Project ORAMED, Optimization of Radiation protection for Medical staff – two years of experience

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The Nofer Institute of Occupational Medicine is a scientific research centre with 50 years of tradition. As the result of continuing scientific research activities, post-graduate training, editorial and implementation work including preparation of expert opinions and legal acts, has become the leader in research on occupational medicine and public health in Poland. Our Institute offers expert advice and prepares expert opinions for the Ministry of Health, Chief Sanitary Inspectorate, National Atomic Energy Agency and for other governmental bodies, trade unions, and industrial enterprises throughout Poland. Our Institute offers expert advice and prepares expert opinions for the Ministry of Health, Chief Sanitary Inspectorate, National Atomic Energy Agency and for other governmental bodies, trade unions, and industrial enterprises throughout Poland.
The structure of our Institute:

Radiation Protection Department is one of 18 scientific departments, which put our Institute together.
The main attainable in Department goals:

- dosimetry service and management of a central database on X-ray exposure
- quality control of the medical x-ray equipment
- assessment of doses received by patients and staff during various medical procedures

- **Nuclear Medicine**

- **Interventional Cardiology and Radiology**

Equipment

Types of calibration systems:
- Three X-ray calibration systems
  - energy range: $(6 \div 305)$ keV

- One gamma calibration system:
  - $^{137}$Cs (740 GBq)
  - $^{60}$Co (740 GBq)
Measurements in Interventional Cardiology and Radiology

- Measurement of radiation doses received by Interventional Cardiology and Radiology staff for eyebrow ridges and extremities in typical procedures: CA - coronary angiography and PTCA - percutaneous transluminal coronary angioplasty

- The measurement of patient maksimum skin dose with:
  - TLD arrays
  - Kodak EDR2 films
Getting into ORAMED
Optimization of RAdition protection for MEDical staff
7th framework programme

- The consortium was ‘born’ within the framework of the CONRAD FP6 project where most of the partners worked together on the issue of extremity dosimetry and APD. NIOM was also involved in this project as the member of EURADOS (European Radiation Dosimetry Group).

- Experience resulting from NIOM participation in SENTINEL project founded within FP6.

- Experience we have in doing measurements like the ones for ORAMED and the links established with hospitals.

- In case you do not have experience in projects you can always start as user group.
The official start of Oramed was on February 1st 2008. Duration time: 3 years.

The main goal of the project is to improve standards of protection for medical staff for procedures resulting in potentially high exposures.

In particular the project proposes to develop methodologies for better assessing and reducing exposures to medical staff in Interventional Radiology and Cardiology as well as in Nuclear Medicine.

The project is divided in 5 WPs. An additional WP0 is considered for the legal and financial management and nontechnical coordination of the project. The responsible for the WP0 is coordinator of the project.

- WP0: Management
- **WP1: Extremity dosimetry and eye lens dosimetry in IR/IC**
- **WP2: Development of practical eye lens dosimetry in IR/IC**
- WP3: Optimization of the use of active personal dosemeters in IR/IC
- WP4: Extremity dosimetry in nuclear medicine
- WP5: Training and dissemination of results (the communication with the different end-users of project)
ORAMED
administration duties

- Performance indicator:
  - to monitor more closely the progress of each partner every partner gives a work progress report every 3 months (general report)
  - to follow up the measurements status and analysis of the data – every 3 months the report is posted
  - periodic reports and financial status (every year)
  - final report at the end of the project

- Communication line
  - much of the communication between partners is done through e-mail and website (www.oramed-fp7.eu) were all project results are being posted
  - meetings to harmonise the activities among the partners, to exchange the information and data gathered and to discuss the difficulties encountered.

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ORAMED
financial aspects

- Total EC contribution 1 839 999 Euro
- Pre-financement before start of the project (50% was transferred immediately)
- The other payments EC: after each reporting period
- Direct costs
  - personnel costs for the hours worked on the project
  - travel costs and subsistence
  - purchase of durable equipment only part that is used for the project
- Indirect cost model depends on participating institution.
ORAMED
Advantages

- Contacts and links with European institutions involved in research in RP
- Numerous publications resulting from collaboration
- The contacts established during the Oramed project with hospitals (4 extra hospitals) which are expected to become more and more fruitful
- Learning by exchanging the experience
- Training for young students and scientists
- There are also important social aspects of permanent contacts between European groups

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