

Pathology/Radiology
Rotation Goals and Objectives
Pulmonary/Critical Care Medicine Fellowship Program
University of Nebraska Medical Center
Revised: March 2010

I) Rotation Goals

- A) To understand the processing of Pathologic material and the how a pathologic diagnosis is made
 - 1) To have formal instruction, clinical experience and demonstrate competence in examination and interpretation of sputum, bronchopulmonary secretions and pleural fluid
 - 2) To gain formal instruction and experience in examination and interpretation of lung tissue for infectious agents, cytology and histopathology
- B) To acquire knowledge of imaging techniques employed in the evaluation of patients with critical illness and/or pulmonary disorders

II) Education Objectives

A) Medical Knowledge

- 1) Demonstrate an investigatory and analytic thinking approach to clinical situations by applying an evidence-based medicine principles
- 2) Demonstrate a fundamental knowledge of pulmonary pathology
- 3) Be able to identify radiographic structures on the chest radiograph and CT scan and localize the lobes and segments of the lung on those imaging studies
- 4) Understand the interpretive strategies for a variety of imaging studies.
- 5) Evaluation methods for this competency
 - (a) Attending evaluation

B) Practice-based Learning and Improvement

- 1) Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- 2) Use information technology to manage information, access on-line medical information and support their own education
- 3) Demonstrate teaching of students and other health care professionals
- 4) Evaluation methods for this competency
 - (a) Attending evaluation
 - (b) Performance on presentation at case conference during the month

C) Interpersonal & Communication Skills

- 1) Create and sustain a therapeutic and ethically sound relationship with patients
- 2) Demonstrate effective listening skills
- 3) Elicit and provide information using effective nonverbal, explanatory, questioning and writing skills
- 4) Work effectively with others as a member or leader of a health care team
- 5) Demonstrate an ability to develop professional relationships with residents, students and other members of the health care team

6) Evaluation methods for this competency

- (a) Attending evaluation

D) Professionalism

- 1) Demonstrate respect, compassion, and integrity
 - 2) Demonstrate a responsiveness to the needs of patients and society that supercedes self-interest
 - 3) Demonstrate accountability to patients, society and the profession
 - 4) Demonstrates a commitment to excellence and on-going professional development
 - 5) Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent and business practices
 - 6) Demonstrate sensitivity and responsiveness to patients' culture, age, gender and disabilities
 - 7) Evaluation methods for this competency
- (a) Attending evaluation

E) System-based Practice

- 1) Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society
 - 2) Practice cost-effective health care and resource allocation that does not compromise quality of care
 - 3) Advocate for quality patient care and assist patients in dealing with system complexities
 - 4) Evaluation methods for this competency
- (a) Attending evaluation

III) Teaching Methods

A) Clinical experience

- 1) Participate in the processing of bronchoalveolar lavage fluid
 - 2) Examine sputum specimens in microbiology
 - 3) Process pleural fluid for evaluation by Chemistry and Cytopathology
 - 4) Review surgical and cytopathology slides with the pathologists on a regular basis (at least daily)
 - 5) Review with the radiologist all imaging studies on all patients who have had surgical or cytopathology specimens obtained from the chest or lung
- (a) The fellow will acquire knowledge of and ability to interpret the following imaging procedures: chest roentgenograms, computed axial tomograms, radionuclide scans, pulmonary angiograms and other radiologic procedures.
- 6) Prepare one case each week for presentation at a future PCCM clinicopathologic case conference.

B) Clinical Teaching

- 1) Present daily to the pathologist, any clinical and imaging findings on all patients with cytology or histopathology, when reviewing the slides

- 2) Review with the program director during a scheduled weekly meeting, all pulmonary cases reviewed with the pathologists

C) Performance Feedback

- 1) Fellow and the staff pathologist will review the pathology goals and objectives and the staff radiologist will review the radiology goals and objectives at the beginning of the rotation
- 2) Staff pathologist and radiologist will provide ad hoc feedback on a regular basis
- 3) Fellow and supervising staff pathologist will meet and the staff will provide written and verbal feedback at the completion of the rotation.

