

EURADOS → Webinar

CADORmed III software for internal dose assessment

edf CADORMed III EURADOS European Radiation Dosimetry Group

English (English)

Committed effective dose assessment

Dose assessment

Settings

Radionuclides Scattering factors Detection limits

CADORMed III

Info

ANNALS OF THE ICRP PUBLICATION 151 Occupational Intakes of Radionuclides: Part 5

EURADOS Report 2013-01 Brachytherapy, March 2013

IDEAS Guidelines (Version 2) for the Estimation of Committed Doses from Incorporation Monitoring Data

C.M. Castorani, J.W. Marsh, C. Hungen, E. Blanchardon, P. Berani, A. Gussani, M.A. Lopez

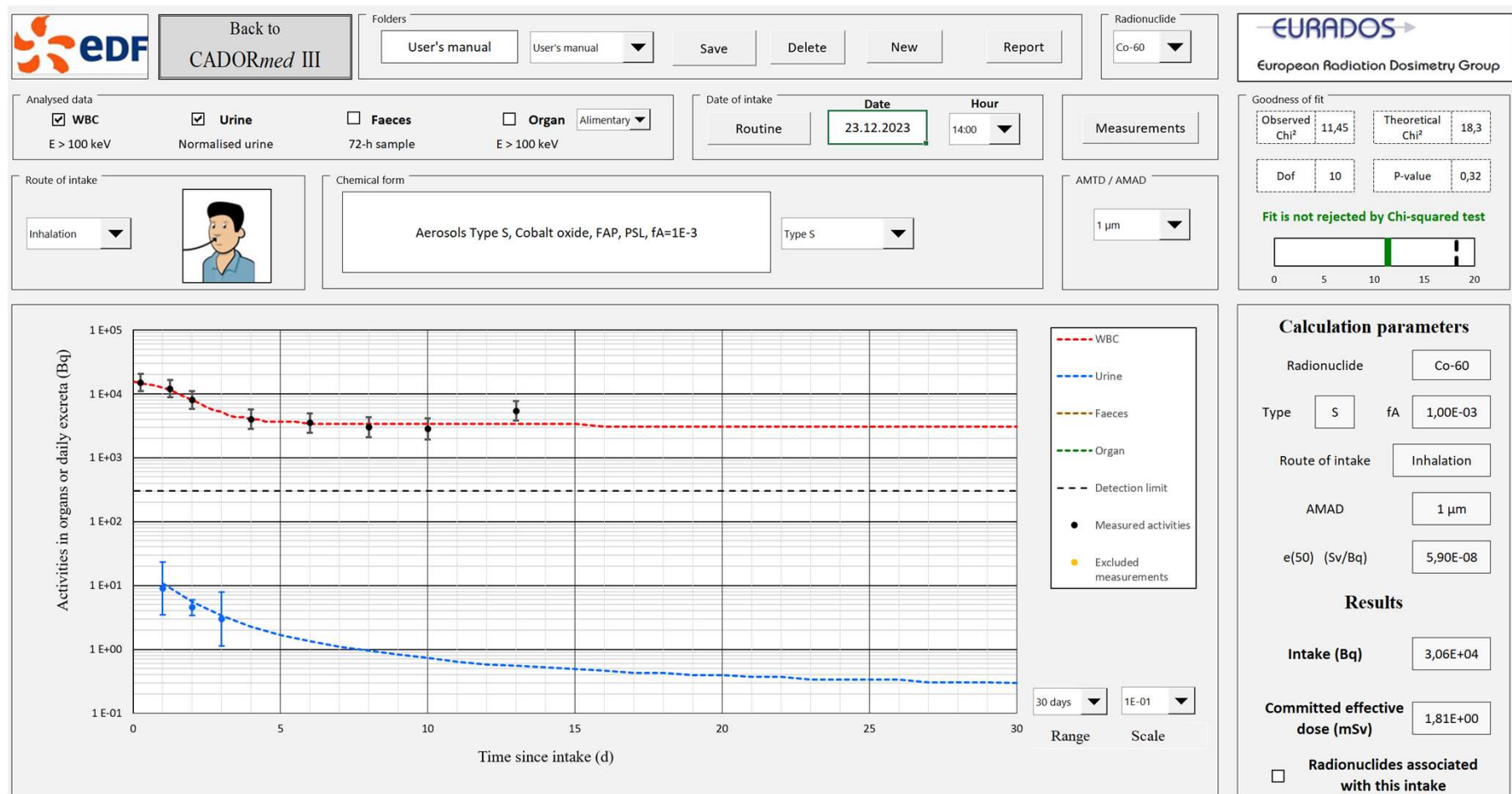
Radiation Protection 17-108 Technical Recommendations for Monitoring Individuals for Occupational Intakes of Radionuclides

Agenda 14:00-15:00

- Opening (David Broggio – 5 min.)
- Introduction of CADORmed III software (Gabor Lafranco – 12 min.)
- Import of radionuclide data from ICRP OIR Data Viewer tool (Bernard Landry – 8 min.)
- Practical example – inhalation of I-131, followed by thyroid measurements (Juan Francisco Navarro – 10 min.)
- Practical example – inhalation of Am-241, followed by lung measurements, urine and faeces bioassays (Inmaculada Sierra – 10 min.)
- Questions, conclusions (Bernard Landry, Francesco Rossi – 15 min.)

CADORmed III software

- Free Microsoft Excel® based tool for committed effective dose assessment related to an internal occupational exposure
- Newest 3rd version is called “**CADORmed III**”



Development of CADORmed III software

- Developed by Bernard Landry from EDF (Electricité de France)
- In 2020 a collaboration arrangement was put in place between EDF (Occupational Health Service) and EURADOS (European Radiation Dosimetry Group), to improve and validate CADORmed III, in order to provide a free software tool for dose assessment, using the most recent biokinetic models and dose coefficients published by ICRP (International Commission on Radiological Protection) in the OIR (Occupational Intakes of Radionuclides) publications
- Software validation completed (tests by external volunteers, ICIDOSE#2 participation, comparison with other software products)
- Dissemination through EURADOS Website and annual meetings, international training courses (UAE, Finland), workshop (China)
- Intellectual property shared between EDF and EURADOS



CADORmed III

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Main features of CADORmed III software

- CADORmed III can be used for committed effective dose assessment following a single acute intake during work
- Route of intake: inhalation, ingestion or injection
- Suitable to evaluate measured activities (Bq):
 - by different in-vivo and in-vitro monitoring techniques (whole body, organ, urine, faeces bioassays)
 - from several measurements performed at different times
 - up to 6 radionuclides per intake
- Uses ICRP OIR retention/excretion fractions and dose coefficients imported from ICRP OIR Data Viewer software tool (preloaded for 51 radionuclides)
- Performs dosimetric calculations and statistical tests, according to the EURADOS guidelines principles (IDEAS V2 - EURADOS Report 2013-01)
- 11 languages are available for user interface