>Wound #2</th>
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<tr>
<td>IV</td>
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<td>II</td>
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<table>
<thead>
<tr>
<th>Size: LxWxD (cm)</th>
<th>Wound #1</th>
<th>Wound #2</th>
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<tbody>
<tr>
<td>3.5 x 4 x 0.7 cm</td>
<td>Deeper portion of wound measures 2.5cm across</td>
<td>1.4 x 0.7cm</td>
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<table>
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<tr>
<th>Undermining (cm)</th>
<th>Wound #1</th>
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<tr>
<td>1.2 cm @ 12 o’clock</td>
<td>1.5 cm @ 3 o’clock</td>
<td>None</td>
</tr>
<tr>
<td>1.5 cm @ 3 o’clock</td>
<td>0.7cm @ 6 o’clock</td>
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<tr>
<td>No undermining from 7o’clock to 11o’clock</td>
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Hannah Lyons, RN, MSN, AOCN
Clinical Nurse Specialist PH21

UNACCEPTABLE ABBREVIATIONS: Applies to all handwritten and electronic ‘free text’ entries
QD QOD MS MSO₄ MgSO₄ hs ss µg U IU os qn bt
.5 (i.e., use 0.5mg) 1.0 (i.e., use 1mg) Apothecary Symbols (e.g., amp, grain)
Hannah Lyons, RN, MSN, AOCN  
Clinical Nurse Specialist PH21

| Tunneling  
(o’clock/cm) - If present | None present | None |
|---------------------------|--------------|------|
| Wound Bed Description  
(estimate using %) | Moist, 30% wound bed yellow tissue; 70% red granulating tissue surrounding intact osteum over two areas of bone – center of wound and LUQ of wound | 85% pink granulating tissue, 15% yellow tissue |
| Exudate  
(amount & description) | No odor, small amount of serous drainage with tinge of yellow/green on one corner | None |
| Peri-wound area  
(4cm around wound) | Pink, intact, new epithelial tissue on immediate border. Blanchable, intact skin surrounding border. | Pink, intact, new epithelial tissue on immediate border. Blanchable, intact skin surrounding border. |

PLAN:
I. Wound Care: Wet to dry dressing change daily per plastic surgery
   a. Cleanse wound with NS 30cc syringe/#18 Blunt tip
   b. Pack Stage IV wound with NS moistened gauze (3/4 of 4x4 gauze) being careful not to pack too tightly or leave extra packing above surface of skin because of risk of causing pressure damage
   c. Cover wounds with Mepitel Border Sacrum to the coccyx
   d. Apply 3M Moisture Barrier to intact skin around the dressing
II. Relieve Pressure:
   a. Continue with Clinitron Rite Hite bed for comfort and prevention of further skin breakdown
   b. Repositioning q2, shift weight q2,
   c. Pt may sit in the chair one hour for each meal and one additional hour during the day or evening. While in the chair, he needs to reposition every 15-20 minutes to avoid ischial pressure ulcers.
   d. He can sit on the side of the bed, up to one hour at a time, avoiding pressure on the sacrum. Otherwise, he will be in the Rite Hite bed, turning side to side, off his back or ambulating.

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III. HOB ≤ 30 degrees, position patient off of wound/skin breakdown, Roho cushion for chair (requested PT to supply), use foot rest when sitting.

IV. Manage nutrition: Pre-albumin ordered with next lab draw; Monitor I and O; follow Dietary consult POC, check weight bi-weekly

V. Protect areas of pressure with 3M Barrier, extra-thin duoderm as needed

Wound care plan discussed with Dr. Virginia Capasso who was present during dressing change and later by phone with Dr. I. Sinha, Plastic Surgery and with Nicole Tariot, Wound Care Nurse at Spaulding Rehabilitation in Campridge who will be following patient once he is transferred. Dr. Sinha was amenable to changing to a VAC dressing if a bridge was used to minimize the risk of pressure damage from the VAC apparatus. He also supported using Iodasorb to wound bed x 1day as an antimicrobial tomorrow.

Above reviewed with patient and wife, Lisa. Patient instructed on activity restrictions.

Hannah Lyons, RN, MSN, AOCN
Clinical Nurse Specialist PH21
**Lunder 9 Innovation Unit**  
April 18, 2012 @ 2-3 PM – Lunder 9 Conf Room

**Present:** Andrea Bonano, PT, Tony Branch, Betty Ann Burns, RN, Barbara Cashavelli, RN, Peter Dowling, RN, Jan Fifeau, RN, Trish Galvin, Elise Gettings, CM, Kathleen Larrivee, RN, Sharma Logan, OT, Rosemary O’Malley, RN, Kristen Patrick, RN, Renee Reynolds, LD, Stephanie Quinn, LICSW.

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<tr>
<th>Topic</th>
<th>Discussion</th>
<th>Follow-up Actions</th>
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| Spaulding Cambridge (SC) visitors—Janelle O’Connor, nurse manager, Luis Chemo RN, Dawn CNS. | • Discussing transfers to Cambridge Spaulding—Have accepted 5 pts from MGH to SC in the past 2 months.  
• BID meetings at SC to assess potential transfers from outside facilities to SC—status of pt, insurance authorizations, etc  
• Spaulding researches potential transfers in the LMR and CAS—see eMAR for chemo and opioids administered. Assess if SC can meet pt care needs: have an oncologist to write orders for chemo and a RN to administer chemo before making the decision to accept pt in transfers  
• Avoid sending patients back to MGH for care that could be provided at SC—i.e. hydration, a/b.  
• Want to have PICC line information  
• Brainstorm using the SBAR as a format for pass-off between the hospitals.  
• Report-MGH RN to call Spaulding for report. MGH CM calls admitting to contact the CM at SC the day after transfer. The plan with CM is the SC CM would call the MGH CM one day after transfer. SC RN will call the MGH RN day after transfer if there are questions.  
• Two surprises for most patients upon arriving at Spaulding is having a roommate and not allowing family to sleep over. Spaulding is thinking about a brochure to highlight the oncology unit at SC. Perhaps a video might be an idea. The video could be shown to patients before transfer to SC.  
• Patients love receiving their chemo at Spaulding and not having to travel back to MGH for chemo | • Could IV RN add PICC line information—type and length of line and date placed.  
• Can we use SBAR as pass-off to include the PICC line information?  
• Monthly meeting to facilitate ongoing communication |

**Next meeting**  
April 25th at 2pm;
Case Management Progress Note

Enter name and unit number on both sides of EVERY sheet.
Addressograph plate to be used when available. Name and unit number to be written distinctly when plate is not available.

Signature should be legible and include name, licensure & pager numbers.

CASE MANAGEMENT NOTE

Date 10/8/2009 3:52 PM

Record reviewed, PT well known to this service. PTA there was a team conference to determine appropriate LOC, and in view of clinical needs, determination was made that PT would be appropriate for acute hloc admit. PT currently asleep after pain med, so did not disturb. Information as already known: PT and her 2 children have been living w/ her mother in Randolph. She has Medicare/MassHealth for insurance. She is actively followed by Hospice of the South Shore, confirmed that New England Home Therapies cont to provide her IV meds. From prev record- other meds are thru hospice pharmacy-apothecare [T: 508-588-6900, F: 508-588-6118]. Also advised by NSU that PT stopped her home TPN 3 days PTA.

Current IV access is a DL PICC and a periph IV. PT is being trialed on IV ketamine vs IV lidocaine w/ goal of achieving better pain control. Pain SVCE has seen and confirmed it dilaudid/bupi pump is active- see note in chart. PT's home PCA pump is empty and that pump is at bedside. Her home regimen has been for hi dose fentanyl PCA, fentora Q 2-4 hrs for BTP, and daytrana to counteract sedative effect of pain meds.

FU w/ team today- PT states a goal to return to home for end of life care w/ hospice. If she is able to achieve adeq pain control w/ new regimen, if so, may try to see if potential for DC to home over W/E.

If pain control not effective, plan for MD to meet w/ PT and family re goals of care, esp R/T amt of sedation PT is willing to have.

Have left VM for Tara at hospice [T: 781-794-7136, F: 781-794-7113], and provided updates to Neht Liaison and NSU. Plan to cont to hold off TPN at present.
CM to cont to follow and assist in coord of care as indicated.

