

Triage prediction in pediatric patients with respiratory problems

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© 2017 Elsevier B.V. Respiratory diseases have an increasing prevalence in the large urban concentration of the world, due to the apparently unstoppable increase of air pollution from a diversity of sources. Children are specially a fragile part of the population suffering this conditions. Improved monitoring of critical patients by means of automatized data gathering and processing, i.e. alarm raising, aims to alleviate the risks of critical patients. Pediatric respiratory critical care has not received much attention in the literature, despite children care has specific conditions, such as the strong dependence of some physiological signals on the patient age. We approach the problem as triage prediction problem, formulated as multi-class classification problem, with special care on the age normalization of physiological variables. Data which can be used as classification features is scarce, in the sense that measurements of only a few variables are available, and that much of the qu