



Manual plan refinement offers little to no improvement over knowledge-based automated plans across multiple disease sites

R. Kaderka, R. Mundt, N. Li, V. Bry, M. Cornell and K. Moore

The purpose of this work was to assess any treatment plan quality gains after manual refinement of knowledge-based planning (KBP) generated plans in a real-world clinical implementation. Plans were compared in multiple disease sites (lung, prostate, prostate bed, and head-and-neck) across 498 patients treated with a KBP-based workflow. The patient's treatment planning process with a deliverable KBP (plan A) and subsequent manual refinement (plan B) performed at human planner discretion. The effect of manual refinement was quantified by comparing site-specific dosimetric parameters between A and B groups with two-sided paired t-test assessing statistical significance.

