Inova Fairfax Medical Campus
Internal Medicine Residency Program
Rapid Response Rotation
Competency Based Curriculum
Goals and Objectives

I. Educational Purpose and Goals

a. This rotation will allow participants to develop the skills necessary for efficient assessment of critically ill patients, including chart review and focused physical examination. The focus of the rotation will be to build a focused differential diagnosis and execute an immediate treatment plan including the engagement of necessary consulting services and escalation of care, if needed. Additional competencies will include interdisciplinary communication to ensure timely management of patients. Participants will get exposure to common and uncommon emergent situations and will become comfortable managing unanticipated medical events as they occur. The expectation on this rotation is that the resident covering rapid response is supposed to facilitate primary assessment/triage, participate in stabilization and engage the appropriate attending for continued care of the patient or escalation of care if needed.

II. Principal Teaching Methods

a. **Supervised direct patient care:** Residents will work closely with other members of the Rapid Response Team including ICU nurses, rapid response nurses, respiratory therapy, floor nurses and ancillary staff. This is a rotation where learning will come from addressing the rapid response situation. When needed, critical care physicians, chief residents, and Department of Medicine hospitalists will provide supervision in the care of a rapidly decompensating patient.

b. **Didactics and small group sessions:** Residents are expected to attend all noon conference offerings including but not limited to the following sessions unless there is an intervening emergency in patient care: Journal club, Evidence Based Practice Case presentation, Internal Medicine Grand Rounds, Educational Grand Rounds, Medicine-Pathology-Radiology conference, Morbidity and Mortality Conference

c. **Self-Study:** Residents are expected to perform directed reading based on their patient's problems and disease states. Access to articles and electronic resources

will be made available to residents from any computer with an internet access, both inside and outside the hospital.

III. Educational Content

a. **Disease mix:** Patients with a wide variety of medical illnesses will be seen by residents while on this rotation.
b. **Patient characteristics:** Inpatients at Inova Fairfax Hospital of 18 years of age or older provide an ethnically diverse patient population with a broad array of common and rare diseases.
c. **Learning Venues:** Inova Fairfax Medical Campus

IV. Resident Schedule

a. Structure:
   i. This is a two-week rotation with all clinical time spent in the hospital. The team will consist of medicine resident, ICU rapid response team, and ancillary staff.
   ii. Work Hours: 8am-7pm, Monday-Friday
      a. NO OUTPATIENT CLINIC DURING ROTATION
   iii. Role will also require RRT resident to act as the back-up resident for the wards teams when primary team resident is at PM clinic. This may include pages, tiger texts and or calls from interns to discuss patient management and treatment plans. This may also require evaluating patients with the interns and active management while primary resident is not present as well as supervision of interns for any new ICU transfers or other new patients to the team in the afternoon.
   iv. First day of RRT role will require resident to be present at the chief's office at 7:30am for a mini-orientation to review goals and objectives of the rotation.
   v. Residents will participate in didactic sessions and teaching rounds aimed at strengthening their core medical knowledge that is needed in emergent situations. This will be in the form of providing resident report lectures at minimum 1 but possibly 2 over the course of a 2 week block.
      a. Most important is the RRT Report: to review with house staff 3-4 mini cases of rapid response cases encountered during the week. This will provide greater context for the work up and management of these patients for the interns and residents.
   vi. During the second week of the RRT rotation, the resident will also be scheduled for their required case conference for the year, which may be

the monthly Mortality and Morbidity conference, Med/Path/Rads conference, Journal Club or other noon conference.

b. Principal Educational Materials

i. At the beginning of the rotation, the chief medical residents will provide materials, including this curriculum and a resource list. This will also be sent electronically via e-value and access to articles should be available 24/7 through online access from the hospital or home.

V. General Guidelines for the RRT resident

A. Who carries it House MD Pager and Phone?

a. The House MD pager is the hospital's Rapid Response Team (RRT) physician pager. It needs to be physically held by a doctor at all times.

b. **Do not ever roll the pager or phone or reassign the pager ID.**

c. **You will work very closely with the ICU Rapid Response RN and other members of the hospital RRT. Take advantage of their knowledge and skills, senior members have been doing this for a long time and know rapid response scenarios and Inova policies very well.**

d. **Do not ever hesitate to ask for critical care (MCCS) assessment of a patient if you or another member of the team suggests it.**

e. Always call if you will be late well before your shift starts. Do not arrive late regularly for any reason or your privileges will be ended.

