BRIGHAM AND WOMEN'S HOSPITAL

| Heart & Vascular Center |

Mannick Vascular Surgery Service Handbook

December 1, 2015

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Welcome to the Mannick service! Vascular surgery is a field with an exciting mix of complex endovascular and open procedures. You will operate on virtually every region of the body from head to toe. Given the systemic nature of the diseases treated on the service, the patients are also among the most complex you will manage during residency—they have multiple comorbidities, are often elderly, and require vigilant care. Thus every member of the team plays a pivotal role in providing excellent patient care. The attending surgeons and physician assistants on the service recognize this fact and are fully committed to helping you develop as a surgeon during the rotation; they strive to create a collegial, educational environment. Because of the specific challenges of managing vascular surgery patients and their disease processes, there are many ways in which their care is divergent from the other surgical patients you will be responsible for this year. This handbook is meant to serve as a roadmap to help you navigate these challenges.

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Staffing

Residents: below is a list of resident roles on the team. Specific duties are described in detail in subsequent sections.

- PGY1 General Surgery Resident (weekday and weekend day/night floor coverage)
- PGY1 Orthopedic Surgery Resident (weekday and weekend day/night floor coverage)
- PGY2 General Surgery Resident (weeknight floor coverage)
- PGY3 General Surgery Resident (works with the first year vascular fellow on the consult service; the PGY3 covers alternate weekends as chief and intern ["chief-tern"] and covers during weeks when the chief is gone)
- PGY5 General Surgery Resident (chief of the service)
- 1st Year Vascular Surgery Fellow (primarily open cases)
- 2nd Year Vascular Surgery Fellow (primarily endovascular cases)

Physician assistants (PA's): extremely experienced and knowledgeable. Use them as a resource to learn how to manage vascular surgery patients!

Kristin Maurer, PA-C: split time between clinic and floor coverage

Morgan Rudnick, PA-C: primarily floor coverage Tuesday-Thursday 6am-2pm

Nurses:

- Shapiro 8 nurses are among the most friendly and competent in the hospital—engage them early in your rotation and they will help you out
- Alice O'Brien (2nd from right) is the SH8E/8W nursing director and will lead the interdisciplinary huddles

Care Coordinator: Because of the medical and social complexity of vascular surgery patients, discharge planning requires a proactive approach from the housestaff and an able care coordinator who can handle difficult insurance and rehab facility issues.

- Sue Harrington is the care coordinator dedicated to Shapiro 8

Attending Vascular Surgeons: The attendings enjoy teaching and are always happy to have residents of any level work with them in clinic, the OR, and the cath lab. All they require is that you show up prepared and engaged!

Michael Belkin, MD
Division Chief

Matthew Menard, MD

Edwin Gravereaux, MD

C. Keith Ozaki, MD

Louis Nguyen, MD, MPH, MBA

Jonathan D. Gates, MD, MBA

Marcus Semel, MD, MPH

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PGY1 Duties

- Getting started: On the first day of your rotation make sure you ...
    1. Get added to the "BWH Surgery Mannick" email list—your chief or one of the PA's can add you
    2. Verify you have key card access to the SH8W call room
    3. Sign into the "Mannick Intern On-Call" pager (p36800) and the code pager (p31776)
    4. Download Epic dot phrases
        - Mannickpresedation
        - Mannickpostop
        - Mannickdischargeinstructions
        - Mannickdischargeemail
        - Mannickprogressnote
        - MannickH&P

A typical day on service will involve the following activities ...

- AM rounds: 6:00am (unless specified by chief otherwise) Shapiro 8 Conference Room (across from door to SH8W ward)—see "*AM Rounds*" below
- Teaching conferences: 7:00am every weekday Shapiro 8 Conference Room (except Department of Surgery M&M and grand rounds on Wednesdays). On Tuesdays there is also division conference at 5:00pm in the SH5 conference room; you are expected to scrub out of cases to attend. See "*Teaching Conferences*" below.
- Interdisciplinary huddle: 8:45am daily in the Shapiro 8 family waiting room (next to patient room SH814)—see "*Interdisciplinary Huddle and Patient Progression*" below
    - Metrics are recorded and reported to the hospital administration so it is essential that you are present at the huddle and provide as accurate a sense of the anticipated discharge date and barriers to discharge—be sure to discuss these explicitly with the chief for every single patient every single morning at 6am rounds
- Floor work:
    - Divide up patients with the other intern on service
    - Discharges: Be proactive and communicate frequently throughout the day with the care coordinator, Sue Harrington, or your list will quickly become difficult to manage. Aim to discharge patients before 11am unless there is a specific reason to hold onto a patient until later. Discharge paperwork should be updated as much as possible the day before discharge. See "*Discharge Paperwork and Preferences*" below
    - Perform postoperative checks early because of the nature of carotid and bypass surgery, etc.—see "*Postop checks (for OR and cath lab cases)*" below.
    - Show up on-time and prepared to the OR cases you are assigned to. Be sure to get a concrete plan from the attendings—see "*OR Cases*" and "*Cath Lab Cases (Angios)*" below.

  - Double scrub cases. The vascular surgery attendings and fellows love teaching and are committed to making you a better surgeon. We know you work hard to take care of our complex patients and are happy to reward your hard work with operative experience. Even if for a little while, come down to the OR and do what you came to do in surgery residency!
- PM rounds: Variable—any time between 2p and whenever the chief is done with cases. As on all the general surgery services, cards are expected on the Mannick service and have them updated with daily PM numbers and labs. See "*PM rounds*" below
- Signout to the PGY2: The PGY2 covers consults, the floor, rounds on ICU patients, and frequently has direct admits to deal with. Give your PGY2 a clear, detailed signout and try to complete tasks before 6:00pm if at all possible, rather than passing them off.

- Weekends:
  - Consults: PGY1s will see new consults (p35777) on weekend days and weekend nights, and staff with the vascular fellow on-call (p19500).
  - Renal transplant service cross coverage: Variable how this works, depending on the transplant PGY3 resident but you may be asked to cover these patients some weekends by the PGY3 Transplant Chief. The Mannick night resident is always backup/on pager call for renal transplant patients and any questions should be addressed to the transplant resident <u>not</u> the vascular surgery chief or fellows.

- Vascular preops
  - As a new intern, it might be confusing when your Chief or fellow ask you to "Pre-op" a patient. Pre-ops are even more important on this service than the other general surgery services. Below is a check list. Not every patient will require everything listed below. When in doubt, just ask the Chief/fellow. Chiefs/fellows don't like surprises, so if you are not clear on anything or have a question, <u>ASK</u> them.
    - ☐ CBC, Chem 7, Mg, Coags, Type and Screen, UA
    - ☐ Does the patient need blood reserved (type and cross)? How many units?
    - ☐ EKG—be sure to review it yourself
    - ☐ CXR
    - ☐ Does the patient need a cardiology/vascular medicine consult pre-op?
    - ☐ Is the patient on ASA, statin, beta-blockade? If not, why?
    - ☐ Informed consent (do not forget to specify laterality where indicated and to ensure that it matches the OR booking)
    - ☐ Site-marking
    - ☐ "Orange" sheet (pre-op holding checklist)
    - ☐ Does the patient need vein-mapping (ultrasound) pre-op?

- Does the patient need hemodialysis pre-op? When is patient due for HD? Does the HD fellow (renal consult) know that the patient is in-house?
- Glycemic control (is the patient on short-acting insulin that will need to be held when NPO? We keep all long acting insulin at the same rate.)
- If the patient is on heparin, when (if at all) should it be held? What about Coumadin? Other anticoagulants/antiplatelet agents?
- Does the patient have an IV contrast allergy? If so, are they receiving premedication with Prednisone/Benadryl in anticipation of CTA/MRA/conventional angiography?
- Does the patient need a dose of ASA preop (ie carotid endarterectomy, angio)? Does the patient need Plavix preop (ie carotid stent)?
- Patients going to angio: helpful to have Foley placed on floor and abx written on-call to angio (ie Ancef). DO NOT DO THIS FOR DR. MENARD'S PATIENTS

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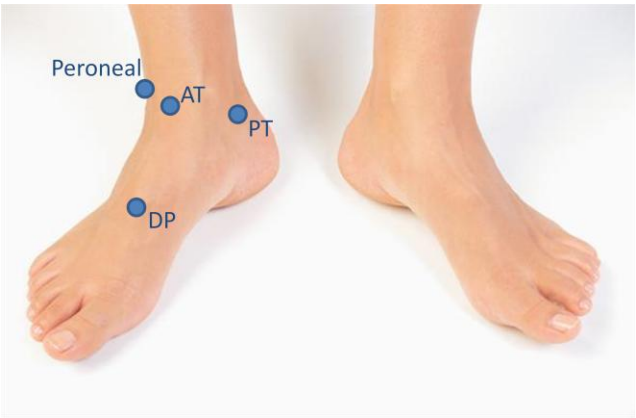
PGY2 Nightfloat Duties:

1. PM Rounds: The PGY2 is expected to round on and examine each patient. Note their pulse exam on the patient's white board in the room (see example chart below)—grafts can thrombose or go down any time so vigiliance for changes in exam are critical! For patients who need extensive supplies (ACE wraps, Kerlix, multiple 4x8 gauze/drain sponges) you should "prestock" the carts in their room with materials the team will need for the morning dressing change.

	DP	PT	AT	Peroneal	Graft(s)
L					
R					



2. Review anticipated discharges for the next day with the SH8W unit clerk <u>before 11pm every night</u>. This metric is tracked by the hospital administration; make sure you ask the team at signout when discharge is anticipated.

3. Direct Admissions: Discuss with the chief resident. Include the following in every admission H&P email to the team and every postop email ...
    - *Anticipated discharge date* (single best estimate, not "best case scenario", etc.)
    - *Anticipated discharge venue* (home, home with services, facility)
    - *Barriers to care progression and discharge*—what can the various team members (PT, CCRN, etc.) do to overcome these barriers and move the patient closer to the next phase of recovery?
4. Overnight Consults: You cover floor and ICU consults. The ED Senior covers ED consults. Discuss any consults with the on-call vascular surgery fellow (p11950).
5. AM List (6+ copies): As you did for other nightfloat services last year as in intern
    a. POD/HD, antibiotics (Gram positive/GN/anaerobic/antifungals)
    b. Diet/tube feeds, IVF/TPN, anticoagulation/DVT prophylaxis, pain regimen
    c. Tmax, HR/BP you can get Epic to auto-populate but note any anomalies/aberrations; 24hr I/Os with drain outputs, urine, NGT, etc broken down
    d. Weight bearing status (for example, nonweight bearing right lower extremity = NWB RLE)
6. Progress Notes: Draft daily progress notes for patients and share with the interns.
7. Preop/preangio paperwork: You are responsible for ensuring that all paperwork is ready for 7:30a OR cases and 8:00a Cath Lab cases every day.
    a. OR: as on other services, make sure the consent and orange sheet are completed, the patient has been site-marked, the H&P update has been completed if indicated, and any required preoperative orders are entered.
    b. Cath lab: see section below on *Cath Lab Cases (Angios)* requirements. The consent may be completed ahead of time if the patient is an inpatient. For the sedation medications and presedation evaluation, someone must evaluate the patient in the pre-procedure area prior to completion of this documentation (and do consent if patient coming in from home). If the patient is not in L2 CVRR by 7:00a, Kristin or Morgan will complete the presedation evaluation and sedation medication orders at 7:00a so you can attend morning conferences.
8. Renal Transplant Patients: At night, you are the backup/on pager call for renal transplant patients and any questions should be addressed to the transplant PGY3 resident, not the Mannick vascular surgery chief or fellow.

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PGY3 Consult Resident Duties:

- See new inpatient consults and round on existing consults. Staff consults with the 1st year vascular surgery fellow.
- Cover the primary team on weekends.
- Each vascular surgery fellow runs the consult service differently; discuss expectations with the fellow.

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PGY5 Chief Resident Duties:

- Refer to the separate letter to the chief residents from Dr. Ozaki ("*Your Tenure As Vascular Surgery Chief*")
- AM rounds/PM rounds: See below. Of particular importance to your role as chief ...
    - Because of the "Huddle" on this service, be explicit when running the list on what the expected discharge date, disposition, and services (VNA, PT, infusions, ABX, anticoagulation) for each patient are so that the team can communicate these effectively to the "Huddle"—these metrics and our accuracy are tracked by the hospital administration!
    - Assign a med student or intern the rolling Doppler and have them leave it by the first room so it's ready when you start rounding
    - It's helpful if the team gets supplies in the rooms the night before or morning before rounds so you don't end up waiting for people to go in and out to the stockroom to grab Kerlix, ACE bandages, 4x8s, etc.
    - For patients with significant dressings, it may help to have 1-2 people go ahead and take their dressings down while the rest of the team re-dresses the current patient.
    - Running the list is like with other services except it happens at 7:30 instead of 7 because of conference. Try to find attendings who have 1st OR cases by their ORs; if you don't see them, page with updates if there's a question that needs urgent answer otherwise email them updates and plans. Alternatively, page attendings a little before 7:00am conference if you finish rounding in time. Not infrequently plans also get communicated through the PAs.
- 7am Teaching Conferences: See below. Of particular importance to your role as chief ...
    - PGY2 required to attend Tuesday 7am conference. M/W/Thu/Fri the PGY2's priority is to complete preop paperwork for 1st case OR and cath lab patients and then join.
    - Tues 7a: Belkin Rounds—Everyone assigned a question should email their slides to you the evening before so you can collate. Distribute these slides and answers to the general surgery residents (something Dr. Belkin thought might be nice for the residents) if one of the fellows has not already done so.
    - Tues 5p: Division Conference—Make sure your team knows they must scrub out of OR cases and attend. Fellows will contact you if not already to set a date for your talk.
    - Wed 7a: Surgery Residency Protected Time—Ortho intern does not go and thus is free to cover any 1st cases that might be level appropriate. Both PAs generally here Wednesday to help cover floor during didactics.
    - Thurs 7a: Menard Rounds—Choose an interesting patient/case the Friday or Monday before, then have the medical student present. You should go over the details and imaging the med student should present with them prior to the conference.
    - Fri 7a: Ozaki Rounds—Email Dr. Ozaki to select topics one week beforehand
- OR assignments: Look the weekend before and check with the fellows what OR and cath lab cases they plan on doing. The OR/cath lab schedule changes a lot day-to-day so update daily. Send a tentative schedule for the next day by mid afternoon to the "BWH Surgery Mannick" email list so housestaff have time to prepare for the next day

- Direct admissions and nights: Home call for floor patients and any direct admissions. Fellow on-call staffs consults/admissions through the ED. We typically get direct admissions from clinic on Tuesdays, Thursdays, and sometimes Fridays. We also get direct transfers from OSH. Typically the team will get an expect email from the PA in clinic or attending on call who accepted the patient.
- Weekends: There may be 1st start cases, particularly on Saturday, and you'll need to discuss with the on-call fellow whether they want you or an intern to cover or if they will cover. The PGY3 alternates weekend calls with you.

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AM rounds

- Time/location: 6:00am sharp (unless specified by chief otherwise) Shapiro 8 Conference Room (across from door to SH8W ward)
- List: The PGY2 nightfloat resident will have lists prepared and copied for everyone on the team. (On Sunday mornings the covering PGY1 night resident will perform this job)
- SICU patients: PGY2 and Chief round separately on these patients prior to 6am floor rounds
- Sitdown rounds: The PGY2 will run the floor patients
- Huddle Metrics: At both AM and PM rounds, interns should explicitly discuss the anticipated discharge date, venue, and barriers for each patient with the chief. Interns should remind the chief if they forget to explicitly discuss this during sit down rounds. Interns will be responsible for relaying this information to the Nursing Director and other care team members at 8:45a Huddle and this information is tracked by the hospital administrators.
    - *Anticipated discharge date* (single best estimate, not "best case scenario", etc.)
    - *Anticipated discharge venue* (home, home with services, facility)
    - *Barriers to care progression and discharge*—what can the various team members (PT, CCRN, etc.) do to overcome these barriers and move the patient closer to the next phase of recovery?
- Walk rounds: The team must run like a well oiled machine since we have many patients with complex dressing changes and must make conference at 7:00am. Strategies for smooth bedside rounding.
    - PGY2: Break off and do patient orange sheets, consents, and angio paperwork (see "PGY2 Duties" section.)
    - PGY1: One intern should go ahead and take down the next patient's dressings while the other stays to re-dress the previous patient's wound.
    - Medical student(s): Place the rolling Doppler in front of the first patient on the list's room before rounds. Carry dressing supplies.

