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For Immediate Release

***ICRU RELEASES REPORT NO. 91,
PRESCRIBING, RECORDING, AND REPORTING OF STEREOTACTIC
TREATMENTS WITH SMALL PHOTON BEAMS***

International Commission on Radiation Units and Measurements (ICRU) Report 91, Prescribing, Recording and Reporting of Stereotactic Treatments With Small Photon Beams has been published.

Rapid developments in imaging and radiation-delivery technology have fueled the application of small photon beams in stereotactic radiation therapy (SRT). Historically, stereotaxy referred to the use of a three-dimensional coordinate system to localize intracranial targets and has been more recently extensively developed in extracranial clinical situations. SRT involves stereotactic localization techniques combined with the delivery of multiple small photon fields in a few high-dose fractions. In SRT, the therapeutic ratio is optimized through delivery of highly conformal dose distributions with steep dose fall-off ensuring optimal dose in the target volume combined with minimal normal-tissue irradiation.

Consistent with previous ICRU Reports 50 (ICRU, 1993), 62 (ICRU, 1999) and 83 (ICRU, 2010), this report recommends a strict definition of target volumes [gross tumor volume (GTV) clinical target volume (CTV)] by reviewing imaging modalities used in clinical practice. This Report also covers fundamentals of small-field dosimetry, treatment-planning algorithms, commissioning, and quality assurance for the existing delivery systems, as well as the role of image guidance during delivery. Finally, it recommends a framework for prescribing, recording, and reporting stereotactic radiotherapy, and covers most of the pathologies eligible for stereotactic delivery (malignant and non-malignant).

The Report is available from Oxford University Press <http://jicru.oxfordjournals.org> in both soft- and hardcopy formats. For additional information contact David A. Schauer, ScD, CHP at icru@icru.org, 301.657.2652 (x31) or 301.907.8768 (fax).