

A comparative study of the tissue maximum ratios, out put factors and profiles for 12.5, 20, 30, and 40 mm diameter circular field sizes of 4 and 6 MV photon beams is performed. The measurements are performed using a 0.02 cc ionization chamber and films. It is noticed that the tissue maximum ratios of 4 MV beam are 3% to 10% smaller than those of 6 MV beam at the same depths. The out put factors measured with ionization chamber are in better agreement with those measured with films for 4 MV beam than for 6 MV beam even for 12.5 mm diameter field size. The profiles are in general found to be better for 4 MV beam than for 6 MV beam particularly in the region of shoulders. A detailed comparison with a brief discussion will be presented.