

Total skin irradiation at our institution has recently changed from using a Therac 20 linac to Philips-Elekta SL-25 linac. Although the basic approach is the same, based upon the Stanford technique, there are differences between the two set-ups and there was a concern that the dose distribution may not be the same. The total skin electron technique on the Therac 20 uses 6 MeV electrons at isocenter with no electron beam trimmers, a spoiler in front of the patient and an SSD of 300 cm. The Philips-Elekta SL-25 total skin electron technique uses 4 MeV electrons at isocenter, no beam spoiler and an SSD of 350 cm. Thermoluminescent dosimetric (TLD) measurements have been carried out for both techniques. For the Therac 20, the average percentage of the prescribed dose, measured over nineteen separate surface locations on a RANDO phantom yielded $100 \pm 6\%$ (1 S.D.) For the new Philips-Elekta technique, TLD measurements of thirty different locations, on the first three patients, yielded an average dose of $102 \pm 15\%$ (1 S.D.) Similarly, recent published data by M.D. Anderson yielded an average percentage dose of $86 \pm 18\%$ (1 S.D.) and $93 \pm 26\%$ (1 S.D.) for Siemens MeV 80 and Varian Clinac 2100 C respectively. Our preliminary results show that the new technique is dosimetrically similar and results in approximately the same patient dose distribution.