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Automatically infant cues recognition based on LDA and SVM classifier

Abstract

This paper presents the management of sedation in critically ill infants is a complex issue for Intensive Care Units (ICU) worldwide. Notable complications of sedation practices have been identified and efforts to modify these practices in ICUs have begun. While sedation-scoring tools have been introduced into clinical practice in intensive care few have been tested for validity and reliability. One tool which has reliability and validity established is the Sedation-Agitation Scale (SAS). This study is an extension of a previous study by Riker, Picard and Fraser (1999) to determine whether doctors and nurses rate infants similarly using the SAS in a natural ICU setting. It is essential to establish whether these different professionals provide consistent scores and have a mutual understanding of the SAS and its constituent levels based on LDA and SVM Classifier. This will help ensure that clinical decisions relating to sedation-needs can be made appropriately and consistently.

Keywords — Infant cues recognition, agitation level, LDA Classifier, SVM classifier.