B. RESPONSIBILITIES

- **First responder to all Rapid Response Team** (RRT) calls campus-wide and evaluations of all patients with acute emergencies (typical cases are septic picture, chest pain, shortness of breath/hypoxia, transfusion reactions, psychiatric emergencies, falls, marked hypo/hypertension, arrhythmias, etc.).
- This includes an appropriate assessment, **communication with the primary attending physician**, and reasonable documentation of assessment, plans, and all communication in Epic.

- Appropriately triaging patients to the intermediate (IMC) or ICU level care with the assistance of the MCCS team and supervising RN if needed
- <u>The attending of record should determine whether they want you to call the MCCS physician, if unsure or emergent do not hesitate to call for a MCCS assessment</u>
- You are not expected to follow up any non-emergent studies that are ordered. That is the responsibility of the attending of record or the accepting service.
- **You must discuss and communicate the plan to the attending of record.**

- Pronouncing deaths: perform the exam and write the death note (note type: "death", will auto generate a note form, alternatively can use .death… as a template). Change the word "SUMMARY" to "PRONOUNCEMENT" and you can fill in the sections as you see fit. Most important is:

    - Time of death
    - Exam
    - Family notified (yes!)
    - Autopsy requested (always ask, typically is not or you can steer to "no", especially DNR patients.)
    - Can write that attending of record will complete Death Summary and Certificate.
- Ask the nurse to notify the attending (who should notify the family) of patients who are not on the teaching service. However, it can be helpful to call the family to let them know so that you can complete your note, and for good patient care.
    - If called on a teaching-service patient, please notify the covering resident to perform these duties.
    - Do not complete the legal/paper Death Certificate; the attending will complete this document.
    - The attending of record will write the discharge/hospital summary for the deceased patient.
- **Backup responder to all MSET** calls campus-wide. The MCCS teams (MICU or CCU) will respond to the call as the primary provider. However, you can also respond to see if assistance is needed if you are nearby. You should not leave another acute situation (e.g., another Rapid Response) to attend an MSET.

RRT MD – DOS AND DON'TS

- When holding this phone and pager you **should:**
    - Write a concise yet comprehensive "Rapid Response" note always.
        - Note type: "Significant Event", smartphrase: .IMresrapid (under PD or chief resident smart phrase list) or can use SBAR free text format
    - As above, communicate and discuss the plan with the attending of record then document that you had a conversation with the attending in your note.
    - Write transfer orders when transferring patients, especially orders that are pertinent to the acuity of the care for which you were called about
    - provide an appropriately detailed summary of the situation to the attending or intensivist. Communicate clearly level of acuity, assessment, interventions completed and next steps required
- When holding this pager/phone you **should NOT**:
    - Write routine orders, outpatient Rx's, remove lines (unless medically necessary, e.g., infiltrated or infected), or discharge patients.
    - Handle **non-emergent** issues on non-teaching patients. If you are asked by the nurse please explain to him/her politely that you are not hired or credentialed to perform non-emergent duties and that the patient's attending needs to handle that request.
    - If there are any issues related to inappropriate request from nursing or attendings, please page or call your chief resident AT THE TIME THAT IT IS HAPPENING so that we are able to speak to the nurse and/or attending. Always instruct the nurse to contact the patient's attending for the non-emergent issue.

