
PHYSICAL MEDICINE & REHABILITATION ALLIANCE EDUCATION OFFICE

1333 Moursund, Room A-220 • Houston, TX 77030 • 713-799-5033 • 713-797-5982 *fax*

Thank you for your interest in Baylor College of Medicine / The University of Texas Medical School at Houston Physical Medicine & Rehabilitation Alliance (PM&R Alliance) medical student electives. The PM&R Alliance offer medical students an opportunity to experience the exciting field of Psychiatry in a variety of clinical electives.

The PM&R Alliance offers various clinical electives. Inpatient and outpatient clerkships are available in both academic (private, governmental, and public) and private practice settings. Elective clerkships include Diagnosis and Treatment of Neuromusculoskeletal Disorders, Pediatric Rehabilitation, General Rehabilitation, Spinal Cord Injury, Brain Injury and Stroke Medicine, Cancer Pain Management, Cancer Rehabilitation, Amputee Clinic, Musculoskeletal and Pain Medicine. Additionally, independent study courses are offered for students with unique clinical or research interests.

Medical Students are responsible for obtaining complete evaluation form(s) from the faculty and/or residents at the end of the elective and submitting to the PM&R Alliance Education Office at Memorial Hermann|TIRR, 1333 Moursund, Suite A-220, Houston, TX 77030 or via fax at (713) 797-5982.

The PM&R Chief Residents would be happy to help you choose the PM&R rotation that is best for your interests and career goals. You are welcome to e-mail them at pmrchiefs@yahoo.com with any questions regarding the rotations available, or questions about the field of PM&R in general.

Visiting Medical Students should review application procedures and contact the Office of Student Affairs at Baylor College of Medicine (<http://www.bcm.edu/osa/>) or at The University of Texas Medical School at Houston (<http://www.med.uth.tmc.edu/studaff/visapp.htm>).

Baylor College of Medicine Office of Student Affairs contact:

Donna Moore, Office of Student Affairs

One Baylor Plaza

Houston, Texas 77030

Email: donnak@bcm.tmc.edu

(713) 798-2270

The University of Texas Medical School at Houston Office of Student Affairs contact:

Jamie Munsinger, Office of Student Affairs

6431 Fannin, Suite MSBG-400

Houston, Texas 77030

Email: Jamie.D.Munsinger@uth.tmc.edu

(713) 500-5167

Should you have questions or would like to schedule an elective, contact [Angela S. Fielder](mailto:Angela.S.Fielder@bcm.edu), Education Coordinator at (713) 799-5033 or PMandR@bcm.edu.

DIAGNOSIS AND TREATMENT OF NEUROMUSCULOSKELETAL DISORDERS

Hospital(s): Quentin Mease Hospital or St. Luke Hospital Episcopal Hospital

Attendings: Donna Bloodworth, MD, John Harrell, MD, Faye Tan, MD or C. George Kevorkian, MD

Course Number: BCM 550-501 (BAYLOR) or PMR 4003 (UT)

Clinical Elective: Counts toward 32-credit-hour graduation requirement. 2, 4 or 8 weeks Full-time. Credits: 8 (each 4 weeks). Prerequisites: Medicine and Surgery Core Rotations. Offered each quarter.

This elective course emphasizes medical rehabilitation treatment in the adult population to enhance maintenance of independence in daily personal care and ambulatory household and community activities. This elective was designed to enable the student to develop skills in the examination of the spine and extremities; develop knowledge of basic kinesiology and biomechanics; and begin to understand techniques of dynamic assessment.

Method: The student performs comprehensive examinations of the neurologic, muscular, and skeletal system in young, mature, and geriatric adults. The correlation between anatomy, physiology and pathology, and the history and physical findings in these patients is emphasized. The acute and long-term rehabilitation treatment of disorders is planned by the student and reviewed with PM&R residents and faculty at The Methodist Hospital, St. Luke's Episcopal Hospital, Quentin Mease, and Ben Taub General Hospital. Students are expected to attend the residents' didactic lecture series, Grand Rounds and other academic presentations. Upon completion of this elective, the student should be able to recognize and treat painful disorders of the musculoskeletal system.

Evaluation: The attending evaluates the student's clinical performance based on observation during the elective.

PEDIATRIC REHABILITATION

Hospital(s): Texas Children's Hospital (TCH)

Attendings: Aloysia Schwabe, MD, Barbara Wechsler, MD or Suzanne Woodbury, MD

Course Number: BCM 550-503 (BAYLOR) or PMR 4001 (UT)

Clinical Elective: Counts toward 32-credit-hour graduation requirement. 2 or 4 weeks Full-time. Credits: 8. Prerequisites: Pediatrics Core Rotation. Offered each quarter.

