

Curricular Thread Report: Rehabilitation

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In Brief

Standards reviewed: LCME, EPAs, USMLE Content Outline, Association of Academic Psychiatrists Undergraduate Education Committee Workgroup, MedEd Portal, AAMC Graduate Questionnaire, Quillen Commencement Objectives.

Goals

1. Provide a comfort level in the medical practitioner to the assessment and care of individuals with disabilities that present for evaluation, and a framework in which to look to obtain further information.
2. Provide an awareness of the psychosocial issues faced by the individual with disability or chronic illness.
3. Provide an appreciation of the need for a functional, or outcomes-based, approach to the continuum of medical care.

Objectives

Knowledge

The graduate should be able to:

1. Define and distinguish among the terms “impairment,” “disability,” and “handicap.”
2. Describe the different components of the rehabilitation team and special abilities of each. (QCOM objectives 2.8 and 6.7)
3. Discuss the functional implications of illnesses and injuries within the routine practice of medicine.
4. Discuss the impact of chronic illnesses, pain and disability on an individual, the family and community. (QCOM objective 6.2)
5. Describe the concepts of continuum of care, including appropriate locations and facilities for different stages in the course of recovery and rehabilitation, and the strengths and weaknesses of each. (QCOM objectives 2.8 and 6.7)
6. Discuss the cost-benefit relationship in the provision of psychiatric/rehabilitative care.

Skills

The graduate should be able to:

1. Obtain a history from patients with a particular emphasis on functional limitations, residual abilities, and psychosocial status.
2. Perform a physical examination designed to assess functional problems. (QCOM objective 2.2)
3. Determine whether disability is present and make an appropriate referral for continued care and/or evaluation.
4. Demonstrate communication techniques with patients, family members, other health care professionals, and/or representatives of third-party payers and managed care.

5. Keep medical records with sufficient information to monitor a patient's functional progress and document need for care.

Attitudes

The graduate should exhibit behaviors consistent with:

1. A patient-centered, rather than disease-oriented medical ethic.
2. Concern for the social, cultural and economic implications of a patient's disorder.
3. The willingness to seek long-term solutions for chronic problems.
4. Empathy and compassion for patients with chronic illnesses and disabilities. (QCOM objective 5.1)
5. Respect for and willingness to work in harmony with other members of the rehabilitation team. (QCOM objective 4.4)

Short Term Recommendations

1. Clarify Goals and Objectives of the curricular thread to those delivering content subsumed in this report.
2. Create introductory session in a current course that provides an overview of the content of the curricular thread to better leverage existing content throughout the curriculum and clarify goals and objectives to students as well as provide an overview of the content. This could, in part, be accomplished by using already existing online modules.

Long Term Recommendations

1. Develop new inter-professional opportunities in the pre-clerkship and clinical years with ETSU College of Clinical & Rehabilitative Health Sciences and other professionals in the community.
2. Expand opportunities for student exposure to rehabilitative clinics/programs for students.

Outcomes

See end of Full Report.

Full Report

Rationale

The term "Rehabilitation" is a necessarily broad term describing a variety of services and scientific disciplines available to patients for aiding in recovery from any sort of physical or mental disability, injury or habit. These disciplines all involve the chronic care model and involve services and treatments to patients over varying lengths of time of full recovery of at least maximal improvement and maintenance of function.

Cardiac Rehabilitation is available to those who have limitations related to cardiac disease with the goal of improving function and mitigating risks for worsening cardiac disease/function.

Drug Rehabilitation is available for patients with addiction to alcohol, prescriptions and nonprescription drugs of abuse. **Alcohol Rehabilitation** may be considered together or independent of Drug Rehabilitation.

Neurological Rehabilitation is available to patients suffering from stroke or neurological diseases affecting the brain or spinal cord. This may also be referred to as **Stroke Rehabilitation**.

Occupational Rehabilitation is available to anyone who, related to a disease process, has potential to improve daily physical and mental activities. The goal is to promote independent functioning. This is sometimes called **Medical Rehabilitation**.

Pelvic Floor Rehabilitation is available for patients suffering from pelvic organ prolapse, incontinence, and pelvic pain.

Physical Rehabilitation is available for those who have physical pain or limitations due to illness, surgery, traumas, etc. Physical activities are used to improve strength and movement.

Pulmonary Rehabilitation works to improve functional capacity and quality of life for those with pulmonary disabilities such as asthma, emphysema, pulmonary fibrosis, etc.