CHAIN OF COMMAND DURING RRT

- For Direct Supervision/Patient Care
    - 1: Primary Team/Attending of Record
    - 2: Chief residents

For Unstable/ Emergent Needs / Imminent Code – may reach out to MCCS directly: Float/Day Consult Service x65497

- For Logistics Questions (ex. bed availability, unit capacity/capability)
  - Administrative Director (AD, charge nurse for entire facility) – x66836
  - Clinical Logistics Center (CLC or Bed Board)
    - Tower x65904
    - IHVI x67870

VI. METHODS OF EVALUATION

a. At the end of the rotation each resident will be evaluated based on their conference performance, feedback from RRT nurse to the chiefs, formal evaluation by the chief resident(s) or the Program Director. In addition to these evaluations, face-to face feedback will also be provided at the end of conference presentations and where applicable regarding triage and acute management.

b. RRT resident will also be asked to provide feedback on the rotation via MedHub which will be anonymous and compiled for review by the Program Evaluation Committee.

VII. Resource List

a. Harrison's Principles of Internal Medicine

b. Core journals in internal medicine and its subspecialties

c. Up-to-Date

d. Recommended reading list:

i. *Acute Abdominal Pain in Adults – http://www.aafp.org/afp/2008/0401/p971.html*

ii. *Mesenteric Ischemia - N Engl J Med 2016; 374:959-968*

iii. *Diagnosis of Acute Coronary Syndrome – http://www.aafp.org/afp/2005/0701/p119.html*

iv. *Acute Coronary Syndrome: Diagnosis and Management – http://www.mayoclinicproceedings.com/content/84/10/917.full*

v. *Acute Coronary Syndrome: Diagnosis and Management Part II – http://www.mayoclinicproceedings.com/content/84/11/1021.full*

vi. *Acute Dyspnea- http://www.aafp.org/afp/2003/1101/p1803.html*

vii. *The Asthma–COPD Overlap Syndrome - N Engl J Med 2015; 373:1241-124*

viii. *Management of Acute COPD exacerbation: A systematic Review and Metanalysis – http://chestjournal.chestpubs.org/content/133/3/756.full.pdf+html*

ix. *Management of COPD exacerbation – http://www.aafp.org/afp/2010/0301/p607.html*

x. *Acute Renal Failure –http://www.aafp.org/afp/2005/1101/p1739.html*

xi. *Evaluation of Chest Pain – http://www.aafp.org/afp/2005/1115/p2012.html*

xii. *Delirium in Hospitalized Patient – http://www.aafp.org/afp/2008/1201/p1265.html*

xiii. *Acute Lower Back Pain http://www.aafp.org/afp/2007/0415/p1181.html, http://www.ccjm.org/content/76/7/393.full.pdf*

xiv. *Upper GI Bleeding –http://www.ccjm.org/content/77/2/131.full*

xv. *Acid–Base Problems in Diabetic Ketoacidosis - N Engl J Med 2015; 372:546-554*

xvi. *Hyperkalemia – http://www.aafp.org/afp/2006/0115/p283.html*

xvii. *Hyponatremia –http://www.ccjm.org/content/77/10/715.full.pdf+html*

xviii. *Hypernatremia –http://www.aafp.org/afp/20000615/3623.html*

xix. *Neutropenic Fever Evaluation and Management – http://cid.oxfordjournals.org/content/34/6/730.full.pdf+html*

xx. *Neutropenic Fever 2011 Update – http://cid.oxfordjournals.org/content/52/4/e56.full.pdf+html*

xxi. *Lower GI Bleeding –http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2036.2005.02485.x/pdf*

xxii. *Hyperglycemia in Hospital Setting – http://www.ccjm.org/content/74/2/111.full.pdf+html?sid=d88720aa-e07c-49fa-b018-93306e399279*

Severe Sepsis and Septic Shock - N Engl J Med 2013; 369:840-851. DOI: 10.1056/NEJMra1208623

