

In our institute, Hodgkin patients are treated without missing tissue compensators. Instead, the parts of the patients that have a smaller separation (e.g. the neck) are blocked during the last fractions.

Instead of this, an MLC can be used to perform this blocking. Advantages of this are that:

- it is not necessary to position extra blocks,
- the weight of the shielding can be reduced considerably since only (a part of) the lung blocks for mantle fields have to be made with cerroshield blocks,
- all MLC segments can be applied in all fractions, resulting in a more homogeneous fraction dose.

CT-based treatment plans were made to determine the optimal number of and weight for MLC segments. It turned out that the use of about 5 segments (this is the sum of AP and PA segments) resulted in dose distributions that were between the 95 and 107% of the prescription dose.

Also Virtual Wedge (VW) plans were made, since with the VW it is possible to make wedged fields that are longer and that have smaller wedge angles than is possible with the conventional hard wedges. Plans with a VW of about 5° in both the AP and PA beam showed a satisfactory dose homogeneity.

Since normally no CT-based treatment planning is performed for this patient group, a method is developed to derive the necessary MLC segments or VW angle based on the field shape drawn on the simulator films and on measured patient separations.