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MGH Dialysis Discharge Summary
Outpatient Dialysis Unit:
New England Sinai Hospital Rehab
No outpatient unit- ARF Initiated HD @ MGH 7/13/12
Outpatient Dialysis Nephrologist:
Daniel Behl MD
MGH Nephrologist:
John Niles MD/Leslie Fang MD
Clinical Information (Summary)

HISTORY OF PRESENT ILLNESS:
74 year old with aortic stenosis, mitral stenosis, pulmonary hypertension, right ventricular failure, recurrent episodes of pneumonia, whom we are dialyzing in the setting of acute on chronic renal insufficiency. No new issues overnight.

PAST MEDICAL HISTORY:
- Pulm HTN
- HFpEF
- PAF – previously on amiodarone
- DM2
- Hyperlipidemia
- History of ETOH abuse
- Depression
- s/p hysterectomy
- s/p right knee replacement
- s/p right hip replacement

CURRENT MEDICATIONS and ALLERGIES:
As detailed

REVIEW OF SYSTEMS:
Intermittently febrile over the weekend
Remains anxious

PHYSICAL EXAMINATION:
BP: 120/75 P: 70 R: 16
SKIN: benign
HEENT: anicteric
NECK: Supple, no adenopathy, no thyromegaly
CHEST: decreased breath sounds at bases
COR: Normal S1, physiologically split S2
ABD: Normal BS, no masses or tenderness, no organomegaly
EXT: Intact pulses, no edema

LABS DONE:
Chemistry Detail for:

<table>
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<tr>
<th>MGH BLOOD</th>
<th>21-Aug-2012 06:11 Accession# 0821T16137</th>
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<tbody>
<tr>
<td>Test Description</td>
<td>Result</td>
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OPERATIONS AND PROCEDURES
Chest films, KUB's, CT's brain, chest, abdomen, pelvis; lower extremity venous ultrasound X2; Video evaluation of swallow; Multiple bronchoscopies; trach tube changes; upper GI endoscopy, colonoscopy; video capsule endoscopy; colonoscopy with push enteroscopy; ultrasound kidney X2; cardiac catheterization; echocardiogram X2; EEG; EMG with nerve conduction study

LIFE-SUSTAINING TREATMENT (CODE STATUS) AT DISCHARGE
Full Code (discussed with patient/surrogate) Entered by:

ALLERGIC REACTIONS, INTOLERANCES AND SENSITIVITIES
levofloxacin and Iplitor (muscle aches) (Unknown)
QUETIAPINE (Mental Status Change)
CEFEPIME (encephalopathy and myoclonus)

HISTORY AND REASON FOR HOSPITALIZATION AND SIGNIFICANT FINDINGS
As taken from her initial RACU admission note by Dr. Burkett: "74F, pulmonary hypertension and recent PNA with respiratory failure s/p trach who is transferred from Kindred with concern for new infection, possibly aspiration PNA. The patient is confused and mechanically ventilated through a tracheostomy and is unable to provide history. Her husband reports that she had several admissions for CHF over the winter, most recently being admitted to a Florida hospital on 2/8 for the same. During that admission she received a dose of ativan and had markedly decreased mental status prompting placement of an NG tube. Following NG tube placement she had an episode of aspiration that resulted in respiratory failure requiring intubation. She failed her initial extubation attempt and underwent tracheostomy 2/29. She was then transferred to Kindred in Boston on March 8th, where she initially did well and was able to tolerate prolonged periods on just trach collar and use a PMV. She passed a speech and swallow study on 3/15. The next day she was allowed to have some pudding. Sometime thereafter she became tachypnic and subsequently spiked a fever and developed a new leukocytosis. She was begun on antibiotics (vancomycin and cefepime at least as of 3/18), but the fevers persisted and today she was more agitated and confused, prompting transfer to the MGH ED. Given her ventilator dependence, the RACU was consulted. Of note PICC line d/c'd in ED, sent for culture. Her husband reports that she has had diarrhea over the last several weeks. He knows she has had several negative C. diff tests, both in Florida and at Kindred.

ROS unable to obtain secondary to mental status.

PMH:
Pulmonary Hypertension PA 92/35, PCW 25 in May 2010
Atrial fibrillation
DM
HTN
Gluten intolerance, possible celiac disease
Depression
s/p hysterectomy
s/p R knee and hip replacement

Kindred Meds (per notes):
Vancomycin 750mg q12h (3/18- )
Cefepime (3/18- )
Vancomycin pgt (refused today)
Flagyl (refused today)
Lasix 40mg pgt daily (got this AM)
Lasix 40mg IV x1 (got this AM)
Lopressor 50mg q8h (got this AM)
HCTZ 25 daily (got this AM)
Amlodipine 10mg daily (got this AM)
Sildenafil 100mg q8h (got this AM)
Pantoprazole 40mg daily
Loperamide 2mg q4h
Dulcane FRN
Lantus 100U sq
Vitamin C 500mg bid

Allergies: Levofoxacin and Lipitor Husband unaware of these

Social History: Married, has been living at Kindred rehab since 3/8.
Family History: NC

Physical Exam: Vitals: 103.1 on route to ED, 90-90s, 141/65, RR 30-40, VC 20/450/5/0.5, 96%

Gen: Elderly woman, largely confused, rarely following commands
HEENT: Neck: Slightly dry MM, NGAT, PERRL, trach site CDI
Lungs/胸部: Coarse bilaterally, more pronounced at bases.
Heart: Tachy, irreg, irreg., 2/6 SEM at LUSE
Abd: Soft, mild non-specific tenderness to palpation
Ext: Warm, no CCE

HOSPITAL COURSE AND TREATMENT
#Respiratory: Her respiratory failure was felt to be 2/2 to her pneumonia and volume overload, confounded by her pulmonary hypertension. She was treated with broad antibiotics (vancomycin and cefepime) and diuresis aggressively. She responded to this and was transitioned to trach mask on 3/22, nearly a week after her admission. Tracheostomy tube was downsized on 3/26 and she started using the Passev Muir valve successfully. Her respiratory course was complicated by episodes of hemoptysis in the context of therapeutic coumadin and lovenox overlap. A bronchoscopy showed an area of inactive bleeding in the L mainstem bronchus. She also had an episode after she was allowed to eat when she had an aspiration event requiring an increase in her oxygen. She was made NPO due to high concern for aspiration. CT Chest imaging performed on 4/17 showed bilateral lower lobe consolidations. Sputum from 4/18 returned with two types of S. aureus (MRSA) and klebsiella. She was treated with a course of vancomycin. She again required the ventilator. She became persistently hypoxic and transferred to the MICU. There she was initially treated with vanc and meropenem, changed to vanc, cipro and cefepime for ongoing fevers and h/o pseudomonas cultures resistant to carbopenem. She was weaned from pressors after abx, weaning sildenafil, and aggressive diuresis. She had a PA line, which at time of discontinuation showed improvement of PCWP from 33 to 15, and PA
pressures from mid-50s to high 40s. She transferred back to the RACU on 9/6.

At time of discharge, respiratory failure is due to CHF with volume overload managed on dialysis, recurrent infections, and weakness. She has not been able to tolerate more than a few hours off mechanical ventilation. She tolerates trach mask with 50% oxygen plus 5 liters oxygen via nasal cannula with PMV in place for a few hours during the day before becoming fatigued; ABGs done when fatigued after time off the ventilator 8/11 showed pH 7.30 pCO2 54 paO2 103 on 50% TM; 8/13 7.34/81/75 after several hours on TM 50%; after a night on her PSV settings 8/15 her ABG was 7.45/47/148 on FiO2 0.45. She currently requires nocturnal mechanical ventilation and pm if she sleeps during the day. Pressure support mode at 15 cm with 5 cm PEEP and FiO2.5. Tidal volumes are in the mid 300's. Oxygen saturation generally 93-100%. Shiley 8 trach tube in place; she had several trach tubes replaced for leaks in the cuff.

#Renal Failure: The patient developed worsening of her kidney function though due to contrast-induced nephropathy. Over the course of her admission, she had fluctuating renal function. She did not develop worsening uremia, but this was thought to be predominately due to re-absorption from her gastrointestinal bleeding. She required renal replacement therapy (CVVH) while in the MICU. Renal function again recovered. Aggressive diuresis with bumex drip was again initiated until creatinine bumped. Renal function did not recover. A tunneled hemodialysis line was placed on 7/13. She is dialyzed Mon, Wed, Friday. She had been having bladder scans with intermittent straight cath pm. Has had minimal urine output.

