AbstractID: 4450 Title: Informatics Systems Overview

Due to the increasing complexity of radiation therapy, government regulations, and legal liability, computerized radiation oncology information systems are becoming a necessity. Selection of an information system involves understanding of both computer software and hardware issues. Topics such as network infrastructure, software interfaces, and hardware interfaces, which are not part of the normal physics training, must be understood by the medical physicist. As the person with the most technical training in the radiation oncology department they will be called upon to do one or more of the following; specify a system, setup and installation, troubleshoot the system when things go wrong. This course will identify both hardware and software issues to consider when either first implementing a computerized information system or changing to an electronic treatment record. An overview/summary of the commercially available Record & Verify systems will also be presented.

Educational objectives:

1. Understand basic network infrastructure for both local area networks (LAN) and wide area networks (WAN).
2. Understand interfaces to both hospital information systems and various radiation oncology devices.
3. Understand differences in network requirements for both single department and multi-department institutions.
4. Understand what is required when migrating from a paper treatment record to an electronic treatment record.
5. Be able to generate specifications for a radiation oncology information system.
6. Understand the personnel requirements for implementing and maintaining a radiation oncology information system.

Conflict of Interest Statement

Robert Dahl – None.

Michael Herman - Research sponsored by Varian Medical Systems Corporation.