POSTER: RADIATION PROTECTION OPTIMIZATION AT DIFFERENT WORKING POSTS

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Increasingly sophisticated elecronic dosemeters have been introduced into the market over the past few years. The use of electronic dosemeters is becoming more and more widespread as a result of demands being made for dosimetry management on both the national and international level.

The dosicard system involving the use of credit-card sized dosemeters and a data acquisition and processing environment is well suited to satisfy demands in this field. It should be noted, that in addition to assuring the traditional functions of dose and dose rate equivalent measurements, these dosemeters also provide an autonomous management of cumulated doses (on a daily, weekly, three-monthly or annual basis), which can be consultated in real time by the wearer.

This system also allows the restitution of the previous hundred measurements (through variable increments) together with time, date and duration information for events involving the exceeding of predetermined thresholds (defined in terms of dose and dose rate equivalents). These characteristics have incited studies on the use of such dosemeters to determine the characteristics of working posts. Experimental studies have been conducted over a period of several months in a radioelement production laboratory and in a hospital service specialized in radiochemistry and medical imagery.

The main characteristics of the Dosicard system are recalled. The results of these two series of studies are then examined. A demonstration is then provided on the way in which this sort of approach influences the behaviour of the wearer relative to radioprotection specialists.