Accuracy of judgment of urgency as perceived by Emergency Medical Dispatch Centres in Southern Denmark - a quality assurance study -

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Background

Since 2011, dispatch of the emergency pre-hospital resources has been performed by health care providers. The dispatch of the prehospital resources takes place using a criteria-based nationwide dispatch system, The *Danish Medical Aid Index*. This is a tool that classifies the patients into 37 different symptom groups system to determine the level of urgency required. Following prehospital contact with the Emergency Medical System, an electronic medical record is created. This record includes variables such as type of response and response time, vital parameters, treatment, etc. Furthermore, the electronic medical record system enables the emergency medical technician (EMT) to provide feedback to the dispatcher by reporting whether the condition reported by the dispatcher matches the findings at the scene.

Purpose

In order to enable future benchmarking between different emergency medical dispatch centres in the Danish Health Regions, this study aims to investigate whether there is congruence between the perceived severity of the incident as judged by the emergency medical dispatcher and the actual condition of the patient as judged by EMT upon first contact with the patient.

Methods

In a retrospective analysis of three months, October 2018 – December 2018, data were recorded as follows:

- Assignment within each symptom group in The Danish Medical Aid Index
- The feedback from the prehospital unit regarding accuracy of dispatcher report

Results

- 47.206 missions were total registered in South Denmark in the period from October to December 2018. Missing data in 7511 missions (15,9%).
- 39.695 missions were included to the study.
- In total 2132 missions were stated by the EMT to be in a different condition, when assessed at the scene compared to the criteria based dispatcher record (5,3%)
- The largest deviations (12.4%) were found in the diagnosis group "Sick child".

Percentage of cases with discrepancy between perceived condition of patient
and
factual condition of patient

Conclusion

- A high congruence between the perceived severity of the incident judged by the dispatcher and the actual clinical assessment, made by the EMT, could be documented.
- The pronounced deviation in the diagnosis group "Sick child" is hypothesised to be due to overtriage.
- Future investigations should include comparison between data from other Danish regions.