Speech Pathology is available to patients as a service to improve language, thinking, swallowing, speech and voice skills.

Vestibular Rehabilitation is available for patients who suffer from disorders affecting balance and head-, hand-, and eye-coordination.

Vocational Rehabilitation is available to patients who have difficulty getting or maintaining employment due to some mental or physical disability and can help with job retraining and job placement.

Graduate medical students may seek subspecialty training after graduation in the **Physical Medicine and Rehabilitation** (Physiatry) speciality. The goal of undergraduate medical education should necessarily not be to introduce students to the full depth of knowledge required to be a Physiatrist or to have a full understanding of any of the various subtypes of rehabilitation services, each of which are associated with an ancillary professional training program.

Yet, regardless of the eventual speciality the student may choose, all physicians will care for patients with disabilities and interact with rehabilitation specialists/services. These services are ripe for interdisciplinary education and curricular opportunities.

LCME 7.2 specifically addresses 'rehabilitative care' as a broad area of focus. 'occupational health/medicine,' as well as 'end of life care,' which are subordinated entirely or partially in this Curricular Thread. The Reporting Topics also include 'pain management,' and 'palliative care,' which are potentially encompassed by this Curricular Thread.

The Rehabilitation Curricular Thread relates to the **Entrustable Professional Activities** in the following direct ways:

EPA1: History of and physicals related to defining limitations and functionality associated with disabilities.

EPA4: Order evaluations for disabilities and ordering appropriate rehabilitative consultations/services.

EPA5: Documentation of functional progress and need for rehabilitation.

EPA9: Working interprofessionally with providers of rehabilitative services.

The **USMLE Content Outline** does not directly address rehabilitation, though presumably rehabilitation as a treatment modality for various diseases processes is implicit throughout where relevant.

The Association of Academic Psychiatrists Undergraduate Education Committee Workgroup has developed goals, objectives, and defined a minimal level of content and exposure that they feel is appropriate for undergraduate medical education. The following Goals and Objectives are adapted in part from this work:

Goals

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Curriculum Summary

Year 1

Case-Oriented Learning – Case involving Stickler Syndrome emphasizing activity prescriptions to minimize progression of arthritis and rehabilitative means methods to maximize quality of life. (implemented in fall 2013)

Medical Human Gross Anatomy and Embryology

For each anatomical region (for example, head, neck, shoulder, elbow, etc.), students learn about common injuries or clinical disorders that should require physical therapy for proper recovery. Through interactive hands-on sessions, students will learn how to recognize the injury/disorder; assess the extent of the injury or disorder; stabilize the injury; when necessary, refer the patient to the most appropriate therapist for further action; manage or treat the injury or disorder using various modalities; prevent further injury by increasing strength and flexibility of the affected area, or provide other protective measures; and assess the ability of the patient to return to their normal routine (fully implemented in fall 2013). A module on pelvic floor physical therapy with with a Pelvic Floor Physical Therapist has also been recently implemented.

Profession of Medicine – Discussion of rehabilitation in the context of care for chronic diseases emphasizing rehabilitation as a component of care for many chronic diseases. Addressed through clinical case presentation covering: geriatric rehabilitation, definitions of Impairment and disability, rehab goals and facts. (implemented in spring of 2013).

Lifespan Development – presentation by director of a facility specializing in rehabilitation of patients with traumatic brain injury emphasizing psychosocial aspects of rehabilitation. Also the psychosocial aspects of rehabilitation are covered with a required reading. Each session has a rehabilitation learning objective. Rehabilitation content is assessed through a quiz and 4 or 5 questions on the final exam. (implemented in spring 2013)

Year 2

Practice of Medicine – Cardiac rehabilitation is introduced as a component of a case. Students are assigned to read an article regarding this (implemented in Spring 2013)

Integrated Grand Rounds includes elements of rehabilitation in at least two cases per year.

Opportunity: Rehab related question could be added to weekly quizzes to ensure that material is covered.

Clinical Neurosciences - Rehabilitation in chronic neurologic illnesses introduced in setting of clinical cases. Patients with neurological disabilities are examined routinely and medical students work side-by-side with physical therapy students discussing options for rehabilitation for each patient.

Career Exploration II – Psychiatry presented as a career option in lunch and learn session.

Opportunity: Ensure that this option is available each year.

Medical Pharmacology – Use of methadone, buprenorphine, and disulfiram in treatment of opioid addiction and alcohol addiction.