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Teaching Conferences: One of the highlights of the rotation. Mandatory for day time residents. PGY2 is required to attend Tuesday 7am conference. M/W/Thu/Fri the PGY2's priority is to complete preop paperwork for 1st case OR and cath lab patients and once completed, is highly encouraged to attend the other 7am conferences.

- Mon 7a SH8 Conference Room: Nguyen rounds—health policy or other economic topics
- Tues 7a SH8 Conference Room: Belkin rounds—Multiple-choice Q&A assigned by 2nd year fellow the prior week. Send your slides to the chief every Monday night.
- Tues 5p Shapiro 5th floor Conference Room : Division conference—MANDATORY attendance (per Division Chief, Dr. Belkin, you must scrub out of OR cases to attend—all attendings are aware)
- Wed 7a: General Surgery Departmental didactics (Ortho intern does not go)
- Thurs 7a SH8 Conference Room: Menard rounds—case presentation
- Fri 7a SH8 Conference Room: Ozaki rounds—discussion of landmark clinical trials, bedside tutorials, other activities

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Interdisciplinary Huddle and Patient Progression:

- AN INTERN OR PA MUST BE PRESENT AT EVERY HUDDLE! If this is not possible for any reason, let Dr. Ozaki (ckozaki@partners.org; pager 17489; mobile 352-318-2178) know in advance so that alternate arrangements can be made.
- Time/location: Daily at 8:45a.m. in the Shapiro 8 family waiting room (next to patient room SH814)
- Rationale and metrics: The huddles were created as a result of the hospital-wide Patient Progression Initiative to improve bed flow. This is important to us and our patients because inaccurate estimates of bed availability and delays in discharge result in PACU holds, patients boarding for prolonged periods in the ED and PACU, breakdown of regionalization of our vascular patients to the nursing teams that are specialized in their care, and—at worst—turning away patients from outside hospitals who need the complex surgeries and tertiary/quaternary level of care we provide at the Brigham. The following metrics are followed by the hospital administration ...
    - Accuracy of expected discharges for the next day (estimates must be reported to the ward clerk by midnight the day prior)
    - Discharge orders written as early as feasible (at least by 11a.m.) the day of discharge
- Your role: The Mannick intern plays a critical role in providing the house staff team input for the interdisciplinary huddle team of nurses, physical therapists, social workers, and the care coordinator. You represent not only yourselves, but the PA's, chief residents, and attending surgeons. The chiefs should explicitly go over anticipated discharge date, venue, and barriers with you at AM and PM rounds (remind them if they forget).
- ***Checklist: Discuss these points for each patient at every huddle***
    - ☐ **Anticipated discharge date** (single best estimate, not "best case scenario", etc.)

- **Anticipated discharge venue** (home, home with services, facility)
- **Brief plan for the day and any recent events that have changed the overall discharge plan or projected length of stay**
- **Barriers to care progression and discharge**—what can the various team members (PT, CCRN, etc.) do to overcome these barriers and move the patient closer to the next phase of recovery?
- **Gather info from ancillary services** (e.g. disposition venue from PT, rehab bed availability from CCRN, etc.)

- Finally, there is always a plan for every patient. If you do not know the algorithm for the care plan for a particular patient, clarify with the chief resident and attending. Admission and postop emails should include anticipated discharge date, venue, and barriers to help guide you (so pay attention to those) and ask your chief at AM and PM rounds each day what the anticipated date of discharge is for each and every patient.

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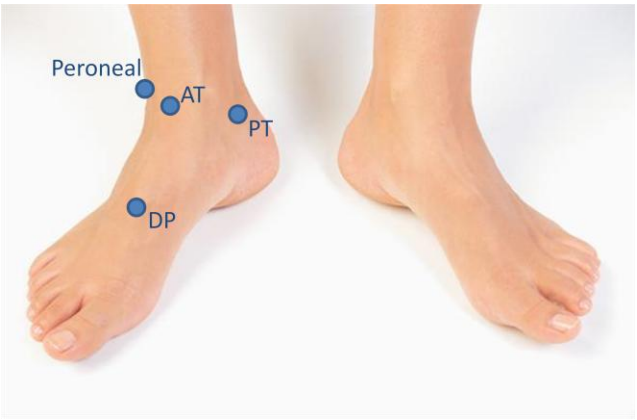
PM rounds

- Time/location: Variable—any time between 2p and whenever the chief is done with cases. S/he will let you know when and where each day. Pre-round early in the afternoon since your chief may only have a short window between cases; you want to be prepared when that window comes.
- Prerounding
  - You are expected to review vitals, I/Os, labs, consult notes, and examine all patients prior to sit down rounds with the chief. Update cards with vitals, I/Os, labs.
  - Exam should consist of recheck of all wounds and pulses/signals—changes from the morning exam might indicate a graft going down! Note whether the patient has palpable pulses, biphasic Doppler signals, monophasic Doppler signals, or absent signals and pulses. Neurologic examination is critical in carotid endarterectomy and stenting patients.

	DP	PT	AT	Peroneal	Graft(s)
L					
R					



- Cards: The Mannick Service uses patient index cards to allow rapid reference of patient comorbidities and home medications during rounds. In addition, the cards allow you to rapidly track vitals and I/O trends when you don't have ready access to EPIC or in situations where rapid identification is required (e.g. code situations). The unit secretary on SH8W can show you where blank cards are located and medical students can assist you in creating these. Below are examples.

FRONT

Smith, Joe 1234567
<Attending>
s/p exlap, LOA

HPI: 65y M w/…..

PMH:
Asthma
DM

PSH:
2001 lap CCY
2000 LRYGB

Meds:
Albuterol prn

All: NKDA

Shx: -T –E

Diet:
NPO

IVF:
LR@100

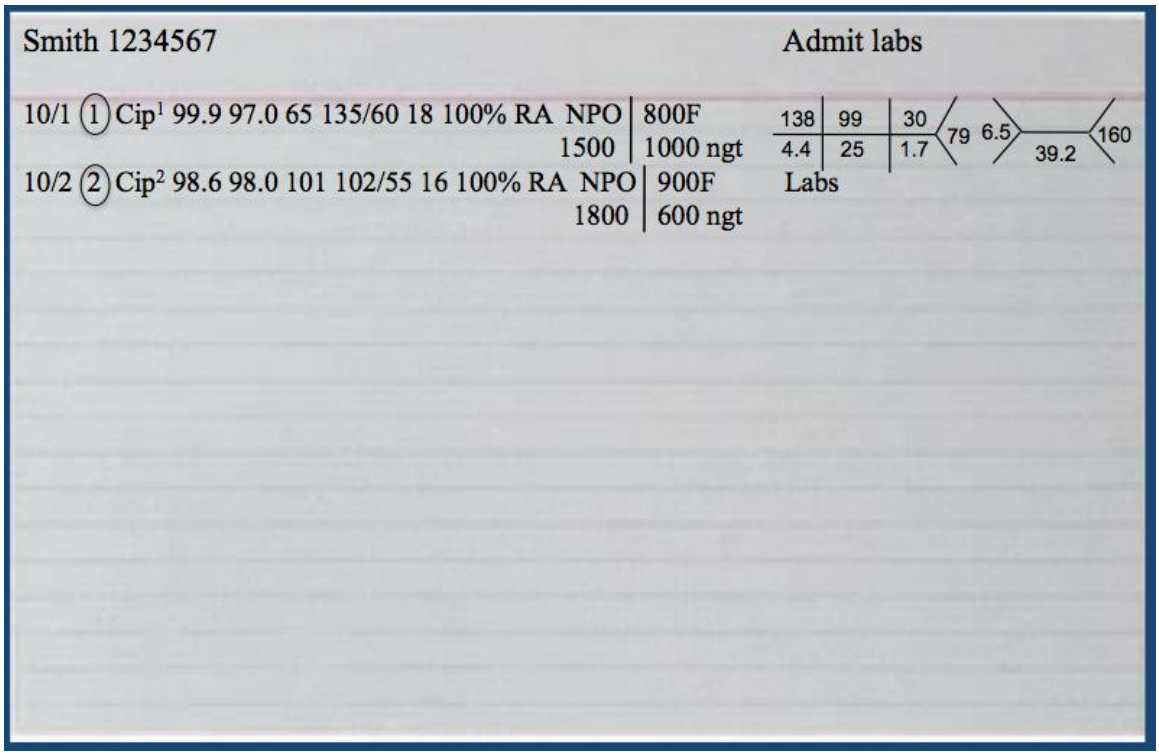
T/L/D:
L SC TLC 10/1
Foley

Micro:
10/2 Ucx +E coli

Hosp Meds:
Duonebs q6
Cipro 400 iv bid

Prn meds:
Dilaudid pca
Tylenol prn

BACK



- Postop/post-angio patients: Vascular procedures carry a higher risk for stroke, MI, life-threatening bleeding, and other major morbidity and mortality in the immediate postoperative period than those performed on other services. Postop/postangio checks should be performed promptly—prior to PM rounds (even if the patient is still in the PACU/CVRR).
- Anticipated discharge: Just as at AM rounds, you should explicitly discuss the anticipated discharge date for each patient with the chief during PM rounds. Discharge planning is challenging; update the chief on any changes to disposition based on PT, etc. recommendations and updates about bed/home services availability from the Care Coordinator. If you do not play offense, your list will grow.

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OR Cases: Mannick is a busy operative service with frequent last minute changes to scheduled and add-on cases. The chief resident in conjunction with the vascular fellows will assign cases and make assignments in Epic. However please keep an eye on the OR board for changes and add on cases as well as the status of cath lab cases (see below).

For all cases except 1st cases we expect procedure consent, site marking, any needed preoperative orders to be completed by the assigned resident. (For 7:30a OR, 8:00a cath lab cases the PGY2 nightfloat will be responsible for completing all paperwork—see above "PGY2 Nightfloat Duties"—so that everyone can show up on time to daily morning conferences.) The assigned resident is expected to be on time to the OR when the patient enters the room.

Collect the following information after every case:

*****CHECKLIST OF INFORMATION TO OBTAIN FROM ATTENDING AFTER EVERY CASE*****

- ☐ Wound plan:
  1. VAC?
  2. Delayed closure in OR?
  3. Skin graft?
  4. Discharge with packing?
- ☐ Weight bearing status/activity restrictions
  1. If specialty orthotic/durable medical equipment required, place order for Orthopedic Technician and/or equipment immediately after OR case
  2. Most patients should also get a PT consult order
- ☐ Anticoagulation/antiplatelet plan
  1. When to restart?
  2. "Chicken" heparin [500-700units/hr with no titration]?
  3. Therapeutic anticoagulation?
  4. Heparin/Lovenox bridge?
  5. Duration? (e.g. Plavix x30 days with stents)
- ☐ Antibiotic plan including duration
  1. Place ID consult order and page on-call ID fellow immediately after case if relevant
- ☐ Anticipated discharge timing, disposition venue, and anticipated barriers

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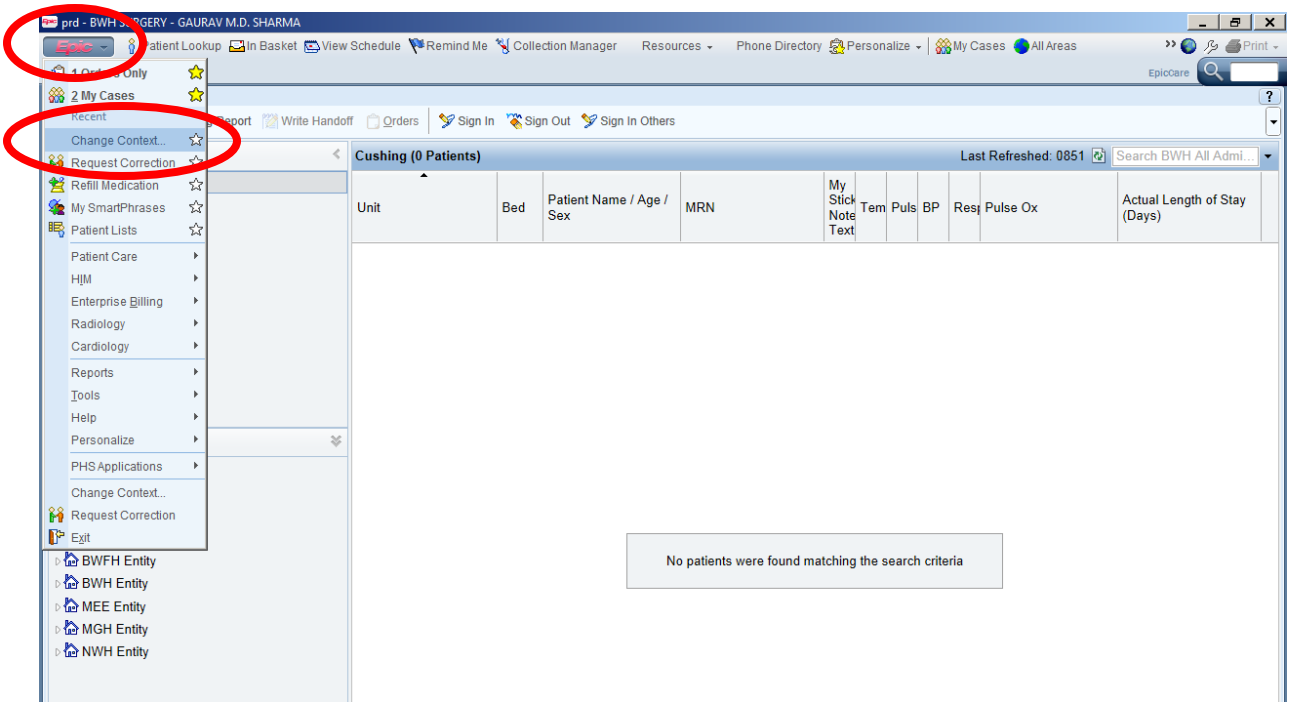
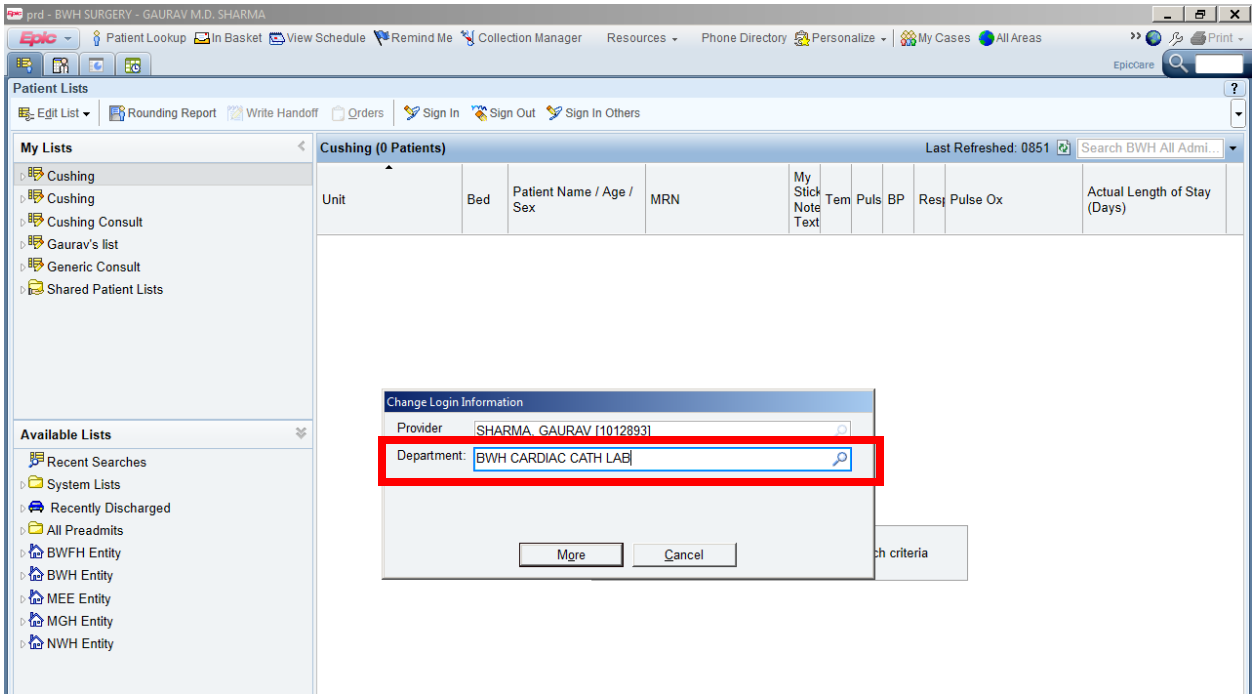
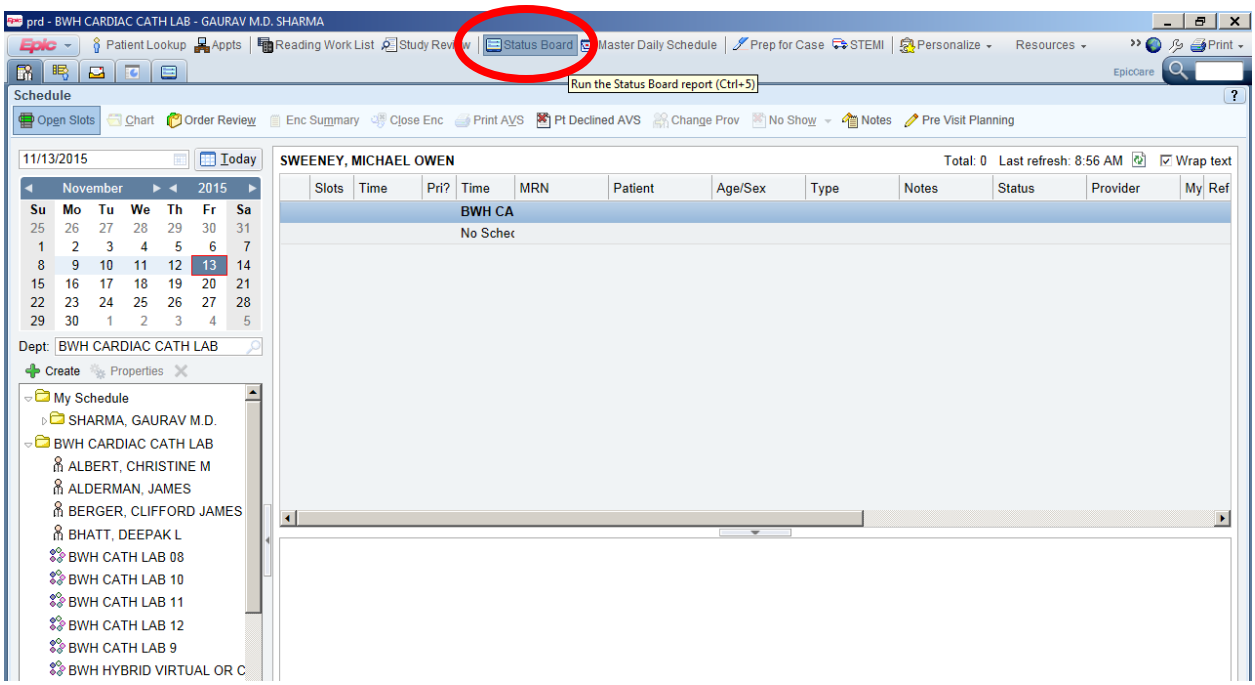
Cath Lab Cases (Angios): Special cath lab consent form, pre-sedation evaluation, and pre-procedure orders are required for all cases.

