

UW PULMONARY LUNG TRANSPLANT SERVICE

Location:

University of Washington Medical Center

FACULTY CONTACT:

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OVERALL EDUCATIONAL PURPOSE

To acquire knowledge and clinical experience in all aspects of lung transplantation including:

- 1) The process of evaluation and listing for lung transplantation and the Lung Allocation Score
- 2) Outcomes and complications after lung transplantaton
- 3) Lung donor criteria and the process of procuring donor lungs
- 4) Surgical aspects of lung transplantation and early post-transplant management
- 5) Post-transplant follow-up care: early and long-term management concerns, laboratory, PFT and radiographic assessment
- 6) To gain proficiency in bronchoscopy with attention to the role of bronchoscopy in post-transplant management and assessment of histologic findings in post-lung transplant patients.

TEAM STRUCTURE

Lung Transplant Inpatient and Outpatient Attendings

Ganesh Raghu

Jeff Edelman

Bruce Culver

Josh Benditt

David Ralph

Mark Tonelli

Pulmonary/CCM fellow

Lung Transplant Surgical Team

Michael Mulligan, Attending

Thoracic Surgery Fellow

Farzaneh Banki 540-2089

Nahush Mokadam 540-2088

Jules Lin 540-6150

Francisco Gensini 540-8971

Lung Transplant Coordinators

Kim Hoffman 685-3678

Kathie Weakly 616-9851
Heidi Allen 616-0324

Lung Pathology
Rod Schmidt

PRINCIPAL TEACHING METHODS

Case discussion and review

Inpatients cared for directly or followed by the lung transplant service are seen by the fellow. Each patient is subsequently discussed with Pulmonary and Critical Care faculty member who also interviews and examines the patient on the same day. Follow-up rounds are made daily. Outpatients are seen in Lung Transplant Clinic by the fellow with attending supervision. The fellow is supervised by the Lung Transplant Attending who is board-certified in Pulmonary Disease and has specific expertise in the area of lung transplantation.

Rounds

Attending Rounds will occur at least once daily on all patients. The fellow should also interact closely with the Thoracic Surgery fellow and attending in the care of post-transplant surgical patients. The fellow and attending should also review histologic findings from biopsy specimens with the consulting pulmonary pathologist.

Didactics

Because of the small size of the lung transplant team (fellow and attending), and unpredictable procedure and service volume, teaching is expected to be patient-based and informal as well as topic-oriented. The fellow is encouraged to attend the Department of Medicine conferences and required to attend Pulmonary Division Conferences. The fellow will also attend the weekly meeting of the Lung Transplant Committee.

EDUCATIONAL CONTENT

Mix of Diseases

Patients are admitted to the direct care of the Lung Transplant service for non-ICU care following lung transplantation or its complications. Consultation services are provided to post-surgical lung transplant patients as requested by the Thoracic Surgery team or other primary services when applicable. The outpatient population consists of patients with advanced lung disease who are referred for evaluation for lung transplantation, as well as patients awaiting transplantation and those returning for routine post-transplant care and immunosuppressive management as well as follow-up for post-transplant complications.

Patient Characteristics

Patients admitted to the University of Washington Medical Center represent a full socioeconomic spectrum (Medicaid: 30%, Medicare: 21%) and men and women are equally represented. As a tertiary care and transplant center, the patients at the UWMC are likely to have complicated and unusual

illnesses or end-stage organ disease. As the UW serves as a regional transplant center, the ethnic mix reflects that of the Pacific Northwest.

Types of Clinical Encounters

All patients seen during the rotation are either inpatients or outpatients at UWMC. Clinical encounters include: emergency room evaluation at the time of admission or upon request, full history and physical examination at the time of consultation or clinic visit, and daily work rounds for inpatients. The fellow will provide primary coverage for lung transplantation patients on the Lung Transplant service as well as consultative coverage for patients admitted to other services.

Procedures

Procedures most frequently performed by the fellow during this rotation include: fiberoptic bronchoscopy, transbronchial biopsy and pulmonary function testing and interpretation.

During this rotation the fellow will also acquire knowledge of and the ability to interpret studies, including chest x-rays, thoracic CT scans, pulmonary function tests, and transbronchial biopsies.

The fellow should also observe/attend at least two lung procurement and implantation procedures during this rotation.

Services

The University of Washington Medical Center has a full range of services available for participation in patient care including a full mix of surgical, anesthesia and medical subspecialty consultation. The UWMC also has a full pulmonary diagnostic laboratory for pulmonary function testing and full radiologic imaging services.

Rotation Specific Schedule

(Note: Significant flexibility is built into this rotation schedule given the unpredictability of work load and patient acuity, and inpatient responsibilities. The lung transplant service follows/cares for all post-lung transplant patients. Post-op patients are admitted to Thoracic Surgery. The lung transplant service has primary inpatient responsibility for all other post-lung transplant patients.)

