CARDIOTHORACIC KNOWLEDGE BOOK

INFORMATION FOR INTERN ROTATION

INTRODUCTION

The following pages contain information obtained or developed by the Division of CT Surgery over the years. While it was felt to be excellent information when entered medical knowledge is constantly changing. Therefore use the following as a guide only. Ultimately you will need to use your own good judgment about the patient and the most current knowledge available to decide how to treat your individual patient.

Please click on bookmarks on the left to navigate to the page of interest

CT SURGERY ROUNDS AND REPORTING GUIDELINES

1. CTICU rounds will start promptly at 5:30 a.m.

2. Resident on call the night before will arrive at 5:00 to pre-round in CTICU.

3. PA/NP or GS PG-1 in house the night before will not round in ICU – but will get data together for 4-East ward rounds.

4. No coffee/food/chairs on rounds.

5. Each ICU patient will have a CT resident progress note each day AND for each significant change in patient condition or procedure – (bronch, cardioversion)

6. Each patient transferred from CTICU to floor will have transfer note written by CT resident or GS PG-2. Specific issues will be communicated directly to floor PG-1 and mid levels.

7. 4-East rounds will begin promptly at 6:15 a.m.

8. Medical student progress notes do not count as official notes. Residents should also always write a progress note.

9. Each ward patient will have progress note each day by operating resident or by resident on call on weekends.

10. Afternoon rounds will begin promptly each day at 3:00 p.m. and will be led by the most senior CT resident available. If Chief Resident not available, the CT

resident leading rounds will communicate findings/actions/plans to Chief Resident before leaving the hospital.

11. Resident/student not on call will be allowed to leave when rounds are completed except for most unusual circumstances.

12. Rounds at the VA will adhere to similar guidelines with times adjusted to suit conditions.

Failure to adhere to these guidelines will result in loss of operating privileges.

LINKS

The following links maybe useful in finding other information you need.

Order forms off of the web
http://www.musc.edu/cce/ORDFRMS/CTSurgery/CTSurg.htm

CTS Net – A good source of information about CT Surgery nationally
http://www.ctsnet.org/

Resident Duty Hours

1. You are responsible for keeping track of your hours. If you feel that you are coming close to being over the 80/hour per week average over 4 weeks let the Chief Resident know so adjustments to the schedule can be made.
2. 2. Four days off in 4 weeks is a mandatory part of the work hour requirements. We will work with you to get those 24 hour periods off if it means missing morning rounds or coming in late some days.
3. 3. Shifts should be logged on E-value as one contiguous shift. For example, a shift requiring you to work the night of Jan 3 to the morning of Jan 4 should be logged as a continuous shift from 7Pm to 7AM not two separate shifts on two separate days.
4. 4. DO not hesitate to ask questions of the Chief Resident about the above.

Residents are expected to know the duty hour rules and see that they are followed. You must audit your own work and be sure you are well within compliance. PG1s on OR rotation week always have the opportunity to come in a little late to be sure they have had enough time off or go home in the afternoon to keep their total work hours for the month less than 80/week. If you are going to break a rule talk to the chief resident or an attending to plan a solution before you break a rule. Plan ahead. Please see this site for the rules. http://www.acgme.org/acWebsite/dutyHours/dh_Lang703.pdf

PG1 Information

Conferences:

Surgery conferences and journal club as scheduled.
Wednesday M&M 5pm. ART Rm 7045
Journal club usually 3rd Thursday every month 7 PM, be prepared to present.

Rounds:

Rounds begin in ICU 5:30 AM M-F, 6:30AM Sat, 7AM Sun. Afternoon rounds begin at 3 PM daily on 4 east. Identify anticipated transfers from ICU to the floor. They may not call you when the patient gets to the floor!

The night intern/PA is expected to have seen all the patients and have collected information regarding their condition and course since our last meeting. Your goal should be to provide all the information in the fewest words. Time is short in the morning. The format of the presentations is as follows:

- Name
- POD and Procedure
- Attending
- Problems
- Meds- Abbreviate as you are able
- Do not give prn meds unless you think there needs to be a change.
- Give day of antibiotics.
- VS- Do not give ranges. Include Daily weights (**current/preop**).
- 24 hr I/Os. Include the last 8 hours for chest tubes.
- Is there an air leak?
- PE- Especially wounds and lungs.
- Labs- Since our last meeting/FSBS

Orders:

Your day will be hectic. This service will teach you to organize your time and to prioritize. Write down everything on rounds. There is so much information that it is easily forgotten. Orders are of the utmost importance. We encourage independent thought but not independent action. You can change orders as necessary for the patient's well being, but you should seek guidance before changing hemodynamically significant medications.

The telephone is a great tool. It allows you to be effective while doing other things. However, do not abuse the privilege of verbal orders. Sign your orders when you come

to the floor. Always follow-up on your verbal orders, they have a way of not getting done.

Be conscious of what you order. Ask yourself whether the lab test or medicine will change the treatment plan or course of the patient before ordering.

