A software for automatic calculation of radiation dose to patients from radiopharmaceuticals

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Abstract:
Objective: The aim of this project is to develop a software application to determine and report the radiation dosimetry of radiopharmaceuticals administered to patients.
Method: The application was developed in Visual Basic programming language, and dosimetric calculations are made based on the values given by the International Commission on Radiological Protection (ICRP).
Result: We have developed a computer program easy to use, it will automatically calculate the radiation dosimetry of radiopharmaceuticals administered to patients, according to the patient's age, the type of radiopharmaceutical and the administered activity (in mCi or MBq). The resulting dosimetry is shown in a report that specifies the absorbed doses for each organ (in mGy) sorted from highest to lowest and the effective dose (in mSv).
Conclusion: The software DosisRad allows the automatic calculation of the radiation dosimetry of a radiopharmaceutical administered to a patient, and the issue of a dosimetric report that can be attached to the patient's history.

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