A DIGITAL INCIDENT REPORTING SYSTEM FOR NUCLEAR MEDICINE THERAPY DEPARTMENTS

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This paper describes a digital incident reporting system developed for nuclear medicine departments. The purpose of reporting systems is to collect data to reconstruct the dynamics of an event (accident, near-miss, malfunction) and to assess its causes. It is a useful tool for implementing strategies and measures to correct and improve accident prevention procedures. Current reporting systems are often inaccurate, either because they are compiled and processed after the fact, thus with forgetfulness of details, or because of workers' lack of perception of the reporting usefulness or fear of the consequences. The system we developed aims to facilitate and speed up incident reporting and subsequent data processing, and consists of a mobile application, a dedicated database and a dashboard. The innovative aspect of the project was the involvement of staff and managers to gather experiences, specific needs and feedbacks on possible solutions. This was seen as a necessary step to increase the perceived usefulness of reporting and to reduce the fear of repercussions. The application has a mobile version accessible to operators, Radiation Protection Officers (RPOs) and Risk Management Officers (RMOs) to create and fill reports, and a desktop dashboard-based version reserved for RPOs and RMOs for report management, approval and resolution and for data visualization. The application collects data using both menu-driven questions and free text and images: the former allows RPOs and RMs to quickly visualize graphs and statistics; the latter requires a more complex taxonometric analysis, but it is potentially richer in information. The system is now under test in in patients protected rooms of radiometabolic therapy departments. Preliminary examples of data collected by incidents and near miss will be described. As a future action, is it foreseen to share the system among several Hospitals is foreseen to allow aggregation of data for statistical purposes and to promote harmonization emergency procedures.

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