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Title: The National Emergency Department Overcrowding Scale (NEDOCS) score as an early identification tool to measure crowding at a Dutch academic emergency department.

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Topic:

National Emergency Department Overcrowding Scale (NEDOCS), Crowding, Emergency Department, Netherlands.

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Background:

Crowding at Emergency Departments (EDs) is a worldwide public health issue resulting in a decline in quality of care, a decrease in patient satisfaction and increase in burn out in nurses and physicians. Over the last decade crowding in Dutch EDs is an increasing problem, more and more Dutch EDs temporarily close their doors at peak hours when quality and safety of care is at risk. Recently more attention is brought to the urgency in the Dutch situation. Still, there is uncertainty how to facilitate early identification of crowding and how to prevent Dutch EDs from closing their doors.

Aim:

The aim of this study was to validate the National Emergency Department Over Crowding Study (NEDOCS) tool as a valuable and quantitative tool to assess and predict ED crowding at a Dutch academic hospital.

Methods:

We performed a prospective observational study at the ED of a level one, academic trauma centre during a two-month period. We generated the NEDOCS tool score five times a day. Likewise, ED charge nurses and emergency physicians filled in a questionnaire five times a day to estimate subjective feelings of crowding and workload. We examined the correlation between the NEDOCS tool score and subjective measurements by ED staff members

Results:



The NEDOCS score was measured 504 times, with a median score of 16.2. We found positive correlation between the NEDOCS score and the feeling of overcrowding (Spearman's correlation coefficient 0.715) and the perceived workload (Spearman's correlation coefficient 0.680).

Discussion:

The NEDOCS can be an useful tool to measure crowding in order to provide early identification of crowding at Dutch EDs. However, future studies should be performed to optimize the tool for Dutch standards and maybe adjust cut-off levels of crowding for different EDs

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Position presenting author: underlined (L. van Westerop)

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