

University of Colorado

Acute Care for the Elderly Service

University of Colorado Hospital
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The UCH ACE service is an inpatient ward service providing care for the hospitalized elderly.

The ACE service is designed to be an innovative, interactive, and fun educational experience using non-traditional teaching methods with a primary emphasis on the learners experience.

This award winning educational experience is designed to:

- 1) Improve individual physicians' ability to recognize and treat vulnerability as it interacts with the acute illness requiring hospitalization.
- 2) Compensate, using specific physician actions, for a medical system poorly suited to meet the needs of the geriatric patient.
- 3) Demonstrate a vibrant example of how hospital systems can be improved to benefit vulnerable patients.

The goals of the Acute Care for the Elderly Service rotation are to gain competence in the evidence-based management of geriatric conditions commonly admitted to the hospital and to gain expertise in the interdisciplinary care of complex geriatric syndromes. This will be accomplished with a patient and family centered approach with individualization of care based on understanding of the unique physiology, pharmacodynamics, and psychosocial issues of the elderly. An overriding goal will be for learners to learn the fundamental concept of balance in the medical care of the elderly with focus on quality of life and individualization based on the patient's goals and priorities.

The objectives of the rotation will be accomplished by a 12 module didactic lecture series provided by faculty, small group workshops and discussions, self study using the binder of relevant articles which are provided on the shared "Black-board" system, and direct patient care of geriatric patients as part of an interdisciplinary team.

I. Educational Purpose and Goals

Management of hospitalized elderly patients is a core aspect of the practice of internal medicine and its subspecialties. The percentage of elderly patients in the hospital is expected to climb due to anticipated changing demographics of the population. The ACE rotation at University of Colorado Hospital consists of intensive inpatient care for patients over the age of 70 on a service employing interdisciplinary care. Learners are exposed to a wide range of pathologic processes which result in admission and also the multifactoral

geriatric syndromes which are seen in an elderly population. The educational objectives for the learner during this rotation are as follows:

- 1) Recognize the aspects of aging which may leave a patient vulnerable to effects of acute illness or may cause them to present with disease in atypical fashion
- 2) Know how to recognize and treat multifactorial geriatric syndromes during hospitalization using individually targeted bundles of interventions
- 3) Apply elements of effective transitions for an elderly patient population at increased risk for readmissions and failure of transition after discharge.
- 4) Understand the ways in which the modern hospital system is flawed in meeting the needs of the elderly patient.
- 5) Employ elements of a brief, practical, geriatric assessment.
 - a. Mini-cog
 - b. Vulnerable Elders Survey
 - c. Confusion Assessment Method
 - d. Get-up-and-go Test
 - e. Depression Screen
- 6) Apply individual corrective actions which can help compensate for the vulnerability of an elderly patient to improve outcomes
- 7) Incorporate goals of care and informed discussions of the balance between burdens versus benefits of interventions in developing individualized care plans for elderly patients
- 8) Function as a part of a full interdisciplinary team with two-way open-ended communication and respect for all perspectives provided by team members.
- 9) Develop effective communication techniques to overcome barriers to effectively educate and empower patients to take an active role in their own care in the hospital.
- 10) Change systems of care within the hospital to optimize care for hospitalized elderly. The ACE service is a living laboratory of change intended to improve underlying processes and infrastructure of care and each learner is expected to consider how they can improve the hospital system itself in order to create durable and lasting improvement of care for all geriatric patients.

II. Principal Teaching Methods

Supervised Direct Patient Care

Residents care for patients admitted to the ACE teaching service on the 12W unit which has a primary mission to care for the needs of vulnerable hospitalized patients but will also see patients on other units in the hospital and perform follow-up when ACE patients are transferred between sites of care such as to the ICU to emphasize the concept of global responsibility for effective transitions and handoffs. The ACE team will go to the ED to admit patients in that location, to the UCH clinics in the outpatient pavilion, or express admit unit for direct admissions. The ACE service also accepts transfers of

patients from the ICU and from subspecialty services as deemed appropriate by the attending. The criteria to be cared for on the ACE service is age ≥ 70 years old and an acute medical illness requiring inpatient management by internal medicine. All patient care is supervised by the admitting attending physician to include admission histories, physical exams, daily management, diagnostic/therapeutic procedures and discharge plans.