Upon completion of this elective, the student should understand the principles of evaluation (including electrodiagnostics) and management (including medications, bracing, equipment and therapies) of children with acute and chronic motor disorders. The student also participates in the coordination of medical and community resources necessary to the long-term management of these patients.

Method: Full-time attendings with pediatric physiatrist utilizing private and clinic patients primarily at Texas Children's Hospital and Memorial Hermann|TIRR (The Institute for

Rehabilitation and Research). Students are expected to attend the residents' didactic lecture series, Grand Rounds and other academic presentations.

Evaluation: The attending evaluates student's clinical performance based on observation during the elective.

GENERAL REHABILITATION

Hospital: Michael E. DeBakey VA Medical Center

Attendings: Hsiu-bun Hsu, DO, and Stephanie Sneed, MD

Course Number: BCM 550-504 (BAYLOR) or PMR 4001 (UT)

Clinical Elective: Counts toward 32-credit-hour graduation requirement. 2 or 4 weeks full-time. Credits: 8. Prerequisites: Medicine and Surgery Core Rotations. Offered each quarter.

This clinical experience is designed to provide exposure to a wide variety of adult physical medicine and rehabilitation problems in both the inpatient and outpatient settings. The students should learn basic and clinical principles of neurological and musculoskeletal rehabilitation. Exposure to electrodiagnosis is available if the student desires. At the completion of the elective the student should be familiar with rehabilitation of patients with such diagnoses as stroke, brain injury, multiple sclerosis, amputation, and joint disorders. This should provide a comprehensive exposure to the field of PM&R for those who may be considering it as a career choice.

Method: The student assumes responsibility for the medical and rehabilitation management of assigned patients on the inpatient rehabilitation unit under the supervision of the resident and attending staff. The student spends the period with one of the three services, i.e. Neuro I (primarily stroke), Neuro II (traumatic brain injury, multiple sclerosis, other neurological diseases) and Musculoskeletal (amputation, joint replacement), or may have the option of two weeks on a neurological service and two weeks on the musculoskeletal service. The student participates in the service's outpatient clinic, the amputee clinic, and if desired, in the specialty clinics (chronic pain, wheelchair, orthotics). Students are expected to attend the residents' didactic lecture series, Grand Rounds and other academic presentations. The student is also expected to make a 15-30 minute presentation on an assigned topic relating to medical rehabilitation.

Evaluation: Evaluations are based on the clinical performance and work habits, quality of patient work-ups, incorporation of learned material into patient management and the quality of the student's presentations as determined by all attendings supervising the student.

INTRODUCTION TO PHYSICAL MEDICINE & REHABILITATION

Hospital: Memorial Hermann Hospital

Course Director: Stephen Yang, M.D.

Participating Faculty: Danielle Melton, MD, and Eva Salmeron, MD

Course Number: BCM 550-504 (BAYLOR) or PMR 4001 (UT)

Clinical Elective: Counts toward 32-credit-hour graduation requirement. 4 weeks full-time course, offered every month. Credits: 8. Prerequisites: None.

This rotation is designed to accommodate students that are interested in PM&R as those who are going into different specialties.

Course Objective: This 1 month elective allows the medical student a comprehensive introduction to the practice of physical medicine and rehabilitation (inpatient and outpatient).

Students will be given the opportunity to participate and learn about the rehabilitation and unique medical care aspects of patients with major multiple trauma, orthopedic, traumatic brain injury, amputee, cardiac rehabilitation, and mild spinal cord injury.

Further attention will be paid to specific topics in physical medicine and rehabilitation which include: gait analysis, prosthetics, spasticity, musculoskeletal medicine, physiological effects of deconditioning, electrodiagnosis (EMG/NCS) and pain management.

Students will be given the opportunity to observe and participate in electrodiagnostic procedures and spasticity management.

Method: Students will participate in daily bedside teaching rounds with attending physician and resident physicians. Students will be expected to help with patient care under attending and resident supervision. One to two times a week, student will participate in outpatient PM & R clinic with attending physician. Procedures are generally be observed by students although students showing exceptional clinical knowledge and interest will be allowed to help perform procedures.

Evaluation: Students' final grades will be determined by Course Director with input from other attending physicians.

Students are expected to prepare one presentation prior to end of rotation which will aid in final evaluation.

SPINAL CORD INJURY MEDICINE

Hospital: Michael E. DeBakey VA Medical Center

Attendings: Mia Dajoyag-Mejia, MD, Jennifer Harrison, MD and Walter Wade, MD

Course Number: BCM 550-506 (BAYLOR) or PMR 4005 (UT)

Clinical Elective: Counts toward 32-credit-hour graduation requirement. 2 or 4 weeks full-time. Credits: 8. Prerequisites: Medicine and Surgery Core Rotations. Offered each quarter.

