Length of Stay in Intensive Care Units – A Case Base Evaluation

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Abstract. As a matter of fact, an *Intensive Care Unit* (*ICU*) stands for a hospital facility where patients require close observation and monitoring. Indeed, predicting *Length-of-Stay* (*LoS)* at *ICUs* is essential not only to provide them with improved *Quality-of-Care*, but also to help the hospital management to cope with hospital resources. Therefore, in this work one`s aim is to present an *Artificial Intelligence* based *Decision Support System* to assist on the prediction of *LoS* at *ICUs*, which will be centered on a formal framework based on a *Logic Programming* acquaintance for knowledge representation and reasoning, complemented with a *Case Based* approach to computing, and able to handle unknown, incomplete, or even contradictory data, information or knowledge.

Keywords. Intensive Care Unit, Length of Stay, Knowledge Representation and Reasoning, Logic Programming, Case-Based Reasoning, Quality of Care

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