Monday

7:30-8:30 AM Rounds
8:30-12:00 Cystic Fibrosis Lung Transplant Clinic (Medical Specialties Clinic)
12:30-1:30 Noon teaching conference (IM)
2:00-3:00 Teaching Rounds
3:00-4:00 Procedures (Med/Surg/Rad/Path conference second Monday each month RR134)
4:00-5:00 Research Conference RR134

Tuesday

7:30-8:30 AM Rounds
9:00-12:00 Procedures
12:00-1:00 Chairman's Rounds (IM)
2:00-3:00 Teaching Rounds

3:00-5:00 Attending Rounds

Wednesday

7:30-8:30 Lung Transplant Selection Conference (Thoracic Surgery Conference Room AA115)

8:30-12:00 Lung Transplant Clinic

12:30-1:30 Noon teaching conference (IM)

2:00-3:00 Teaching Rounds

3:00-5:00 Attending Rounds, Procedures

Thursday

7:00-8:00 Exercise Physiology Study Group, Plaza Cafe

8:00-9:00 DOM Grand Rounds

9:00-12:00 AM Rounds, Procedures

12:30-2:30 Chest Conference and Respiratory/CCM Conference (HMC)

3:00-5:00 Attending Rounds

Friday

7:30- 8:30 AM Rounds

8:30-12:00 Procedures or Lung Transplant Clinic if no procedures

12:30-1:30 Noon teaching conference (IM)

2:00-3:00 Teaching Rounds

3:00-5:00 Attending Rounds

Call and Weekend Responsibilities

The fellow will take call from home at night for both the transplant and general pulmonary services, but lung transplant in-patients will be covered by the Medicine night float service. The fellow may need to return to the hospital for the rare admission of a lung transplant complication. The fellow will have every other weekend, from 5PM on Friday until 8AM on Monday free of all clinical responsibilities.

Principle Educational Materials Used

Recommended Readings

The Pulmonary Consult Service has a small library maintained by the Pulmonary and Critical Care Medical Section that is located in the Pulmonary Diagnostic Center. In addition, a continuously amended syllabus file of references in PDF format will be provided. A computer providing direct access to literature searches is also located in the Pulmonary Diagnostic Center.

Pathologic materials

All pathologic materials (including BAL, sputum stains and cultures and pleural fluid samples) obtained in the evaluation of patients will be reviewed by the fellow and the interpretation will be confirmed with the attending. All lung biopsy samples will be directly reviewed by the fellow, attending and the consulting pulmonary pathologist.

METHODS USED IN EVALUATING RESIDENT AND PROGRAM PERFORMANCE

At the end of the rotation, the fellow is evaluated in writing and their performance reviewed with them verbally by every attending and fellow he or she has interacted with for a significant amount of time. The evaluator rates the fellow on a nine-point scale in each component of clinical competence (i.e. patient care, medical knowledge, practice based learning improvement, interpersonal and communication skills, professionalism, system based learning, educational attitudes, leadership, overall clinical competence).

The fellow is given the opportunity to evaluate in writing the quality of the curriculum and the extent to which the educational goals and objectives of the rotation have been met. The resident also evaluates the teaching competence of each attending and fellow with whom s/he has interacted for a significant amount of time. The fellows will meet with the program director and division head at the end of each rotation to discuss these issues directly.

EXPLICIT LINES OF RESPONSIBILITY FOR CARE OF PATIENTS ON THIS SERVICE

If new admissions or consultations are sufficiently stable, the fellow is responsible for the initial history, physical examination, and diagnostic approach for new admissions/consultations. These are reviewed with the attending. If patient acuity warrants more rapid attention, the initial evaluation and approach is done by the fellow and faculty member simultaneously. Each new consultation is evaluated by a Pulmonary and Critical Care Medicine attending within 24 hours of the consultation being received. Attendings examine and review the care of each patient and write progress notes at least once daily, or as indicated. The fellows are responsible for complete consultation notes and follow-up notes as indicated.

Each patient seen in the outpatient setting is evaluated by the fellow, and reviewed by the attending during that visit. The fellows are responsible for dictating the evaluation and recommendations, in addition to the required dictation by the attending physician.

The lung transplant fellow is on call by phone at night for pulmonary and lung transplant outpatients (Monday through Thursday).

Cross-cover for inpatients is provided by:

Internal Medicine on-call team from 5-8pm

Medicine M night float intern 8pm-8am.

The fellow should call the Lung Transplant Attending when referring or considering referring patients to the Emergency Department and before going to admit or evaluate patients in the Emergency Department.