#Urinary Tract Infection: She has had multiple gram negative urinary tract infections. On August 12, she had an exacerbation of delirium. Urinalysis and urine culture were sent. Urinalysis was unremarkable but urine culture showed moderate E. Coli. She had a 3 day course of augmentin. Follow up urine culture showed few gram negative rods.

#Psych: She had a significant amount of delirium and anxiety throughout her early course in the RACU. Pt has history of anxiety and ETOH abuse, with worsening anxiety in the context of starting hemodialysis and prolonged illness. Psychiatry has been following for anxiety management. The patient’s symptoms are most consistent with an adjustment reaction in the context of facing major medical illness with multiple complications over her five-month hospitalization with depressed mood and anxiety. She reports being determined to get better but struggles with anxiety surrounding her concern that she may not be able to progress as quickly as her family would wish.

Continue melatonin 5 mg PO QHS PRN insomnia. She has demonstrated extreme sensitivity to all kinds of sedating medications, be it SSRIs, benzodiazepines, atypical antipsychotics and hypnotics. Use of these types of agents has resulted in prolonged somnolence.

#Diabetes: Her regimen had to be constantly changed due to changes in tube feeding, po diet and the state of her pneumonia. She had multiple episodes of hypoglycemia in the setting of when her tube feeding rate was changed or with being NPO for even short periods. Currently on NPH bid plus regular insulin sliding scale. Her BG levels will need to be monitored closely and her insulin regimen adjusted accordingly.
#Hypothyroidism: Thyroid function studies done 8/6, TSH 12.75 with FT4 7. Started on low dose synthroid on 8/9. She will need TSH checked mid September.

#AFIB: Had been anticoagulated with a LMWH bridge. She had an episode of hemothysis and UGIB. Her anticoagulation was held and reversed. Discussion with her cardiologist who agreed with the plan to keep her off anticoagulation due to her GI bleed and falls risk. She converted to NSR and was started on amiodarone at the recommendation of cardiology. After going to the MICU and returning to RACU, she went back into AFib despite amiodarone. At that time it was dd d. Rhythm has been sinus with occasional breakthrough of atrial fibrillation but rates are well controlled with metoprolol.

#GI Bleed: Had GI bleed on April 8th with melena after having had an episode of hemothysis the day before while being anticoagulated. She had a G-tube lavage which showed some old clots but no acute bleeding. The GI team was consulted. Given the limited amount of bleeding and her comorbidities, it was felt that the risk of EGD was too high. She was given IV 10/10. Over the next few days she received 1 unit of blood. Her melena persisted for a few days and then ceased. Her HCT remained stable after the one unit that she had received. Later in her hospital course she again developed melena. She underwent EGD, colonoscopy, and video capsule study. The source of bleeding was thought to be angioectasia in her mid-jejunum. She was noted to have multiple polyps on colonoscopy. Has had intermittent melena requiring intermitted transfusions.

#Pulmonary Hypertension: She had been seen in the past for pulmonary hypertension though both pre and post capillary, and had been on sildenafil prior to admission. She was dieresed throughout her stay. Sildenafil was held due to hypotension while in the MICU. As BP recovered, sildenafil was restarted and titrated upward.

#Systemic Hypertension: Her blood pressure had been controlled with amlodipine but this has been stopped over the long course of her hospitalization.

#Nutrition: She is strictly NPO due to chronic aspiration. She is tolerating Nepra via PEG. Earlier in her hospitalization, she was cleared by SLF for oral diet. However, she had a few episodes of aspiration leading to aspiration pneumonitis and thus remains strictly NPO. Could consider re-evaluating swallow if strength improves or goals of care change.

#Diarrhea: Long history of diarrhea predates hospitalization. Has persisted despite use of metamucil and immodium and changes of tube feeding formulation. These agents were stopped due to lack of efficacy. C. Difficile assays always negative.

Activity: has been working with PT and OT. Requires much encouragement to maintain participation. Does better when husband is with her to provide encouragement and support.

MOST RECENT LABS AND OTHER STUDIES
08/21/12 - Sodium 140, Potassium 4.5, Chloride 98 (L), Carbon
trace free fluid in the right upper quadrant.
2012/08/12 00:00:00 - URINE: Specimen Comment: STRAIGHT CATHETERIZED SPECIMEN

Urine Culture - Final Reported: 14-Aug-12 14:59
Moderate (10,000 to <100,000 CFU/ml) ESCHERICHIA COLI
RAPID MIC METHOD

Antibiotic MIC (mcg/ml) Interpretation

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>MIC (mcg/ml)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amikacin</td>
<td>&lt;=2</td>
<td>Susceptible</td>
</tr>
<tr>
<td>Amoxicillin/Cloxacillin</td>
<td>&lt;=4</td>
<td>Susceptible</td>
</tr>
<tr>
<td>Amoxicillin/Cloxacillin</td>
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<td>Ceftepime</td>
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<td>Susceptible</td>
</tr>
<tr>
<td>Ceftriaxone</td>
<td>&lt;=1</td>
<td>Susceptible</td>
</tr>
<tr>
<td>Ciprofloxacin</td>
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<td>Susceptible</td>
</tr>
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<td>Ertapenem</td>
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<tr>
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</tr>
<tr>
<td>Imipenem</td>
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<td>Susceptible</td>
</tr>
<tr>
<td>Levcloxacine</td>
<td>&gt;=8</td>
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</tr>
<tr>
<td>Meropenem</td>
<td>&lt;=0.25</td>
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</tr>
<tr>
<td>Nitrofurantoin</td>
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<td>Susceptible</td>
</tr>
<tr>
<td>Tetracycline</td>
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<td>Resistant</td>
</tr>
<tr>
<td>Trimethoprim/Sulfamethoxazole</td>
<td>&gt;=320</td>
<td>Resistant</td>
</tr>
</tbody>
</table>

2012/08/05 00:00:00 - Chest Single View: IMPRESSION:
Interval retraction of right PICC which now terminates at junction of right subclavian and innominate veins.
Other line and tube unchanged. No pneumothorax.
Mild indistinctness of pulmonary vascularity to indicate presence of interstitial edema. Bilateral multifocal subsegmental atelectasis. Fatty and band-like opacity in left retrocardiac region again seen and may represent atelectasis and/or pneumonia, improved since 6/25/2012.
Incompletely imaged, fairly recent appearing comminuted right proximal humeral fracture, grossly unchanged over past month.
2012/07/13 00:00:00 - Venaous Intervent Procedure without contrast: IMPRESSION: Successful placement of a tunneled 23-cm dual lumen hemodialysis catheter with the catheter tip at the cavoatrial junction. The catheter is ready for use.

