

Prediction of organ donation after irreversible brain damage

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ABSTRACT: An assessment of a patient, who may die within one hour following the removal of life-sustaining care, is the key to a successful donation of organs after cardiac death. Indeed, the accurate prediction of potential organ donation is paramount, due to the narrow time window in which different tasks must be done in parallel, and in a quick and effective way. In this work, it is stated that through a novel approach to knowledge representation and reasoning, based on an extension to the language of Logic Programming, and complemented with a view to computing based on Artificial Neural Networks, it is possible to determine if a patient who suffers from irreversible brain damage may stand as a future candidate for organ donation.

Keywords: prediction of organ donation, brain damage, knowledge representation and reasoning, logic programming, artificial neural networks.