This clinical rotation is designed to provide an overview of the care of individuals with spinal cord injury/dysfunction (SCI/D), from initial rehabilitation through a lifelong continuum of care. At completion of the elective, the student should be familiar with the American Spinal Injury Association (ASIA) classification system of spinal cord injuries, rehabilitation of individuals with spinal cord injuries, basic differences in the physiology of individuals with spinal cord injury, and common medical problems associated with spinal cord injuries.

Method: The student will assume responsibility for assigned patients under the supervision of the resident and attending staff. The student will participate in the interdisciplinary team conference and the weekly conferences and rounds with Urology, Plastic Surgery and Orthopedics. Students may also participate in the SCI Outpatient Clinic, SCI Home Care Program, SCI/D Wheelchair Clinic and Urodynamics. The student is also expected to attend the residents' didactic lectures and Grand Rounds.

Evaluation: The student will be asked to prepare a 20-30 minute presentation on a topic of his choice related to spinal cord injury medicine. The student is evaluated by the attending based on observation of his clinical performance, work habits, and presentation skills.

SPINAL CORD INJURY MEDICINE

Hospital: Memorial Hermann|TIRR

Attendings: William Donovan, MD, Joel Frontera, MD and Juan Latorre, MD

Course Number: BCM 550-506 (BAYLOR) or PMR 4005 (UT)

Clinical Elective: Counts toward 32-credit-hour graduation requirement. 2 or 4 weeks full-time. Credits: 8. Prerequisites: Medicine and Surgery Core Rotations. Offered each quarter.

Throughout the rotation, the student will demonstrate the ability to manage rehabilitation of spinal cord injured patients. The student will also demonstrate the ability to work with patients, families, the interdisciplinary team, physical therapists, occupational therapists, speech therapists, rehabilitation nurses, other physicians, neuropsychologists, research associates, office staff and community resources.

Method: The student will develop an understanding of the pathophysiology and classification of spinal cord injury and the prediction of ultimate outcome after spinal cord injury. The student will demonstrate competency in the management of medical complications unique to spinal cord injured patients such as spinal stability, respiratory compromise, neurogenic

bowel and bladder, spasticity and heterotopic ossification. The student will perform debridement procedures. The student is also expected to attend the residents' didactic lectures and Grand Rounds.

Evaluation: Student is evaluated by attendings with input from other team members (therapists, prosthetist, nursing) as appropriate.

BRAIN INJURY & STROKE MEDICINE

Hospital: Memorial Hermann|TIRR

Attendings: Carol Bodenheimer, MD, Monika Shah, DO, Monica Crump, MD and L. Viviana Tastard, MD

Course Number: BCM 550-509 (BAYLOR) or PMR 4002 (UT)

Clinical Elective: Counts toward 32-credit-hour graduation requirement. 2 or 4 weeks full-time. Credits: 8. Prerequisites: Medicine and Surgery Core Rotations. Offered each quarter.

Students will be given an opportunity to understand the dynamics of traumatic brain injury (TBI) and stroke rehabilitation. A familiarity with medical and functional complications after brain injuries such as spasticity, cognitive deficits and agitation, aphasia, dysphagia, neuropathic pain, and joint contractures will be gained. Furthermore, the student will become familiar with the intervention of spasticity, from pharmacological treatments to botulinum toxin injections to implantable devices. Emphasis will also be placed on the roles of various other health care providers in TBI rehabilitation, including the physical therapist, occupational therapist, speech pathologist, neuropsychologist, and social work. The outpatient clinic experience will provide a strong experience in understanding the barriers and challenges of re-integrating TBI survivors back to their occupation, school, and home.

Evaluation: Student is evaluated by attendings with input from other team members (therapists, prosthetist, nursing) as appropriate.

CANCER PAIN MANAGEMENT/CANCER REHABILITATION

Hospital: M.D. Anderson Cancer Center (MDACC)

Attending: Ki Shin, MD

Course Number: BCM 550-514 (BAYLOR) or PMR 4006 (UT)

Clinical Elective: Counts toward 32-credit-hour graduation requirement. 4 weeks full-time. Credits: 8. Prerequisites: Previous PM&R rotation and telephone interview with attending required. Offered each quarter.

This elective is designed to provide the student with an understanding of the multifaceted treatment of cancer pain, including the appropriate use of medications and anesthetic and surgical procedures. This elective can also expose the student to rehabilitation of disabilities caused by cancer or its treatment. The student may choose to spend the entire rotation with the Pain and Symptom Management Service, the Physical Medicine and Rehabilitation Service, or spend two weeks in each realm. This elective helps the student advance their skills in the physical diagnosis of pain, enhance their knowledge of opiates and other pain medications, and increase their understanding of pain mechanisms and the neurological pathways involved. Students can also learn more about the treatment of disability in these patients, including physical and occupational therapy interventions.

