Development of the Structure of the Knowledgebase for Countermeasures in the Knowledge Acquisition Process for Trouble Prediction in Healthcare Processes

Authors: Shogo Kato, Daisuke Okamoto, Satoko Tsuru, Yoshinori Iizuka, Ryoko Shimono

Abstract : Healthcare safety has been perceived important. It is essential to prevent troubles in healthcare processes for healthcare safety. Trouble prevention is based on trouble prediction using accumulated knowledge on processes, troubles, and countermeasures. However, information on troubles has not been accumulated in hospitals in the appropriate structure, and it has not been utilized effectively to prevent troubles. In the previous study, though a detailed knowledge acquisition process for trouble prediction was proposed, the knowledgebase for countermeasures was not involved. In this paper, we aim to propose the structure of the knowledgebase for countermeasures in the knowledge acquisition process for trouble prediction in healthcare process. We first design the structure of countermeasures and propose the knowledge representation form on countermeasures. Then, we evaluate the validity of the proposal, by applying it into an actual hospital.

Keywords: trouble prevention, knowledge structure, structured knowledge, reusable knowledge

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