

Output Factors for Electron Custom Inserts with Beam Center Non Coincident with Cone Center.

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Output profiles for customized symmetric and non symmetric inserts for electron treatments have been measured using a 0.3 cc PTW ionization chamber and Keithley electrometer system for different cone sizes and electron energies from a Clinac 2500 C.

Customized inserts are circular, rectangular, elliptical, or irregular. Our purpose is to evaluate how the output from customized inserts varies in the field under treatment, and to determine what output factor should be used for treatment purposes. Inserts are designed in such a way so that the open field area of the insert is varied with reference to the open cone area. The output for the customized inserts will be correlated to the output for open field and the output for the symmetric and non symmetric inserts with beam axis off-center from the cone center will be evaluated. Profile output for each insert and energy will be fitted to a function. Similarly a relationship of the output with energy will also be attempted.

An appropriate correlation will provide an output to be used for routine calculation with application of customized inserts for electron treatments.