D) Didactic Sessions

- 1) Attend all daily noon conferences of the PCCM fellowship program.
- 2) The fellow will provide at least one didactic session to students and residents on the service covering a pulmonary or critical care medicine topic.

E) Self-Learning

- 1) The fellow is expected to read the primary literature in regards to patient problems for which pathology was obtained
- 2) The fellow is expected to complete any readings assigned by the supervising staff pathologist or radiologist

IV) Responsibilities

A) Fellow

1) First Year

- (a) The fellow will spend the rotation working closely with the chief pathology resident or his/her designee to review all lung-related cases that have pathology specimens submitted during that period.
- (b) The fellow should spend the first few days of the rotation learning how specimens are processed and prepared for viewing by the pathologists.
- (c) The fellow should coordinate with the pathology resident or staff as to when they should be available for review of the specimens. The fellow will be available at those specified times to review histopathology slides with the pathologist.
- (d) The fellow will coordinate with the cytologist to review any cytology slides from bronchoscopies, thoro-centeses and sputum.
- (e) The fellow is responsible for developing a case for presentation each week they are on the Pathology service.
 - (i) This case will include the clinical information pertinent to the case, the diagnostic radiology evidence and the pathology and/or cytology that confirms the diagnosis.
 - (ii) The fellow should select a case that is unique in some way and that will contribute to the greater understanding of the disease present in the case.
 - (iii) Each case will be duplicated without patient identifiers and a digital copy provided to the Departments of Pathology, Radiology and the Section of Pulmonary, Critical Care, Sleep Medicine and Allergy. A presentation of a CD copy of the cases is required for credit

- (f) The fellow will arrange through the staff pathologist some time with the microbiologist to review interpretation of acid-fast sputum smears, Grams stains and antibiotic sensitivities. The fellow should gain a working knowledge of the process for developing the antibiogram of the institution.
 - (g) The fellow will coordinate with the radiologist to review the interpretation of all imaging studies performed in relation to the cases they are reviewing with the pathologist.
 - (h) Complete an evaluation of the pathology and radiology attendings and one of the rotation.
- 2) Second Year
 - (a) There are no second year fellows assigned to this rotation
 - 3) Third Year
 - (a) There are usually no third year fellows assigned to this rotation.
 - (i) Third year fellows who take this rotation as an elective will be expected to meet all the responsibilities outlined for the first year fellows above
- B) Pathology Attending
- 1) Review these goals and objectives with the fellow at the start of the rotation along with any other expectations
 - 2) Assign clinical responsibilities to the PCCM fellow including specific cases to develop into a formal presentation.
 - 3) Provide for formal instruction, clinical experience and assess competence in examination and interpretation of sputum, bronchopulmonary secretions and pleural fluid
 - 4) Provide for instruction and clinical experience in the examination and interpretation of lung tissue for infectious agents, cytology and histopathology
 - 5) Complete a written evaluation and provide verbal feedback at the completion of the rotation
- C) Radiology Attending
- 1) Allow the fellow to acquire knowledge of imaging techniques employed in the evaluation of patients with critical illness and/or pulmonary disorders
 - 2) Review with the fellow the interpretation of all imaging studies performed in relation to the cases they are reviewing with the pathologist.
- D) Service
- 1) On Call Responsibility
 - (a) Be available, in house, from 8:00 am to 5:00 PM except for officially sanctioned events.
 - (b) Take after hours call as assigned by the Program Director. Call may be altered by mutual agreement with the program director
 - 2) Vacation
 - (a) One to two weeks of vacation time may be taken during this rotation.

(b) Emergency leave may be requested after discussion with the Program Director or surrogate (Pathology attending)

V) Method of Evaluation

A) Formative

- 1) The Attending should give feedback throughout the rotation and a formal verbal evaluation should be given at the mid-point and at the end of the rotation
- 2) The responsible attending physician must prepare a written evaluation of the fellow at the conclusion of the rotation. This evaluation will assess the six general competencies as outlined by the ACGME and on the form provided.
 - (a) The fellow in the presence of the attending physician should review the assessment personally.
- 3) At the conclusion of the fellow's service period, he/she should complete an evaluation form assessing the quality of the rotation
- 4) The fellow should complete an evaluation that addresses the teaching undertaken by the attending physician(s).