

A PILOT EXPERIENCE LAUNCHING A NATIONAL DOSE PROTOCOL FOR VASCULAR AND INTERVENTIONAL RADIOLOGY

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The design of a National Dose Protocol is one of the main tasks in the SENTINEL Coordination Action, as part of the work package on Safety in Interventional Radiology. The present paper describes the pilot experience carried out in cooperation with the Spanish Society on Vascular and Interventional Radiology.

The national protocol was tested in a survey conducted in cooperation with the Spanish Society of Vascular and Interventional Radiology. A prospective sample of procedures was agreed. It was decided to select a reduced set of common procedures (diagnostic and therapeutic). Normalised standard forms were used to collect the requested information from the centres. A common quality control (QC) of the X ray systems was carried out. Data collection was agreed in advance including demographic, technical and dosimetric details. Occupational doses of the radiologists involved in the survey were also included in the survey. A total of 10 Spanish Hospitals were involved. 640 patient dose data (DAP values) were collected from 380 diagnostic and 260 therapeutic procedures. 12 interventional X rays systems were involved (and submitted to the agreed QC protocol). Occupational doses were evaluated in a sample of 588 values.

The obtained DAP median/mean values (Gy.cm²) for the gathered procedures were: biliary drainage (32.6/70.3), fistulography (4.3/10.0), lower limb arteriography (54.2/61.8), hepatic chemoembolization (174.0/208.1), iliac stent (49.8/76.8) and renal arteriography (39.1/61.7). Occupational doses (mean monthly values, in mSv) resulted in ranges from 0.4-5.9 (over apron); 0.03-1.1 (under apron) and 0.7-15.0 (on hands).

Medical specialists and medical physicists need to be fully involved in the survey to warrant the quality of the data. A fist comparison with other published dose data and the differences between centres, allow starting an optimisation protocol. The implication of the Health Authority and the Scientific Medical Society in the survey increases commitment, dedication and spreading of results.

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