**A study to establish dose index registry for CT-scan examinations**

**Authors**

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**Introduction :**

This article aims to provide a dose index registry for CT scans in adults; they are distinguished between scanners with or without an iterative reconstruction system. CT scans of interest are those concerning to the national DRLs order (24/10/2011) and seven other exams frequently realized in clinical practice (sinuses, middle ear, dentascan, aorta, cervical spine, shoulder arthrogram and pelvimetry).

**Methods :**

Data have been collected over the years 2013 to 2015, taking account 167 scanners from different brands and models, of which 115 are equipped with an iterative reconstruction system. For each CT scan, median, 75th and 25th percentiles, as well as their ratio 75th/25th were determined from the distribution of values registered by the CTDIvol and the DLP. A comparison with regulatory values from the national DRLs order (24/10/2011) and those from the last IRSN balance sheet (2011-2012) has been established.

**Results :**

Due to the increasing number of scanners equipped with an iterative reconstruction system, doses for the national DRLs exams have decreased by an average of 24% for the CTDIvol and 21% for the DLP. Taking account of this technological characteristic seems essential for the establishment of a dose index registry.

**Conclusion :**

Waiting for an update of national DRLs order, health professionals are therefore able to situate their practices and to identify protocols to optimize.

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