CONDITION ON DISCHARGE
Stable

DISCHARGE MEDICATIONS
 Chlorhexidine Mouthwash 0.12% 5 ML MOUTHWASH BID (last dose: 08/21/2012 07:22 AM)
 Caldesene Powder 1 APPLICATION TOP QID (last dose: 08/21/2012 01:31 PM)
 Clotrimazole 1% Cream 1 APPLICATION TOP BID (last dose: 08/21/2012 07:23 AM)
 Nephro-vt Rx (Neprocaps) 1 TAB GTUBE QAM (last dose: 08/21/2012 07:22 AM)
 Acetaminophen Oral Liquid (Tylenol Liquid) 650 MG GTUBE Q6H prn
(last dose: 08/21/2012 09:19 AM)
Melatonin 5 MG PO QHS pm (last dose: 08/19/2012 08:07 PM)
Insulin Nph Human 8 UNITS SC CPM (last dose: 08/20/2012 05:41 PM)
Insulin Nph Human 0 Units SC QPM (last dose: 08/20/2012 05:41 PM)
Insulin Nph Human 18 UNITS SC QAM (last dose: 09/21/2012 03:09 AM)
Insulin Nph Human 6 Units SC QAM (last dose: 08/21/2012 06:08 AM)
Levothyroxine Sodium (Synthroid) 25 MCG GTUBE QD (last dose: 08/21/2012 09:16 AM)
Insulin Regular Inj SC Q6H (Slicing Scale) (last dose: 08/21/2012 01:21 PM)
If BS <= 200 give 0 Units
For BS from 201 to 250 give 4 Units
For BS from 251 to 300 give 6 Units
For BS from 301 to 350 give 8 Units
For BS from 351 to 400 give 10 Units
For BS from 401 NULL give Units
For BS from NULL give Units
For BS from NULL give Units
For BS from give Units
Epoetin Alfa (Non-oncology) (Epogen (Non-oncology)) 10,000 UNITS IV each dialysis treatment pm (last dose: 08/20/2012 08:37 AM)
Simeprevir 80 MG GTUBE Q6H (last dose: 08/21/2012 01:30 PM)
Omeprazole-sodium Bicarbonate 40 MG GTUBE BID (last dose: 08/21/2012 07:22 AM)
Calcium Acetate (1 Gelcap=667 Mg) (Phoslo) 667 MG GTUBE TID (last dose: 08/21/2012 01:31 PM)
Ipratropium Inhaler (Atrovent Hfa Inhaler) 8 PUFF INH Q6H pm (last dose: 08/21/2012 11:30 AM)
Fluticasone Proppionate HFA (Flovent Hfa) 880 MCG INH BID (last dose: 08/21/2012 07:26 AM)
Sildenafil (Revatio) (Revatio) 60 MG GTUBE TID (last dose: 05/21/2012 01:31 PM)
Metoprolol Tartrate 12.5 MG GTUBE BID (last dose: 08/21/2012 09:13 AM)

Vaccines
Influenza Vaccine not given this admission. Reason: Previously vaccinated this flu season Pneumovax 23 not given this admission. Reason: Previously vaccinated

DISCHARGE INSTRUCTIONS
Diet: NPO at 55 mls per hour for 22 hours daily via PEG
Activity: Activity as tolerated
Treatment: Pressure support ventilation 15/5 PEEP/FIO2 .5 nocturnal and pm daytime fatigue.

Strict NPO - known aspiration
Instructions: Pt is extremely sensitive to any kind of sedating medications - we have avoided use of any benzo's, atypical antipsychotic agents, hypnotics, SSRIs. She experienced significant toxicity to cefepine which resulted in somnolence with myoclonus.

Has had longstanding diarrhea which has been refractory to Imodium, bulking agents and changes to tube feeding formulation.

ESRD on HD every Monday, Wednesday, Friday
Massachusetts General Hospital  
55 Fruit Street  
Boston, MA 02114  
(617)732-2000

Nursing Discharge Note

Discharged From:  G0908A
Discharged Via:  Ambulance
Accompanied By:  Husband

Medical Diagnosis/Surgery:
Principal Diagnosis:
Respiratory insufficiency
Associated Diagnosis:
Respiratory insufficiency, Pulmonary hypertension, Altered mental status, Atrial fibrillation, Diabetes mellitus type 2, Anxiety, Congestive heart failure, Hypertensive disorder, Depressive disorder, Pneumonia, Chronic renal impairment, Hypothyroidism

Operations & Procedures:
Chest films, KUBs, CTs brain, chest, abdomen, pelvis; lower extremity venous ultrasound X2; Video evaluation of swallow; Multiple bronchoscopies; Trach tube changes; upper GI endoscopy, colonoscopy, video capsule endoscopy, colonoscopy with push enteroscopy; ultrasound kidney X2; cardiac catheterization; echocardiogram X2; EEG, EMG with nerve conduction study

Current Precautions:
Contact
Current Patient Condition:
74F with hi pulmonary htn and HFpEF; trach at a Florida hospital 2/9/12 after multiple CHP exacerbations and aspiration episodes, transferred to Kindred 3/9/12 where she was successfully on trach collar, and then to MGH 3/19 for presumed aspiration pneumonia and fever. Initially treated with vancomycin until 3/25 and improved and went to RACU, then deteriorated with refractory hypoxemia, new RLL infiltrate, and went back to MICU 5/27 for paralysis, abx and diuresis, now returning to RACU after improvement for ongoing care.

Severe pulmonary hypertension (RVSP 75 mm Hg)
AS with mean gradient of 50mmHg ac area of 1.2cm²
Atrial fibrillation
Type II DM
Hypertension
Prior EOH abuse
Depression
S/p hysterectomy
S/p R knee and hip replacement

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Nursing Discharge Note (cont'd)

Life-Sustaining Treatment (Code Status) at Discharge
Full Code (discussed with patient/ surrogate) Entered by [Redacted]

Medications

- CHLORHEXIDINE MOUTHWASH 0.12% 5 ML MOUTHWASH BID On Discharge
  Last Dose Given: 08/21/2012 at 07:22 AM

- CALDESENE POWDER 1 APPLICATION TCP QID On Discharge
  Last Dose Given: 08/21/2012 at 01:31 PM

- CLORTRIMAZOLE 1% CREAM 1 APPLICATION TCP BID On Discharge
  Last Dose Given: 08/21/2012 at 07:23 AM

- NEPHROVIT RX (NEPHROCAPS ) 1 TAB GTUBE QAM On Discharge
  Last Dose Given: 08/21/2012 at 07:22 AM

- ACETAMINOPHEN ORAL LIQUID (TYLENOL LIQUID ) 550 MG GTUBE Q6H PRN; Pain, fever On Discharge
  Last Dose Given: 08/21/2012 at 09:18 AM

- MELATONIN 5 MG PO QHS PRN Insomnia On Discharge
  Last Dose Given: 08/19/2012 at 08:57 PM

- INSULIN NPH HUMAN 0 UNITS SC QPM On Discharge
  Last Dose Given: 08/20/2012 at 05:41 PM
  Instructions: Take this insulin dose when eating.

- INSULIN NPH HUMAN 0 Units SC QPM On Discharge
  Last Dose Given: 08/20/2012 at 05:41 PM
  Instructions: Take this insulin dose only when not eating.

- INSULIN NPH HUMAN 18 UNITS SC QAM On Discharge
  Last Dose Given: 08/21/2012 at 03:29 AM
  Instructions: Take this insulin dose when eating.

- INSULIN NPH HUMAN 6 Units SC QAM On Discharge
  Last Dose Given: 08/21/2012 at 05:28 AM
  Instructions: Take this insulin dose only when not eating.

- LEVOTHYROXINE SODIUM (THYROXINE) 25 MG GTUBE QD On Discharge
  Last Dose Given: 08/21/2012 at 09:13 AM

- INSULIN REGULAR INJ Sliding Scale If BS <= 200 give 0 Units; For BS from 201 to 250 give 4 Units; For BS from 251 to 300 give 6 Units; For BS from 301 to 350 give 8 Units; For BS from 351 to 400 give 10 Units; For BS => 401 give 12 Units; Call responding clinician if fingerstick is below 60 mg/dl or above 400 mg/dl. SQ Q6H On Discharge
  Last Dose Given: 08/21/2012 at 01:21 PM

- EPOETIN ALFA (NON-ONCOLOGY) (EPOGEN (NON-ONCOLOGY)) 10,000 UNITS IV each dialysis treatment PRN; Dialysis On Discharge
  Last Dose Given: 08/20/2012 at 08:37 AM

- SIMETHICONE 80 MG GTUBE Q6H On Discharge
  Last Dose Given: 08/21/2012 at 01:36 PM

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Nursing Discharge Note (cont’d)

- Cimetidine (treat) 40mg q2h TID On Discharge
  Last Dose Given: 09/24/2012 at 07:22 AM

- Calcium Acetate (1 GELCAP=67 MG) (Phoslo) 667 MG GTUBE BID On Discharge
  Last Dose Given: 09/24/2012 at 01:31 PM

- Ipratropium (Atrovent HFA Inhaler) 8 puff inh Q6h PRN: Wheezing On Discharge
  Last Dose Given: 09/24/2012 at 11:30 AM

- Fluticasone Propionate Inhaler (Flovent HFA) 820mcg inh BID On Discharge
  Last Dose Given: 09/24/2012 at 07:26 AM

- Sildenafil (Revatio) (Revatio) 60 mg GTUBE TID On Discharge
  Last Dose Given: 09/24/2012 at 01:31 PM

- Metoprolol Tardrate 12.5 mg GTUBE BID On Discharge
  Last Dose Given: 09/24/2012 at 09:13 AM

Medication Reconciliation
Discharge medications have been reviewed/reconciled with the pre-admission medication list.
Pre-Arrival medication list has been verified with discharge medications.

