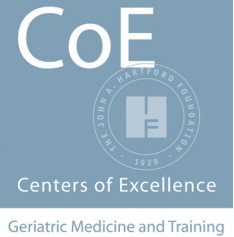


One-Month Chronic Disease Disability: Improving Quality of Life Rotation for Medical Students



at The Johns Hopkins University School of Medicine

SUMMARY

Target Audience

All third- and fourth-year students

Purpose

Exposure to the knowledge, skills, and attitudes necessary to provide high quality and compassionate care for persons with chronic diseases and disabilities

Program

One-month rotation consisting of clinical experience, internet modules, group discussion, and simulation exercises. The clerkship is currently elective, but will become mandatory in spring 2010

History

The clerkship has been offered since April 2007

Operating Costs

Faculty time; weekly conference space

Outcomes

Changes in the knowledge and confidence levels among alumni of the medical school will be measured; no formal feedback survey has been conducted

Available Materials

Learning Objectives, Educational Strategies, and Evaluation Mechanisms

For More Information

R. Samuel Mayer, MD
Johns Hopkins University School of Medicine
(410) 502-2447
rmayer2@jhmi.edu

Program Overview

125 million people in the U.S. have chronic illnesses, which account for over three-quarters of all health care expenses. Patients with chronic illness and disability perceive their physicians as poorly prepared to deal with the issues most pertinent to their quality of life. There is growing evidence of safety concerns among patients with chronic illness as they transition through a fragmented health care system.

With more than 75% of most medical student/resident training focused on acute hospital/inpatient medicine, exposure to issues outside the inpatient setting is greatly limited. Because of this structure, physicians-in-training may attach less value to the care of people with chronic illnesses.

By improving students' attitudes toward people with chronic disease, interest in geriatrics as a career choice can be increased. Through this curriculum, all graduating students of the Johns Hopkins University School of Medicine will possess the knowledge, skills, and attitudes to provide compassionate and high quality care for persons with chronic diseases and disabilities.

Program Operations

Negative attitudes, such as viewing chronic illness as "incurable, life-altering, and terminal," can be improved through innovative teaching techniques. These include patient presentations on stereotypes; team meetings and home visits' and simulated experiences, such as a day in a wheelchair. These learning experiences will help medical trainees develop empathy and a sense of empowerment in caring for disabled and chronically ill patients.



Major areas of knowledge include:

- the epidemiology of disability and chronic illness
- falls
- incontinence
- dementia and cognitive deficits
- mood disorders
- chronic pain
- poly-pharmacy
- childhood development.

Key skills are teamwork, patient communication, rehabilitation prescriptions, functional evaluation, anticipatory management, transition among levels of care, and utilization of resources for optimizing independence.

Clinical Experience

Students/residents can tailor the rotation to their interests by selecting two primary clinical sites from a choice of four. They spend two weeks at each site. These sites, each of which serves a different population in terms of age, diagnoses, and social situations, serve as a “home base” for the trainees, but there is a common centralized didactic program and overlap among them for outpatient and community experiences.

All sites provide opportunities for experiences in an inpatient rehabilitation unit and visits to a subacute or chronic care facility and to outpatient clinics that emphasize care of disabled and chronically ill patients, as well as home visits. Inpatient acute care is deemphasized. Students participate in interdisciplinary team meetings and patient/family conferences.

Internet Modules

Knowledge-based objectives are primarily addressed in self-study internet modules posted on Blackboard®. The modules take approximately 20-30 minutes to complete; trainees are required to complete one or two modules weekly. The modules include interactive pre- and post-module quizzes. Instructors are available for e-mail questions,

and there is a Frequently Asked Questions (FAQs) bulletin board. Topics include:

- epidemiology and socioeconomic impact of chronic disease and disability
- interdisciplinary team concepts
- pain management
- poly-pharmacy
- nutrition
- bladder, bowel, and sexual dysfunction.

Discussion Groups

All ten students on the clerkship participate in discussion groups that meet 3-4 hours weekly at a central location for the month. The groups are led by faculty members, fellows, senior residents, or allied health professionals. Patients also lead some groups. Problem-based learning and interactive role-playing are incorporated into the sessions. Topics for discussion include:

- attitudes toward people with chronic disease and disability
- team communication skills
- socioeconomic issues
- functional evaluation
- poly-pharmacy
- pain management.

