AbstractID: 2866 Title: Standardizing standards: the development of quality control criteria for Canadian radiation therapy equipment.

Purpose: To develop a comprehensive, generically formatted set of quality control standards for radiotherapy preparation and delivery equipment in use in Canadian radiation treatment centres.
Method and Materials: The philosophy behind the development of these standards documents was that they should focus on the standards themselves and not necessarily include descriptions of how the tests are performed. The documents were intended to be brief and unambiguous and, by distributing them through a website, they could be readily updated as experience with new techniques is gained. A generic document format has been adopted. The sections are: 1) Introduction – largely generic 2) Performance Objectives and Criteria – generic 3) System Description – custom 4) Acceptance Tests and Commissioning – largely generic 5) Quality Control of Equipment – largely generic 6) Documentation – generic 7) Table of QC Tests – custom entries in a generic format 8) References and Bibliography – custom. Following detailed review by invited external physicists and members of the Task Group (the authors of this presentation), the draft standard developed was posted on www.medphys.ca for consideration by the Canadian Medical Physics Community at large. The current phase of the project is to solicit and consider the comments from physicists "in the field". These are being fed back into the review process, the standard modified if required and then the standard approved for adoption in Canada.
Results: To date, the following draft standards have been developed and posted: Cobalt units, linear accelerators, conventional simulators, orthovoltage units, multileaf collimators, electronic portal imaging devices, major dosimetry equipment and remote afterloading brachytherapy systems.
Conclusions: The largely generic format of the standards has aided clarity of interpretation and expedited the development of the documents. Once finally approved and adopted, these standards may well form an easily monitored component of licensing and accreditation activities applied to cancer treatment facilities.