

Progress in the Optimization of Radiation Protection in paediatric interventional radiology and cardiology in Latin America and the Caribbean (OPRIPALC project)

Type: EuroSafe Imaging

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Abstract (281 words, max.280)

Interventional radiology and cardiology are increasingly used in children as minimally invasive procedures that can replace more complex paediatric surgery options. The new technology and post-processing in imaging for interventional practices allow a reduction of patient and staff doses maintaining or even improving the image quality.

The International Basic Safety Standards (BSS) establish requirements for the protection in medical exposures of patients including the establishment of diagnostic reference levels (DRLs), with special attention to paediatric patients. The World Health Organization (WHO), the Pan American Health Organization (PAHO) and the International Atomic Energy Agency (IAEA) initiated in 2019 a project for enhancing optimization in paediatric interventional radiology in Latin American and Caribbean countries through the use of DRLs (OPRIPALC project).

The main objectives of the project refer to a) Promote radiation safety culture in paediatric interventional radiology, b) Improve radiation safety and quality of care in the participating centres, c) Define optimization strategies based on an audit of patient doses and d) Produce a regional consensus document offering guidance on optimization.

Due to the lack of dose management systems in many participating hospitals and the restrictions resulting from the COVID-19 pandemic, only a few patient dose values could be collected from the initial group of 36 paediatric hospitals from 10 different countries that initially declared their interest in the programme. By the end of 2020 and during 2021, the efforts will be concentrated in establishing direct contacts with the practitioners performing paediatric fluoroscopy-guided interventions at the centres involved, to identify the difficulties and help in managing patient dose reports. Actions include engagement of manufacturers to help in finding technological solution for dose management and launching of a OPRIPALC web site during 2020.