Current Nursing Diagnosis/Patient Problems and Planned Interventions:

- Impaired Gas Exchange  Shilley #8 in line and intact. Pt transitioned from PSV 15/50% to TM 50% with PMV and 5 L N/ O at 8am daily. Pt has been alert and able to participate in plan of care as well as able to make her needs known by mouthing words, hand gestures or verbalizing her needs when her voice is on. Pt requires suctioning q 4 hrs for thick pale yellow/beggs secretions. Plan: Continue to monitor resp status, suctioning as needed, vent weaning as tolerated.

- Altered Tissue Perfusion  Pt continues on cardiac monitor. VS q4hr. HR is ranging in 50-70s. SBP/DBP with occasional PVC's. BP 110/4-140/50's. Pt is scheduled for HD on M/W/F. Last HD on Monday - 1.8 L off. IV Vanco is given with HD. Pt is anuric, occasionally makes urine. Bladder scan on T/Th/ Su to assess for urine in bladder and straight cath for >100 mL. Plan: Monitor VS, labs, meds as ordered, monitor TBB, gula.

- Altered Nutrition-Bowel Elimination/Glycemic management  TF Ntrop @ 55 mL/hr at goal via PEG. TF is held from 8am-8am for Synthroid. No residuals noted. P Flexseal in place, draining liquid dark brown stool. Blood sugars are checked q 6 hrs with sliding scale coverage for BS >200. BS have been in 110s-130s. Pt continues on NPH BID. Plan: Continue TF, monitor stooling, glycomic management as ordered.

- Algeria: WBC stable @ 8.0. Pt finished a course of Augmentin for UTI (+ E: Coli). Continues on Baytril for +Streptococcus in spurtum. IV Vanco dose given post HD. Sputum ox from 8/19 - +Streptococcus and +E Coli. Urine ox from 8/19, fev GNR. On contact precautions for +MRSA/VRE. Plan: cont to monitor infection and any further signs/symptoms of infection. Monitor culture results. Maintain temp <95. Administer abx as or. Maintain precautions.

- Impaired Skin Integrity  Trach site is intact with a dry red rash around the trach dextrose cream applied to the area. PEG site benign. HD dressing intact. LOW. Pt has a healing, reddened rash over her buttocks, uncetroms, cor clones and abdominal folds, with flexseal in place, allowing the skin to heal. Pt has generalized itchness over her abdomen, legs and arms, responds well to Stema butter lotion being applied several times a day. Plan: Continue to assess skin and document any changes, repulsion q 2hrs, caldeseen power to excoriated.

- Risk for Falls/Neuro status  Pt is at risk for falls per MFS secondary equipment. Bed remains in the low position. Frequent visual checks on 24 hourly rounding continues. Pt makes no effort to get GOB on her own. Plan: maintain a safe environment, continue hourly rounding.

- Knowledge Deficit  All treatments and procedures explained to pt and husband as they occurred. Plan: to update pt and family on the daily plan of care. Remain supportive to the pt and family during this prolonged hospital course.

- Discharge planning  RACU team anticipates initiating rehab screening if pt remains stable. Plan: Follow with CM and team for appropriate discharge plan.

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HEMODIALYSIS UNIT DISCHARGE SUMMARY

Nursing Discharge Sheet

Date of MGH Discharge: [Redacted]
Outpatient Unit (Name): [Redacted]
Days/Time: [Redacted]
Last MGH Dialysis Run date: 8/30/12 # Hours 3 c
Dialyzer: Optiflux 100 V, Other:
 Dialysate: K 3 CA 25 SD 600 800 V Na Modeling
Heparin Dose: bolus cc Schedule: Total given:
Heparin Free (if yes reason)

Precautions: MRSA VRE C Diff TB Other: HepBsAg Date 2/19 Result: Neg

ACCESS (Circle One) TC AVF AVG Location: Left Needle gauge: Needle Length:
Catheter: date of insertion: DI/3/12 brand name: Taurolene Art = 19 cc Ven = 19 cc
Access Issue(s): 

Estimated Dry Weight: 83 Kg Date: Last Post Weight 85.3 Kg 1.8 Kg
Maintenance Hgb: 10-11.5 Date: Last Hgb: 9

Dialysis Medication(s):
Allergies: Each Boyeon Lipitite

Epogen: 10,000 units Frequency: DQPH Dosage Change Date:
Zemplar: Frequency:
Venofer: Frequency:
Other(s):

Antibiotics (reason):
Vancomycin 750 mg Doses Remaining: ? Continue? finished course
Gentamycin mg Doses Remaining:
Other:

Nursing Summary: Patient stayed for dialysis treatment to MGH 8/31/12.

Nurse Signature Completing Summary: [Redacted] Date 8/30/12
Report called (by): [Redacted] Date 8/30/12
Report given to (name): [Redacted] Date 8/30/12
Massachusetts General Hospital  
55 Fruit Street Boston, MA 02114  
(617) 726-2000

Nursing Discharge Note

Discharged From: G0906A
Discharged Via: Ambulance
Accompanied By: Husband
Destination Address: 150 York Street, Stoughton, MA
Destination Phone: (781) 297-1250
Name of Agency for Home Care Referral

Provider: NEW ENGLAND SINAI HOSPITAL  
Contact: MD Alexander White, 781-344-0800 page; RN&RT: 781-297-1250
Provider Address: 150 YORK ST, STOUGHTON, MA
Provider Phone No.: (781) 344-0800  
Provider Fax No.: (781) 344-2105
Provider Services: LTAC
Appointments Scheduled:

Medical Diagnosis/Surgery:
Principal Diagnosis:
Respiratory insufficiency
Associated Diagnosis:
Respiratory insufficiency, Pulmonary hypertension, Altered mental status, Atrial fibrillation, Diabetes mellitus type 2, Anxiety, Congestive heart failure, Hypertensive disorder, Depressive disorder, Pneumonia, Chronic renal impairment, Hypothyroidism

Operations & Procedures
Closed films, KUB's, CT's brain, chest, abdomen, pelvis: lower extremity varous ultrasound X2: Video evaluation of swallow: Multiple bronchoscopies; trach tube changes; upper GI endoscopy, colonoscopy, video capsule endoscopy; colonoscopy with push enteroscopy; ultrasound kidney X2; cardiac catheterization; echocardiogram X2: EEG, EMG with nerve conduction study

Current Precautions:
Contact

Current Patient Condition:
74F with hx pulmonary ftm and HPeF, treated at a Florida hospital 2/9/12 after multiple CHF exacerbations and aspiration episodes, transferred to Kindred 3/4/12 where she was successfully on trach collar, and then to UMG 3/19 for presumed aspiration pna and fever. Initially treated with vancomycin until 3/26 and improved and went to RACU, then deteriorated with refractory hypoxemia, new RLL infiltrate, and went back to MICU 5/27 for paraparesis, sibux and diuretics, now returning to RACU after improvement for ongoing care.

Severe pulmonary hypertension (RVSP 75 mm Hg)
AS with mean gradient of 50mmHg ad area of 1.2cm²
Atrial fibrillation
Type II DM
Hyperlipidemia
Prior EtOH abuse
Depression
S/p hysterectomy
S/p R knee and hip replacement
?

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Nursing Discharge Note (cont'd)

Life-Sustaining Treatment (Code Status) at Discharge
Full Code (discussed with patient surrogate) Entered by [Redacted]

Medications
- CHLORHEXIDINE MOUTHWASH 0.12% 5 ML MOUTHWASH BID On Discharge
  Last Dose Given: 06/21/2012 at 07:22 AM

- CALESSINE POWDER 1 APPLICATION TOP QID On Discharge
  Last Dose Given: 06/21/2012 at 01:31 PM

- CLOTRIMAZOLE 1% CREAM 1 APPLICATION TOP BID On Discharge
  Last Dose Given: 06/21/2012 at 07:22 AM

- NEPHRO-VIT RX (NEPHROCAPS ) 1 TAB GTUBE QAM On Discharge
  Last Dose Given: 06/21/2012 at 07:22 AM

- ACETAMINOPHEN ORAL LIQUID (TYLENOL LIQUID ) 550 MG GTUBE Q6H PRN Pain, fever On Discharge
  Last Dose Given: 06/21/2012 at 08:16 AM

- MELATONIN 5 MG PO QHS PRN Insomnia On Discharge
  Last Dose Given: 06/19/2012 at 06:07 PM

- INSULIN NPH HUMAN 8 UNITS SC QPM On Discharge
  Last Dose Given: 06/20/2012 at 05:41 PM
  Instructions: Take this insulin dose when eating.