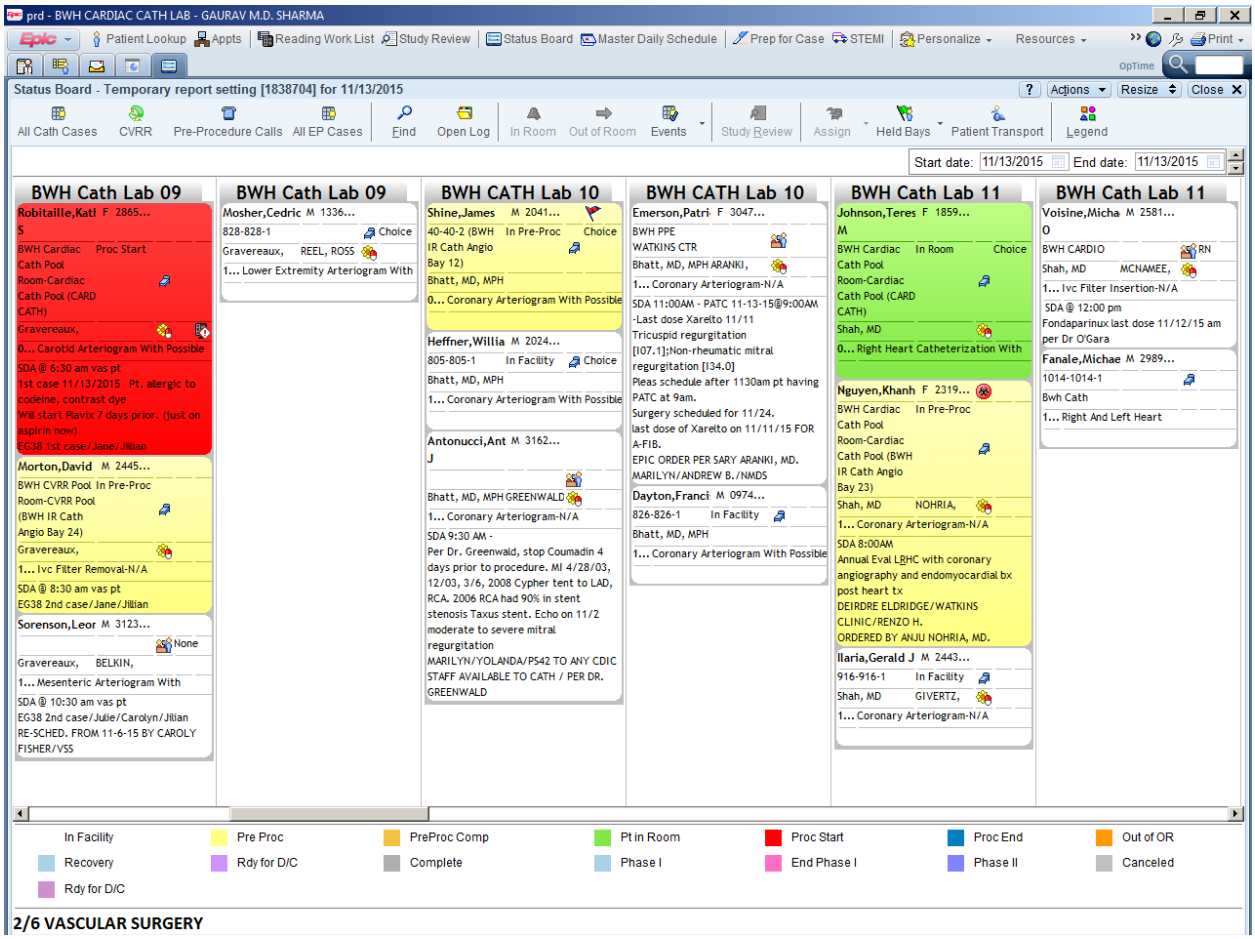
1. 8AM case cath lab cases (1st case of day): The consent (see below) may be completed ahead of time if the patient is an inpatient. For the sedation medications and presedation evaluation (see below), someone must evaluate the patient in the preprocedure area prior to completion of this documentation (and do consent if patient coming in from home). Do not wait until 7:30a to do this. Night PGY2 residents, if the patient is not in L2 CVRR by 7:00a, Kristin or Morgan will complete the presedation evaluation and sedation medication orders at 7:00a so that residents can attend morning conferences.

2. You will NOT receive any pages (patient in slot #, room ready, patient in room, etc.) for cath lab cases so be on top of these; you can see cath lab snapboard in Epic (upper left "Epic" dropdown menu -> "change context" -> "BWH cardiac cath lab" -> "status board" on top menu—see below.)

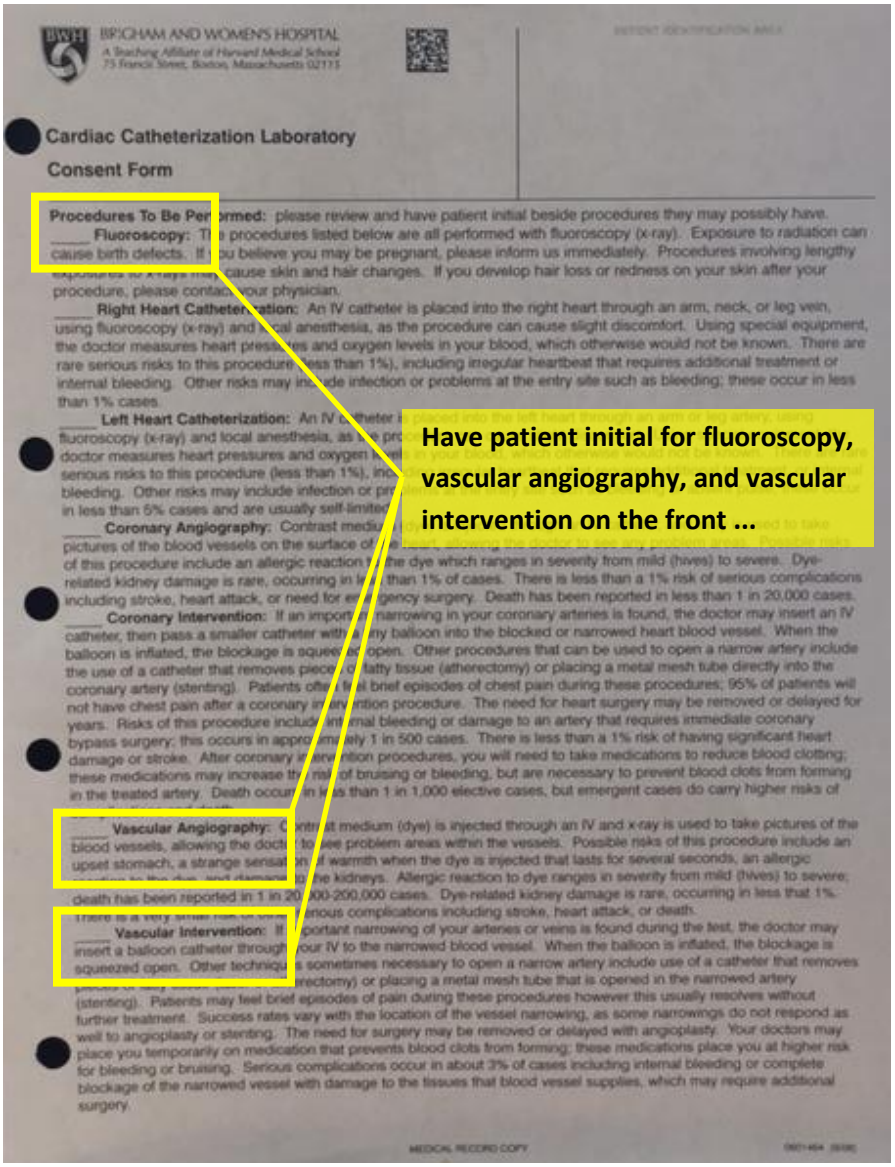

Epic
Patient Lookup
In Basket
View Schedule
Remind Me
Collection Manager
Resources
Phone Directory
Personalize
My Cases
All Areas
Print
EpicCare
2 My Cases
Recent
Change Context...
Request Correction
Refill Medication
My SmartPhrases
Patient Lists
Patient Care
HIM
Enterprise Billing
Radiology
Cardiology
Reports
Tools
Help
Personalize
PHS Applications
Change Context...
Request Correction
Exit
Write Handoff
Orders
Sign In
Sign Out
Sign In Others
Cushing (0 Patients)
Last Refreshed: 0851
Search BWH All Admi...
Unit
Bed
Patient Name / Age / Sex
MRN
My Stick Note Text
Tem
Puls
BP
Pulse Ox
Actual Length of Stay (Days)
No patients were found matching the search criteria
BWFH Entity
BWH Entity
MEE Entity
MGH Entity
NWH Entity

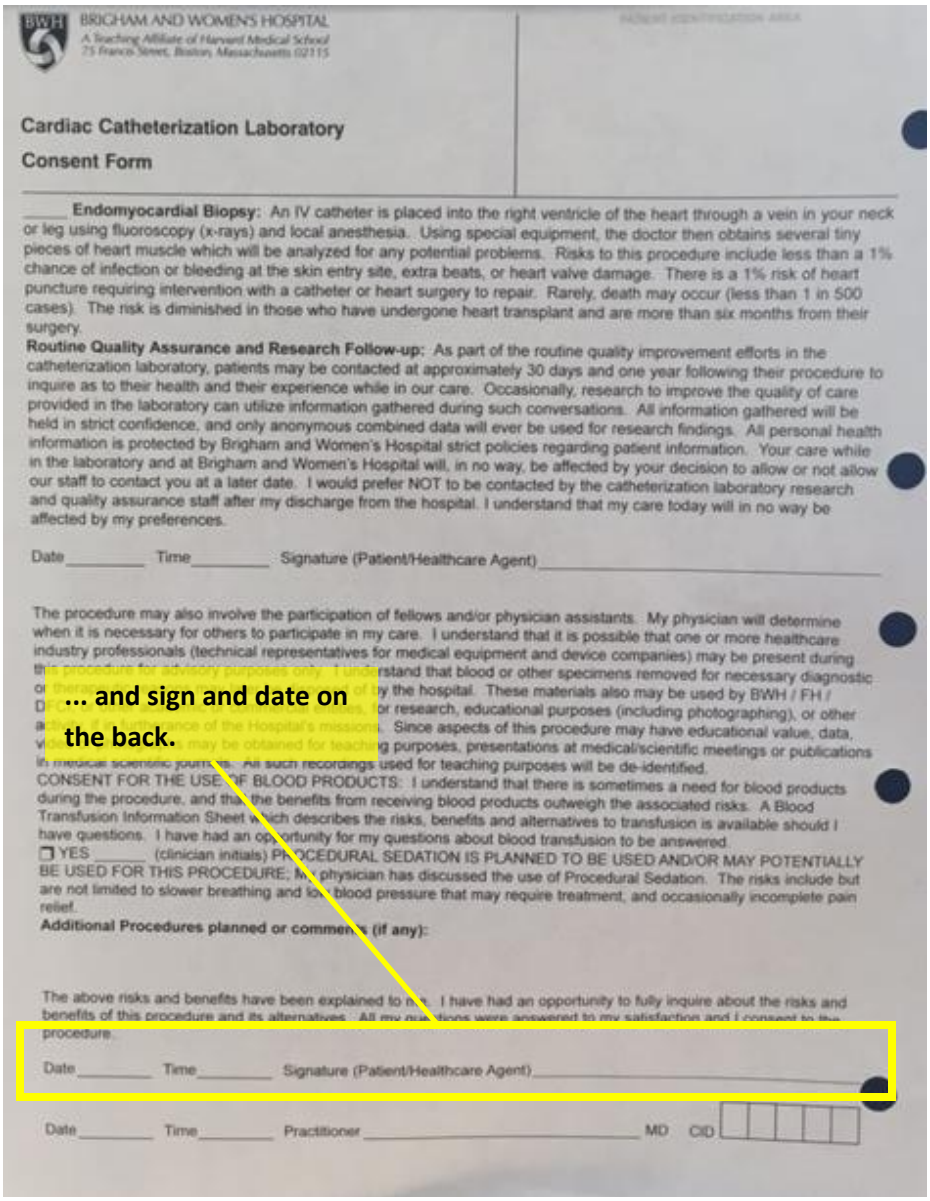

Patient Lists
Edit List
Rounding Report
Write Handoff
Orders
Sign In
Sign Out
Sign In Others
My Lists
Cushing
Cushing
Cushing Consult
Gaurav's list
Generic Consult
Shared Patient Lists
Available Lists
Recent Searches
System Lists
Recently Discharged
All Preadmits
BWFH Entity
BWH Entity
MEE Entity
MGH Entity
NWH Entity
Change Login Information
Provider
SHARMA, GAURAV [1012893]
Department:
BWH CARDIAC CATH LAB
More
Cancel


prd - BWH CARDIAC CATH LAB - GAURAV M.D. SHARMA
Patient Lookup
Appts
Reading Work List
Study Review
Status Board
Master Daily Schedule
Prep for Case
STEMI
Personalize
Resources
Print
Run the Status Board report (Ctrl+5)
Schedule
Open Slots
Chart
Order Review
Enc Summary
Close Enc
Print AVS
Pt Declined AVS
Change Prov
No Show
Notes
Pre Visit Planning
11/13/2015
Today
November
2015
Dept: BWH CARDIAC CATH LAB
Create
Properties
My Schedule
SHARMA, GAURAV M.D.
BWH CARDIAC CATH LAB
ALBERT, CHRISTINE M
ALDERMAN, JAMES
BERGER, CLIFFORD JAMES
BHATT, DEEPAK L
BWH CATH LAB 08
BWH CATH LAB 10
BWH CATH LAB 11
BWH CATH LAB 12
BWH CATH LAB 9
BWH HYBRID VIRTUAL OR C
SWEENEY, MICHAEL OWEN
Total: 0
Last refresh: 8:56 AM
Wrap text
Slots
Time
Pri?
Time
MRN
Patient
Age/Sex
Type
Notes
Status
Provider
My
Ref
BWH CA
No Schec