xxiii. *Heart Failure –http://content.onlinejacc.org/cgi/reprint/53/15/1343.pdf*

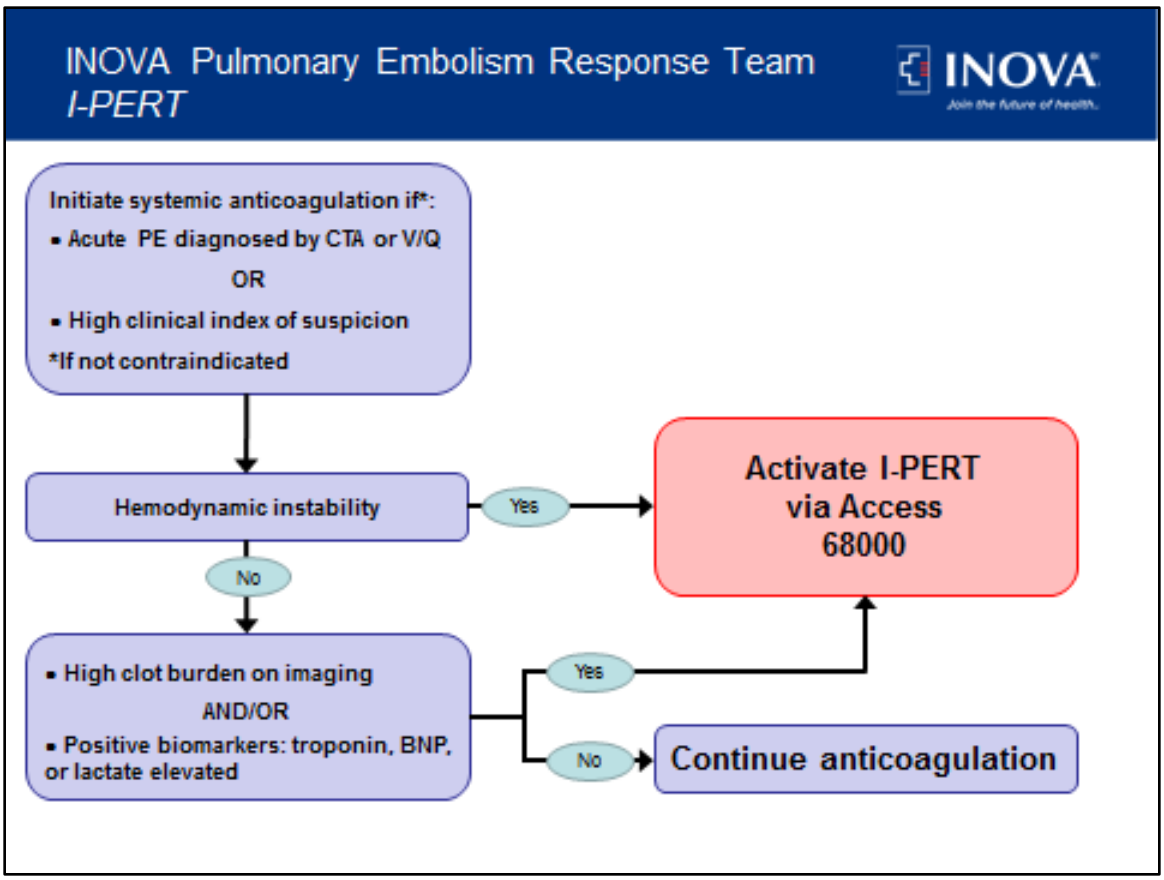
xxiv. *Heparin-Induced Thrombocytopenia – N Engl J Med 2015; 373:252-261. DOI: 10.1056/NEJMcp1411910*

