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A Relational Data Base for Radiation Therapy

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Abstract : As far as we know, it is still unavailable a commercial solution which would allow to manage, openly and configurable up to user needs, the huge amount of data generated in a modern Radiation Oncology Department. Currently, available information management systems are mainly focused on Record & Verify and clinical data, and only to a small extent on physical data. Thus, results in a partial and limited use of the actually available information. In the present work we describe the implementation at our department of a centralized information management system based on a web server. Our system manages both information generated during patient planning and treatment, and information of general interest for the whole department (i.e. treatment protocols, quality assurance protocols etc.). Our objective it to be able to analyze in a simple and efficient way all the available data and thus to obtain quantitative evaluations of our treatments. This would allow us to improve our work flow and protocols. To this end we have implemented a relational data base which would allow us to use in a practical and efficient way all the available information. As always we only use license free software.

Keywords : information management system, radiation oncology, medical physics, free software
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