

AbstractID: 7945 Title: Performance Specification for New Equipment Purchases: Overview

Every cancer treatment facility is involved in the purchase of new equipment. While the purchase process will vary from one institution to another, there are certain generic considerations that are addressed either overtly or indirectly. These considerations include: (1) clinical needs assessment, (2) definition of specifications, selection and purchase process, (3) installation, (4) acceptance testing, (5) commissioning, (6) training, (7) clinical use, and (8) periodic quality control (QC). Medical physicists generally are involved in all of these considerations. For many technologies, committees or task groups have developed recommendations on acceptance testing, commissioning and QC. However, relatively little has been presented or published on what should be done before the purchase. The purpose of this Professional Symposium is to provide guidance to Medical Physicists on factors that they should consider in the specification and purchase of new technologies within a radiation therapy department. This presentation will provide a generic overview for any technology in radiation therapy of the clinical needs assessment, the definition of specifications and the purchase process. Other presenters in this symposium will address similar considerations but specifically for: (1) CT-simulators and PET/CT, (2) radiation treatment planning systems, and (3) image guidance systems such as tomotherapy and linear accelerator with cone beam CT.

Educational objectives:

1. To describe the development of *performance specifications* of any new equipment to be purchased in a radiation therapy facility.
2. To describe *issues to consider in the purchase* of any new equipment for radiation therapy.