On admission please think about treatment plan before ordering meds. If the patient is going to surgery do not anticoagulate the patient, etc.

Check list for preop admissions:

- Hibiclens showers daily
- Bactroban to both nares 2xday
- Asprin should be stopped 3 days before surgery unless unstable
- Plavix should be stopped at least 5 days before surgery.
- Coumadin should be stopped, heparin may be used if needed as it is reversible
- Start Vitamin C 500 mg 2xday for a fib prophylaxis
- Start Amiodorone 400 mg 2xday for afib prophylaxis
- Beta Blockers for all coronary artery disease, adjust dosage as needed, a dose should be give at 4 AM with a sip of water on the morning of surgery.
- Zocor or another statin drug for all coronary artery disease
- Stop ACE inhibitors 2 days before surgery if safe

Pre-operative cardiac surgery patients should have a type and crossmatch the day before surgery. If surgery will be more than 24 hours out at the time of admission, the patient should have a type and antibody screen to be sure that he can be typed and cross-matched for surgery. Preoperative lab work on cardiac surgery patient's should include a complete metabolic profile, CBC, urinalysis, ProTime, partial thromboplastin time, hemoglobin A1c, lipid panel, PA and lateral chest x-ray in the department if possible, and a electrocardiogram. Carotid ultrasound should be obtained when patients who are at risk of having significant carotid artery disease this would include patients over 75 patients, left main coronary artery disease, a history of vascular disease or a history of any kind of neurologic problems. Pulmonary function tests should be obtained if physical exam suggests any impairment in pulmonary function. Echocardiograms should be obtained if not already available from referring sources.

Be careful with standing orders for labs or medications. It is very easy to forget that someone is getting some medication that could potentially cause harm.

No standing Coumadin orders. Coumadin should be ordered **each day <u>after</u> checking the PT/INR** and discussing it with Gladney Brooks, senior resident or attending. Patients receiving Coumadin need a baseline PT/PTT before starting therapy and a PT daily until discharge. Gladney regulates out-patient anticoagulation (excluding Dr. Kratz's patients) and will help make these arrangements prior to discharge (if unexpected discharge on weekend page Gladney for assistance). Always provide patient with prescription noting "PT/INR q Mon, Thurs, and prn...fax results to

843-876-4866" (call appropriate phone number for attending office). Dr. Kratz makes arrangements for his patients to be seen in his clinic for PT/INR.

Discharges:

Discharges should be done very early and are of the highest priority. All discharges must be **approved by the attending**. Check with the attending to see whether he or she would like to see the patient before leaving. It is helpful to have completed discharge orders and have prescriptions ready for review prior to rounding with the attending physician.

At discharge all cardiac patients should be considered for a MVI with iron, Prilosec OTC for 30 days only, ASA, beta blocker, and a statin drug. In addition, any patient with diagnosis of acute MI and EF <40% should be considered for an ACE or ARB. We have preprinted discharge orders to prompt you. If contraindicated, document the reason on the preprinted discharge orders, i.e. b/p too low, creatinine too high, etc. Be sure to review all pre-op meds and include those which should be resumed. Coumadin and Lanoxin should be prescribed as "dispense as written". All prescriptions should be refill X 3 unless otherwise specified. You are responsible for giving scripts to patient. Do not leave on chart for nursing.

All CABG/valve patients should be referred to cardiac rehab at discharge. There is a box to check on the back of discharge orders under activity.

See physician preferences for amiodarone weans at discharge. Amiodarone is a drug you will use frequently on this service and you should review it early in your rotation.

The patient should be carefully checked before discharge to ensure that no sutures are left in place, and all wounds are OK.

Discharge summary dictation to be done **at the time of discharge by the discharging physician or midlevel**. Exceptions to the above: Maggie does thoracic dictations and Gladney does Dr. Crawford dictations. You need to dictate stat summaries and print to facilitate timely transfers to other facilities if not done by the night NP/PA/intern. All patients should have all Consults, H&Ps, and Discharge summaries done in Epic. Once completed the note must be printed, a patient ID sticker placed on every page, holes punched in top and placed in the appropriate portion of the chart. A note saying see Epic is not satisfactory.

A copy of all discharge orders with the phone number the patient can be reached on the day after discharge must be placed in the basket on 4 East on the day of discharge. Follow-up appointments are usually scheduled for 2 weeks except for Dr. Ikonomidis' patients who return in 3 weeks. Attending office phone numbers should be made available to patients on discharge orders, **do not use the paging operator**. All phone numbers are on the front of the preprinted cardiac discharge orders: Kratz 876-4841,

Crawford 876-4840, Reed 876-4845, Ikonomidis 876-4842, Denlinger 876-4844, and Toole 876-4841.

All thoracic discharges should have a two-week appointment with a chest x-ray prior to the appointment. Please contact the thoracic surgeons' secretaries to schedule a chest x-ray and follow-up appointment.

Work-ups/Admissions:

Out-patient same-day admit workups are seen in clinic areas and are done by NP/PA. If NP/PA is not available, you will be called to perform the workup.