Introduction to Psychiatry – Didactic session is delivered regarding addiction and introduction to drug rehabilitation is made. There is a session involving patients who had experienced rehabilitation as part of this topic.

Year 3

Community Medicine Clerkship –1-2 day clinical experience at LeConte Medical Center for all students with exposures to physical therapy, speech pathology, and occupational therapy, including a half day shadowing a Physical Therapist in a PT Clinic. There are assigned modules and assigned readings covering Occupational Therapy.

Opportunity: Ensure that these activities are happening consistently for each clerkship.

Family Medicine Clerkship - Didactic presentation “Introduction to Rehabilitation Medicine: An Overview for Students and Residents” to all students (with an emphasis on physical disabilities and assistive devices). One half-day rehab experience in Skilled Nursing Facility. (implemented in Spring 2013). One of the structured cases (fmCASES #22) addresses stroke rehabilitation. Home visits include requirement of history and physical exam and needs assessment of the home to determine needs for resources including rehabilitative services or assistive devices. Palliative care and the impact of chronic disease on the family and community is addressed in didactic and rounds.

Opportunity: SNF experience could be better-centered on assessing for disabilities and determining needs for rehab. Improved instruction on needs assessment for home visit is needed.

Internal Medicine Clerkship – Cardiac rehabilitation didactic presentation, assessed with two quiz questions.

Opportunity: Change tone of didactic. Expand/add opportunities for experience in cardiac rehab outpatient facility or some other rehab facility with better implementation than previous efforts. .

Rural Primary Track Clerkship – optional rehabilitation experience in SNF setting.

Opportunity: Make SNF experience universal.

Surgery Clerkship – On trauma service, role of various rehabilitative professionals in trauma recovery is emphasized. Surgical consultation is regularly encountered among drug and alcohol rehabilitation patients at the VA Medical Center. Rehabilitation related issues are addressed in this context.

Opportunity: Not all students are exposed to the trauma service so these experiences are not universal (and not all students rotate at the VAMC).

Pediatrics Clerkship - Clinical exposures include developmental pediatrics, evaluation and treatment of children with developmental delays. Appropriate referrals to occupational and physical therapy in the management of a variety of inpatient and outpatient pediatric problems is stressed.

OB/GYN - Introduction to Pelvic Floor Physical Therapy is made on the Urogynecology subrotation and during Urogynecology didactics.

Psychiatry - Broad exposure to inpatients who are in rehabilitation related to drug addiction.

Specialties – Rehabilitation issues may be addressed if students elect either Sports Medicine or Physical Medicine & Rehabilitation electives. There are also electives in Addiction Medicine at High Point Clinic.

Year 4

Keystone Course – Presentation by Psychiatrist covering:

- Introduction to the field of Physical Medicine and Rehabilitation (PM&R)
- Definition of rehabilitation and the basics of rehabilitation care
- Description of common PM&R problems, including acute and chronic pain, stroke, spinal cord injury, joint replacement, traumatic brain injury, amputations, burns, chronic neuromuscular diseases, sports-related and industrial injuries, and arthritis sequelae
- Economic consequences of chronic illnesses (TBI as example)
- Patient consequences of chronic conditions (including bed rest, decubitus ulcers, and cognitive decline) and importance of prevention of a secondary insult (hypotension, hypoxemia, etc.)
- Describe which patients may benefit from inpatient rehabilitation
- When you might consider consulting the services of PM&R & the role of the PM&R physician and the PM&R Interdisciplinary Team

- Services involved with PM&R (PT, OT, Respiratory Therapy, Speech Therapy, etc.) and descriptions of each
- Types of post-acute care: Inpatient rehabilitation Facilities, Skilled Nursing Facilities, Cancer Rehabilitation Centers
- Ways PM&R patients recover from their illnesses
- PM&R Clinical Cases

Outcomes

The AAMC Graduate Questionnaire is relatively quiet regarding issues specific to this thread, though one question does ask if students have had the opportunity to interact with Occupational Therapy and Physical Therapists. Recent administrations of the GQ has shown Quillen students below the national average with OT and above the national average with PT.

Lifespan includes assessment of covered rehabilitation topics on a quiz and a few questions on the final exam.

USMLE Steps 1 and 2 provide little valuable specific data about this Curricular Thread.

FM includes a pre- and post-test assessment of the didactic session on Rehabilitation.

IM includes questions regarding cardiac rehabilitation on a quiz.

The Spring Quiz of POM includes questions about rehabilitation.