

**AbstractID: 1970 Title: A simple technique to produce split field compensating filters for pelvic irradiation of cervical carcinoma using static MLC delivery**

The optimal dose for invasive carcinoma of cervix is delivered with a combination of whole pelvis and intracavitary brachytherapy. In order to achieve a homogenous dose distribution for combination of external beam and brachytherapy treatments, a midline block is used for a portion of external beam delivery. Often, 20Gy is given to the whole pelvis and additional 30Gy is delivered with a midline block. The midline block can be designed as a stepwedge which conforms to isodose distribution delivered with the brachytherapy implant. This technique allows a high central dose to the cervix, paracervical tissues, and parametria as well as moderate homogeneous dose to the external iliac lymph nodes without exceeding tolerance doses of the bladder and rectum. This technique is somewhat cumbersome to implement clinically as the stepwedge has to be cut by an experienced block cutter and the use of blocks prolongs the patient treatment session. We have developed a simple efficient method to produce standard step wedges using static MLC delivery. The method also affords for modification of isodose distributions in a straightforward manner without having to deal with a treatment planning system. Film measurements have been performed to verify the dose distribution obtained by this method. The measured doses conform well to isodoses calculated for brachytherapy implants, indicating uniform dose delivery. Additionally, the use of MLCs for patient treatment requires less time than the conventional treatments where placement of a block is needed.