

## **A Comparison Of Traditional And IMRT Techniques For Cord Blocks And Mantle Fields**

IMRT has been implemented in our clinic using a Dynamic Multileaf Collimator ( Varian Oncology Systems, Palo Alto, California ) mounted on a Clinac 2100 CD. The purpose of this paper is to present several techniques for performing cord blocking and mantle fields by means of the “step and shoot” IMRT technique and to compare them with the traditional cerrobend alloy cord blocks and/or block shaped fields. Possible combinations of DMLC and block shaped fields are presented. Advantages and disadvantages of each technique are discussed. Dose distribution measurements for various clinical situations have been performed in a regular polystyrene phantom using film dosimetry (Radiological Imaging Technology, Colorado Springs, CO).

The dose distributions calculated in several planes by 3D commercially available treatment planning systems, TPS, were compared with the measured dose distributions.

The possibilities and limitations of using a TPS with an algorithm designed for traditional block shaped fields but which does not support MLC shaped fields ( Render - Plan 3D, Elekta Oncology Systems, Norcross, Georgia) for generating isodose distributions for MLC and DMLC shaped fields are evaluated.