

PHYSICAL MEDICINE AND REHABILITATION (PM&R)

Office for Clinical Affairs
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General Description

Elective/Selective Rotation

This rotation is a two (2) or four (4) week experience structured to further develop the student's decision-making and cognitive skills and continue to apply didactic material in a clinical setting. Students electing this rotation may be in their third or fourth year of osteopathic medical school. Post-rotation examination is **not** required.

Purpose

Clinical experiences are intended to assist the students' transition from didactics to integrated clinical evaluation, decision-making, and management of patients with medical problems. In addition to gaining specific skills in physical medicine and rehabilitation during this rotation, the student should also develop skills in systematic medical problem solving and patient management abilities, establish or reinforce patterns of independent learning and self-evaluation, and improve skills in communication and medical record keeping.

At the completion of this rotation, the student should have reached certain broad goals, including:

- improved basic skills in physical diagnosis;
 - familiarity with ancillary diagnostic procedures (e.g. radiographic, etc.);
 - an understanding of indications for appropriate laboratory and diagnostic tests.
- Students are expected to assist in the management of acute and chronic problems, under supervision. The student should also develop fundamental psychomotor skills by performing routine basic procedures under direct supervision.

Objectives

We recognize that two to four weeks is an insufficient amount of time to cover a comprehensive list of objectives. Clearly, subjects addressed in any clinical rotation are dependent on the number of patients and kinds of disease entities presenting to a particular service. Nevertheless, certain minimum content in physical medicine and rehabilitation diseases / injuries **must** be addressed, either by clinical exposure or by didactic materials so that students are prepared for Board examinations and other testing. Therefore, the following sections contain relatively broad, basic objectives for which students are responsible.

Basic Psychomotor Objectives

At the completion of this rotation, the student should be able to apply osteopathic medical principles and practices to:

1. Demonstrate the ability to obtain and accurately document a complete, appropriate functional history from the patient or family member including essential details of symptoms, home / social situation, and occupational background.
2. Perform and accurately document an appropriate manual muscle testing and range of motion gross deficits or asymmetries of the spine and extremities.
3. Evaluate and document tone, reflexes, sensation, coordination, station, and gait.
4. Appropriately assess and document mental status and cognition.
5. Use the following instruments correctly in physical diagnosis:
 - a. Reflex Hammer
 - b. Ophthalmoscope
 - c. Otoscope
 - d. Sphygmomanometer
 - e. Stethoscope
 - f. Tongue depressor
 - g. Tuning fork
6. Demonstrate a fundamental understanding of the functional significance of deficits found in the Physical examination and classify them as impairments, disabilities, or handicaps.
7. Formulate, record, and use a problem list.
8. Make rational use of information, including the ability to integrate material from the history and physical.
9. Develop realistic diagnostic and management plans.
10. Make use of basic laboratory tests and diagnostic studies.
11. Order skeletal x-rays and other imaging (MRI, CT, bone scans, etc.) appropriately
12. Individualize the treatment plan for each patient.
13. Reassess and adjust therapeutic plans.
14. Anticipate possible treatment actions, reactions and interactions.
15. Anticipate cost/benefit/risk ratios.
16. Perform/arrange for patient education and implementation.

Basic Cognitive Objectives

The student should be able to apply osteopathic principles and practices to:

- state the clinical presentation.
- state incidence, etiology, and pathophysiology.
- list available therapeutic methods and specific risks, costs, and side effects of each.
- state the natural course of the disease and the prognosis

Specific Cognitive Objectives

The student should pay particular attention to the following core objectives:

1. Articulate a basic understanding of the role of rehabilitation in the medical care environment (acutely and chronically) with emphasis on the quality of life.
2. Achieve a basic understanding of the definitions, causes, pathophysiology and anatomic considerations, rehabilitation intervention and treatment principles, medical complications and prognosis of common conditions necessitating rehabilitation care.
3. Develop an understanding of the psychiatric prescription and how it is written.
4. Develop an understanding of the normal human gait and its functional implications, and an elementary analysis of gait.
5. Develop an understanding of normal bowel and bladder function and common pathologic conditions resulting in their impairment.
6. Develop and awareness of the clinical indication for electrodiagnostic testing and the components of an electrodiagnostic examination.

Implementation and Evaluation

Course objectives are to be accomplished in a College affiliated hospital or clinical facility, under supervision. Basic objectives **must** be covered during the rotation to assure adequate student preparation for Board examinations and other evaluations such as post-rotation examinations. The

use of diverse methods appropriate to the individual and the clinical site are encouraged, but patient-centered teaching is optimal.

Didactic methods to achieve required objectives include:

- reading assignments
- lectures
- computer-assisted programs (if available)
- student attendance at/participation in formal clinical presentations by medical faculty

Clinically oriented teaching methods may include:

- assignment of limited co-management responsibilities under supervision
- participation in clinic visits, daily patient rounds and conferences
- supervised and critiqued clinical work-ups of patients admitted to the service
- assigned, case-oriented reading case presentations

Three levels of achievement are identified:

- familiarity with a variety of medical procedures through observation and assisting
- proficiency in clinical procedures through actual supervised performance
- awareness of the availability of various medical procedures and their use.

At the beginning of the rotation, the physician should review expectations/guidelines of performance with the student. On the last day of service, the supervising physician should review the student's performance with the student. A student's signature simply indicates that the student has received a grade directly from the attending; it does not indicate agreement with the grade. E*Value on-line evaluations of students should be completed within one week of completion of the rotation.

Texts and Resources

Recommended Reference Texts

Recommended Text References for this rotation include, but are not limited to, the following:

Frontera W. et al. DeLisa's Physical Medicine and Rehabilitation. Principles and Practice, 5th Ed., Two Volume Set. Lippincott, Williams & Wilkins, 2010.

Braddom RL "Physical Medicine & Rehabilitation" 4rd edition, 2011, WB Saunders Co., Philadelphia.

Downey JS, et al. Physiologic Basis of Rehabilitation Medicine, 3rd Edition, Butterworth-Heinemann, 2001, Philadelphia.

Frontera W, Silver JK, Rizzo TD (eds.) Essentials of Physical Medicine & Rehabilitation, 3rd Edition, 2014

O'Young BJ, Young MA, Stiens SA. Physical Medicine and Rehabilitation Secrets. Elsevier Health Sciences, Third Edition. 2007.

Assignments

The rotation director or preceptor will direct specific and general reading assignments from texts and current literature. Supplemental readings from current periodical literature are recommended.