Y30 Calibration of Dose Area Product Meters

Although the following applies to integrated DAP meters, those systems which calculate DAP from exposure factors can be tested in the same way.

**DAP Meter Calibration**

The DAP Meter is a flat chamber mounted in the collimator of most new x-ray systems, both radiographic and radioscopic. It records the product of the dose and the area of the beam at the position of the chamber. As dose decreases as a function of the square of the distance from the focus and the field size increases in exactly the same manner the value of DAP is CONSTANT with distance from the focus. The exposure or exposure rate can be determined at any distance i.e. the patient surface by dividing the DAP by the area of the field at the patient.

The test compares the DAP displayed with the product of the measured dose and the known field size.

**Technique**
- Place dose meter probe on table top at 100 cm.
- Collimate to field size of 15x15 cm
- For DR systems move detector out of the beam
- On console choose Table Top exposure
- Select 80 kVp; 10 mAs
- Make exposure; record reading of air kerma dose, K

**Comments**

Calculate DAP from K x Area of field at detector (225 cm²). Compare with the reading of DAP meter, correcting for any difference in units used.