Organizational structure: The ACE teaching service consists of 1-2 teams composed of 1 PGY-1 internal medicine intern and 1 PGY-2 internal medicine resident, as well as 1-2 third or fourth year medical students. The residents receive direct supervision from the admitting attending physician through daily communication regarding all patient care and management issues during daily attending rounds.

Bedside Educational Rounds

Teaching Attending Rounds are provided by ACE faculty and are performed on a daily basis. Residents present cases and demonstrate requested skills at a bedside evaluation. These mandatory rounds involve critical critique and discussion assimilating basic science knowledge, clinical data, pathophysiology, and evidence based medicine principles. The teaching attendings provide didactic sessions and evidence based medicine review in addition to bedside rounds. The bedside component includes review of residents' history and physical examination skills on selected patients as well as their communication and interpersonal skills and clinical reasoning. Attendings model through direct example effective communication, bedside manner, empathy, as well as clinical exam skills. Teaching attendings receive feedback on their performance on a monthly basis from the Assistant Chief of Medicine in addition to a structured post-rotation feedback evaluation completed by learners which specifically requests them to comment on attending strengths and areas of weakness for future improvement.

Formal ACE Didactic Sessions

Formal didactic lectures, small group discussions, and workshops by faculty will be based on the disease processes encountered during the rotation and will be focused on the inpatient management of geriatric patients. Residents will receive 4-5 attending driven lecture sessions each week covering the key concepts outlined in the 12 module didactic curriculum. The educational lectures will be delivered primarily by the internal medicine hospitalist faculty with special interest in the care of geriatric patients. The lecture series during the 4 week rotation include all of the topics listed under medical knowledge objectives.

- Other lectures will be provided as indicated by patient exposure

ACE Didactics

- Rapid evaluation tools for the elderly patient
- Physiology of aging
- Delirium
- Dementia

- Falls
- Pressure Ulcers
- Medication Safety for the Older Patient
- Movement Disorders
- Urinary Catheters and Incontinence
- Advanced Care Planning/Discussing Resuscitation Preferences
- Paying for the Health Care of Older Americans/Transitions
- Ethical issues in Geriatrics and PEG tubes in Dementia

Self-Study

Each module is accompanied by self-study assignments which include key review articles or primary reference publications relevant to the subject discussed that day. All of these reference materials for self-study are included on the Black-board educational site with self-study test questions to allow the learner to evaluate their own mastery of the materials. Learners receive a 2-3 page synopsis of the topics covered on the didactic lecture series created by faculty members who attend on the ACE rotation.

Visit to Skilled Nursing Facility

Learners take a trip once a month to a skilled nursing facility in the Denver area to see a patient discharged from the service and obtain a real-world evaluation of the efficacy of their transition plan and communication.

Interdisciplinary Rounds

Each day M-F the interdisciplinary team gathers to discuss patient care face to face for 15 minutes (Physicians, Nursing, Therapy, Social Work, Case Management, Pharmacy, and others). The learner is expected to begin each discussion with 30 seconds on the patient issues from a physician perspective. On completing the physician portion of the discussion the learner asks the patient's nurse "from a nursing perspective what are your thoughts and suggestions". Given the need for efficient and effective communication the learner is expected to emphasize what information they have which other members of the team would want to know and what would help them perform their own roles and communicate with the patient a unified care plan. Learners are expected to master the art of open-ended communication with other staff and respect the unique professional expertise of other disciplines as they apply to patient care.

Morning Report:

Morning report (MR) is held daily at 11:00 AM. Cases are presented by the housestaff on inpatient rotations including the ACE resident. Attendance at morning report is mandatory for all inpatient medicine rotating residents. The MR format includes presentation of selected patients admitted in the previous 1-3 days followed by evidence based discussion of diagnosis/management and occasional review of the literature. An x-ray and ECG is also presented by the CMR prior to the case presentations for interpretation by the residents in a rotating fashion. MR also serves as a forum for discussion of difficult management issues selected by the residents.

