

AbstractID: 2917 Title: A streamlined syllabus for training of radiation therapy professionals on linac operations

Purpose: To define a syllabus for the education and periodic re-training of radiation therapists and other professionals operating a linear accelerator (linac) on issues related to safety, routine operations, and emergency procedures.

Method and Materials: An extensive review of manufacturer recommendations and published literature regarding linac safety and operational issues has enabled the compilation of a streamlined syllabus. The course material is geared toward rapid and effective training of radiation therapists and other individuals charged with operating a linear accelerator either during treatment delivery or while performing commissioning or periodic quality assurance measurements. The training material is meant to be delivered on a rotating schedule such that re-training of personnel is accomplished. The course material itself is designed to be delivered by a Chief Therapist, Linac Engineer, and/or Medical Physics staff.

Results: A syllabus including course material to be delivered monthly, semi-annually, and annually has been developed. The target audience includes radiation therapists, service engineers, and physicists/dosimetrists involved in the operation of a linac. The course material includes separate components catered to the interest and knowledge requirement for different trainees. For example, concise protocols to be followed for morning warm-up are presented semi-annually to the therapists in charge of opening the department. All treating therapists are exposed to pertinent safety procedures during monthly inservices developed such that a complete cadre of safety related issues is covered twice per year. More extensive annual refresher courses are also defined, along with measurable indicators that can be used to document understanding of the procedures.

Conclusions: Quality assurance requirements mandated by most jurisdictions dictate frequent training of appropriate personnel pertaining to linac safety including coverage of routine operations and emergency procedures. This work standardizes a syllabus that can be used to satisfy these training requirements. Monthly, semi-annual, and annual training programs are included.