AbstractID: 9193 Title: Comparison of a complex prostate plan using three IMRT planning systems

Clinically satisfactory optimized prostate plans were initially generated using CORVUS IMRT planning system. This treatment plan consisted of prostate, seminal vesicles, right and left nodal regions as target structures and 7 critical structures such as rectum, bladder, sigmoid colon, large intestine, penile bulb, right and left femoral heads. The CT scans and structures were exported to ADAC and FOCUS planning systems using DICOM-RT. Clinically usable plans could not be generated on either of the systems using prescription parameters close to those that were used on CORVUS. However, using optimized plan parameters that are specific to each system could generate clinically usable plans. How the optimized parameters are determined for each treatment planning system were examined. The details of the objective and constraint parameter selection, segmentation strategies, resultant dose volume histograms and further statistical analysis will be presented.