

Electron beam central axis depth dose measurements

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Central axis depth dose measurements were made by the Radiological Physics Center on over 70 electron-producing machines used in radiation therapy. These data were consistent for each machine model and nominal energy. However, the data show that depth dose relations can vary significantly among different machine models for electron beams having the same nominal energy. Analysis shows that both the method used to achieve beam flatness and the mean incident electron energy determine the central axis depth dose curve past the depth of maximum dose. A linear relation of depth dose versus mean incident electron energy is used to predict depth dose to within 2 mm for most electron beams used clinically at depths greater than d_{95} .

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