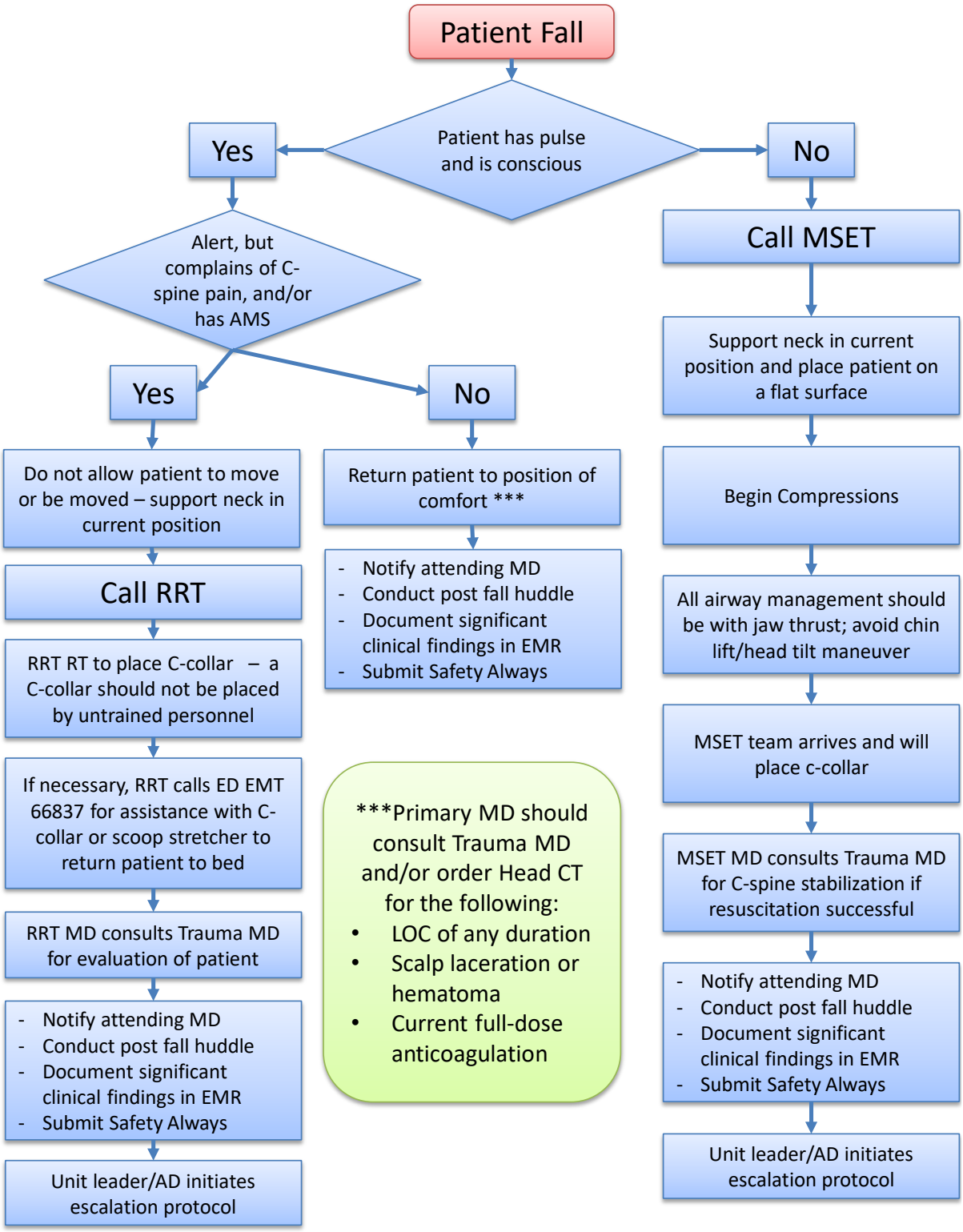
xxv. *Deep-Vein Thrombosis of the Upper Extremities – N Engl J Med 2011; 364:861-869. DOI: 10.1056/NEJMcp1008740*

xxvi. *Acute Pulmonary Embolism – N Engl J Med 2010; 363:266-274. DOI: 10.1056/NEJMra0907731*

xxvii. *Venous Thromboembolism Treatment Guidelines – http://chestjournal.chestpubs.org/content/133/6_suppl/454S.full.pdf+html*

xxviii. *Additional suggested topics: AMS, hypertensive urgency/emergency, acute headache, tachycardia, hypotension, bradycardia, agitation, hypothermia, fever/hyperthermia, nausea, hemoptysis, epistaxis*


INOVA Pulmonary Embolism Response Team
I-PERT
INOVA
Join the future of health.
Initiate systemic anticoagulation if*:
• Acute PE diagnosed by CTA or V/Q
OR
• High clinical index of suspicion
*If not contraindicated
Hemodynamic instability
Yes
Activate I-PERT via Access 68000
No
• High clot burden on imaging
AND/OR
• Positive biomarkers: troponin, BNP, or lactate elevated
Yes
No
Continue anticoagulation


