

RATIONALE/NEED

There is a paucity of oncology-based curricular elements especially in the M1-M2 years. Yet most primary care physicians will diagnose and follow many cancer patients during their clinical careers. Therefore, I have developed a series of problem-based cases based on different presentations of cancer patients. The cases will be used to teach more general concepts such as medical ethics, missed diagnosis, death and dying and palliation, but using the clinical context of oncologic diagnoses to begin to introduce the clinically relevant concepts in cancer patients. The intention is to begin to use these cases in the Doctoring course in the spring or fall 2015 semesters.

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METHODS/DESCRIPTION

Case #1 involves a young woman with a newly diagnosed early stage breast cancer that was initially a missed diagnosis on a screening mammogram. This PBL case will include a complete history and physician exam as performed on this initial clinic visit, sample images and reports from the mammograms obtained 8 months prior, new mammograms and ultrasound obtained after the initial clinic visit, routine labs, pathology slides from biopsy of breast mass, images and reports from staging studies including CT chest, abdomen and pelvis and bone scan, and images and reports of sample breast MRI. The faculty facilitators will have additional materials including directed learning objectives and guide, as well as background materials on breast cancer screening, diagnosis, pathology, biology and treatment.

Topics of interest raised by this case for facilitators to use include:

The purpose of cancer screening, guidelines for breast cancer screening and how they are developed, controversies.
How to deal with a missed diagnosis and failure to inform a patient of an abnormal test result, leading to delay in diagnosis.
Pathophysiology of malignancy; Biology of carcinogenesis; Molecular subtypes of breast cancer.
Clinical symptoms and diagnostic work up of breast cancer.
Treatment options for early stage breast cancer.

Learning Objectives for Students:

How should a patient be informed about a missed or delayed diagnosis? How does the delayed diagnosis affect her prognosis?
What are the guidelines for breast cancer screening? How are these guidelines developed?
What are the molecular mechanisms of breast carcinogenesis? What are the molecular subtypes of breast cancer?
How is breast cancer diagnosed, staged, and what work-up is indicated by the stage of cancer?
What are the treatment options for early stage breast cancer?

EVALUATION PLAN

First, the facilitators of the small groups discussing the case will observe the students' performance, and will score how each student performs in the following objectives: a) assess the case materials to develop appropriate self-learning objectives; b). identify and evaluate information resources; c). acquire knowledge as outlined by the case learning objectives and participation small group discussion. Second, the students will take a knowledge-based post-test that will ask questions based on the learning objectives and general topics or create a "problem statement" for each student to respond to, that can closely reflect the learning objectives in the case discussed. Third, as this is one PBL case in a larger curriculum, the students' overall performance in the Doctoring course as assessed by their facilitators and course directors will provide evaluation of their performance in the course itself.

IMPACT/LESSONS LEARNED

The instructional goals involve students evaluating and identifying important elements from the case, defining areas of deficiency in their knowledge as learning objectives, identifying appropriate resources of information, reviewing and evaluating those resources between the two sessions, and finally applying the new knowledge to the case scenario in the second group discussion. PBL design incorporates several other basic elements of instructional design, including small group discussion, student centered self-directed learning, experiential problem-solving, active learning, focus on both content as well as the process of learning, allowing for both development of critical thinking strategies and acquisition of knowledge. A major goal is to integrate more knowledge and understanding of oncology concepts in the context of the broader arena of the Doctoring course.