RTOG Highly-Conformal RT 0438 Dry Run Guidelines

GENERAL

The Dry Run test for this study is required to be successfully completed prior to any patients being entered on study. The Dry Run test will be reviewed in the same manner as an actual case. If possible the institution should do the dry run test on a case that has similar disease to that described in the protocol. If this is not possible the institution can use any patient for which they have scans of the entire liver and draw a 4 cm diameter volume any where in the liver which will represent the GTV.

The dosimetry will be reviewed and the study chair will determine if this and the drawn structures are protocol compliant. The study chair may determine that a rapid review of the first case put on protocol is necessary, in which the patient's treatment plan is reviewed by the study chair prior to any treatment being delivered to the patient.

PRESCRIPTION

One of the most important aspects of the Dry Run test is to fully understand the prescription and properly use this prescription in your Dry Run treatment plan and subsequent patient treatment plan. The treatment dose plan will be made up of multiple static beams or arcs as described in the protocol. The dry run should demonstrate protocol compliance for the 40 Gy treatment arm.

DIGITAL DATA

Digital patient treatment planning data must be submitted in digital format to the ITC. This digital data must comply with one of two possible formats:

- RTOG Specification for Tape/Network Format for Exchange of Treatment planning Data, Version 3.20, or later; or
- DICOM 3.0 in compliance with the ITC's DICOM 3.0 Conformance Statement

Contact the ITC if you have any questions about either of these formats or your RTP systems ability to comply with these requirements that are not answered by reviewing the list of ATC compliant RTP systems on the ATC web site.
Using either of the formats identified above, the following data must be submitted to the ITC:

1) Protocol compliant CT scan series;
2) Protocol compliant contours for all critical normal structures, and targets GTV, CTV and PTVs (RTOG 0438, Sec. 6.4 and 6.5);
3) Treatment plan (beam geometry);
4) Dose distribution (total dose);

5) DRR or digital film prescription images for each beam in item 3 above, if submitting institution intends to submit such digital data to comply with protocol requirements pertaining to imaging;
6) DVH's for the total dose for PTVs and all critical normal structures.

HARD COPY DATA

7) Three hard copy isodose distributions for the total dose plan in absolute dose. The isodose images must be color isodoses superimposed on gray scale CT anatomy and must include one axial, one sagittal and one coronal through the treatment isocenter.
8) Completed DDSI form.

DOSE-VOLUME HISTOGRAM EVALUATION

There should be reasonable agreement between individual participating institutions's DVH computations and those of the ITC. Therefore, any discrepancy between the submitting institution's DVHs and those computed by the ITC that may cause a disagreement in protocol compliance between the institution and the ITC will need to be resolved before the dry run can be approved.

PORT FILMS

No port films are required for the Dry Run test other than DRRs as identified in item 5 above. However, if you plan on submitting your treatment verification images in digital format, you must prove that you have a compliant method of submitting these images as part of the Dry Run test.