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Determination and comparison of output factors in small field for field square and rectangular field with 5 detectors for For 6 Mv.

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This is a preliminary work of the comparisons of output factor measurements for small fields in different equipment.
Its in process the measurement with being made with EBT3 dosimetry films for the same fields. Measuring small field factors turns out to be a challenge since the ideal detector does not exist. And it is important to take this factor into account because it contributes very significantly in the calculation of delivery doses in patients.
To analyze the response of each detector in relation to the square and rectangular field shape, 5 different detectors (Pinpoint 31016, Diode E 60012, Diode P 60008, Diode SRS 60018, Diamond 60019) were measured on an Elekta 6Mv accelerator. , Infinity with Agility head, 5mm multilayer, the results were compared.
The measured fields were a total of 66 fields per camera. It was measured in the following way taking into account (table 1), the equivalent square was found, and the calculate the K-QQint for each equivalent field taking into account the field formed by the accelerator and the type of camera used by interpolating with the output corrections factor tables of TRS 483 (Table 2). The readings were performed three times at the TRS-483 small field reference conditions (Table 3).
This study provides information on the effect of the orientation of the sheets, as well as the difference of the equivalent fields taking into account square and rectangular fields with different cameras and diodes. The measurements were made taking into account the formalism of TRS 483.
Table (4) shows the final graph of all measurements and it is observed that for fields smaller than 2x2cm the response is very similar, however for larger fields is difference and the response of the SRS and Diamond Diodes are very similar a greater field

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