One MR per month is dedicated to reviewing quality of care issues within the inpatient medical system at UCH. This inter-professional conference is attended by hospital administration, nurses, physicians, and others relevant to the issues at hand.

Other Conferences

Other conferences attended by ACE residents as part of the hospitalist training track include

1. Journal Club- Monthly
2. Internal Medicine Grand Rounds
3. Hospital Medicine Grand Rounds
4. Geriatrics Grand Rounds (applicable to inpatient geriatrics)
5. Morbidity and Mortality Conference
6. Chief Medical Resident's Outcomes Conference

Educational Materials

Each resident is tested both before and after the rotation with a multiple choice test covering the information most relevant to inpatient management of geriatric conditions. At the beginning of the rotation the residents are provided a binder containing all of the articles in the teaching file along with questions and answers for each topic. They each receive a 2-3 page synopsis of the topics covered on the didactic lecture series created by faculty members who attend on the ACE rotation.

III. Educational Content

a. Mix of Diseases –The patient population possesses a variety of conditions representative of common as well as less frequently encountered medical problems in geriatric medicine as well as general internal medicine. ACE service learners act both as primary inpatient physicians and are expected to accomplish seamless transitions of care between the hospital and the outpatient setting using communication with primary care providers on admission and on discharge.

b. Patient characteristics – Patients admitted to the teaching service are derived from the following sources: emergency room, direct admissions from physicians with teaching service privileges, and an extensive number of outreach clinics and hospitals in Colorado and the surrounding states. The largest sources of patients for the ACE service are from the general internal medicine outpatient clinics and the geriatric senior's clinic. Furthermore, patients followed in the HIV, hematology, renal transplant and other subspecialty clinics over the age of 70 are admitted to the ACE service so long as their primary need is served by expertise in inpatient geriatric medicine and not better served by another specialty or medicine subspecialty service with an inpatient team at UCH. The demographic and ethnic mix approximates that of the greater Denver community geriatric population and the extensive socioeconomic diversity of the area supports a challenging

training experience. The hospital's outreach efforts in surrounding rural communities also contribute to the diversity of the current population.

c. Learning venue:

In addition to serving the greater Denver and Aurora area, the University of Colorado Hospital is the major tertiary care referral center for a number of rural communities throughout Colorado as well as the surrounding states of Kansas, Nebraska, Wyoming, and New Mexico.

d. Procedures:

i. While a geriatric inpatient service is not expected to have high procedural volume, all procedures relevant to general internal medicine may be encountered in the course of caring for elderly inpatients. Procedural experience reinforced on the ACE rotation include but are not limited to:

1. Arterial puncture
2. Lumbar puncture
3. Abdominal paracentesis
4. Thoracentesis
5. Arthrocentesis
6. Nasogastric intubation
7. Central venous catheter placement
8. Cardioversion
9. Cardiopulmonary resuscitation.

ii. **Interpretive skills** that are reinforced or learned on the ACE service 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. Interpretation of radiological studies (chest x-ray, abdominal flat plate, CT scan)
9. Peripheral smear
10. Sputum Gram Stain
11. Spirometry

iii. **Geriatric Assessment tools** the ACE service learners will be taught to perform, interpret, and proceed with appropriate clinical action:

- Mini-Cog
- Get-up-and-go Test
- Depression Assessment Tool
- Vulnerable Elders Survey
- Confusion Assessment Method
- Sensory aid screen

- Assessment of advance directive status and goals of care

e. Ancillary services interacted with:

- i. Subspecialist and Primary Care Physicians
- ii. Fellows from every specialty within internal medicine.
- iii. Non-medicine program residents including family practice, surgery and surgical subspecialties, anesthesia, emergency medicine, OB/Gyn, and psychiatry.
- iv. Nursing staff
- v. Nurse practitioners and physician assistants
- vi. Case Management, social workers
- vii. Physical Therapy, Occupational Therapy, Speech Therapy, Nutrition, and Wound/Ostomy Nursing
- viii. Respiratory Therapy
- ix. Numerous other ancillary staff – clinical, administrative, and paraprofessionals
- x. Volunteer services performing structured personal visits and pet therapy

f. Structure of the Rotation

Responsibilities for residents are detailed in the resident manual. Additional expectations for ACE learners are described in the ACE service “First Day Ground Rules”. PGY-2 residents evaluate patients for admission from the emergency department and supervise first year residents in the admission and ongoing management of patients. Resident work hours are fully described in the resident manual and compliant with all ACGME duty hour restrictions.