Simulation Exercises

Highly interactive and engaging simulation exercises enable trainees to experience some aspects of having a disability or chronic disease. Trainees in the rotation are required to participate in at least two simulation activities. These may include:

- a paraplegic in a wheelchair
- a hemiparetic, aphasic, or hemianopsic stroke survivor (using a knee immobilizer, hand splint, and goggles)
- a visually impaired individual (using specialized goggles)
- a patient with several chronic diseases on multiple medications (using placebo candies and a restricted diet).

During these activities, students maintain a journal and participate in a discussion group about their experiences the following week.



Staffing Requirements

The following personnel are needed:

- Co-course directors, one from Geriatrics and one from Physical Medicine and Rehabilitation (PM&R), at 0.25 FTE each. A 1.0 FTE administrative assistant is also required.
- An Advisory Council of patient advocates, faculty, therapists, nurses, and student representatives. The council meets quarterly to review program evaluations and do strategic planning.
- Faculty of geriatricians and PM&R physicians, psychologists, social workers, therapists, and nurses. Geriatrics fellows and senior PM&R residents are also utilized for some of the discussion groups.

Program Costs and Funding Sources

The program requires faculty time and utilization of a conference room for 15 people one half day per week. Minimal equipment is required.

The program is funded through the School of Medicine. Additional support from private foundations is being sought.

Process and Outcomes Data

Evaluation Design

The internet module quizzes use a pre- and post-test design (O1 X O2). Student perceptions of adequacy of exposure to chronic illness, etc., are evaluated using cohort comparisons of the Association of American Medical College Graduation Questionnaire. The remainder of learner and program evaluations are only post-test.

Evaluation Methods and Instruments

- *Participation Passports:* Much of this course is experiential in nature. Participation Passports have two purposes. The first is to ensure that students know the clinical experiences expected of them during the month and that they are able to evaluate these experiences. The second is to ensure that teachers (attending physicians, therapists,

etc.) know why the student is there, and what they are expected to teach the student on that particular day. By knowing the goals of the session using the Passport, the attending faculty or therapist can provide ongoing learner feedback. This communication is particularly important given that students will be at multiple clinical sites and will have various teachers from month-to-month and day-to-day.

- *Internet module quizzes:* Pre- and post-quizzes are the most efficient way to evaluate students for knowledge-based objectives. They can also help focus the learner on key points that should have been learned from the module or lecture. The aggregate data can also be used to measure the effectiveness of each module.
- *Reflection Journals:* The reflection journals can be a powerful tool to help students think about the experiences they are having during the course and how these experiences are making them more aware of their own biases and assumptions, and changing their attitudes about chronically ill patients. The journals will also provide qualitative feedback about the course and help enrich group discussions.
- *360-Degree Evaluations:* Students will be evaluated by attending physicians, other team members, and possibly patients. The 360-degree evaluations teach the student the importance of working well with all team members and of communication skills.

Implementation Lessons

- When presenting a clerkship like this to a curriculum committee, one needs to stress the benefits to all physicians, irrespective of ultimate specialty choice.
- It is highly useful to do a learner needs assessment before drawing up goals and objectives.



Available Materials

Tools/Resources

- Learning Objectives, Educational Strategies, and Evaluation Mechanisms

Publications

- Proposal for a required advanced clerkship in chronic disease and disability for medical students.
Mayer, RS, Shah, A, DeLateur, BJ, Durso, SC.
American Journal of Physical Medicine & Rehabilitation
2008;87(2):162-7.

For More Information

R. Samuel Mayer, MD
Residency Program Director
Department of Physical Medicine and Rehabilitation
Johns Hopkins University School of Medicine
Meyer 1-164
600 North Wolfe Street
Baltimore, MD 21287
(410) 502-2447
rmayer2@jhmi.edu

This document is part of a compilation of approaches to geriatrics recruitment, career development, and programmatic expansion, based on the work of the John A. Hartford Foundation "Centers of Excellence in Geriatric Medicine and Training." For more information, visit www.afar.org/recruitment or www.jhartfound.org.

