Development of Palliative Care Educational Modules as Part of Radiation Oncology Residency Training

Project Description:
This project seeks to design formal education modules for topics within palliative care as they relate specifically to the practice of radiation oncology. We intend to use a variety of didactic techniques, including lecture materials, interactive case-based software, and communication workshops. The finished product will be piloted among Stanford residents, with the ultimate goal of disseminating materials to radiation oncology residents across the United States.

Rationale:
By some estimates, nearly half of patients treated with radiotherapy are treated with palliative intent (Janjan NA 1998, *J Palliat Med*; Hoagler D 1997, *Curr Probl Cancer*). However, little formal training in palliative care topics exists within most radiation oncology curricula in the United States. Our project seeks to fulfill this deficiency.

Specific Educational Aims:
- Increase resident familiarity with common quality of life issues faced by patients with end-stage cancer undergoing radiation therapy
- Increase resident familiarity with palliative pharmacology and medication management for symptoms of pain, anxiety, nausea/vomiting (including skills such as cross-titrating opioids and designing durable pain medication regimens)
- Provide structured education in the form of a communications workshop led by faculty and fellows in palliative care

Pilot Data:
Dr. VJ Periyakoil of the Stanford Palliative Care Education & Training Program has developed software involving interactive patient case-based modules for use among palliative care trainees. Through collaboration we intend to adapt this software (or a similar interface) in order to design cases that apply specifically to radiation oncology.

How the project supports/promotes diversity:
This project promotes diversity by expanding upon the typical education that a radiation oncology trainee receives during the course of his or her residency. It will also introduce didactic methods that are not as commonly employed during the education process, such as an interactive workshop and virtual cases.

Methods of Design:
We will identify areas that apply specifically to radiation oncology through collaboration with faculty and staff in the palliative care and radiation oncology departments. We will seek their input on topics such as methodology for breaking bad news and careful choice of language with patients for the communications workshop. We also hope to collaborate on a library of virtual patients and scenarios.

Timeline and Implementation Plan:
- April 2016 – May 2016:
- Identification of key topics for inclusion in didactic materials
- Creation of library of virtual cases
- Identify participants for communication workshop (i.e. mock patients)

- June 2016: Unroll pilot educational package over course of several sessions among Stanford radiation oncology residents
- July 2016: Seek feedback from residents
- August 2016: Modify educational package based upon resident input and prepare for dissemination to other residency programs

**Anticipated work product:**
Ultimately, the finished product will consist of 3 components:

1) Didactic modules (in the form of presentations and printed materials divided up by topics)
2) Online case-based quizzes and virtual patient cases
3) Communications workshop during which residents can practice communication skills on mock patients.

**Evaluation Plan:**
Initial evaluation will be based upon feedback from Stanford residents on the three main components of this educational package. This data will be used prior to the next iteration of the product, which will be targeted toward a more general audience of radiation oncology residents in the United States.

**Dissemination of results:**
We intend to present our results at a national meeting dedicated specifically toward palliative care, such as the Palliative Care in Oncology Symposium (cosponsored annually each fall by AAHPM, ASCO, ASTRO and MASCC). We will also reach out to other radiation oncology program directors to gauge interest in our product for use in other residency training programs.

**Anticipated impact of the project on education and/or mentoring:**
We hope to introduce formal training in palliative care topics as they relate to radiation oncology, filling a significant gap in resident education. We hope to increase resident facility with critical skills such as communicating bad news, addressing end of life concerns, and managing symptoms. For some patients, radiation oncologists may be their primary point of contact for a period of time as they undergo treatment, particularly if they are not on active chemotherapy. Our hope is that the educational product we devise will be portable and applicable to all radiation oncology residents undergoing training in the United States.