Daily Schedule

7:00-3:00 pm (noon on weekends)- Eligible for new admissions general medicine, inpatient, over age 70. Accept all elderly overflow admissions from twighlighter the night before.

Rounds start at 8:30-9:00am and end at 10:45- Bedside teaching, physical exam, and patient care.

Interdisciplinary rounds from 10:45-11:00- Team-based patient care with emphasis on interdisciplinary communication.

11:00-12:00 Morning Report

12:00-1:00 pm Lunch

1:00-5:00pm Formal didactic time, staff new patients, perform clinical work, family meetings.

Clinics

ACE is an inpatient ward month with clinic time as standard for inpatient rotations at UCH.

Days off

Minimum one day off each week. No vacation during ACE ward month rotation except when taken as an elective.

IV. Principal Ancillary Educational Materials

- a. All residents and managing physicians are provided with the ACE Service Curriculum, expectations, and Learning Objectives prior to the start of each rotation. All learning materials are available on Black-Board electronically.
- b. Residents are provided with targeted reading in primary literature sources by Teaching Attending physicians throughout the rotation. See the self-study materials in the curriculum materials for suggested learning articles and other material collected for learners by the ACE faculty.
- c. Library access is available and comprehensive librarian services are available. Web-based searchable medical databases are available through the library, and standard medical journals are available in both print and electronic formats.
- d. Computer-based resources are available at the hospital to facilitate patient care, education and communication. The following are made available:
 1. Clinical Workstation is our computer system for vital signs, patient care notes, laboratory and radiology results retrieval transitioning to EPIC in 2011
 2. Drug information including side effect and drug-drug interactions
 3. E-mail services
 4. Internet access to medical sites on the World Wide Web
 5. Patient education materials
 6. Summary evidence-based medicine resources including Up-to-Date, MD Consult, First Consult, Harrison's and Stat! Ref.
- e. All radiologic studies are available on a digital computerized PACS system.

V. Evaluation Methods

a. Resident Performance

Learners on ACE receive evaluation based on clinical performance with emphasis on identification of vulnerability, communication within a team environment, and transitions of care. There is a mid-rotation feedback session followed by a final rotation in-person evaluation. All learners on ACE are mandated to complete a multiple choice knowledge-based examination as well as a admission orders practical examination specifically designed and validated to test applied clinical skills as applied to the hospitalized elderly patient. Learners take this examination prior to and after the rotation to receive individualized feedback on performance using a standardized case with established reference ranges for their level of experience

- i. Resident complete a pre and post evaluation consisting of board-style multiple choice questions along with a novel competency based practical examination using a case-based

real world simulation of admission order behavior and graded based on a validated scoring system using competencies of both hospitalist and geriatric medicine.

ii. Faculty complete web-based electronic resident evaluation forms provided by the Internal Medicine Residency office. The evaluation is competency-based. The evaluation is shared with the resident, is available for review by the resident at their convenience, 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.

iii. Resident performance is additionally reviewed monthly at the Internal Medicine Housestaff Evaluation Committee meeting which is attended by a core faculty physician, the CMRs and the program director.

iv. Residents electronically record completed procedures. The supervising physician verifies the resident understands the procedure's indications, contraindications, complications and interpretation.

b. Daily Clinical Care Evaluation:

i. Admitting notes, progress notes, patient communication, interdisciplinary communication, and discharge summaries are reviewed and co-signed by attending physicians on a daily basis, with specific feedback given to the resident on data-gathering, effective communication, and documentation skills.

