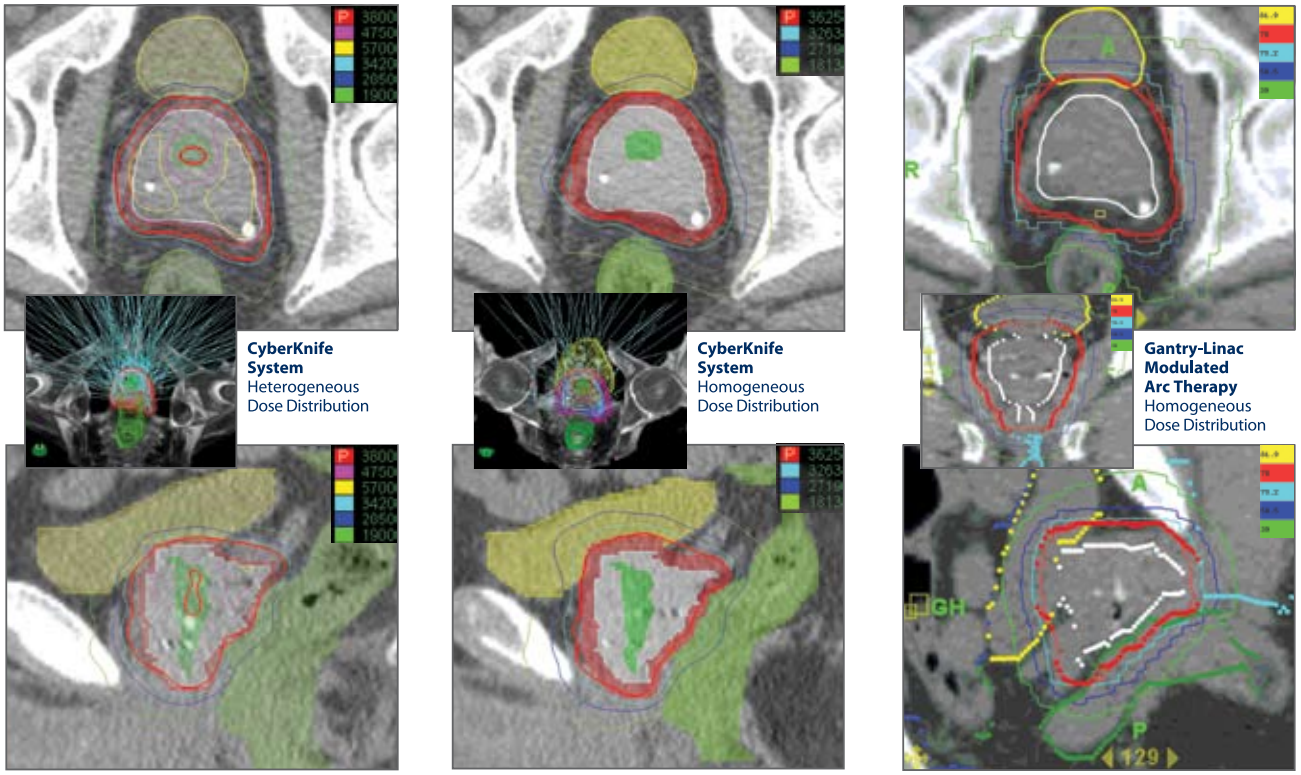
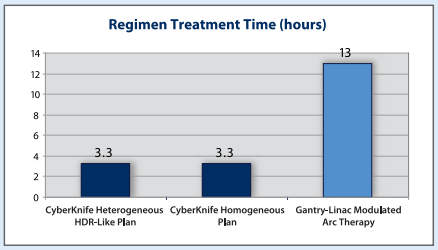
PROSTATE TREATMENT COMPARISON

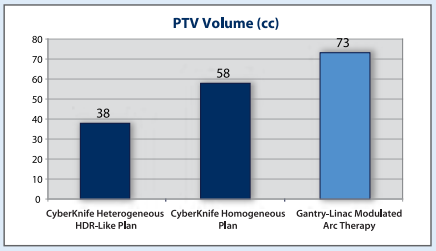
	CyberKnife® Robotic Radiosurgery System Heterogenous HDR-Like Dose Distribution	CyberKnife Robotic Radiosurgery System Homogeneous Dose Distribution	Gantry-Linac Modulated Arc Therapy Homogeneous Dose Distribution
Fractionation / Dose	9.5 Gy x 4 fractions	7.25 Gy x 5 Fractions	2 Gy x 39 fractions
Biological Equivalent Dose (BED)*	279 Gy	225 Gy	182 Gy
Total Treatment Planning Time	1 hour (excluding contouring)	1 hour (excluding contouring)	3.5 hours (excluding contouring)
Total Door-To-Door Delivery Time Per Fraction	50 minutes Includes time required for patient immobilization, alignment, imaging, beam-on, linac traversal, and non-coplanar beam delivery.	40 minutes Includes time required for patient immobilization, alignment, imaging, beam-on, linac traversal, and non-coplanar beam delivery.	20 minutes Includes time required for patient immobilization, alignment, imaging, beam-on, linac traversal, and coplanar beam delivery.
Total Regimen Delivery Time	3.3 hours	3.3 hours	13 hours
Image Guidance Frequency	1 setup image plus 45 intra-fraction adaptive images	1 setup image plus 40 intra-fraction adaptive images	1 setup image Intra-fraction target movement not recognized.
Total # of Beams	220 non-coplanar beams Non-coplanar beams delivered automatically without treatment interruption or patient repositioning.	132 non-coplanar beams Non-coplanar beams delivered automatically without treatment interruption or patient repositioning.	coplanar arc Limited to single-plane, axial beam delivery.
Total MU	67,986	27,712	107,211
CTV to PTV Expansion	2mm (0mm post)	5mm (3mm post)	7mm (5mm post and inf)
PTV Coverage	95%	95%	95%

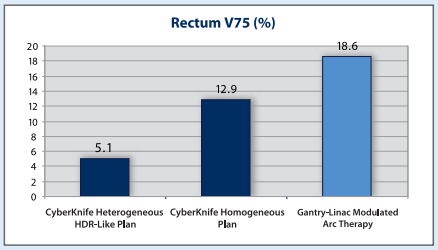
* Assumes alpha beta ratio of 1.5.

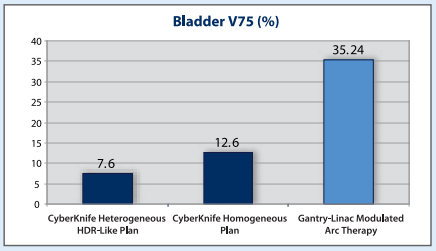


The isodose lines displayed represent 100 (red), 125 (purple), 150 (yellow), 90 (light blue), 75 (blue) and 50 (green) percent of prescription dose.









Above treatment plans developed from the same CT dataset and contoured structures. Plans were created by authorized medical physicists for the respective treatment planning and delivery system with the intent of clinical delivery. Both CyberKnife System treatment plans were developed using the Iris™ Variable Aperture Collimator.