- INSULIN NPH HUMAN 0 Units SC QPM On Discharge
  Last Dose Given: 06/20/2012 at 05:41 PM
  Instructions: Take this insulin dose only when not eating.

- INSULIN NPH HUMAN 18 UNITS SC QAM On Discharge
  Last Dose Given: 06/21/2012 at 06:38 AM
  Instructions: Take this insulin dose when eating.

- INSULIN NPH HUMAN 6 Units SC QAM On Discharge
  Last Dose Given: 06/21/2012 at 06:08 AM
  Instructions: Take this insulin dose only when not eating.

- LEVOTHYROXINE SODIUM (SYNTHROID ) 25 Mcg GTUSE QD On Discharge
  Last Dose Given: 06/21/2012 at 09:13 AM

- INSULIN REGULAR INJ Sliding Scale (BS <= 200 give 0 Units; For BS from 201 to 250 give 4 Units; For BS from 251 to 300 give 8 Units; For BS from 301 to 350 give 8 Units; For BS from 351 to 400 give 10 Unils; For BS >= 401 give 12 Units; Cell responding, discontinue if finger-stick is below 50 mg/dl or above 400 mg/dl). SC Q6H On Discharge
  Last Dose Given: 06/21/2012 at 01:21 PM

- EPOETIN ALFA (NON-ONCOLOGY) (EPOGEN (NON-ONCOLOGY) ) 10,000 UNITS IV each dialysis treatment, PRN Dialysis On Discharge
  Last Dose Given: 06/20/2012 at 08:37 AM

- SIMETHICONE 40 MG GTUBE Q6H On Discharge
  Last Dose Given: 06/21/2012 at 01:30 PM

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(617)732.6000

Nursing Discharge Note (cont'd)

- OMEPRAZOLE-ODIUM BICARBONATE 40 MG GTUBE BID On Discharge  
  Last Dose Given: 08/21/2012 at 07:22 AM

- CALCIUM ACETATE (1 G)SLGPA=687 MG) (PHOSLO) 957 MG GTUBE TID On Discharge  
  Last Dose Given: 08/21/2012 at 01:31 PM

- IPRATROPium INHALER (ATROVENT-HFA INHALER) 8 PUFF INH OSB PRN: Wheezing On Discharge  
  Last Dose Given: 08/21/2012 at 11:30 AM

- FLUTICASONE PROPIONATE (INH) (FLOVENT HFA) 88 MG INH BID On Discharge  
  Last Dose Given: 08/21/2012 at 07:26 AM

- SILDENAFIL (REVATIO) (REVATIO) 80 MG GTUBE TID On Discharge  
  Last Dose Given: 08/21/2012 at 07:31 PM

- METOPROLOL TARTRATE 12.5 MG GTUBE BID On Discharge  
  Last Dose Given: 08/21/2012 at 05:13 AM

Medication Reconciliation
Discharge medications have been reviewed/reconciled with the pre-admission medication list.  
Pre admission medication list has been verified with discharge medications.

Current Nursing Diagnosis/Patient Problems and Planned Interventions:
- Impaired Gas Exchange: Shallow 38 mmHg and intact. Pt transitioned from PSV 10 /5 /50% to TM 50% with PMV and 5 L NAC at 8am daily. Pt has been more alert and able to participate in her plan of care as well as able to make her needs known by mouthing words, head gestures or verbalizing her needs when she has the urge to do so. Pt requires suctioning q.4 hrs for thick pale yellow/brown secretions. Plan: Continue to monitor resp status, suctioning as needed, vent weaning as tolerated.

- Allergic Tissue Perfusion: Pt continues on cardiac monitor VS q.4hrs. HR is ranging in 50-70s S/RAHb with occasional PVCs. BP's 110s-140s/40-50s. Pt is scheduled for HD on MND/06/06. Last HD on Monday 1-8 L c.i. IV heparin is given with HD. Pt is anuric, occasionally makes urine. Bedside scan on TMT/Stran to assess for urine in the bladder and straight cath for >100 mL. Plan: Monitor VS, labs, meds as ordered, monitor TBB, guiac stools, HD M/W/F.

- Allergic/Neonatal/Glucose management: TF: Nepro @ 55 mL/hr at goal via PEG. TF is held from 8am-8am for Synthroid. No residuals noted. P: Flexed in place, cramping fluid dark brown stool. Blood sugars are checked q.8 hrs with sliding scale coverage for BS >200. BS have been in 110s-150s. Pt continues on NPH BID. P: Continue TF, monitor blood glucose management as ordered.


- Impaired Skin Integrity: Trash is in place with a dry 2x2 wrap on the trash. Omeprazole/ibuprofen cream applied to the area. PEG site benign. HD dressing intact. BD. Pt has a healing, reddened area over her buttocks, underarms, under breasts and abdominal folds, with fissure in place, allowing the skin to heal. Pt has generalized itchiness over her abdomen, legs and arms, responds well to Sheba butter lotion being applied several times a day. Plan: Continue to assess skin and document any changes, reposition q.2 hrs, calamine power to excretions.

- Risk for Falls Neurostatus: Pt is at risk for falls per MFS secondary to equipment. Bed remains in the low position, frequent visual checks are made, hourly rounding continues. Makes no effort to get out of bed. Plan: maintain a safe environment, continue hourly rounding.

- Knowledge Deficit: All treatments and procedures explained to pt and husband as they occurred. Plan: to update pt and family on the daily plan of care. Remain supportive of the pt and family during this prolonged hospital course.

Discharge planning: RACU team anticipates initiating rehab screening if pt remains stable. Plan: Follow with CM and team for appropriate discharge plan.

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Nursing Discharge Note (cont'd)

The patient is aware of his/her diagnosis
The patient's family is aware of the diagnosis

Registered Nurse:  [Redacted]

Referral Called to:  [Redacted]  Spoke with:  [Redacted]
Agency Name  Intake Person Name

Referral Called by:  [Redacted]  Date
RN Name
Anticoagulation Management Service
Massachusetts General Hospital

Clinical Policies for AMS Management in Outside Residential Facilities

The Anticoagulation Management Service (AMS) provides monitoring and management for patients and collaborates with staff caring for patients in outside residential facilities (long term care facilities (LTCFs), or assisted living facilities (ALFs)) who require anticoagulation therapy and who have a MGH-affiliated physician. Our service is co-directed by a physician and nurse and is staffed by experienced nurses who have specific knowledge with anticoagulation management. The integration of computerized protocols supports the AMS staff in many aspects of anticoagulant management including: transitions for patients new to or requiring temporary interruption in warfarin therapy and continued oversight for patients on warfarin maintenance care.

Initial referrals: Patients can be referred by MGH physicians if they reside in affiliated facilities. AMS does not provide management for patients during short term rehabilitation stays at any facility. Once a complete AMS Outpatient Referral Form (serves as physician order) is received by fax (617)643-6540 a telephone interview will be scheduled between the AMS primary nurse and an outside residential facility clinician familiar with the patient. The referring physician or delegate must monitor the INR and adjust warfarin as clinically indicated until this intake appointment is conducted with the facility. The purpose of this interview is to review and assess clinical data relevant to anticoagulation management, explain process and procedure and handoff anticoagulation management care to AMS. It is important that this clinician is familiar with the medical history and nursing needs of the patient. AMS relies not only on the indication(s) for therapy but important co-morbidities, past medical history, medications, and pertinent psycho-social issues. Knowledge of this information contributes to the assessment of potential risks that contributes to clinical decision making.

Management Orders: The AMS referral (physician order) provides the prescription for the indication for therapy, therapeutic INR range and duration of therapy. The day-to-day management, including INR assessment via established protocols, dose instruction, and identification/coordination of the next INR lab date resides with AMS. AMS will consult with the physician or delegate as the need arises in order to collect further information or discuss treatment options.