c. Program and Faculty Performance

i. The ACE service employs a service specific post-rotation written evaluation which asks learners to specifically comment on what they have learned, what they found difficult or challenging, individual faculty strengths, and weaknesses, service line strengths and weaknesses, and suggestions for future improvement. In addition the scores on Likert scale for individual competencies are solicited and compared between the pre and post rotation surveys. Results of the post-rotation surveys are used to provide specific feedback to faculty by the service line director at the end of each month as well as to refine the overall service line teaching experience.

ii. At the end of the rotation, all residents complete a written electronic evaluation that assesses the faculty, admitting attending physicians, facilities and service experience. Anonymous evaluations are reviewed by the site director and attending faculty physicians.

iii. All admitting attending physicians are evaluated monthly on the basis of teaching capability and humanistic qualities, and they receive monthly feedback from the Assistant Chief of Medicine and annual aggregate summary evaluations and scores that can be compared to the mean for their peers. Any physician receiving a poor feedback or evaluations is contacted by the site director; failure to improve on subsequent evaluations may result in termination from the teaching service.

VI. Institutional Resources: Strengths and Limitations

a. Strengths

- i. UCH has one of, if not the only, functioning hospitalist ACE services in the country. ACE faculty are national leaders in education of hospitalists and internal medicine residents in the care of the hospitalized elderly.
- i. Faculty. ACE faculty with dedicated teaching roles and a history of educational excellence. Criteria for attending status on ACE service is commitment to excellence in the education of learners in the care of the hospitalized elderly and all faculty demonstrate this commitment by pursuing additional training in how to educate on this topic and by developing and maintaining novel educational content which are represented in the ACE didactic modules.
- iii. Facilities. The hospital offers comprehensive internal medicine and subspecialty tertiary care with state-of-the-art technology and strong ancillary services.
- iv. Patients. There is a diverse patient population with varied case mix.

b. Limitations-

- i. Due to the budgetary constraints, some routine ancillary services have limited availabilities on the weekends. However, emergent patient-based needs result in all services, procedures, and consultative capacities to be available on the weekends.
- ii. While all faculty have experience in care of the hospitalized elderly, not all faculty are equally experienced in all aspects with some having greater experience in the care of the hospitalized patient and others with greater experience in the care of the geriatric patient.
- iii. Not all health care systems in the Colorado region are capable of electronic sharing of information which requires increased attention on the part of individual physicians to assuring effective communication is occurring during transitions of care.

VII. Rotation Specific Competency Objectives

PGY Specific Goals

PGY 1

- Be able to perform a rapid geriatric assessment including screens for depression, function, dementia, and delirium.
- Develop an understanding of the changes in physiology which occur with aging and how they affect management of individual disease states and prescribing of medications in the elderly
- Understand the philosophy behind geriatric care and how this informs discussions on goals of care and advance directives
- Be able to determine the criteria for capacity to make medical decisions.

PGY 2/3-

- Use systems based thinking to determine how the medicine team can best integrate with other medical professionals (pharmacy, nursing, social work, physical therapy, and occupational therapy) to provide interdisciplinary care for geriatric patient and prevent unplanned re-admissions.
- Use critical review of the literature to come to their own conclusions about areas of controversy in the management of geriatric conditions.

Patient care objectives

ACE Specific

Evaluate and manage common medical problems of the elderly in relation to functional outcomes, quality of life, and conflicting priorities. Be able to adjust prescribing patterns in response to age-related physiologic changes and comorbid illness which alters typical response to therapy. Assess and manage immobility, falls, pressure ulcers, depression, incontinence, and urinary catheter use. Be able to evaluate a patient for decisional capacity.

General

a. Patient Care

i. History taking. Residents at all levels of training will collect a thorough history by soliciting patient information and by consulting other sources of primary data in a logical and organized fashion. History taking will be hypothesis driven. Interviewing will adapt to the time available, use appropriate nonverbal techniques, and demonstrate consideration for the patient. The resident will inquire about the emotional aspects of the patient's experience while demonstrating flexibility based on patient need.

ii. Physical Exam. Residents at all levels of training will perform a comprehensive and / or focused physical exam as pertinent to the presenting problems, describing the physiological and anatomical basis for normal and abnormal findings. Learner will be able to apply understanding of changes in physiology learned during didactics to examination findings on individual patients.

iii. Charting. Residents at all levels of training will record data in a legible, thorough, systematic manner, in accordance with the hospital by-laws.

iv. Procedures.