prd - BWH CARDIAC CATH LAB - GAURAV M.D. SHARMA
Status Board - Temporary report setting [1838704] for 11/13/2015
Actions
Resize
Close
All Cath Cases
CVRR
Pre-Procedure Calls
All EP Cases
Find
Open Log
In Room
Out of Room
Events
Study Review
Assign
Held Bays
Patient Transport
Legend
Start date: 11/13/2015
End date: 11/13/2015
BWH Cath Lab 09
BWH Cath Lab 09
BWH CATH Lab 10
BWH CATH Lab 10
BWH Cath Lab 11
BWH Cath Lab 11
Robitaille,Kati F 2865...
S
BWH Cardiac Cath Pool Room-Cardiac Cath Pool (CARD CATH)
Proc Start
Gravereaux,
0... Carotid Arteriogram With Possible
SDA @ 6:30 am vas pt
1st case 11/13/2015 Pt. allergic to codeine, contrast dye
Will start Plavix 7 days prior. (just on aspirin now)
EG38 1st case/Jane/Jillian
Morton,David M 2445...
BWH CVRR Pool Room-CVRR Pool (BWH IR Cath Angio Bay 24)
In Pre-Proc
Gravereaux,
1... Ivc Filter Removal-N/A
SDA @ 8:30 am vas pt
EG38 2nd case/Jane/Jillian
Sorenson,Leor M 3123...
None
Gravereaux, BELKIN,
1... Mesenteric Arteriogram With
SDA @ 10:30 am vas pt
EG38 2nd case/Julie/Carolyn/Jilian
RE-SCHED. FROM 11-6-15 BY CAROLY FISHER/VSS
Mosher,Cedric M 1336...
828-828-1
Choice
Gravereaux, REEL, ROSS
1... Lower Extremity Arteriogram With
Shine,James M 2041...
40-40-2 (BWH IR Cath Angio Bay 12)
In Pre-Proc
Choice
Bhatt, MD, MPH
0... Coronary Arteriogram With Possible
Heffner,Willia M 2024...
805-805-1
In Facility
Choice
Bhatt, MD, MPH
1... Coronary Arteriogram With Possible
Antonucci,Ant M 3162...
J
Bhatt, MD, MPH GREENWALD
1... Coronary Arteriogram-N/A
SDA 9:30 AM -
Per Dr. Greenwald, stop Coumadin 4 days prior to procedure. MI 4/28/03, 12/03, 3/6, 2008 Cypher tent to LAD, RCA. 2006 RCA had 90% in stent stenosis Taxus stent. Echo on 11/2 moderate to severe mitral regurgitation
MARILYN/YOLANDA/P542 TO ANY CDIC STAFF AVAILABLE TO CATH / PER DR. GREENWALD
Emerson,Patri F 3047...
BWH PPE
WATKINS CTR
Bhatt, MD, MPH ARANKI,
1... Coronary Arteriogram-N/A
SDA 11:00AM - PATC 11-13-15@9:00AM
-Last dose Xarelto 11/11
Tricuspid regurgitation [I07.1];Non-rheumatic mitral regurgitation [I34.0]
Pleas schedule after 1130am pt having PATC at 9am.
Surgery scheduled for 11/24.
last dose of Xarelto on 11/11/15 FOR A-FIB.
EPIC ORDER PER SARY ARANKI, MD.
MARILYN/ANDREW B./NMDS
Dayton,Franci M 0974...
826-826-1
In Facility
Bhatt, MD, MPH
1... Coronary Arteriogram With Possible
Johnson,Teres F 1859...
M
BWH Cardiac Cath Pool Room-Cardiac Cath Pool (CARD CATH)
In Room
Choice
Shah, MD
0... Right Heart Catheterization With
Nguyen,Khanh F 2319...
BWH Cardiac Cath Pool Room-Cardiac Cath Pool (BWH IR Cath Angio Bay 23)
In Pre-Proc
Shah, MD
NOHRIA,
1... Coronary Arteriogram-N/A
SDA 8:00AM
Annual Eval LBHC with coronary angiography and endomyocardial bx post heart tx
DEIRDRE ELDRIDGE/WATKINS CLINIC/RENZO H.
ORDERED BY ANJU NOHRIA, MD.
Ilaria,Gerald J M 2443...
916-916-1
In Facility
Shah, MD
GIVERTZ,
1... Coronary Arteriogram-N/A
Voisine,Micha M 2581...
O
BWH CARDIO
RN
Shah, MD
MCNAMEE,
1... Ivc Filter Insertion-N/A
SDA @ 12:00 pm
Fondaparinux last dose 11/12/15 am per Dr O'Gara
Fanale,Michae M 2989...
1014-1014-1
Bwh Cath
1... Right And Left Heart
In Facility
Pre Proc
PreProc Comp
Pt in Room
Proc Start
Proc End
Out of OR
Recovery
Rdy for D/C
Complete
Phase I
End Phase I
Phase II
Canceled
Rdy for D/C
2/6 VASCULAR SURGERY

3. Consent: Use the special cath lab paper consent form. The patient must initial at "fluoroscopy", "vascular angiography", "vascular intervention" on the front, and sign on the back (see below)





BRIGHAM AND WOMEN'S HOSPITAL
A Teaching Affiliate of Harvard Medical School
75 Francis Street, Boston, Massachusetts 02115

Cardiac Catheterization Laboratory

Consent Form

_____ **Endomyocardial Biopsy:** An IV catheter is placed into the right ventricle of the heart through a vein in your neck or leg using fluoroscopy (x-rays) and local anesthesia. Using special equipment, the doctor then obtains several tiny pieces of heart muscle which will be analyzed for any potential problems. Risks to this procedure include less than a 1% chance of infection or bleeding at the skin entry site, extra beats, or heart valve damage. There is a 1% risk of heart puncture requiring intervention with a catheter or heart surgery to repair. Rarely, death may occur (less than 1 in 500 cases). The risk is diminished in those who have undergone heart transplant and are more than six months from their surgery.

Routine Quality Assurance and Research Follow-up: As part of the routine quality improvement efforts in the catheterization laboratory, patients may be contacted at approximately 30 days and one year following their procedure to inquire as to their health and their experience while in our care. Occasionally, research to improve the quality of care provided in the laboratory can utilize information gathered during such conversations. All information gathered will be held in strict confidence, and only anonymous combined data will ever be used for research findings. All personal health information is protected by Brigham and Women's Hospital strict policies regarding patient information. Your care while in the laboratory and at Brigham and Women's Hospital will, in no way, be affected by your decision to allow or not allow our staff to contact you at a later date. I would prefer NOT to be contacted by the catheterization laboratory research and quality assurance staff after my discharge from the hospital. I understand that my care today will in no way be affected by my preferences.

Date_____ Time_____ Signature (Patient/Healthcare Agent)_____

The procedure may also involve the participation of fellows and/or physician assistants. My physician will determine when it is necessary for others to participate in my care. I understand that it is possible that one or more healthcare industry professionals (technical representatives for medical equipment and device companies) may be present during this procedure for advisory purposes only. I understand that blood or other specimens removed for necessary diagnostic or therapeutic purposes may be used by the hospital. These materials also may be used by BWH / FH / D... for research, educational purposes (including photographing), or other a... Since aspects of this procedure may have educational value, data, v... may be obtained for teaching purposes, presentations at medical/scientific meetings or publications in medical scientific journals. All such recordings used for teaching purposes will be de-identified.

CONSENT FOR THE USE OF BLOOD PRODUCTS: I understand that there is sometimes a need for blood products during the procedure, and that the benefits from receiving blood products outweigh the associated risks. A Blood Transfusion Information Sheet which describes the risks, benefits and alternatives to transfusion is available should I have questions. I have had an opportunity for my questions about blood transfusion to be answered.

❒ YES _____ (clinician initials) PROCEDURAL SEDATION IS PLANNED TO BE USED AND/OR MAY POTENTIALLY BE USED FOR THIS PROCEDURE. My physician has discussed the use of Procedural Sedation. The risks include but are not limited to slower breathing and low blood pressure that may require treatment, and occasionally incomplete pain relief.

Additional Procedures planned or comments (if any):

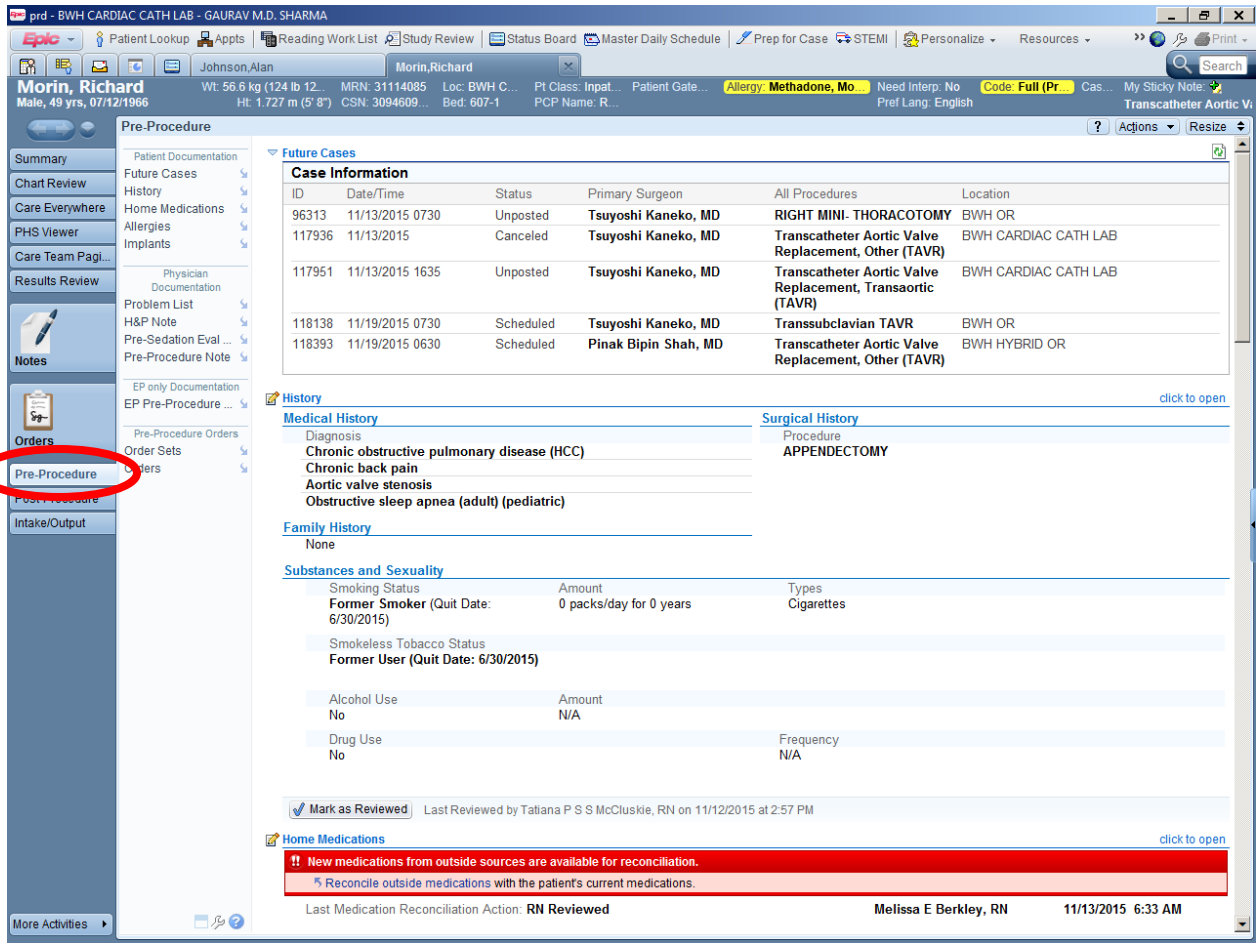
The above risks and benefits have been explained to me. I have had an opportunity to fully inquire about the risks and benefits of this procedure and its alternatives. All my questions were answered to my satisfaction and I consent to the procedure.

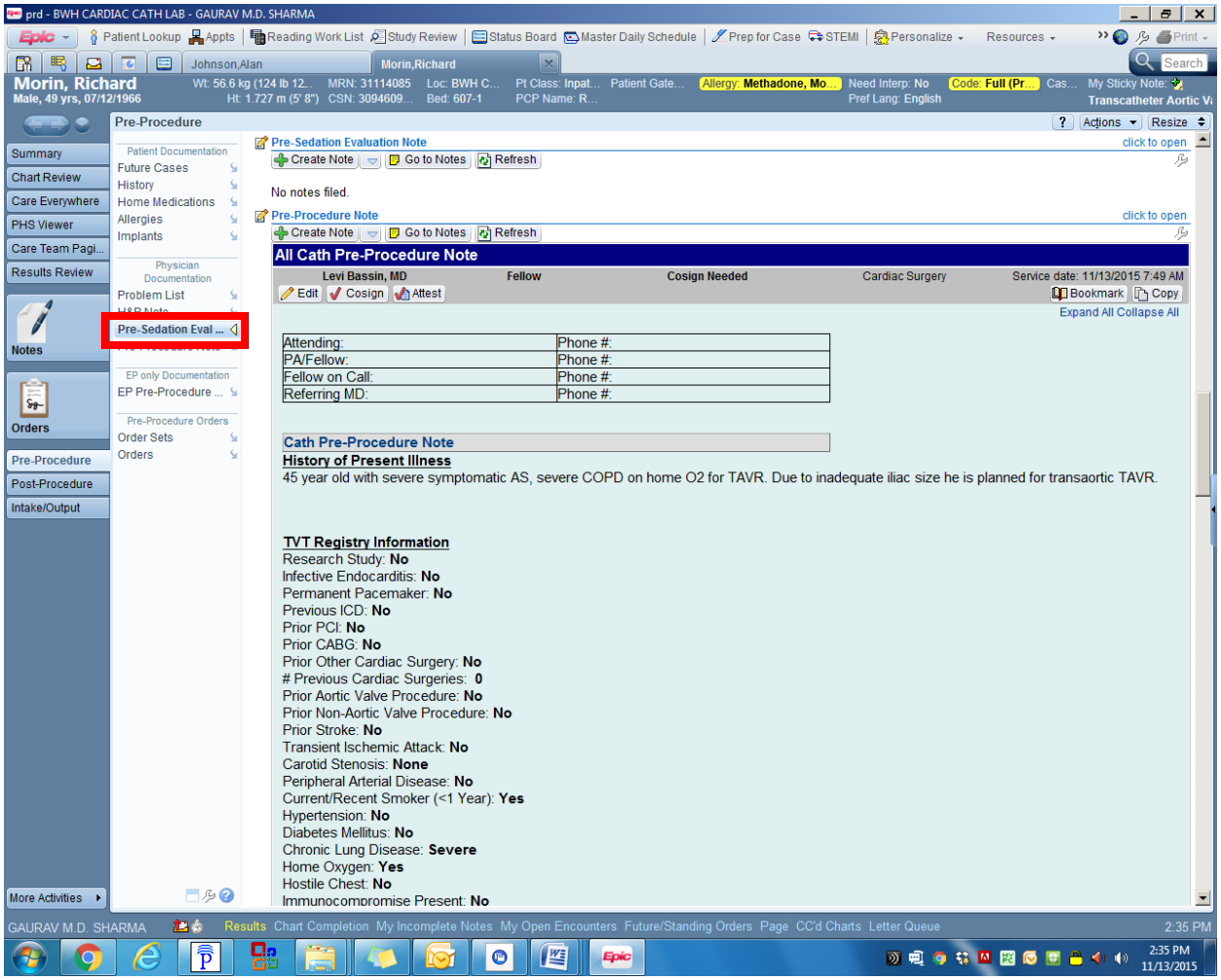
Date_____ Time_____ Signature (Patient/Healthcare Agent)_____

Date_____ Time_____ Practitioner_____ MD CID

... and sign and date on the back.

