Abstract*

Methods for patient dosimetry of x rays used in medical imaging have not been previously dealt with by the ICRU. Whereas some of the dosimetric concepts and techniques used in radiotherapy have been successfully employed for medical imaging using x rays, additional dosimetric quantities and measurement methods are required for patient dosimetry for procedures such as radiography, fluoroscopy and CT. This report presents specification of x-ray beams and quantities and units for dose measurement and calculation in medical x-ray imaging, including application specific quantities and new symbols. It addresses measurement methods for normalization quantities and for quantities recommended for the establishment and use of diagnostic reference levels. It presents methods of determining organ and tissue doses as well as doses in localized regions of organs and tissues, including detailed information on dose conversion coefficients.