1. PGY-1 and PGY-2 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. Learners will incorporate patient goals of care in determining the appropriate procedures to perform. 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 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. A formal, hospital-wide policy on resident supervision for all procedures and practices on the medical service, and inclusive of all levels of training, has been established and is maintained and updated in the hospital by-laws.

v. Medical Decision Making, Clinical Judgment, and Management Plans. All 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 patients' problems and develop a prioritized differential diagnosis. Abnormal findings will be interrelated with altered physiology and changes which occur with aging. 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-2 residents will, in addition to the above, also regularly integrate medical facts and clinical data while weighing alternatives and keeping in mind patient preference. They will regularly incorporate consideration of risks and benefits when considering testing and therapies. They will present up-to-date scientific evidence to support their hypotheses. They will consistently monitor and follow-up patients appropriately. They will develop plans to avoid or delay known treatment complications and be able to identify when illness has reached a point where treatment no longer contributes to improved quality of life.

3. 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.

Medical Knowledge

ACE Specific

To be able to distinguish between the normal changes of aging and those which reflect underlying disease. Identify means to prevent the hazards of hospitalization. To be comfortable with the evaluation and management of common geriatric syndromes. Knowledge areas with progression in understanding and mastery expected of learners include but are not limited to:

- Attitudes towards the elderly and aging in American Culture
- Physiology of aging
- Delirium
- Dementia
- Falls
- Pressure Ulcers
- Medication Safety for the Older Patient
- Movement Disorders
- Incontinence
- Advanced Care Planning and Discussing Resuscitation Preferences
- Paying for the Health Care of Older Americans
- Ethical issues in Geriatrics

To understand the utility and method of performing geriatric assessment tools including:

- Mini-Cog assessment of cognition
- Confusion Assessment Method (CAM) assessment of delirium
- Vulnerable Elders Survey assessment of activities of daily living
- Depression Assessment
- Assessment of use of sensory and gait aids

- Get Up and Go test of strength, balance, and gait
- Falls assessment

General

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-2 residents will demonstrate a progression in knowledge and analytical thinking in order to develop well-formulated differential diagnoses for multi-problem patients. They will also demonstrate socio-behavioral knowledge.
3. 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.

Professionalism

ACE Specific

The faculty attending on the geriatric rotation is expected to provide role modeling for the highest standards of professionalism. The residents are expected to provide medical management in a cooperative and collaborative fashion. The medicine team is part of interdisciplinary care and as such is expected to be respectful of all of the components of this team individually and in their discussions with patients. Part of the expectations of the geriatric team is to communicate effectively with the patient, family caregivers, and the primary care physician including completing all paperwork in a timely fashion. Confidentiality, compassion, and respect for patients is afforded a top priority. The “First day ground rules” document outlines many aspects of expectations for professionalism.

General

All residents will demonstrate integrity, accountability, respect, compassion, patient advocacy, and dedication to patient care that supersedes 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, confidentiality of patient information, and informed consent. Residents are expected to show sensitivity and responsiveness to patients’ culture, age, gender and disabilities.

Communication

ACE Specific

The residents on the geriatrics rotation are expected to provide patient and family-centered care. This will include involvement of family and informal care-givers in daily rounds and routine communication to the primary care team which will assume care of the patient after discharge. Residents will be taught how to adjust communication style to the unique needs of their elderly patients taking into account sensory or cognitive difficulties and sensitivity to social, generational, or cultural differences. Learners will be trained in how to use communication aids such as the white-board in patient rooms to enhance communication with patients who may have memory limitations. Learners will be taught to use the “Action Plan” technique of communication in which at the end of the patient-physician interaction, after the patient has been asked if they have questions and all questions answered, the interaction ends with a bullet-point summary of what concrete actions the patient should expect from the medical team on that day.

