

# International Conference on **Medical Physics** August 03-05, 2015 Birmingham, UK

## **KARPO – The study of radiation doses in cardiological interventional procedures**

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**Introduction:** Long cardiological procedures pose radiation risk to both patients and performing staff. In literature, the radiation dose to the patient is presented mainly without taking into consideration difficulty level of the procedure.

**Aim:** The purpose of KARPO is to examine dose levels involved in cardiological interventional procedures taking into account their levels of difficulty.

**Materials & Methods:** Patient and staff dose levels are collected from eight university and central hospitals in Finland. Patient dose levels focus on DAP and air Kerma given by the equipment and skin dose measurements carried out with gafchromic films. KARPO examines dose correlations of multiple factors related to the procedures. The data collected in KARPO will also be used in determining new DRLs in Finland and two of the hospitals participate in EURALOC project for eye dose dosimetry in cardiological procedures.

**Results:** The current data includes PTCA, pacemaker installation, TAVI and electrophysiological procedures from 5 different hospitals in Finland. Current status and preliminary results of the research will be presented.

**Conclusion:** The preliminary results indicate clear differences based on level of difficulty.

### **Biography**

Jukka Järvinen is a Lic. Phil. doing his PhD in Medical Physics in University of Turku. He works as Medical Physicist in Turku Heart Centre and The Medical Imaging Centre of Southwest Finland. His research interests lie in interventional radiology, radiation protection and evidence based radiography. He has authored one and co-authored several scientific papers and participated in international conferences by oral presentations and posters.

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