This elective provides students with unique experience in integrated management of rehabilitation problems in the presence of cancer. The understanding of all medical, personal and social aspects of the patient is necessary. Exposure to the concept of integration of exercise to the ill patient is another unique feature.

Method: The student participates in the inpatient consultation services, as well as observing and participating in outpatient clinics. Learning also occurs through weekly didactic lectures and interdisciplinary patient pain management conferences. Participation in the rehabilitation service includes observation of patients in their therapies and in weekly multidisciplinary team conferences to discuss patient progress. The elective can be tailored to meet the individual interests of the student.

Evaluation: The attendings base their evaluation on the quality of student's clinical presentations, interaction with patients and staff, and their application of learned material in patient assessments.

MUSCULOSKELETAL

Hospital: Private Practice

Attending: Ahmed Khalifa, MD

Course Number: BCM 550-501 (BAYLOR) or PMR 4003 (UT)

Clinical Elective: 4 weeks—full time. Counts toward 32-credit-hour graduation requirement. Offered each month.

This elective will develop the skills of the student in the examination of the spine and extremities. This elective will also develop the student's knowledge of basic kinesiology and biomechanics. The student will also begin to understand the techniques of dynamic assessment.

Method: Upon completion of the elective, the student will understand the biomechanical principles involved in dynamic assessment. The student will understand the biomechanical relationship between the hip and spine and shoulder and spine. The student will be able to order appropriate physical medicine modalities, exercise regimes and diagnostic tests for patients with musculoskeletal complaints. Throughout the elective, the student will demonstrate the ability to manage rehabilitation patients. The student is encouraged to read Hoppenfeld *Physical Examination of the Spine and Extremities*.

Evaluation: Student is evaluated by attendings with input from other team members (therapists, prosthetist, nursing) as appropriate. The student may briefly present a topic in sports or musculoskeletal medicine for an honors grade.

PAIN MEDICINE

Hospital: Baylor Faculty Center

Attendings: Martin Grabois, M.D., Benoy Benny, M.D., Donna Bloodworth, M.D., and Barry Smith, M.D.

Course Number: BCM 550-515

Clinical Elective: Counts toward 32-credit-hour graduation requirement. 4 weeks full-time course, offered every month. Credits: 8. Prerequisites: MS3

This elective provides the med student a comprehensive introduction to the practice of pain management.

At Baylor Clinic:

Course Objective: Students will be exposed to broad spectrum of clinical management of pain rehabilitation problems including evaluation and prescription with emphasis on medical and psychosocial and interventional modes of prescription. Students will be given the opportunity to observe and participate in all aspects of care provided to persons w/acute, subacute, and chronic pain syndromes.

Method: Students will participate in daily bedside teaching rounds w/attendings and resident physicians. Students will be expected to help with patient care under attending and resident supervision. Procedures are generally observed by students although students showing exceptional clinical knowledge and interest will be allowed to help perform procedures.

Evaluation: The student will be asked to prepare a 20-30 minute presentation on a topic related to pain management.

The student is evaluated by the attending based on observation of clinical performance, work habit, and presentation skills.

At Quentin Mease Community Hospital:

Hospital: Quentin Mease Community Hospital

Attendings: Donna Bloodworth, M.D.

Course Number: BCM 550-515

Course Objective: Students will be exposed to broad spectrum of primary and secondary pain diagnoses encountered in a rehabilitation outpatient clinic setting. The importance of a thorough evaluation and consideration of psychosocial aspects of chronic disease are focuses of this clinic. Modalities used in this setting to treat pain include opioid medications, adjuvant medications and physical therapy. **No** interventional pain medicine is practiced or performed at the QM PMR and Pain clinics. Students will be given the opportunity to observe and discuss aspects of care provided to persons with sub acute, and chronic pain syndromes.

REQUIREMENT: The student may only participate in the care of patients if the student is able to access the EPIC medical record system used in the HCHD outpatient clinic, otherwise the student may observe.

Method: Students will participate in daily clinic rounds w/attendings and resident physicians, and the specific clinics include general physical medicine and rehabilitation (2), chronic pain clinic (4), bracing and equipment (2), amputee (1) and spinal cord injury clinic (1). Primary and secondary pain syndromes are managed in all of these clinics.

Evaluation: The student will be asked to prepare a 10 to 15 minute presentation on the benefits and limitations of opioid prescription for the treatment of pain, or on how to incorporate the requirements of Texas Medical Board Regulations Chapter 170, "pain treatment" into their treatment of patients. The student is evaluated by the attending based on observation of clinical performance, work habit, and presentation skills.