4. Pre-sedation Evaluation: This is an EPIC note [upper left "Epic" dropdown menu -> "change context" -> "BWH cardiac cath lab" -> "status board" (as above) -> "pre-procedure" tab at left -> "Pre-sedation evaluation"] – please title it as a pre-sedation evaluation <u>not</u> progress note or anything else or the cath lab staff will make you re-do it.


prd - BWH CARDIAC CATH LAB - GAURAV M.D. SHARMA
Patient Lookup
Appts
Reading Work List
Study Review
Status Board
Master Daily Schedule
Prep for Case
STEMI
Personalize
Resources
Print
Johnson,Alan
Morin,Richard
Search
Morin, Richard
Male, 49 yrs, 07/12/1966
Wt: 56.6 kg (124 lb 12..
Ht: 1.727 m (5' 8")
MRN: 31114085
CSN: 3094609...
Loc: BWH C...
Bed: 607-1
Pt Class: Inpat...
PCP Name: R...
Patient Gate...
Allergy: Methadone, Mo...
Need Interp: No
Pref Lang: English
Code: Full (Pr...
Cas...
My Sticky Note:
Transcatheter Aortic V
Pre-Procedure
Actions
Resize
Summary
Chart Review
Care Everywhere
PHS Viewer
Care Team Pagi...
Results Review
Notes
Orders
Pre-Procedure
Intake/Output
More Activities
Patient Documentation
Future Cases
History
Home Medications
Allergies
Implants
Physician Documentation
Problem List
H&P Note
Pre-Sedation Eval ...
Pre-Procedure Note
EP only Documentation
EP Pre-Procedure ...
Pre-Procedure Orders
Order Sets
Orders
Future Cases
Case Information
ID
Date/Time
Status
Primary Surgeon
All Procedures
Location
96313 11/13/2015 0730 Unposted Tsuyoshi Kaneko, MD RIGHT MINI- THORACOTOMY BWH OR
117936 11/13/2015 Canceled Tsuyoshi Kaneko, MD Transcatheter Aortic Valve Replacement, Other (TAVR) BWH CARDIAC CATH LAB
117951 11/13/2015 1635 Unposted Tsuyoshi Kaneko, MD Transcatheter Aortic Valve Replacement, Transaortic (TAVR) BWH CARDIAC CATH LAB
118138 11/19/2015 0730 Scheduled Tsuyoshi Kaneko, MD Transsubclavian TAVR BWH OR
118393 11/19/2015 0630 Scheduled Pinak Bipin Shah, MD Transcatheter Aortic Valve Replacement, Other (TAVR) BWH HYBRID OR
History
click to open
Medical History
Diagnosis
Chronic obstructive pulmonary disease (HCC)
Chronic back pain
Aortic valve stenosis
Obstructive sleep apnea (adult) (pediatric)
Surgical History
Procedure
APPENDECTOMY
Family History
None
Substances and Sexuality
Smoking Status
Former Smoker (Quit Date: 6/30/2015)
Amount
0 packs/day for 0 years
Types
Cigarettes
Smokeless Tobacco Status
Former User (Quit Date: 6/30/2015)
Alcohol Use
No
Amount
N/A
Drug Use
No
Frequency
N/A
Mark as Reviewed
Last Reviewed by Tatiana P S S McCluskie, RN on 11/12/2015 at 2:57 PM
Home Medications
click to open
New medications from outside sources are available for reconciliation.
Reconcile outside medications with the patient's current medications.
Last Medication Reconciliation Action: RN Reviewed
Melissa E Berkley, RN
11/13/2015 6:33 AM



Example Completed Pre-Sedation Note:

Pre-Sedation

History/ROS

Past Medical History

Diagnosis	Date
• Peripheral vascular disease (HCC)	
• Diabetes mellitus (HCC)	
• Hyperlipidemia	
• Hypertension	

Past Surgical History

Procedure	Laterality	Date
• Hysterectomy		
• Angioplasty / stenting iliac	Left	
• Cataracts		
• Angioplasty / stenting femoral	Right	

No family history on file.

History		
Substance Use Topics		
•	Smoking status:	Former Smoker
•	Smokeless tobacco:	Not on file
•	Alcohol Use:	No

Review of Systems
Review of systems negative as indicated in PMH/PSH

Physical Exam

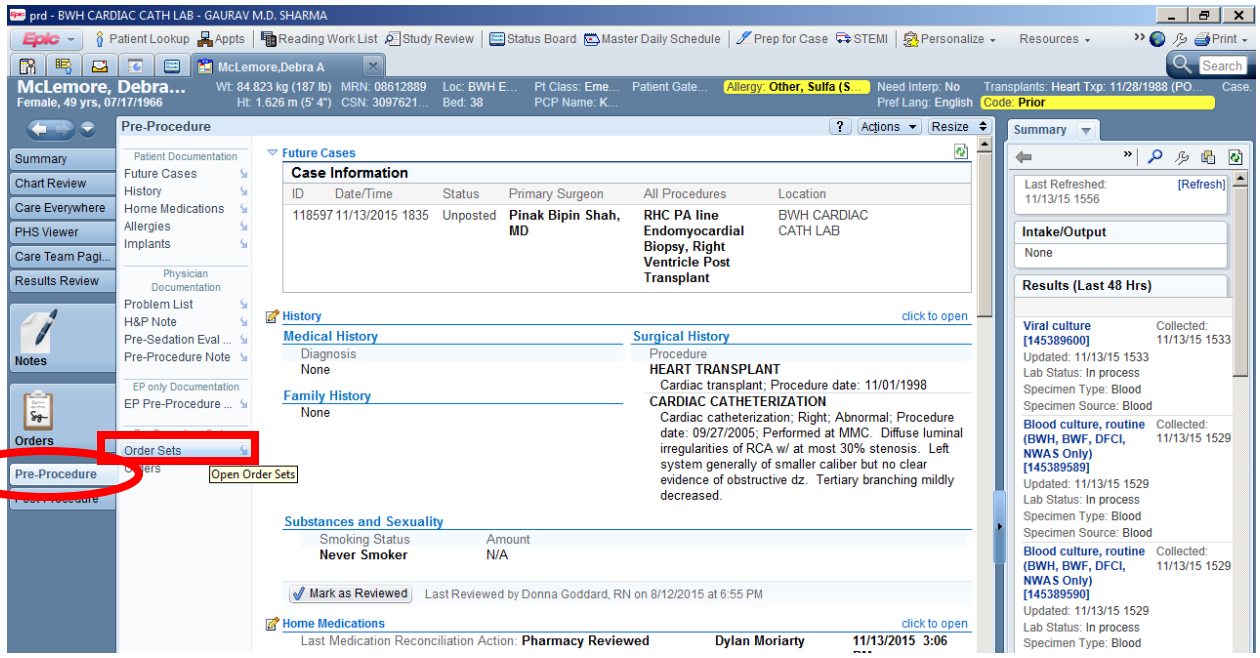
BP 151/69 mmHg | Pulse 83 | Temp(Src) 36.9 °C (98.4 °F) (Oral) | Resp 18 | Ht 1.549 m (5' 1") | Wt 85.276 kg (188 lb) | BMI 35.54 kg/m2 | SpO2 97%
Airway: Mallampati score is II
Class 1: Faucial pillars, soft palate and uvula could be visualized.
Class 2: Faucial pillars and soft palate could be visualized, but uvula was masked by the base of the tongue.
Class 3: Only soft palate visualized.
Dental: + Dentures
Cardiovascular: The cardiovascular exam is normal.
Pulmonary: The pulmonary exam is normal.
B/l DP/PT signals. L forefoot with waxing/waning blue discoloration.

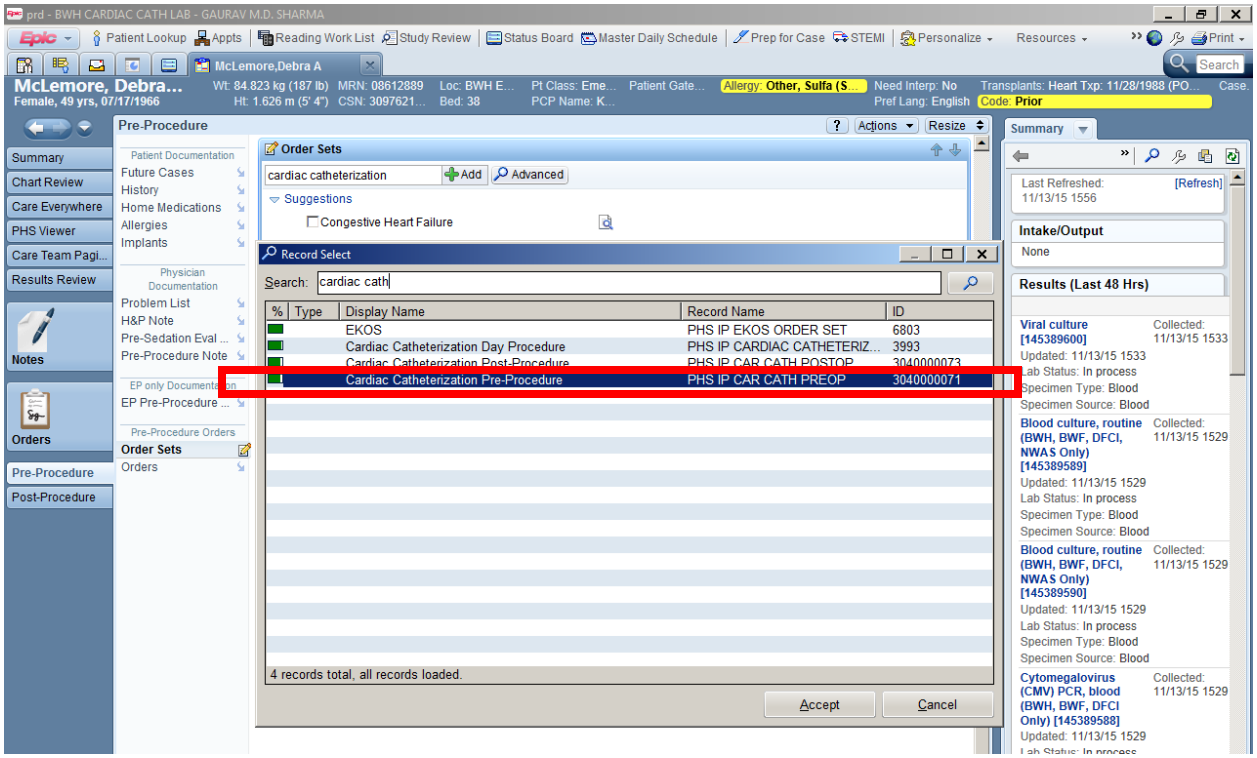
Sedation Plan

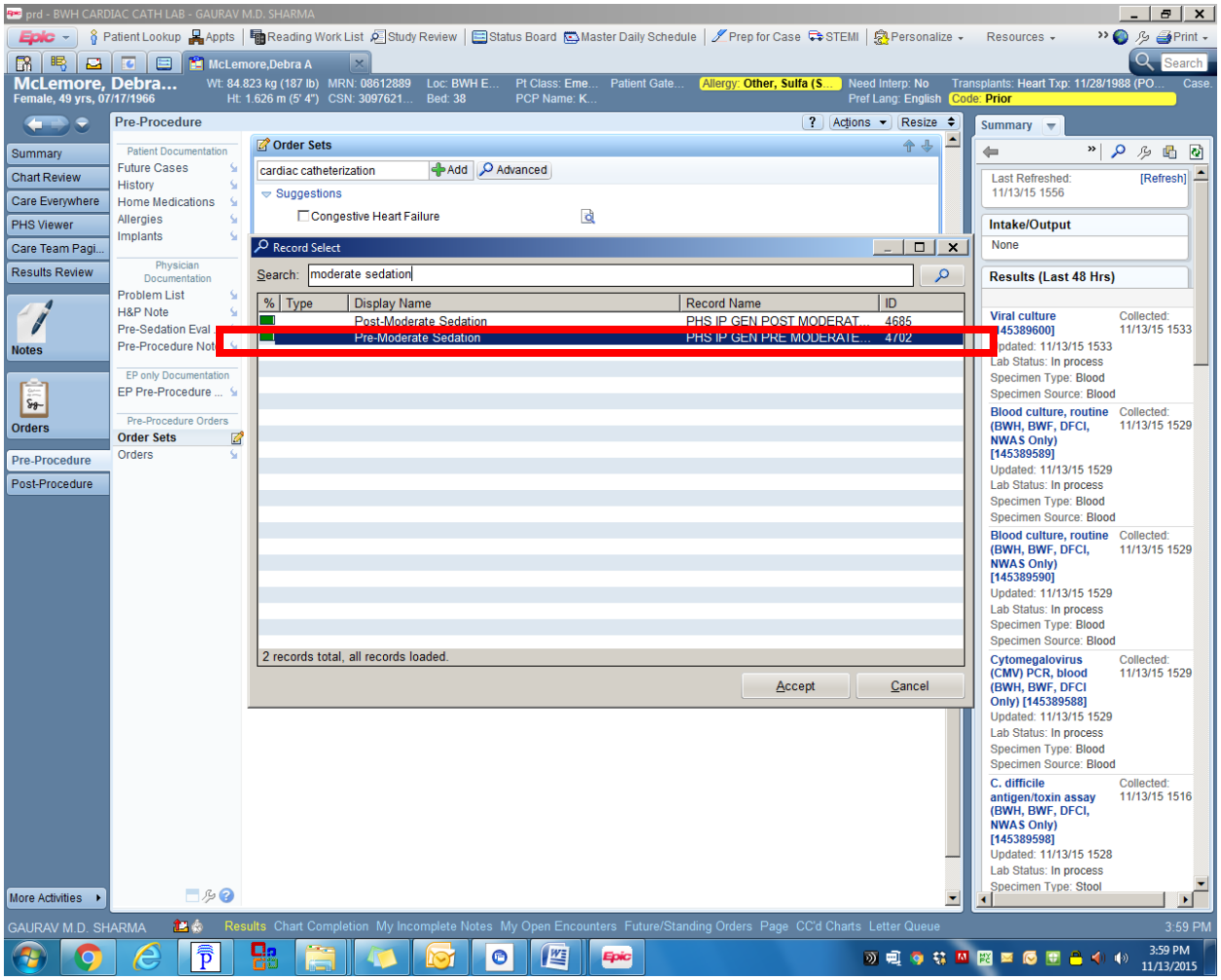
Sedation Plan:
We plan to perform moderate sedation. Patient will be placed on a cardiac monitor and continuous pulse oximetry. Intravenous access will be maintained. Oxygen, bag valve mask, and yankeur suction will be available at the bedside. Emergency airway equipment will be immediately available.
Medication Plan:
Fentanyl 1-2mcg/kg IV x1 then 1mcg/kg q3-5 min PRN to achieve the planned level of sedation.
Versed 0.05 mg/kg IV then 0.05 mg/kg q3-5 min PRN to achieve the planned level of sedation.
Informed Consent:
Informed consent obtained from: patient
ASA 324 mg + Plavix 75 mg preprocedure.

