

Your occupational dose in your pocket:

Helping to know personal occupational doses to improve the interventional practices

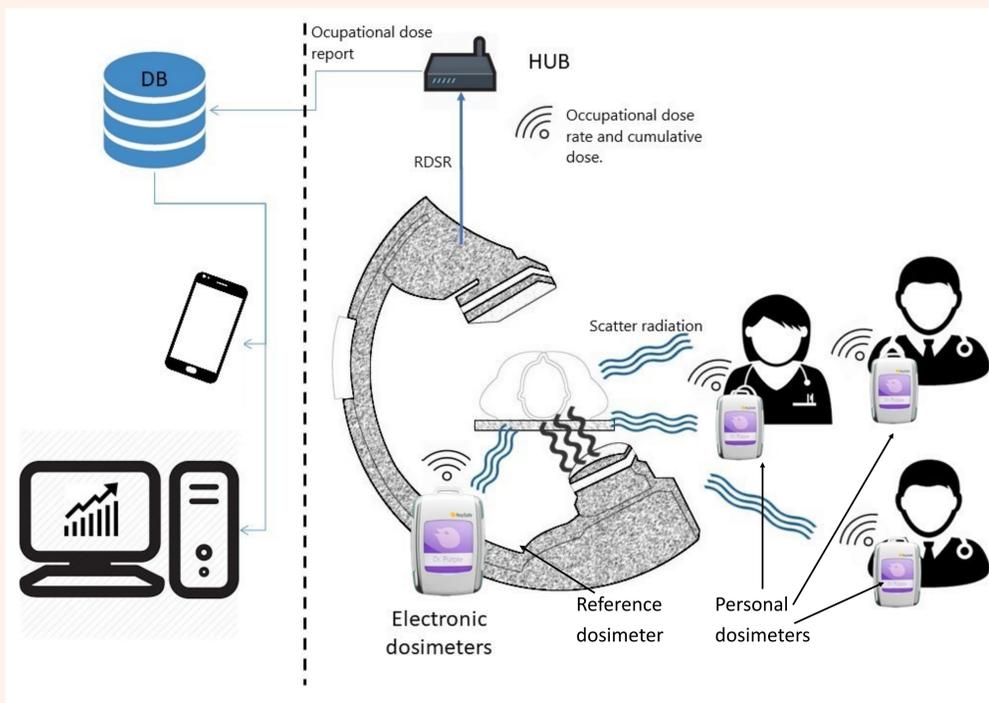


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INTRODUCTION:

Some modern electronic personal dosimeters are a powerful tool to help in the optimisation of interventional practices by a better management of occupational doses. This study presents the experience in the use of a smartphone application prototype for occupational dosimetry in interventional practices [1], where the professionals involved who wear an electronic personal dosimeter, can follow their occupational doses at any time, and can compare them with dose limits, with a reference C-arm dosimeter and with the other working colleagues.



MATERIALS:

The system uses the Raysafe i3 dosimeters, which, every second, send the dose rate and cumulative $H_p(10)$ to a hub installed in the interventional laboratory. The hub also receives information from the X-ray system to create an occupational dose report with technical details of the procedure. The reports are archived in a database that can be looked up using the application "DOSIM", which offer all the information to interventionalists.

RESULTS:

Dosimeter and user identification

Period selected by the user

Cumulative dose in the period. Traffic light (green/amber/red) indicates if radiation received is acceptable.

Ratio operator/reference dosimeter in %. Indicative of the use of shielded protection screen. Over 2% is shown in amber and over 5% is shown in red [2]

Your dose compared with your department / hospital interventionalists (anonymously)

CONCLUSION:

With this system, professionals have easy and fast access to their occupational dosimetry records (including information on the workload) in the setting of their interventional departments, to thereby actively engage in the optimisation process.

REFERENCES:

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