

New treatment planning methodologies, driven by automation, have the potential to increase efficiency and maintain quality all while meeting the increased demand for radiotherapy services worldwide. This session will focus on the clinical implementation of automated treatment planning, particularly knowledge-based planning (KBP), in the service of more efficient clinical operations and multi-institution quality control (QC). Methods for benchmarking and comparing automated planning systems will be discussed, as well as the impact of utilizing knowledge-based plan QC in the context of cooperative group clinical trials. The clinical experiences of a high-volume international clinic and a large academic cancer center utilizing KBP-driven automated planning will be discussed, as well as new tools to efficiently analyze aggregated multi-patient samples.