

In-vivo dosimetry on patients treated with whole body fields provide clinically useful information of the dose inhomogeneity within the treatment area. For total skin electron therapy (TSET), large variations of the dose, in excess of +/-20%, could result due to self-shielding, oblique incidence of electrons, curvature of the body surface and imprecisions of the treatment setup. TLD dosimetry (TLD 100) is the dosimeter of choice because of its availability, small size of the individual chips and tissue equivalence. As the objective of TSET is to provide uniform dose to the skin (target organ), the readings of the TLD's, when converted to dose, provide direct information on which areas of the skin surface are over or under exposed. TLD chips, in groups of three, are taped on selected areas of the patient's skin without any bolus material on top, for all the six dual fields used for treatment. Care is taken that the families of TLD's stay in place while the patient is repositioned between each set of dual fields. The readings of the control and clinical TLD's are input in a spreadsheet which calculates absolute and relative (% of prescription dose) dose. The results are used to confirm our dosimetry calculations and assess the efficacy of the shields used during treatment. Based on these results decisions to boost or shield areas of the anatomy are also made.