All patients should have all Consults, H&Ps, and Discharge summaries done in Epic. Once completed the note must be printed, a patient ID sticker placed on every page, holes punched in top and placed in the appropriate portion of the chart. A note saying see Epic is not satisfactory. **NOTE: Admission histories and physicals are not considered complete until the medicine reconciliation form is also filled out and placed on the chart.**

Preop admissions to the floor are the responsibility of the intern. NP/PA will be able to answer many of your questions, especially about where to obtain old information. There are preprinted orders for admission.

Pre-op cardiac work-ups include: CBC with diff, CMP, PT, PTT, HgA1C, U/A, lipid panel, EKG, CXR, T&CM 4 units (8 units for re-dos) and bilateral arm pressures. Labs are acceptable from other hospitals drawn within 30 days prior to admission. Only repeat labs based on clinical information, i.e. recheck BMP if patient has received dye load, recheck platelets if patient on heparin, etc. CXR is acceptable up to 2 weeks prior to surgery. Further diagnostic work-up (ABG, PFT, vascular studies, echoes) should be discussed with the attending physician prior to obtaining. Any patient over 75 y.o., left main disease, carotid bruit, neuro history or symptoms should have preop carotid dopplers. Any patient without documented EF (either by cath or echo) should have immediate echo.

All pre-op patients should be started on bactroban ointment inside nares and navel BID and Vitamin C 500mg Q12h. See physician preferences for pre-op amiodarone. All coronary artery patients should be on a beta blocker and a statin unless contraindicated A dose of beta blocker should be given at 4AM with a sip of water. If indicated consider a very small dose such as Metoprolol 6.25 mg. Discontinue ASA, coumadin, and plavix until discussion with attending.

Progress Notes/ Problem List:

Notes should be completed by the night intern/PA/NP prior to morning rounds please use standard daily rounding note found in clinical order forms icon.

The problem list is kept in the front of the progress notes. This should be initiated by admitting MD/PA/NP and kept current throughout the patient stay. In addition, there is a list of common postoperative conditions at the bottom of the problem list which should be addressed in your notes, i.e. if pt is given bolus fluids for volume depletion, be sure to document this in progress notes. Be alert to study results in your notes, i.e. if CXR reads atelectasis, it must be reported in progress notes and addressed.

Afternoon Rounds:

Pre-round before afternoon rounds as needed to be able to present completely. The CT Chief will page 30 minutes prior to afternoon rounds where to meet. The purpose of afternoon rounds is to go over preops and to review the progress and changes of the floor patients during the day. The attendings will frequently change our morning plans, and the CT intern is the link to these changes. It is important to know all of the vitals, labs, studies, and condition of the patients.

Call:

You will take approximately a week of day call and approximately a week of night call during your month on CT Surgery, and the schedule is arranged per ACGME work rules requirements. Please review notes above on duty hours. Your responsibilities and first priority will be for floor patients. When you are called about a patient, evaluate the patient and obtain pertinent information then call your upper level when you have questions. The CT intern call room is on 2nd floor of ART.

Chest tubes/drains:

Chest tubes are pulled out when they are no longer needed. Be sure to mention any sign of air leak. We will usually discuss this each day on rounds. They usually come out on day two. We look for outputs of less than 100cc in eight hours for adults. **Only thoracic** patients need routine post–pull PA and lateral chest x-rays. Chest tubes should not come out if there is an air leak. You should learn how to identify an air leak. All thoracic patients should have a CXR with their follow-up appointments. JP drains vary by attending practice.

Patient List:

List includes in-patients, consult patients, and pre-op patients. This should be updated every shift by intern/np/pa. Include: name, medical record number, attending, POD or HD, pre-op creatinine, weight, OR date and procedure (include type of valve or CABG off or on pump) arrhythmias, all drains/wires, pertinent information about meds such as Coumadin and antibiotics, pending labs. Check with senior resident about updating consult list.

Attending Preferences:

Crawford:

1. Echos on all valve cases before discharge.
2. Dressings down to band-aids as soon as possible.
3. No IVs (hep locs) if they are not needed (out as soon as possible).

Kratz:

1 Remove nasal cannula O2 **when O2 sats >94% on room air.**

Ikonomidis:

1. Prior to discharge, all aortic arches and roots should have ct angio per aortic protocol. All roots and AVRs should also have an echo.
2. If patient discharge on digoxin need prescription for only one month.

Reed:

1. Does not use purse-strings. You will need Vaseline gauze when d/c these chest tubes.
2. Will be placed on telemetry for first 3 days postoperative.
3. Does not use DMS team.

Support:

Call NP/PA, resident, fellows or attendings for questions. If there is a problem, let someone know about it. If you feel that you are not receiving enough support, let the chief know so that he can arrange help to be available.

Gladney Brooks, NP beeper 11664
Maggie McClain Ramsden, NP, beeper 11516
Emily Lynn, PA beeper 13011
Ann Peterson, NP beeper 13040
Sharon Schuler case manager
Walt Uber, Pharm D, beeper 11380