Patient Fall
Patient has pulse and is conscious
Yes
No
Alert, but complains of C-spine pain, and/or has AMS
Yes
No
Call MSET
Support neck in current position and place patient on a flat surface
Begin Compressions
All airway management should be with jaw thrust; avoid chin lift/head tilt maneuver
MSET team arrives and will place c-collar
MSET MD consults Trauma MD for C-spine stabilization if resuscitation successful
- Notify attending MD
- Conduct post fall huddle
- Document significant clinical findings in EMR
- Submit Safety Always
Unit leader/AD initiates escalation protocol
Do not allow patient to move or be moved – support neck in current position
Call RRT
RRT RT to place C-collar – a C-collar should not be placed by untrained personnel
If necessary, RRT calls ED EMT 66837 for assistance with C-collar or scoop stretcher to return patient to bed
RRT MD consults Trauma MD for evaluation of patient
- Notify attending MD
- Conduct post fall huddle
- Document significant clinical findings in EMR
- Submit Safety Always
Unit leader/AD initiates escalation protocol
Return patient to position of comfort ***
- Notify attending MD
- Conduct post fall huddle
- Document significant clinical findings in EMR
- Submit Safety Always
***Primary MD should consult Trauma MD and/or order Head CT for the following:
• LOC of any duration
• Scalp laceration or hematoma
• Current full-dose anticoagulation

Milestone Based Evaluation Instructions

a. Only answer questions that refer to behaviors you observed during the resident's presentation at either conference. It's okay to choose N/A if you didn't witness that behavior

b. Please include comments at the end of the evaluation to give specific examples of behaviors that are either concerning or exemplary.

1. Medical Knowledge (MK 1)

N/A	Needs Improvement	Meets Expectations	Exceeds Expectations
	Possesses insufficient medical knowledge in order to interpret the details of the case, couldn't identify that lapse in medical knowledge led to the unexpected outcome.	Understands the medical knowledge required for interpretation of the patient case ie: the resident was able to identify lapse in medical knowledge as a factor in the unexpected outcome.	Demonstrates comprehensive medical knowledge needed to understand all details of the presented case. Demonstrated understanding of best medical practice

2. Systems Based Practice (SBP 2)

N/A	Needs Improvement	Meets Expectations	Exceeds Expectations
	Though a systemic issue was responsible for unexpected outcome, resident was either unable to identify the issue or understand how the factors could have led to the unexpected outcome.	When a systemic issue was responsible for the unexpected outcome, resident was able to identify the issue and understands how those factors led to the unexpected outcome.	Demonstrates understanding of all of the systemic issues that led to the unexpected outcome and proposed an intervention to prevent unexpected outcome in the future.

3. Professionalism (PROF 2)

N/A	Needs Improvement	Meets Expectations	Exceeds Expectations

	The resident demonstrated some preparation but review of the relevant materials was superficial.	Resident demonstrated adequate preparation for case discussion to lead the discussion.	Resident demonstrated thorough preparation and solicited additional resources to fully digest the case.

4. Interpersonal & Communication Skills (ICS 2)

N/A	Needs Improvement	Meets Expectations	Exceeds Expectations
	The resident's presentation of the case was disorganized and didn't reflect an understanding of why the case was presented.	The resident's presentation was organized and concise, and reflected clear understanding of the need to present the case.	The presentation was cogent, and organized, and the details of the case were discussed in collaborative and productive fashion.

EVALUATION TOOL TO BE USED BY RESIDENT:

1. The educational goals and objectives for this rotation were met
    A. Strongly disagree
    B. Disagree
    C. Slightly Agree
    D. Agree
    E. Strongly Agree
    F. Insufficient information (please explain):

2. The patient volume was appropriate for this rotation
    A. Strongly disagree
    B. Disagree
    C. Slightly Agree
    D. Agree
    E. Strongly Agree
    F. Insufficient information (please explain):

3. I was given appropriate responsibility, autonomy and supervision for my level of training
    A. Strongly disagree
    B. Disagree
    C. Slightly Agree
    D. Agree
    E. Strongly Agree
    F. Insufficient information (please explain):

4. What where the most valuable experiences of this rotation?

5. What were the least valuable experiences of this rotation?