Dosage adjustments: The nursing staff in AMS adjusts the warfarin dose using computerized decision support tools and handheld algorithms. However, given the influence of many known variables affecting warfarin (changes in medications, diet, general health status, etc.) it is important for AMS to be informed of these in a timely fashion. Dosage adjustments made by AMS is generally conservative and often an adjustment in the interval between INR testing is made instead of dose manipulations. Adjustments to the patient’s weekly dose and/or INR testing interval is communicated via an agreed upon process, typically sending a dose instruction letter via email or mail. Critical INR results (defined by AMS as INRs 5 or higher or 1.2 or lower) require direct communication with the physician, NP, or delegate who follows the patient with AMS. In these circumstances, input is requested in order to coordinate the appropriate care and order adjustments to dose and INR testing.

- Warfarin administration:
  - AMS recommends warfarin is dispensed in a single strength tablet ONLY. (eg. 1 or 2 mg tablet with no split option)
  - Warfarin is administered with a medication pass at a time determined by the facility
- Laboratory orders: The most efficient means of ordering/scheduling INR tests is determined during the initial interview. AMS can provide a standing order directly to the laboratory.
  - INR results are directed to AMS from the laboratory or facility
  - When the AMS clinic is closed the AMS physician will receive critical results and provide orders.
- Non-critical results (1.3 or higher, 4.9 or lower) received by 3:30PM will be acted on the same day.

- **Ongoing communication of dose instructions and next INR test date**
  - For INR results in range or slightly out-of-range: A written dose instruction letter is emailed, mailed, or faxed to identified individual(s) at the facility. This letter will identify: date of INR and result, dose instructions until next letter received, and a date for next INR.
  - Whenever critical results are reported (AMS defines critical as 1.2 or less or 5 or higher) a phone call is placed in order to collect pertinent clinical information before providing further dose instructions and inform of next INR date.

- **Booking INR tests**: If agreed, AMS will communicate date of next test via the Dose Instruction Letter and book the next test date. Or, the prescribing clinician will place the order through the facility process for the INR date indicated in the Dose Instruction Letter.

**Communication Expectations**: It is very important that AMS is kept informed of any changes potentially affecting warfarin absorption or metabolism. Such changes could precipitate a change in scheduled INR testing in order to assess the INR response in a timely fashion. To facilitate ease of communication, please email health information that is not time sensitive to the following email address: mghams@partners.org. This email box is monitored 7 days/week from 8 am–4:00 pm. To discuss urgent health information, use beeper #30103 to speak with an AMS nurse 7 days a week from 8:00am to 4:30pm.

**Hospitalization**: AMS is aware when patients in our care are hospitalized at MGH. As part of our transition service we take a proactive approach and provide the inpatient medical team with an electronic update of the patient’s most recent dose information in the patient’s medical record. In addition, access to the AMS icon within WebShell applications (CAS, LMR and OnCall) provide real time warfarin management information for all AMS patients and facilitates a seamless transition back to the facility. Please contact AMS to coordinate dosing and follow up testing for all AMS patients who are discharged from any healthcare facility.

**Therapy Reviews**: AMS collaborates with the facility to assess risk and to determine and document that the benefit of warfarin outweighs the risk as a valid therapeutic intervention for each patient on an annual basis. An assessment of the patient’s fall risk is recommended. This annual therapy review is emailed to the collaborating physician (or collaborating NP) for patients on indefinite duration and 1 month prior to a planned stop date for those with shorter durations. A reply is required to confirm and provide additional information.

**Hemorrhage/Thromboembolism**: Unavoidably some patients will experience complications. All complications of therapy must be reported to AMS for evaluation and follow up as needed. Proper management of complications requires a coordinated effort between care providers. AMS nurses will consult with physicians and other care providers when we become aware of any complication with anticoagulation management and expect to be notified whenever anticoagulation related issues arise.

**Staff Education & Training**: AMS can provide education to nurses caring for patients receiving anticoagulants and identify additional helpful resources for ongoing learning needs. Educational opportunities on anticoagulation issues are available through the Knight Center (eg. annual anticoagulation conference and Healthstream online courses) or attendance at AMS Patient Care Rounds or AMS Pharmacy Rounds.
Anticoagulation Management Service
Massachusetts General Hospital

Initial Nurse Intake Interview for Patients in outside Residential Facilities

General Information: All clinicians involved with caring for patients located in outside residential facilities and who utilize the Anticoagulation Management Service (AMS) for long-term management of warfarin therapy should review the document: Clinical Policies for AMS Management in Outside Residential Facilities.

- If the outside facility has access to MGH electronic medical record systems, please refer to the AMS icon for a current update of patient’s anticoagulation therapy. A click on the icon displays a new window with many important details pertaining to patient status. AMS will assign specified groups of nurses to manage patients for each outside residential facility.
- A telephone intake interview will be scheduled with the patient’s AMS primary nurse and the managing clinician at the facility. The purpose of this interview is to gain patient-specific information needed to effectively manage warfarin therapy and to review the communication details between AMS and the designated clinician at the facility.

Patient Name: ____________________
DOB: ___________
MGH MRN: ____________ (required)

MGH Affiliated physician: ________________________________________________ (required)

Facility Information

<table>
<thead>
<tr>
<th>Facility Information</th>
<th>Email is preferred method of communication for INR &amp; dosing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Spaulding Nursing &amp; Therapy Center North End</td>
<td>(need 2 NP names/emails see below):</td>
</tr>
<tr>
<td>70 Fulton St, Boston, MA 02109</td>
<td>(care unit: ____________ )</td>
</tr>
<tr>
<td>617-726-9701</td>
<td></td>
</tr>
<tr>
<td>□ Don Orione Nursing Home</td>
<td>Fax is preferred method of communication for INR &amp; dosing.</td>
</tr>
<tr>
<td>11 Orient Ave, Boston MA 02128</td>
<td>(care unit: ___________ fax #: 617-569-2137)</td>
</tr>
<tr>
<td>617-569-2100</td>
<td>Supervisor Central Office</td>
</tr>
<tr>
<td>□ Chelsea Jewish Nursing Home</td>
<td>Fax is preferred method of communication for INR &amp; dosing.</td>
</tr>
<tr>
<td>17 Lafayette St, Chelsea, MA 02150</td>
<td>(care unit: ___________ fax #: ___________ )</td>
</tr>
<tr>
<td>617-884-6766</td>
<td></td>
</tr>
</tbody>
</table>

Contact Information

Primary Clinician & Licensure to Contact:
1. ____________________________________________________ □ MD □ NP □ PA □ RN
2. ____________________________________________________ □ MD □ NP □ PA □ RN
3. ____________________________________________________ □ MD □ NP □ PA □ RN

<table>
<thead>
<tr>
<th>Email</th>
<th>Telephone</th>
<th>Pager</th>
<th>Fax</th>
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</tbody>
</table>

INR Testing

Lab booked by: □ AMS □ Facility
Laboratory used: □ US Labs □ Diagnostic Labs □ Other _______________________
Agreed upon lab draw day of week: □ Tuesday (preferred) □ Other ____________________
Does patient ever refuse lab work? □ No □ Yes, Describe: _______________________
Does patient present with difficult venous access? □ No □ Yes, Describe: __________
Anticoagulation Management Service
Massachusetts General Hospital

Pharmacy Services
Pharmacy: □ In House □ Vendor _________________________
Is communication process with pharmacy needed? □ No □ Yes, (If yes complete below)
Special Instructions: _______________________________________________________
Name of Pharmacy: _______________________________________________________
Pharmacy Contact: _______________________________________________________
Telephone: _________________________ Fax: _____________________________

Indication for Therapy: ____________________________________________________
Other relevant diagnoses/PMH: _____________________________________________

General Health Status of patient: _________________________________________

Warfarin Therapy:
Start Date: _________________________
Date AMS Management began: __________________________
Planned duration of Therapy (weeks): _________________________
Milligram Size Warfarin Tablet: ________________________________
Warfarin Administration Hour: ___________________________(AM preferred)

Medications: Attach separate sheet

Mobility:
Activity Level: _______________________________________________________
Facility uses: □ Morse Fall Scale □ Hendrich II Fall Risk Model  Fall risk score: ______