General

1. PGY-1 residents will develop and refine their individual style when communicating with patients. They will strive to create ethically sound 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.
2. PGY-2 residents will also exhibit team leadership skills through effective communication as manager of a team. PGY2 residents are expected to assist junior peers, medical students, and other hospital personnel to form professional relationships with support staff. Residents will respond to feedback in an appropriate manner and make necessary behavioral changes. PGY-2 residents will be able to communicate with patients concerning end-of-life decisions.
3. 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.

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-2 residents, in addition to the above, will be able to explain the pros and cons of competing therapeutic interventions. PGY-2 residents will be expected to counsel patients regarding adverse habits. PGY-2 residents will be able to educate patients and families for enhanced compliance.
3. PGY-3 residents, in addition to the above, will effectively communicate with critically ill patients and those making life-style modifications.

Practice Based Learning and Improvement **ACE Specific**

This rotation will utilize a patient centered hands-on approach to teach the clinical tenets of geriatric medicine for the internist. This will occur in conjunction with problem based lectures using focused reviews of the literature to answer the key questions which come up in the patients care. Residents will be expected to be able to discuss the strengths, weaknesses, and applicability of randomized controlled trials to the care of the elderly. Residents will work with the clinical pharmacist and attendings on the interdisciplinary team to learn how to individualize medication prescriptions for the patients on the rotation with goal of maximizing efficacy and adherence to treatment while minimizing toxicity. These problem based clinical questions will be discussed in small group format and will include all residents in the discussion of an individual patient. Residents will be familiarized with high quality resources to find answers and guidelines on the care of the elderly.

General

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-2 residents will in addition consistently seek out and analyze data on practice experience, identify areas for improvement in knowledge or patient care performance and make appropriate adjustments. They will regularly demonstrate knowledge of the impact of study design on validity or applicability to individual practice.
3. PGY-3 residents will additionally model independent learning and development.

Systems based improvement

ACE Specific

The experience on the geriatric wards offers the residents the opportunity to participate in the ongoing systems improvement needed to create and maintain a functioning focused inpatient geriatric ward. As part of this, residents are asked to think about and implement mechanisms to decrease risk of adverse drug events (ADEs), falls, delirium, and to decrease the need for restraints. Residents are asked to assist in achieving a goal of 100% compliance with JCAHO quality measures for congestive heart failure, acute myocardial infarction, and pneumonia. Ability to understand and explain therapeutic capabilities of various care locations and of the financing of care for the elderly patient and how this influences ability to adhere to therapy. The residents, as part of the medicine component of the interdisciplinary geriatric team, is responsible for identifying and overcoming systemic barriers to the successful transition of care for a uniquely vulnerable patient population to allow coordination across the continuum of discharge locations.

General

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 and to ensure effective transitions of care both in the hospital and from hospital to other care settings.

2. PGY-2 residents, in addition to the above, will consistently understand and adopt available clinical practice guidelines and recognize the limitations of these guidelines. They will work with patient care managers, discharge coordinators and social workers to coordinate and improve patient care and outcomes.

3. PGY3 residents, in addition, 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.

ACE Elective

ACE can also be taken as an elective can be taken in an entire month with a week of vacation or combined with the hospital medicine service or consult electives in 2 week blocks. During the elective all weekends are off and full complement of clinics are allowed. This rotation is one of the highest rated rotations and we would welcome you to join us for an elective.

Geriatrics Learning Objectives in part adapted from Thomas D. et al Improving Geriatrics Training in Internal Medicine Residency Programs: Best Practices and Sustainable Solutions. Ann Intern Med 2003;139:628-634

Note: This document is adapted from the Michigan State University General Medicine Curriculum

Acute Care for the Elderly Teaching Curriculum

University of Colorado Hospitalist Training Track

2010-2011

1. Introduction

- Introduction to the ACE Service
- Objectives
- Pre-rotation Exam
- Post-rotation Exam
- Pre-rotation Evaluation
- Post-rotation Evaluation
- ACE First Day Ground Rules
- ACE Team Responsibilities
- **Self-study Materials**
- How do you REALY feel about the elderly?
Age Implicit Association Test: <https://implicit.harvard.edu/implicit/>

