UNIVERSITY OF COLORADO INTERNAL MEDICINE RESIDENCY
FLOAT ROTATION CURRICULUM
(Elements include CHF service, ACE service, DH ICU day float, VA night float, and UCH day float)

I. Educational Purpose and Goals

Management of hospitalized patients remains essential for the practice of internal medicine. The float rotations allows residents to develop rapid assessment skills, refine history and physical exam skills, develop experience in selection of diagnostic tests, learn management of a wide variety of diseases, and gain experience with team-based care and communication. These experiences provide access to patients with a variety of medical problems and create the opportunity to interact with subspecialists while managing patients with complex conditions. Interns will generally spend one week on ACE, 2 weeks on CHF and one week "floating" at the VA or UCH). R3's will generally spend one week on the VA "bullet" service, and the other three weeks floating to the DH ICU, VA wards and UCH ICU.

II. Principal Teaching Methods (see also ACE, CHF, VA wards, UCH MICU, DH MICU and VA "bullet" curricula)

a. Supervised Direct Patient Care – Day Float (DH ICU, UCH ICU) and other assigned services

i. Residents encounter patients admitted to the general medicine services at the training sites. The population is obtained from the outpatient clinics, the emergency department, and in transfer from other hospitals. Faculty-led team rounds and float resident activities later that day occur under the guidance of the attending physician.

ii. Management and teaching rounds are conducted daily for up to 2.0 hours. The management team includes the float resident, one attending physician, one PGY2 or PGY3 resident and one or two PGY1 residents, with participating medical students. Rounds emphasize fundamental skills for management of hospitalized patients while incorporating issues such as resource utilization. This mandatory session involves critical critique and discussion assimilating basic science knowledge, clinical data, pathophysiology, and evidence based principles. The bedside component includes confirmation of residents' history and physical examination skills by the teaching attending physician. The teaching attending assesses and models communication skills.

b. Small Group Discussions

i. Morning Report: Held daily, Morning Report is attended by all inpatient medicine rotating residents and students including the float resident. MR sessions are resident-led and focus on practical information relating to common inpatient issues. The CMR and faculty member provide discussion

c. Didactic Sessions

  i. Several conferences are available: weekly Grand Rounds, site-specific M&M conferences, the monthly CPC conference, and monthly Journal Clubs.

III. Educational Content

a. Mix of Diseases – Encountered patients have a variety of conditions representative of common medical problems. The float resident acts both as primary inpatient physician and as medical consultants for patients admitted to non-medical specialty services when the primary team is post-call.

b. Patient characteristics – Patient demographics vary broadly across the different training sites.

c. Learning venues:

  i. UCH

  ii. Denver VA Medical Center

  iii. Denver Health Medical Center

d. Procedures:

  i. The procedures that are either learned or reinforced on the float rotations include but are not limited to:

    1. Arterial puncture
    2. Basic and advanced cardiac life support
    3. Central Venous Access
    4. Lumbar puncture
    5. Abdominal paracentesis
    6. Thoracentesis
    7. Arthrocentesis

  ii. Interpretive skills that are reinforced or learned on the float rotation include:

    1. Serum electrolytes and routine chemistry panel
    2. Urinalysis and microscopic examinations of urine
    3. Liver function tests
    4. Coagulation studies
    5. Arterial blood gases
    6. Chest x-ray interpretation
    7. Electrocardiogram
    8. Peripheral blood smear (reviewed with Oncology)
    9. Sputum Gram Stain (reviewed with Microbiology)
    10. Spirometry (reviewed with Pulmonary)

  iii. Communication, Handoffs, and Consultative skills: Float residents communicate closely with the primary team, attending, consultants, and overnight covering physicians to ensure patient care is as seamless as possible.

e. Ancillary services interacted with:

  i. Subspecialist and Primary Care Physicians

  ii. All medical subspecialty fellows

iii. Residents from other specialty training programs: General Surgery, Psychiatry, Orthopedics, Neurosurgery, Radiology, Emergency Medicine.
iv. Case Managers
v. Nursing staff
vi. Physical Therapy and Occupational Therapy
vii. Respiratory Therapy specialists
viii. Numerous other ancillary staff – clinical, administrative, and paraprofessionals.

f. Structure of rotation

i. The float resident joins the post-call or post-shift team in order to provide care for patients as these periods of call end. Rounding with the primary team, interacting with the attending physician, and providing care for the patients are basic elements of the float rotation.
ii. Morning report, attending rounds, didactic conferences, and self-directed learning are all components of the rotation.

IV. Principal Ancillary Educational Materials

a. Float residents are provided with this curriculum at the start of their rotation.
b. Full service libraries are electronically accessible. 24-hour access to on-line programs and literature is available.
c. Computer-based resources are available at the hospitals to facilitate patient care, education and communication. The following are made available:

1. Computer-assisted diagnosis and decision support
2. Drug information including side effect and drug-drug interactions
3. Electronic Medical Record internet accessibility
4. Electronic textbooks of medicine
5. E-mail services
6. Internet access to medical sites on the World Wide Web
7. Laboratory and radiology results retrieval
8. Multimedia procedures training
9. Patient education materials

V. Methods of Evaluation

a. Resident Performance

i. Faculty complete resident evaluation forms for the ACE and CHF components of the rotation provided by the Internal Medicine Residency office. The evaluation is competency-based. The evaluation is shared with the resident, who receives a copy, and is internally reviewed by the residency office. The evaluation is part of the resident file and is incorporated into the semiannual performance review for directed resident feedback.

ii. Residents electronically record completed procedures. The supervising physician verifies the resident understands the procedure's indications, contraindications, complications and interpretation.
iii. Medical cases are reviewed by attendings who provide specific feedback regarding the efficacy of communication, patient care details, and professionalism.

b. Program and Faculty Performance
i. Upon completion of the rotation, residents complete a service evaluation commenting on the faculty, facilities and service experience. Evaluations are reviewed by the program and attending faculty physicians receive anonymous annual copies of completed evaluations. Collective evaluations serve as a tool to assess faculty development needs. The Residency Review Committee reviews results annually.