Samir Shah, MD
Vascular Surgery Fellow

5. EPIC Pre-procedure orders: Use both the (1) Cardiac catheterization Pre-procedure and (2) Pre-Moderate Sedation order sets.


prd - BWH CARDIAC CATH LAB - GAURAV M.D. SHARMA
Patient Lookup
Appts
Reading Work List
Study Review
Status Board
Master Daily Schedule
Prep for Case
STEMI
Personalize
Resources
Print
McLemore,Debra A
Search
McLemore, Debra...
Female, 49 yrs, 07/17/1966
Wt: 84.823 kg (187 lb) MRN: 08612889
Ht: 1.626 m (5' 4") CSN: 3097621...
Loc: BWH E...
Bed: 38
Pt Class: Eme...
PCP Name: K...
Patient Gate...
Allergy: Other, Sulfa (S...
Need Interp: No
Pref Lang: English
Transplants: Heart Txp: 11/28/1988 (PO...
Code: Prior
Pre-Procedure
Actions
Resize
Summary
Chart Review
Care Everywhere
PHS Viewer
Care Team Pagi...
Results Review
Notes
Orders
Pre-Procedure
Patient Documentation
Future Cases
History
Home Medications
Allergies
Implants
Physician Documentation
Problem List
H&P Note
Pre-Sedation Eval ...
Pre-Procedure Note
EP only Documentation
EP Pre-Procedure ...
Order Sets
Open Order Sets
Future Cases
Case Information
ID
Date/Time
Status
Primary Surgeon
All Procedures
Location
118597
11/13/2015 1835
Unposted
Pinak Bipin Shah, MD
RHC PA line
Endomyocardial Biopsy, Right Ventricle Post Transplant
BWH CARDIAC CATH LAB
History
click to open
Medical History
Diagnosis
None
Family History
None
Surgical History
Procedure
HEART TRANSPLANT
Cardiac transplant; Procedure date: 11/01/1998
CARDIAC CATHETERIZATION
Cardiac catheterization; Right; Abnormal; Procedure date: 09/27/2005; Performed at MMC. Diffuse luminal irregularities of RCA w/ at most 30% stenosis. Left system generally of smaller caliber but no clear evidence of obstructive dz. Tertiary branching mildly decreased.
Substances and Sexuality
Smoking Status
Never Smoker
Amount
N/A
Mark as Reviewed
Last Reviewed by Donna Goddard, RN on 8/12/2015 at 6:55 PM
Home Medications
click to open
Last Medication Reconciliation Action: Pharmacy Reviewed
Dylan Moriarty
11/13/2015 3:06
Summary
Last Refreshed:
11/13/15 1556
[Refresh]
Intake/Output
None
Results (Last 48 Hrs)
Viral culture [145389600]
Collected: 11/13/15 1533
Updated: 11/13/15 1533
Lab Status: In process
Specimen Type: Blood
Specimen Source: Blood
Blood culture, routine (BWH, BWF, DFCI, NWAS Only) [145389589]
Collected: 11/13/15 1529
Updated: 11/13/15 1529
Lab Status: In process
Specimen Type: Blood
Specimen Source: Blood
Blood culture, routine (BWH, BWF, DFCI, NWAS Only) [145389590]
Collected: 11/13/15 1529
Updated: 11/13/15 1529
Lab Status: In process
Specimen Type: Blood


prd - BWH CARDIAC CATH LAB - GAURAV M.D. SHARMA
Order Sets
cardiac catheterization
Add
Advanced
Suggestions
Congestive Heart Failure
Record Select
Search: cardiac cath
% | Type | Display Name | Record Name | ID
EKOS | PHS IP EKOS ORDER SET | 6803
Cardiac Catheterization Day Procedure | PHS IP CARDIAC CATHETERIZ... | 3993
Cardiac Catheterization Post-Procedure | PHS IP CAR CATH POSTOP | 3040000073
Cardiac Catheterization Pre-Procedure | PHS IP CAR CATH PREOP | 3040000071
4 records total, all records loaded.
Accept
Cancel
Pre-Procedure Orders
Order Sets
Orders
Post-Procedure



a. For Cardiac Cath Pre-procedure check off IVF (NS@75 cc/h) unless ESRD or CHF. In general patients who may get an intervention should have ASA 324 mg (81 x 4; do <u>not</u> order 325). Generally home Plavix should be continued; if unsure ask.
   i. Most patients have lab orders so this does not need to be ordered.
   ii. Patients receiving brachytherapy or a mesenteric vascular procedure should have a Foley placed
   iii. Antibiotic prophylaxis is reserved for patients with preexisting prosthetic grafts or stents
b. For Pre-moderate sedation, be sure to click on fentanyl and versed

6. Always take note of method of closure of access site as this will determine duration of lying flat, etc. Patients being admitted post-angio need a postop e-mail which must include (1) anatomic findings, (2) intervention, if any, (3) pulse exam at end of case, (4) anticoagulation plan (e.g. Plavix x30days), (5) anticipated discharge date, (6) anticipated discharge venue (home v. rehab), and (7) barriers to discharge—see "*Postop email templates*" below. Get all of this information from the attending before they leave the cath lab.

7. After the case place Cardiac catheterization Post-procedure orders

a. Admit to Postop recovery unless an inpatient, in which case choose "Return to Inpatient Bed"
b. Write for an appropriate diet (don't forget "controlled carbohydrate" for DM patients)
c. Write for pulse checks
d. The most important order is about the sheath. Click the appropriate option. Usually the sheath will have been removed. If there was a manual hold, then usually 6h bedrest. If angioseal or perclose was used, usually 4h bedrest. Always confirm with the attending surgeon, as there are exceptions.
e. Check off for mild/moderate pain orders
f. You can keep or remove orders for informing the fellow about a vagal reaction (vagal reaction after an EP case can signal a critical problem; uncommon after vascular cases) and about atropine
g. Write for Plavix loading if instructed to do so

8. If the patient is going home fill out a cardiac cath discharge form on paper (CVRR nurses can show you).

****

Postop checks (for OR and cath lab cases): As on other services, the postoperative evaluation is important and any concerns from the PACU or floor nurses should be taken seriously. Postoperative emails should include 1) a thorough plan that was discussed with the attending regarding activity/weight bearing restrictions, anticoagulation, specific dressings; 2) the neurovascular exam at the conclusion of the case; and 3) anticipated discharge date or reoperative date, anticipated discharge venue (home v. rehab), barriers to discharge (e.g. homelessness). See "*Postop email templates*" below. It is important on your postop check to look for signs of bleeding, change in neurovascular exam (for example, after carotid endarterectomy -> headache or change in mental status or lateralizing neuro exam findings which would be concerning for stroke, neck hematoma which would be concerning for bleeding with potential for catastrophic airway loss; after lower extremity bypass -> loss of distal signal, etc). When in doubt, find the Chief, PGY3, or fellow to help and/or see the patient with you.

****

Postoperative care pathways

COMING SOON ...

****

Postop Email Templates

POST-ANGIO TEMPLATE

Subject: Post-angio to *** home? obs? SICU? consult list? *** — s/p ***angio procedure done*** — ***attending name***

Body of email:

Patient name
MRN
Attending

Anticipated d/c date: **/**/** (usually POD1)
Expected d/c venue: (home? rehab?)
Potential barriers to d/c: (e.g. homeless?)

y.o. M/F w/ ***, now s/p * (RLE? LLE? Other?) angiogram.

Access: (L CFA? R CFA? R v. L brachial? Other?)
Findings:
Closure: (***Fr Angioseal/Perclose/manual pressure x *** min)
Pulses: DP PT (and/or other relevant pulses)
R:
L:

IVF:
EBL:
UOP: (if Foley)
Contrast load:

PLAN:
Admit to obs (make sure pt is admitted to observation and not inpatient unless otherwise told by attending)
N: Tylenol (Rarely need oxycodone unless groin hematoma)
CV: SBP goal <160 for sheath to be pulled. Nitro gtt if necessary. Continue home meds (hold diuretics x48hrs and ACE inhibitors x24hrs)
P: Wean O2
GI: ADAT once sheath out. Colace/senna if on narcotics.
GU: Aggressive hydration. NS @ 150 x 2L (obviously adjust accordingly to little old ladies and low EFs), DTV at *** (usually don't get Foleys anymore unless long case) or D/c Foley at 23:59 (if Foley placed for case).
H: Continue aspirin. Ask attending—plavix 300mg load? continue 75mg daily? Also ask attending—when to restart anticoagulation if home med? (usually start heparin gtt 4-6hrs after if no hematoma, coumadin that night and lovenox the next morning)
ID: Only receive Ancef 1gm x 1 periangio if access is a bypass graft, otherwise no abx
E: Home meds (if relevant)
TLD: PIV
Activity: Bedrest x3-4hrs for angioseal/perclose, Bedrest x6hrs for manual compression.
PT/OT needs: (does not usually require these consults—but of course always the random patient who comes in unsteady and needs this, or family requesting rehab)

Labs: (per attending; Don't usually need labs but if staying, often times will check BMP and CBC prior to d/c—make sure to order as 5AM STAT)
--
PMH:
PSH:
MEDS:
ALL:

CAROTID ENDARTERECTOMY (CEA) TEMPLATE

Subject: Postop to ***obs? SICU? consult list? *** — s/p ***R? L?*** CEA — ***attending name***

Body of email:

Patient name
MRN
Attending

Anticipated d/c date: **/**/** (usually POD1 unless SBP not within goals or headaches/concern for cerebral hyperperfusion)
Expected d/c venue: (home? rehab?)
Potential barriers to d/c: (e.g. homeless?)

y.o. M/F s/p ***R? L? CEA for ***asymptomatic? Symptomatic? *** ***% stenosis.

IVF:
EBL:
UOP:

Findings:
EEG monitoring used?
If used, any EEG changes on clamping? Shunt used?
Postop duplex ultrasound demonstrated no dissection flap or turbulent flow. Neuro exam intact after extubation. No evidence of hematoma in PACU.

Plan:
Admit to obs
Postop check within 1 hour
N: Serial neurovascular checks (to r/o CVA or CN injury), monitor for headache/cerebral hyperperfusion, Tylenol, Oxycodone, IV Dilaudid for breakthrough
CV: STRICT SBP goal 100-140. Use IV bolus and/or Neo gtt for hypotension and nitro gtt for hypertension. Low threshold to send to ICU overnight if unable to control. PO Home anti-HTN meds. ASA
P: wean O2 for sats >92. (if any concern for neck hematoma --> airway precautions including scalpel/suture removal kit at bedside)
GI: ADAT. Colace/senna while taking narcotics.
GU: LR @*** until PO intake>400. DTV at *** (or d/c Foley at 23:59 if placed in OR)
H: SCH, ASA, ask attending re:anticoag plan if home med (when to restart? What dose?)

ID: Periop abx. No further abx needed.
E: Home meds if relevant (PO DM meds to restart at discharge, but ISS until then)
TLDs: PIV,?JP (most likely will be d/c'd on POD#1 but check with attending first. DO NOT strip neck JPs.)
PT/OT needs: (Does not usually require these consults—but of course always the random patient who comes in unsteady and needs this, or family requesting rehab)
Labs: 5AM STAT BMP, Mg, CBC
--
PMH:
PSH:
MEDS:
ALL:

ENDOVASCULAR ANEURYSM REPAIR (EVAR) TEMPLATE

Subject: Postop to ***obs? floor? SICU? *** — s/p EVAR — ***attending name***

Body of email:

Patient name
MRN
Attending

Anticipated d/c date: **/**/** (usually POD1; POD2 if older pt)
Expected d/c venue: (home? rehab?)
Potential barriers to d/c: (e.g. homeless?)

*** y.o M/F with *** symptomatic? asymptomatic? enlarging?*** ***cm AAA, now s/p EVAR

IVF:
EBL:
UOP:
Contrast load:

Findings:
Open bilateral groin cutdown? Percutaneous access?
Type of endograft used?
Infrarenal fixation?
Coverage of either hypogastric?
Any endoleak seen?
Closure: primary closure of arteriotomy? Angioseal? Perclose? Proglide? manual pressure?
Pulses at completion: DP PT
R:
L:

Plan:
Neuro: Tylenol, Oxycodone, IV Dilaudid for breakthrough
CV: SBP goal <160, Home meds (except HOLD nephrotoxic meds given contrast load—hold diuretics x48hrs; hold ACE inhibitors, ARBs x24hrs)

Pulm: Wean O2
GI:NPO x4hrs then ADAT, Colace/senna while taking narcotics.
GU: NS@ *** (until Cr check in a.m. POD1 and po intake >400cc), d/c Foley POD1 AM
Heme: SCH, ASA (ask attending re:anticoag plan if home med—when to restart? What dose?)
ID: Periop abx. No further abx needed.
Endo: Home meds if relevant (PO DM meds to restart at discharge and Metformin to be held for 48hrs, but ISS until then)
TLD: Foley, PIV
Activity: Flat x4hours then bedrest today, then OOB/ambulate on POD1
PT/OT: PT consult if older, unstable at baseline, or groin cutdowns (most patients)
Labs: 5AM STAT BMP, Mg, CBC

THORACIC ENDOVASCULAR AORTIC REPAIR (TEVAR) TEMPLATE

Subject: Postop to ***floor? SICU? *** — s/p TEVAR — ***attending name***

Body of email:

Patient name
MRN
Attending

Anticipated d/c date: **/**/** (POD2 if straightforward in younger pt)
Expected d/c venue: (home? rehab?)
Potential barriers to d/c: (e.g. homeless?)

*** y.o. M/F with ***cm TAA, now s/p TEVAR via *** (cutdown vs. access), closed via ***(angioseal, perclose, proglides, manual pressure)

IVF:
EBL:
UOP:
Contrast load:

Findings:
- Open bilateral groin cutdown? Percutaneous access?
- Type of endograft used?
- Coverage of left subclavian artery?
- Any endoleak seen?
- Closure: primary closure of arteriotomy? Angioseal? Perclose? Proglide? manual pressure?

Plan:
N: Tylenol, Oxycodone, IV Dilaudid for breakthrough, (if used ...) Spinal drain precautions—Keep at 10 cm H2O, supine/log roll while drain is in, Neuro check q1h, Record output hourly, Output >30 cc x 2 h or bloody output should prompt page to vascular fellow on-call. Tentative plan is for spinal drain removal on POD#2 if no neuro changes 6h after clamping.
CV: Keep MAP>80 (spinal protection), Lopressor 5 mg iv q4h with hold parameters, Home meds (except HOLD nephrotoxic meds given contrast load—hold diuretics x48hrs; hold ACE inhibitors, ARBs x24hrs)

P: Wean O2
GI: NPO until spinal drain removed (usually POD2), sips for comfort okay
GU: NS @ ***, keep Foley until spinal drain out
H: SCH (will have to hold heparin prior to anticipated drain removal), ASA PR, (ask attending re:anticoag plan if home med—restart after spinal drain d/c'ed? What dose?)
ID: Ancef 1g q8h while spinal drain in place
E: RISS while NPO if diabetic. Home meds continued (HOLD PO diabetic meds until discharged. HOLD metformin x48hours 2/2 dye load)
TLD: Spinal drain, Foley, PIV
Activity: Supine/log roll while spinal drain in place
PT/OT: PT consult
Labs: AM BMP, Mg, CBC
--
PMH:
PSH:
MEDS:
ALL:

THORACIC OUTLET SYNDROME (TOS) SURGERY TEMPLATE

Subject: Postop to floor — s/p *** for TOS — ***attending name***

Body of email:

Patient name
MRN
Attending

Anticipated d/c date: **/**/**	(POD4 depending on drain output<200 and no chyle leak)
Expected d/c venue:	(usually home with services—PT, VNA for wound check +/- INR)
Potential barriers to d/c:	(e.g. homeless?)

y.o. M/F with ***arterial? venous? thoracic outlet syndrome, now s/p ***R v. L 1st v. cervical rib resection? Anterior scalenectomy? Thromboembolectomy? Bypass? Completion arteriogram? PTA? Stent? Venoplasty? Completion venogram?***

IVF:
EBL:
UOP:

Findings:
- R/L Supra and infraclavicular incisions?
- Rib resection? Division of anterior scalene?
- Pleural space entered/pleura violated?
- Completion angiogram results?

Plan:
N: dPCA x48hrs, standing Tylenol 1000mg q6hr

CV: SBP goal <160 to minimize bleeding risk. Continue home meds.
P: CXR in PACU and daily CXR, JP/Blake to bulb suction v. Chest tube to -20 cm suction (tube management needs to be discussed with Dr Nguyen before any changes), fatty meal prior to tube removal
GI: NPO x meds x48hours, DO NOT advance until d/w attending (usually advanced to clears/low fat diet POD3 then fatty challenge w/ cream/etc. POD4 and monitor for chylous drain output), Colace/senna while on narcotics.
GU: LR/NS@ *** until PO>400, Foley x24-48hrs
H: SCH, ask attending re: ASA/Plavix/anticoag plan (most of these patients are on something and/or transitioning to antiplatelet/anticoag depending on hx of clot/lysis/stent placement)
ID: Periop abx. No further abx needed.
E: Home meds if relevant (PO DM meds to restart at discharge, but ISS until then)
TLD: R/L JP/Blake to bulb suction v. R/L CT to -20 cm H20 suction. (*note where/what drain in place and specifically if in pleural space*), Foley, PIV
Activity: HOB 30 degrees, bedrest today, NO abduction above ipsilateral shoulder beyond 90 degrees.
PT/OT: PT and OT consults (Specific TOS exercise sheet to be given to patient by therapist, usually d/c home w/outpatient PT)
Labs: AM BMP, Mg, CBC
--
PMH:
PSH:
MEDS:
ALL:

LOWER EXTREMITY BYPASS TEMPLATE

Subject: Postop to ***floor? SICU? *** — s/p ***R? L?*** ***-to-*** bypass — ***attending name***

Body of email:

Patient name
MRN
Attending

Anticipated d/c date: **/**/** (POD4-5; often longer)
Expected d/c venue: (frequently rehab)
Potential barriers to d/c: (e.g. homeless?)