2. Physiology of Aging

- Aging: Physiology of Decline?-powerpoint
- Physiology of Aging-summary
- **Self-study Materials**
- The Way We Age Now- New Yorker 2007
http://www.newyorker.com/reporting/2007/04/30/070430fa_fact_gawande
- Frailty-Med Clin Am 2006;90:837-847

3. Medications in the Elderly

- Medication Safety for the Older Patient-powerpoint
- Medication Safety for the Older Patient-summary
- **Self-study Materials**
- Updating the Beers Criteria for Potentially Inappropriate Medication Use in Older Adults-Arch Int Med 2003;163:2716-2724

4. Falls

- Falls-powerpoint
- Falls-summary
- **Self-study Materials**
- UCH Fall Prevention Scoring Protocol and Prevention Measures
- Prevention of Falls in Older Patients-AAFP 2005;72:81-88

5. Dementia

- Dementia and Restraints-powerpoint
- Dementia-summary
- **Group Learning Exercise**
- Dementia peer to peer teaching cards.
- **Self-study Materials**
- Cognitive Impairment-Med Clin N Am 2006;90:769-787

6. **Delirium**

- Delirium-powerpoint
- Delirium-summary

Self-study Materials

- Delirium in Older People-BMJ 2007;334:842-846
- Interventions for Preventing Delirium in Hospitalized Patients-Cochrane 2007
- Antipsychotics for Delirium-Cochrane 2007

7. **Pressure Ulcers**

- Pressure Ulcers-powerpoint
- Pressure Ulcers-summary

Self-study Materials

- UCH Prevention and Treatment of Skin Breakdown / Pressure Ulcers-flowchart
- ABC of Wound Healing: Pressure Ulcers-BMJ 2006;332:472-475

8. **Resuscitation**

- Discussing Resuscitation Preferences-summary for small group discussion
- **Self-study Materials**
- Discussing Resuscitation Preferences with Patients: Challenges and Rewards-JHM 2006;1:231-240
- Determining Resuscitation Preferences of Elderly Inpatients-CMAJ 2003;169-795-799

9. **Advance Directives**

- Advanced Care Planning- summary for small group discussion

Self-study Materials

- Advance Care Planning for Fatal Chronic Illness-Ann Intern Med 2003;138:812-818
- Pitfalls in Assessment of Decision-making Capacity-Psychosomatics 2003;44:237- 243

10. **Movement Disorders and Parkinson's Disease**

(optional module based on relevant patient exposure)

- Movement Disorders and Parkinson's-summary

Self-study Materials

- Diagnosis and Initial Management of Parkinson's Disease-NEJM 2005;353:1021-1027

11. **Incontinence and Urinary Catheters**

- Urinary Incontinence and Urinary Catheters-powerpoint
- Urinary Incontinence-summary

Small Group Workshop

- Urinary Catheters-workshop form

Self-study Materials

- Urinary Incontinence: Selected Current Concepts-Med Clin N Am 2006;90:825-836
- When are Urinary Catheters Indicated-Geriatrics 2007;62:18-22

12. **Ethics – PEG Tubes**

- PEG Tubes, Capacity, and Ethics-powerpoint
- Ethical Conundrums in Geriatrics-summary

Self-study Materials

- Ethical Issues in Geriatrics: A Guide for Clinicians-Mayo Clin Proc 2004;79:554-562
- To PEG or Not to PEG: A Review of Evidence for Placing Feeding Tubes in Advanced Dementia-Geriatrics 2006;61:30-35

13. Health Care Finance and Transitions

- Health Care Finance and Transitions-powerpoint
- Paying for the Health Care of Older Americans-summary

Self-study Materials

- The Doctor's World-DeBakey article New York Times:
http://www.nytimes.com/2006/12/25/health/25surgeon.html?_r=1&ref=michael_e_debakey
- Health Care for the Elderly: How Much? Who Will Pay for It?-Health Affairs 1999
- What You Need to Know About the Medicare Prescription Drug Act-Fam Prac Mgmt 2005
www.aafp.org/fpm

14. Geriatric Assessment Tools

- Mini-Cog
- Get-up-and-go Test
- Depression Assessment Tool
- Vulnerable Elders Survey
- Confusion Assessment Method