Bleeding Risk
MGH AMS Bleeding Risk Assessment Score: □ Low (0 pts) □ Moderate (1–2) □ High (3 or more)
   Age ≥ 65 - 1 point
   Hx of Stroke - 1 point
   Hx of GI Bleed - 1 point
   One or more of the following: each adds one point to score
      Recent MI, Hct less than 30%, serum creatinine greater than 1.5 mg/dL and/or Diabetes mellitus

Nutritional status
Does patient refuse meals; require tube feedings or other nutritional supplements? □ No □ Yes, Describe: _______________________________________________________

Communications
Process to inform AMS of changes in health status:
   • Best methods to contact AMS: email: mghams@partners.org (this email box periodically monitored 7days/week between 8:00am – 4:30pm). Email message will be triaged to appropriate nurse for response. Urgent: pager 30103 via 617-726-2000 (acute change in patient condition or for significantly out-of-range INR)

Summary
The above information was reviewed with: ________________________________RN

The importance of notifying AMS of changes in medication, medication, general health status, diet or refusal to take warfarin or have lab work drawn was emphasized.
Contact MGH AMS via email: mghams@partners.org or page: beeper #30103 (617-726-2000)

Date: _______________ Time: _______ AMS Nurse: ___________________________RN
1. MGH-affiliated physicians who have patients residing in long term care facilities can refer patients to the MGH Anticoagulation Management Service for management. Use the current AMS Outpatient Referral form. (page 2 of this document)

2. AMS has developed a standard process for collaborating with outside facilities; see *Clinical Policies for AMS Management in outside Residential Facilities*. These details and more will be reviewed and discussed with the patient’s clinician at the time of the referral or Intake Interview.

3. If there is access to the MGH webshell (CAS, LMR or OnCall) use the AMS icon [AMS]. If this icon appears on the record, it indicates the patient is an active patient in AMS. The clickable icon contains up-to-date demographic and clinical data, recent warfarin dose history, the primary nurse name as well as hyperlinks for email or page directly to AMS.

4. Use a single strength pill only. AMS individualizes weekly dose requirements by providing instructions using multiples or halves of a same strength pill. AMS can avoid providing dose instructions containing “1/2 tabs” provided the prescribed pill strength is small. AMS recommends using a 1 or 2mg strength tablet. Expect to see small, non-time sensitive adjustments to weekly dose communicated by email or mail via the Dose Instruction letter. Whenever an INR is 1.2 or below or 5 or higher, AMS will always contact a clinician at the facility to gather more information before new dose instructions are provided.

5. Communication to AMS about pertinent patient issues is critical as changes may impact the INR response to current warfarin dosing. AMS needs to be informed of:
   a. *Changes in Medications* (prescribed or over-the-counter and herbals): Notorious interacting drugs include: amiodarone, bactrim, fluconazole, levofloxacin, tegretol, prednisone, acetaminophen (greater than 1 gram/day for several days), etc. or refused or missed warfarin doses.
   b. *Changes in Health Status*: Illness, fever or nausea/vomiting for 2 or more days, hospitalization.
   c. Situations requiring *interruption in warfarin therapy*, eg. surgery. This requires careful coordination with AMS and an evaluation by the medical team of the potential need for bridge therapy with an injectable anticoagulant.
   d. *Changes in Dietary Pattern*: A change in Vitamin K intake may have a significant impact on the INR.

6. Efficient communication to AMS is best done using email. The AMS Mailbox (mhams@partners.org) is monitored 7/days week, 8 am – 4:30 pm by AMS. Email messages received here are triaged to the appropriate nurse for response/action, usually the same day.

7. **Have a question or concern requiring immediate response?** Page Beeper 30103 by dialing 617–726–2000. This beeper is covered by an AMS nurse 7/days week, 8 am – 4:30 pm.

8. Confirmation of continuing/discontinuing warfarin therapy requires a therapy review for all AMS patients, sent via email to the collaboration/prescribing physician (or designated clinician)
## Complete all sections and fax to: 617-643-6540

| A | Patient Name: ___________________________ MRN: ____________________ | ☐ MGH-main campus ☐ MGH-North Shore |
|   | Patient Phone Number: ( _____ ) ___________________ Interpreter Needed: ☐ Yes ☐ No |

| B | AMS Services: |
|   | ☐ New Start – Warfarin Only |
|   | ☐ New Start – Warfarin with LMW Heparin |
|   | ☐ New Start – Warfarin with Fondaparinux |
|   | ☐ Transfer anticoagulation management to AMS |

| C | INR Goal |
|   | ☐ 2.0-3.0 (Target 2.5) |
|   | ☐ 2.5-3.5 (Target 3.0) |
|   | ☐ Other INR Range ____ If selected, provide supporting clinical information. |

| D | Therapy Duration |
|   | ☐ 3 months (13 weeks) |
|   | ☐ 6 months (26 weeks) |
|   | ☐ Indefinite (requires annual review and order renewal) |

| E | Indication for therapy: |
|   | ☐ Atrial fibrillation |
|   | ☐ Stroke |
|   | ☐ TIA |
|   | ☐ DVT * |
|   | ☐ Recurrent DVT |
|   | ☐ Recurrent PE |
|   | ☐ Coagulopathy – specify: |
|   | ☐ Peripheral Arterial Disease |
|   | ☐ Heart Valve location: |
|   | ☐ Aortic ☐ Mitral ☐ Tricuspid |
|   | ☐ Heart Valve type: |
|   | ☐ bio ☐ mechanical, _________ |
|   | ☐ Other: ____________________ |
|   | *See AMS Rx for Graduated Compression Stockings, recommended for acute DVT Treatment |

| F | Long-Term Outpatient Warfarin Management with AMS requires a MGH-affiliated, collaborating physician and renewal of management orders annually. |
|   | ☐ MD ☐ NP ☐ PA |

| G | PRINT NAME: PAGER: DATE: |
|   | Signature of Ordering Provider: |
Outpatient Referral
Anticoagulation Management Service

Anticoagulation Management Service
Professional Office Building (POB), Suite 101
275 Cambridge Street, Boston, MA 02114
Tel: 617-726-2768  Fax: 617-843-6540
Page: 617-728-2000, Pager ID#: 30103

Complete all sections and fax to: 617-643-6540

A
Patient Name:
Patient Phone Number: (617) 736-9720
Interpretor Needed: ☐ Yes ☐ No

AMS Services:
☐ New Start – Warfarin Only
☐ New Start – Warfarin with LMW Heparin
☐ New Start – Warfarin with Fondaparinux
☐ Transfer anticoagulation management to AMS

B
INR Goal
☐ 2.0-3.0 (Target 2.5)
☐ 2.5-3.5 (Target 3.0)
☐ Other INR Range ________ If selected, provide supporting clinical information.

C
Therapy Duration
☐ 3 months (13 weeks)
☐ 6 months (26 weeks)
☐ Indefinite (requires annual review and order renewal)

D
Treatment Plan

PATIENT FOLLOWED BY VNA
☐ YES Agency Name: _______________________
Phone: _______________________
☐ NO Family Contact: Spaulding North End
Phone: (617) 736-9720

If MEDICAL THERAPY INCLUDES CONCOMITANT SUBCUTANEOUS ANTITHROMBOTIC THERAPY, PLEASE INDICATE:

AGENT: ☐ Lovinox ☐ Fondaparinux
☐ Other: _______________________

Dose: ________ mg Weight: ________ Kg

START DATE: __________
END DATE: __________ (If not reached yet)

E
Indication for therapy:
☐ Atrial Fibrillation
☐ Stroke
☐ TIA
☐ DVT *
☐ Recurrent DVT
☐ Recurrent PE
☐ Coagulopathy – specify:
☐ Peripheral Arterial Disease
☐ Heart Valve location:
☐ Aortic ☐ Mitral ☐ Tricuspid
☐ Heart Valve type:
☐ bi〇 ☐ mechanical, ________
☐ Other: _______________________

*See AMS Rx for Graduated Compression Stockings, recommended for acute DVT Treatment

F
Long-Term Outpatient Warfarin Management with AMS requires a MGH-affiliated, collaborating physician and renewal of management orders annually.

COLLABORATING CLINICIAN(S):

PAGER:

PHONE: Spaulding North End
(617) 736-9720

G
PRINT NAME: _______________________
PAGER: (617) 736-9912

SIGNATURE OF ORDERING PROVIDER: _______________________


06/21/2012 3:27PM (GMT-04:00)