*** y.o M/F with ***intermittent claudication? rest pain? Tissue loss/nonhealing ulcer?*** now s/p ***R? L?*** ***-to-*** bypass/CFA/EA with ***what kind of conduit?***

IVF:
EBL:
UOP:

Findings:

Inflow/proximal anastomosis?
Outflow/distal anastomosis?
Type of conduit?
Conduit site? Reversed? Nonreversed?
Closure/drains for all incisions (including autogenous conduit harvest site)?
Pulses at completion: DP PT Graft
R:
L:

Plan:
Neuro: Tylenol, dPCA if multiple/long incisions, otherwise Oxycodone with IV Dilaudid for breakthrough
CV: Home meds (except HOLD nephrotoxic meds if contrast dye given—hold diuretics x48hrs; hold ACE inhibitors, ARBs x24hrs)
P: Wean O2
GI: Clears, ADAT in a.m., Colace/senna while on narcotics.
GU: NS/LR @ ***, HLIV on POD1 after labs and po intake>400cc, d/c Foley POD1 if not on bedrest
H: SCH unless on heparin gtt ("chicken" heparin w/no titration or therapeutic—ask attending), ASA, ask attending re:Plavix or anticoag needs (when to start? What dose? Load if Plavix?)
ID: Periop abx. No further abx needed unless infected toe/ulcer
Endo: ISS if diabetic. HOLD PO diabetic meds until discharged. Low threshold for DMS consult.
TLD: Foley, PIV, +/- JP/Blake drains
Activity: Bedrest x24hours often, OOB/ambulate on POD1—may be non-weightbearing if distal bypass (e.g. pedal outflow) or concurrent toe amputation
PT/OT: PT consults for everyone
Labs: AM BMP, Mg, CBC
--
PMH:
PSH:
MEDS:
ALL:

****

Discharge Paperwork and Preferences

- The goal of this section is to make sure you provide pertinent information for rehabs and VNA's—this is important to ensure that patients get the post-hospitalization care we prescribe them and to avoid readmissions
- The following information in multiple sections of the discharge, to make it easier for rehabs and the VNA to find, as well as the fellows and PA's when they get called
- Instructions
    - Use the Epic SmartPhrase ".mannickdischargeinstructions"
    - Carotids:
        - please seek immediate medical attention if you experience headache and you systolic blood pressure is greater than 140

- please seek immediate medical attention if you experience new one sided weakness, slurred speech or visual changes

- Anticoagulation
  - Coumadin dose

Indication:

Make sure to write all pertinent diagnoses. For example, afib and high risk bypass graft. This is important because a patient's cardiologist may decide to stop anticoagulation for afib however, the vascular surgeon wants to continue for high risk graft. If all dx are not listed, anticoagulation may be mistakenly discontinued and bypass grafts could go down.

Duration:

Verify this with the chief/attending prior to discharge (3 months, 6 months, indefinitely?)

INR goal:

Usually 2-3. May be higher for mechanical valves or other indications

INR on discharge:

Please always verify and document the INR on discharge. You do NOT want to be the provider who sends a patient to rehab with a dangerously high INR!!

Date of next INR:

Almost always the day after discharge

INR managed by:

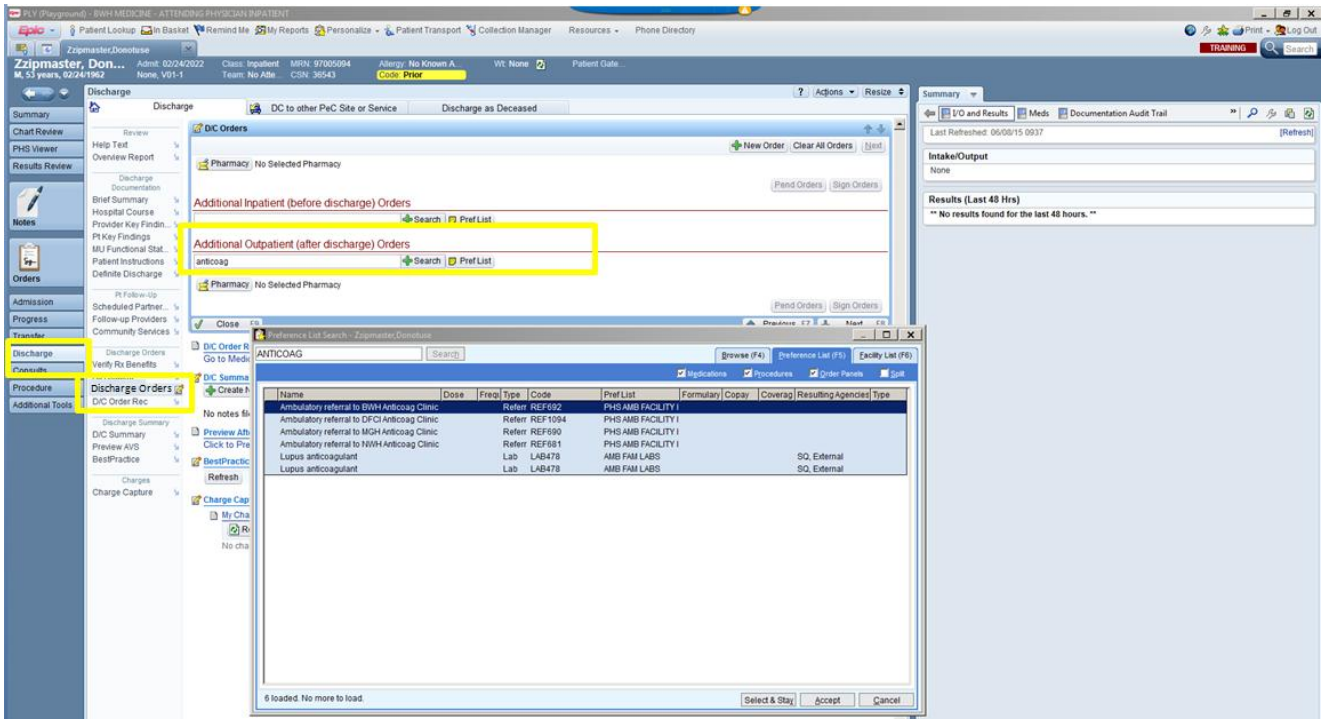
Please do NOT assume that it is the PCP!!! Some PCP's do not follow INR's or they refer their patient's to other coumadin clinics. Double check with the patient. If the patient is not able to tell you who manages their INR levels then call and verify with the PCP.

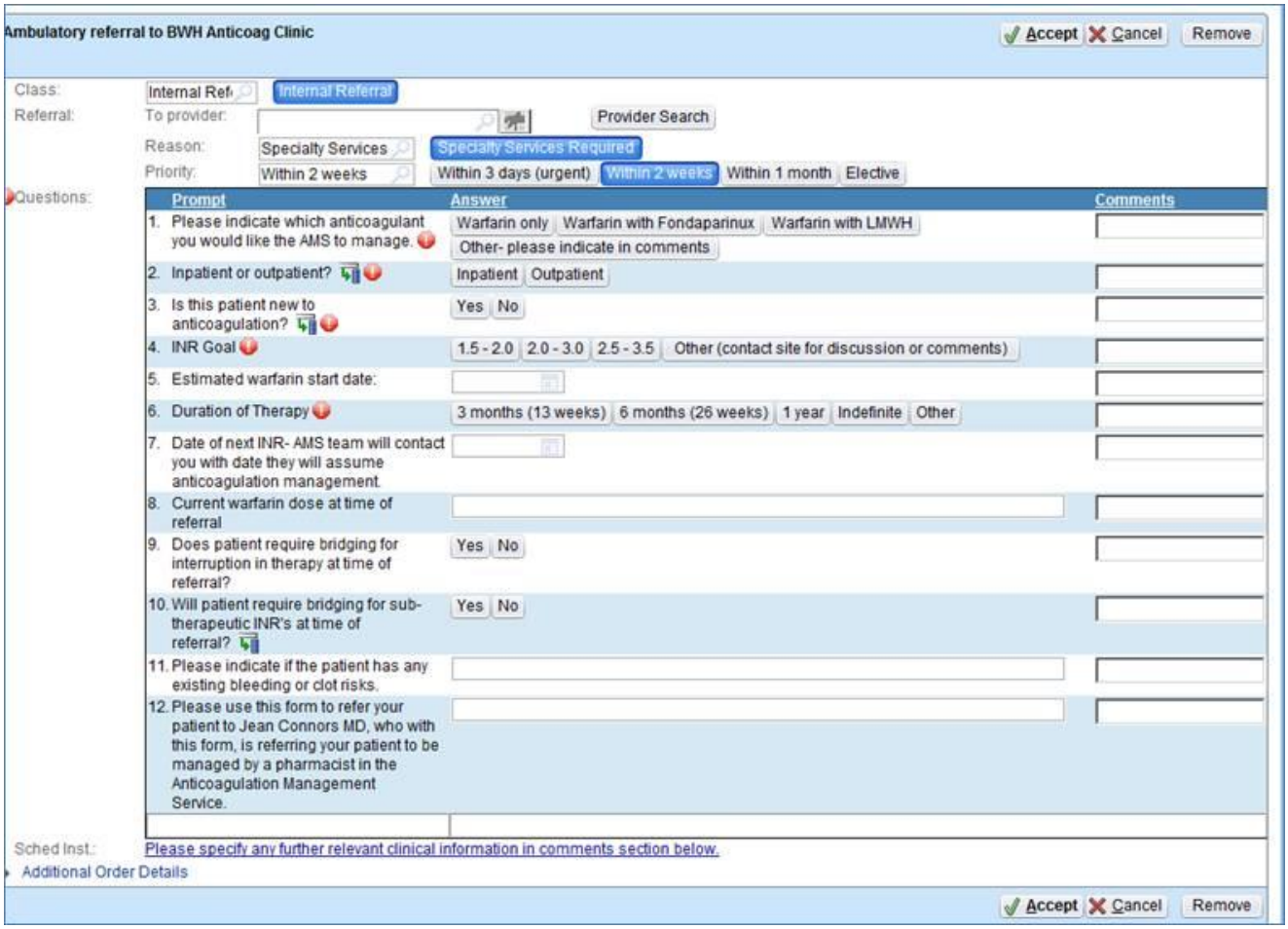
Please do NOT document that the rehab which will manage INR. Although the MD's at rehab will monitor INR, they will not manage INR once the patient leaves their facility.

For new referrals, see the BWH/DFCI Anticoagulation Management Service (AMS) instructions below

1.) **AMS Referral for Inpatients through the Discharge Navigator:**

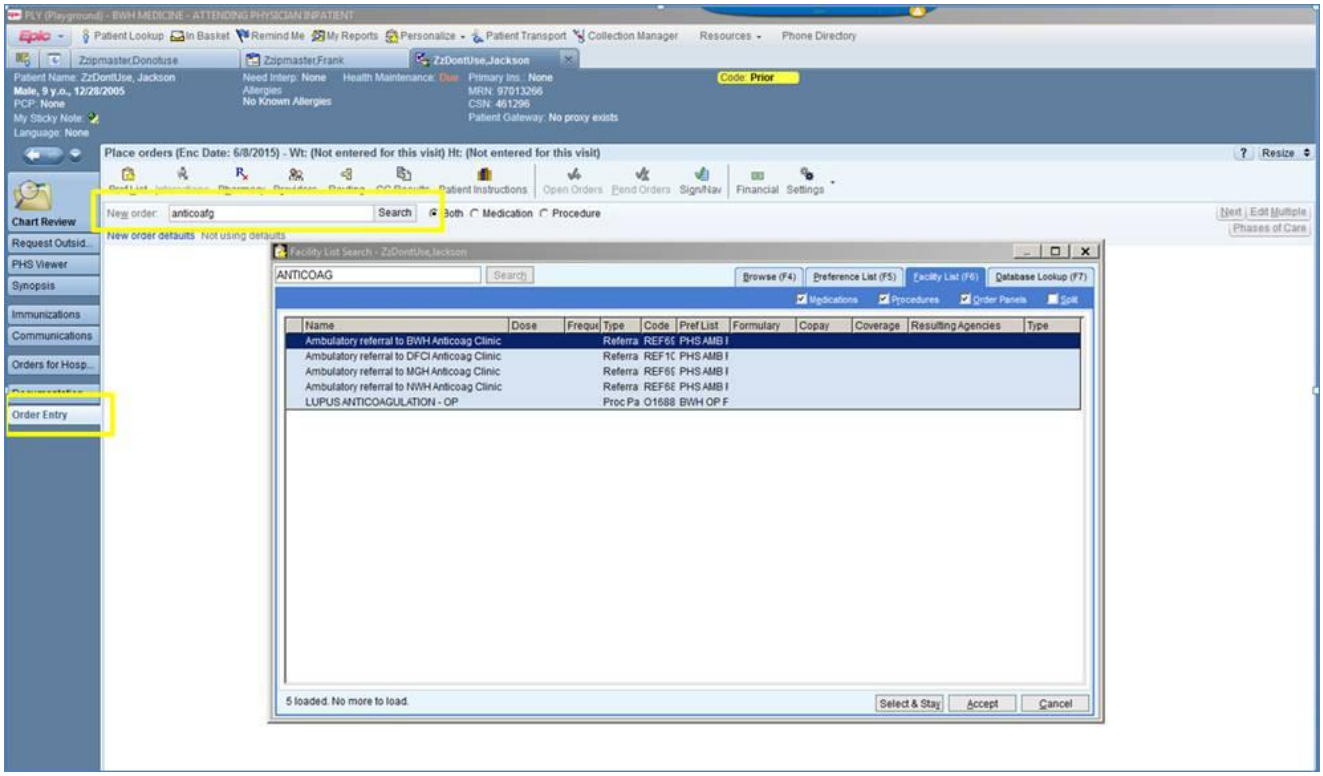
- Click on the **Discharge Activity** button and then select **Discharge Orders**. Under the option for "**Additional Outpatient (after discharge) Orders**" type in "anticoag" and a list of referrals for anticoagulation clinics within Partners will display. It is very important that that correct site is selected, MGH and NWH are not live yet. Please answer all of the required information. The referral will be sent to the appropriate AMS. The referring provider will maintain the responsibility of anticoagulation until the clinic contacts the patient and sends a confirmation email/in-basket message back to the referring provider.


Discharge
Discharge Orders
D/C Orders
Additional Inpatient (before discharge) Orders
Additional Outpatient (after discharge) Orders
anticoag
ANTICOAG
Ambulatory referral to BWH Anticoag Clinic
Ambulatory referral to DFCI Anticoag Clinic
Ambulatory referral to MGH Anticoag Clinic
Ambulatory referral to NWH Anticoag Clinic
Lupus anticoagulant
Lupus anticoagulant
Select & Stay
Accept
Cancel



2.) <u>AMS Referral For Outpatients through Order Entry Encounter:</u>

- Click on the **Order Entry** Activity and enter "Anticoag" in the **New Order** field. A list of referrals for anticoagulation clinics within Partners will display. It is very important that that correct referral site is selected, MGH and NWH are not live yet. Please answer all of the required information. The referral will be sent to the appropriate AMS. The referring provider will maintain the responsibility of anticoagulation until the clinic contacts the patient and sends a confirmation email/in-basket message back to the referring provider.

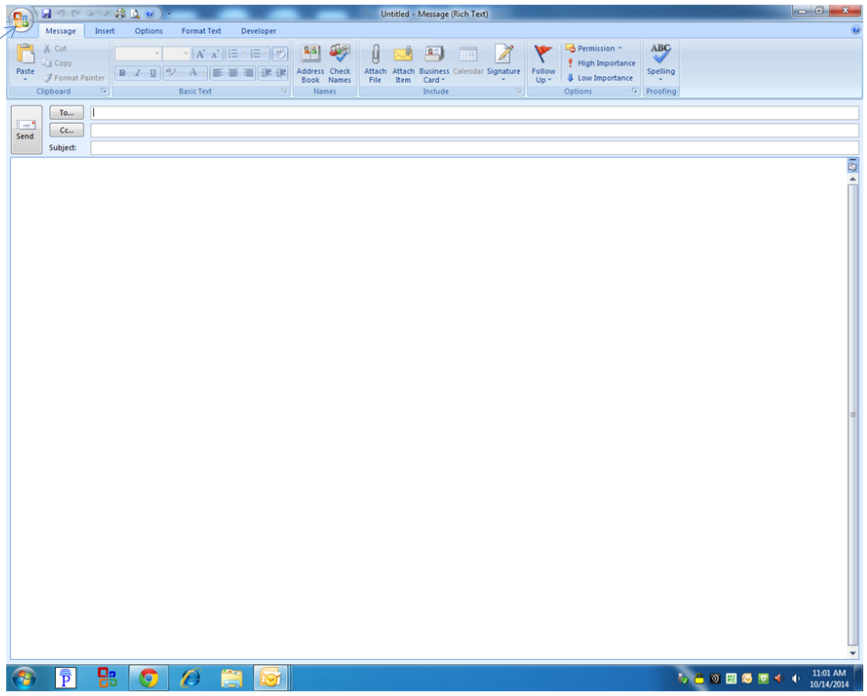


Bedside delivery program for post-discharge <u>prophylactic</u> enoxaparin (Lovenox).