VI. Rotation Specific Competency Objectives

a. Patient Care
i. History taking. Float residents will be able to perform ward rotation-level history taking. Additionally, they will obtain further history when indicated in order to guide subsequent care.
ii. Physical Exam. Float residents will be able to perform ward rotation-level physical examinations. Additionally, they will obtain further physical examination when indicated in order to guide subsequent care.
iii. Charting. Residents at all levels of training will record data in a legible, thorough, systematic manner.
iv. Procedures.
1. PGY-1 float residents will demonstrate knowledge of: procedural indications, contraindications, necessary equipment, specimen handling, patient after-care, and risk and discomfort minimization. They will participate in informed consent and assist patients with decision making. They will correctly identify the meaning of test results. PGY1 residents will initially observe and then perform procedures prior to the completion of the first training year.
2. PGY-3 float residents will demonstrate extensive knowledge and facility in the performance of procedures while minimizing risk and discomfort to patients. They will assist their junior peers in skill acquisition.

v. Medical Decision Making, Clinical Judgment, and Management Plans. All float residents will demonstrate improving skills in assimilating information that they have gathered from the history and physical exam.
1. PGY-1 residents will be able to identify patient problems and develop a prioritized differential diagnosis. Abnormal

findings will be interrelated with altered physiology. They will understand their limitation of knowledge and seek the advice of more advanced clinicians. PGY-1 residents will begin to develop therapeutic plans that are evidenced or consensus based. Residents will establish an orderly succession of testing based on their history and exam findings. Specific organ dysfunction will be anticipated based on known side effects of therapy. Additionally, residents will understand the correct administration of drugs, describe drug-drug interactions, and be familiar with expected outcomes.

2. PGY-3 residents will demonstrate the above and in addition, will demonstrate appropriate reasoning in ambiguous situations, while continuing to seek clarity. Residents at this level of training will not overly rely on tests and procedures. PGY-3 residents will continuously revise assessments in the face of new data.

vi. Patient counseling

1. PGY-1 residents will be able to describe the rationale for a chosen therapy and will be able to describe medication side effects in lay terms. They will assess patient understanding and provide more information when necessary. Residents will demonstrate the ability to be a patient advocate.
2. PGY-3 residents, in addition to the above, will effectively communicate with critically ill patients and those making life-style modifications.

b. Medical Knowledge.

1. PGY-1 residents will consistently apply current concepts in the basic sciences to clinical problem solving. They will use information from the literature and other sources including electronic databases. PGY-1 residents will demonstrate satisfactory knowledge of common medical conditions, sufficient to manage urgent complaints with supervision. Residents must exhibit sufficient content knowledge of common conditions to provide care with minimal supervision by completion of the PGY1 year.
2. PGY-3 residents in addition to the above will demonstrate appropriate habits to stay current with new medical knowledge, and will exhibit knowledge of effective teaching methods.

c. Interpersonal and Communication Skills.

1. PGY-1 residents will develop and refine their individual style when communicating with patients. They will strive to create ethically sounds relationships with patients, the physician team and supporting hospital personnel. They will create effective written communications through

accurate, complete, and legible notes. They will exhibit listening skills appropriate to patient-centered interviewing and communication. Residents will recognize verbal and nonverbal cues from patients. Particular emphasis is placed on conducting effective provider to provider communication in the area of sign-out and handoffs.

2. PGY-3 residents should additionally be able to successfully negotiate nearly all “difficult” patient encounters with minimal direction. Third year residents should function as team leaders with decreasing reliance upon attending physicians.

d. Professionalism.

All residents will demonstrate integrity, accountability, respect, compassion, patient advocacy, and dedication to patient care that supercedes self-interest. Residents will demonstrate a commitment to excellence and continuous professional development. They will be punctual and prepared for teaching sessions. Residents will demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentially of patient information, and informed consent. Residents are expected to show sensitivity and responsiveness to patients’ culture, age, gender and disabilities.

e. Practice Based Learning and Improvement

1. PGY-1 residents will use hospital and University library resources to critically appraise medical literature and apply evidence to patient care. They will use hand-held computers, desktop PC’s and Internet electronic references to support patient care and self-education. They will model these behaviors to assist medical students in their own acquisition of knowledge through technology.
2. PGY-3 residents will additionally model independent learning and development.

f. Systems Based Practice.

1. PGY-1 residents will be sensitive to health care costs while striving to provide quality care. They will begin to effectively coordinate care with other health care professionals as required for patient needs.
2. PGY3 residents, in addition to the above, will enlist social and other out-of-hospital resources to assist patients with therapeutic plans. PGY-3 residents are expected to model cost-effective therapy.