- The discharging clinician just needs to fax the lovenox prescription to the BWH outpatient pharmacy via LMR and send an email to initiate the referral. Thank you for trialling this program. Please contact me anytime via email or phone at 916-622-2300: your feedback and comments are encouraged and welcome.
- **Service**: Full prescription services including clinical pharmacy review, adjudication of claims, bedside delivery, payment collection and offer of counseling as mandated by law.
- **Medication**: Fill up to a 28 day supply of post-discharge prophylactic enoxaparin.
- **Initiation of Enoxaparin Bedside Delivery**:
  - *<u>In order to enroll a patient **after obtaining their verbal consent**, two steps must be completed:</u>*
    - An email must be sent using the appropriate Outlook form to alert pharmacy staff of the bedside delivery request. (Instructions for form access are attached)

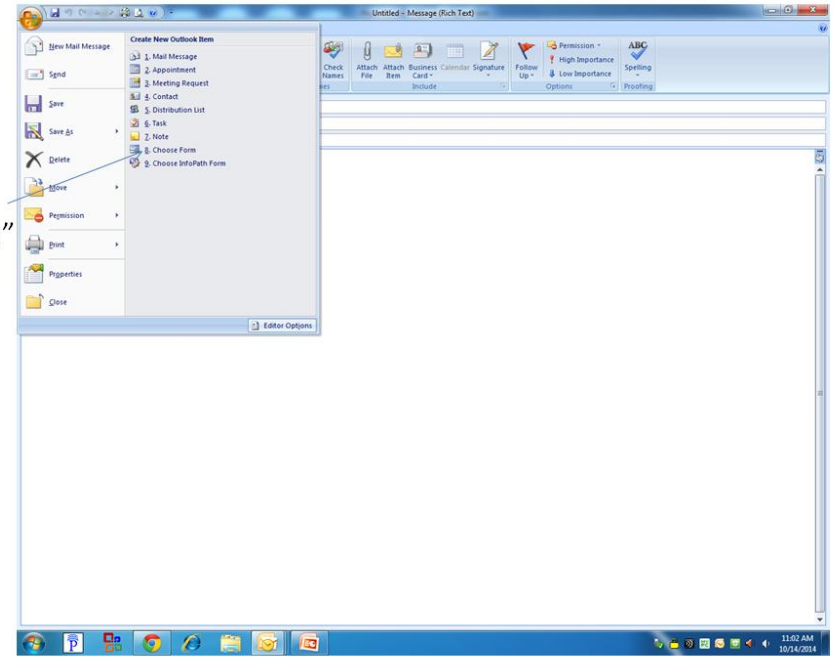
Open new message in email

Step 1: Select this button



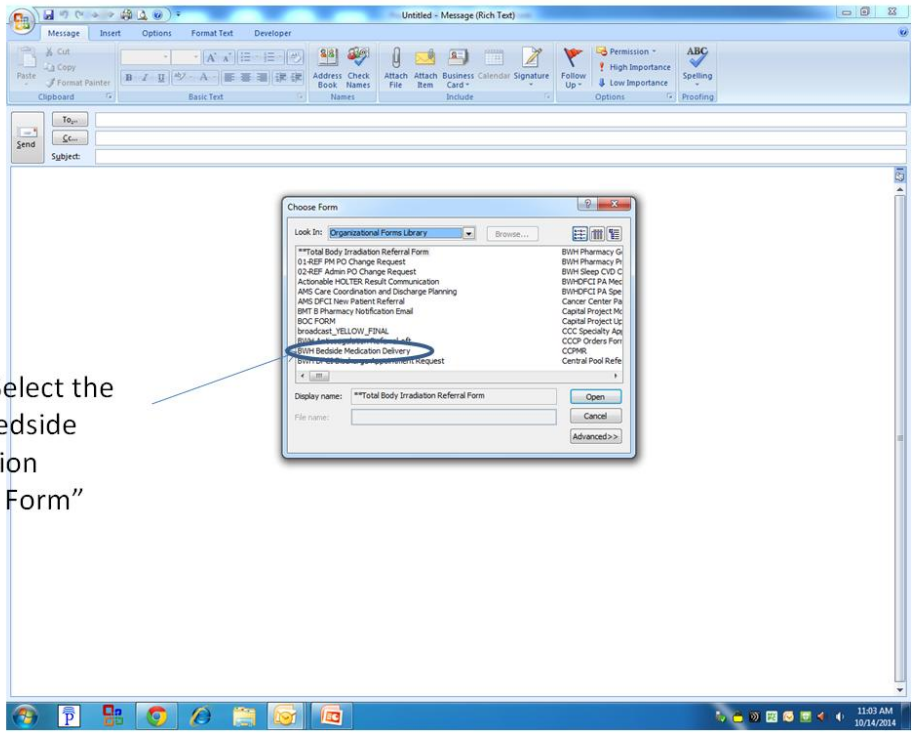
The following menu appears

Step 2: Select "Choose Form"



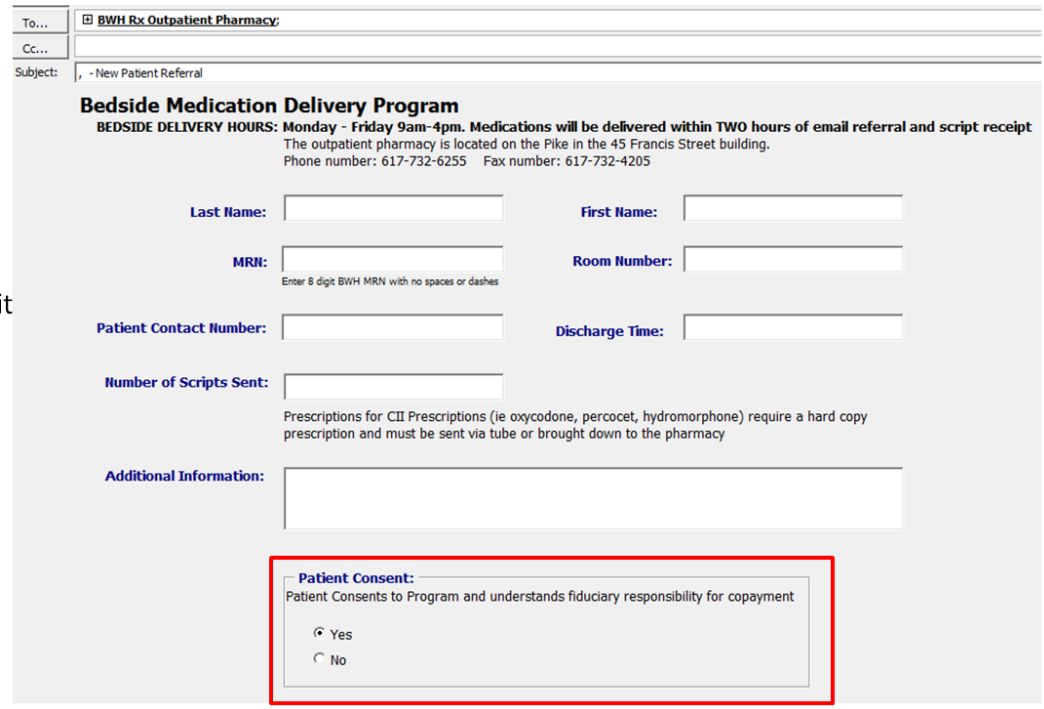
Different types of forms will appear

Step 3: Select the "BWH Bedside Medication Delivery Form"



Referral form appears as below

Step 4: Complete form and hit "send"



To... BWH Rx Outpatient Pharmacy;
Cc...
Subject: , - New Patient Referral

Bedside Medication Delivery Program

BEDSIDE DELIVERY HOURS: Monday - Friday 9am-4pm. Medications will be delivered within TWO hours of email referral and script receipt
The outpatient pharmacy is located on the Pike in the 45 Francis Street building.
Phone number: 617-732-6255 Fax number: 617-732-4205

Last Name: **First Name:**

MRN: **Room Number:**
Enter 8 digit BWH MRN with no spaces or dashes

Patient Contact Number: **Discharge Time:**

Number of Scripts Sent:

Prescriptions for CII Prescriptions (ie oxycodone, percocet, hydromorphone) require a hard copy prescription and must be sent via tube or brought down to the pharmacy

Additional Information:

Patient Consent:
Patient Consents to Program and understands fiduciary responsibility for copayment
Yes
No

- Enoxaparin prescription must be sent by the discharging clinician via Epic to BWH outpatient pharmacy.

  - The referral process should be completed 24-48 hours prior to expected discharge but no less than 2 hours prior. **Please note:** this service is NOT available on weekends; the pharmacy will *only* deliver the medication on the day of discharge or the Friday before for weekend discharges.

- **Delivery Process**: BWH Outpatient Pharmacy staff will reply to the sender when both the LMR script and email referral have been received. Pharmacy staff will assess insurance coverage and handle all subsequent steps; prior to delivery, the patient will be contacted by phone regarding

payment options and financial assistance if necessary. Payment will be collected (cash, check or card accepted) and medication will be delivered.

- The discharging clinician will be contacted directly for any unresolvable coverage/copayment issues. In this event, we recommend involving care coordination for further assistance.
- **Questions**: Please contact BWH Outpatient Pharmacy at 617-732-6225.

- Antibiotics
    - Certain antibiotics like linezolid or vancomycin require weekly outpatient labs such as CBC, BMP, liver enzymes and vancomycin troughs should be monitored weekly. Often ID follows these labs, but if ID is not following the patient then someone from the team will need to follow, i.e. Kristin Maurer or Nicole Meregian at fax 857.307.1922. Please give them a "heads up" email so they can look out for the faxed labs.
- Activity/Weight bearing status/postop shoes
    - There is more variation in weight-bearing status/activity level on Mannick Surgery service than on the General Surgery services
    - Verify weight-bearing status (non-weight bearing, heel weight bearing, etc.) and any specialty orthotics (flat postop shoe, heel weight-bearing shoes, etc.)
- Dressings
    - Dry dressing in all groin incisions (even if stapled, do not just leave open to air as you do with abdominal incisions)
    - Mentions ACE wraps, elevation, TED stockings, etc. when appropriate
- Discharge Exam Documentation
    - Pulse/doppler exam: Please ALWAYS include a pulse/doppler exam. Please include information on DP and PT and graft (if applicable).
        - Pulses – REMEMBER when pulses are palpable, describe as either 1+ or 2+
        - Signals – REMEMBER signals are dopplerable, describe as either monophasic or biphasic
    - Incisions/access sites:
        - Angios : comment on access site and presence of absence of a hematoma. "Left groin access clean, dry and intact without hematoma."
        - Carotid: comment on cranial nerves and the presence or absence of a hematoma "CN II-XII grossly intact, left neck incision clean, and intact with small stable hematoma."
            - A common complication after carotid surgery is a retraction injury to the facial nerve which causes a lower lip lag on the ipsilateral side. This usually improves with time.
        - Bypass: comment on all lower extremity and upper extremity incisions

- AVF/AVG's:
  - comment on presence or absence of thrill or bruit.
    - REMEMBER: thrills are palpable and bruits are audible "Left AVF with palpable thrill, incision clean dry and intact"
  - comment on any symptoms of steal syndrome "Left hand without ischemic symptoms such as rest pain, claudication, ischemic skin changes, numbness or tissue loss."

- Arranging Vascular Surgery Clinic Follow-Up
  - Always write, "The office will call you for a follow up appointment."
  - For Belkin, Menard, Gravereaux, Nguyen and Ozaki
    - When you finalize the discharge, please also send an inbasket message via EPIC to the vascular secretaries. This will give them the appropriate information to arrange outpatient follow up.

To: P BWP vascular surgery FD

Please use SMART PHRASE
.mannickdishcargeemail

Patient name
MRN
Attending
Date of surgery
Operation
Discharge date
Location of discharge (which rehab/snif vs home)

  - For Dr. Gates: Please email same information via Outlook to Elana Gonsalves
  - For Dr. Semel: Please email same information via Outlook to Catie Bossa.

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Guide to Dressings

COMING SOON ...

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Guide to Anticoagulation

COMING SOON ...

****

Common Vascular Surgery Diseases: Diagnosis and Management

COMING SOON …

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Directory of Common Phone Numbers/Pagers

FACULTY NAME	PAGER		EXT.		CELL	ASSISTANT'S NAME	FAX
Faculty							
Dr. Michael Belkin (Chief)	12847		71920		617-967-8345	Carolyn Fisher	857-307-1922
Dr. Garima Dosi (Kent)	401-582-3482		401-737-4828		678-862-6708	Susan Camastro	401-732-8484
Dr. Jonathon Gates	12225		27715		617-962-7557	Elana Gonsalves	617-566-9549
Dr. Edwin Gravereaux	37067		71920		617-962-3779	Jane Cardinale	857-307-1922
Dr. Matthew Menard	31680		71920		617-512-1372	Julie Gerena	857-307-1922
Dr. Louis Nguyen	39803		71920		617-833-5115	Julie Gerena	857-307-1922
Dr. C. Keith Ozaki	17489		71920		352-318-2178	Jane Cardinale	857-307-1922
Dr. Marcus Semel (SSH)	28014		781-624-4946		617-721-3725	Catherine Bossa	781-624-4975
Fellows/Residents							
Dr. Konstantinos "Dean" Arnaoutakis	37193		71884		727-433-0167		857-307-1922
Dr. Samir Shah	35960		71884		617-455-9208		857-307-1922
Physician Assistants							
Kristin Maurer	11267		71920		617-880-9101		857-307-1922
Nicole Meregian (Chief)	37589		71920				857-307-1922
Morgan Rudnick	32149		71920		617-905-0337		857-307-1922

NAME	PAGER		CELL	EXT.		FAX

Administrative Offices						
Lorraine Levitsky (Administrator)	37487		339-933-5781	71921		857-307-1922
Catherine Bossa (Administrative Asst)				781-624-4946		781-624-4975
Susan Camastro (Administrative Asst)				401-736-3730		401-732-8484
Jane Cardinale (Administrative Asst)				71920		857-307-1922
Carolyn Fisher (Administrative Asst)				71920		857-307-1922
Julie Gerena (Administrative Asst)				71920	857-307-1922	857-307-1922
Elana Gonsalves (Administrative Asst)				27715		617-566-9549
Main Number	857-307-1920					
Research						
James Dolan			617-291-9789			617-264-5222
Meaghan Dunn			508-479-2769		857-307-1922	
Joshua Keegan			508-942-8291			617-264-5222
Julie Lombara				26629	857-307-1922	
Yasser Motii			908-938-3731	58555		857-307-1922
Dr. Ming Tao				58528/ 58529		617-264-6863

Location/Service	Phone	Pager (http://ppd.partners.org/scripts/phsweb.mwl?APP=PDPERS&ACTION=JUMPMAIN)
Admitting	617-732-7450	--
Main Vascular Surgery Office	857-307-1920 (fax 857-307-1922)	--
Shapiro 8W	857-307-2855	--
Shapiro 8E	857-307-2850	--
Sue Harrington (Care Coordinator)	857-307-2842	35629
Call room	857-307-2844	--
OR Main desk	617-732-7270	--
OR room 1	x35401	--
OR room 2	x35402	--
PACU	617-732-7285	--
Cath lab chief technologist (Jack West-Belvin)	617-732-7469 (cell 603-547-5868)	--
Cath lab room 9	617-732-8652	--

Cath lab room 11	617-732-8654	--
Cath lab recovery room (pre-/post-angio)	857-307-2060	--
		--
Vascular lab	617-732-6631	--
Portable CXR	617-732-7185	--
CXR reading room	617-525-6445	--
Ultrasound	617-732-7274	--
Ultrasound reading room	617-732-7190	--
MRA scheduling	857-307-2056	--
MRA reading room	617-732-6140	--
CTA scheduling	857-307-2053 or 857-307-2054	--
CTA reading room	857-307-2032 or 857-307-2037	--
CT (noncontrast/abdominal) reading room	617-732-7239	--
Angio/IR schedule	617-732-7245	--
Echo	x33666	--
Stress testing/MIBI scheduling	857-307-2050	--
Stress testing/MIBI reading room	857-307-2035	--
		--
Dialysis	617-732-6130	--
PICC/Metabolic Support	617-732-8880	35023 / 32084
BWH anticoag clinic	617-264-1000	--
Shapiro 8WE pharmacy		--
Outpatient pharmacy	617-732-8020	--
Lab control	617-732-7415	--
Micro	617-732-7383	--
Ortho tech		11316
Physical therapy	617-732-5301	--
Cardiovascular Watkins clinic	857-307-4000	--

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Samir Shah, MD

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