CORRESPONDENCE

The Quality of Emergency Medical Care in Baden-Württemberg (Germany): Four Years in Focus

by Dr. med. Martin Messelken, Dr. med. Eduard Kehrberger, Dr. rer. nat. Dr. med. Burkhard Dirks, Prof. Dr. med. Matthias Fischer
in volume 30/2010

Analyses Are Indispensable

In their excellent article, Messelken and coauthors presented a valuable and relevant analysis of the physician-staffed emergency medical care system in Baden-Württemberg (1). In contrast to small analyses that usually focus on a particular point in time, their study is unique in that it provides data for a lengthy period of time for almost the entire state. I wish to congratulate the authors on this achievement, because such analyses by emergency physicians have become indispensable and are of utmost importance.

In addition to descriptive quality characteristics, the study showed one aspect in particular in an exemplary manner:

Legal regulations concerning the response time are unequivocally laid out in Baden-Württemberg's law on emergency services (RDG-BW §3 para. 2) (2), but they have not been adhered to for years and, what's more important, they are consistently being ignored (response times should not be more than 10 minutes, a maximum of 15 minutes"). The assumed target rate is 95% (3), but this is achieved in less than 92.05% (1). This structural quality problem has been proved to exist since at least 2005 (1).

The number of participating sites in the state-wide NADOK evaluation is similarly shocking: only 106 of 130 sites are currently participating. Why is it being tolerated that some 20% of sites where physician-staffed emergency medical care is available are not participating in a mandatory evaluation?

Physicians as emergency medical directors (Ärztliche Leiter Rettungsdienst, ÄLRD) are firmly established in other German states, but this instance was not introduced in Baden-Württemberg even when the RDG-BW was revised. Comprehensive quality analyses are therefore currently available for Baden-Württemberg to an unsatisfactory degree only. By establishing physicians as emergency medical directors in Baden-Württemberg, the above mentioned structural problems may be qualified and neutrally analyzed on the one hand, and on the other hand they may be dealt with and a solution could be found.

DOI: 10.3238/arztebl.2011.0094a

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Delta-MEES Is Not Very Practical

The Delta-MEES is used as a parameter to collect data on the quality of the results of an emergency service operation, but it is not very practical. Psychological finding and its change—for example, stabilization as a result of crisis intervention—are not captured.

To determine the MEES, technical equipment is needed in 5 out of the 7 items. To be able to calculate the Delta-MEES, all parameters have to be documented at the beginning and at the end of the emergency care. It is questionable whether an electrocardiogram should be taken (without a medical indication), solely for the purpose of the Delta-MEES.

I see the deficits in the documentation compliance of the MEES in the data from Baden-Württemberg as a result of these difficulties. Furthermore, this showed a downward trend (relative to the total number of patients) from 53.7% (2005) to 46.4% (2008). Even the listed percentages for "Delta-MEES available" are unsatisfactory: a corresponding quality parameter should be collected for all operations in the ideal case scenario.

A simpler instrument is the "acknowledging number" (Rückmeldezahl, RMZ) (1). A technical-quantitative measurement is not compulsory in order to categorize the 5 items—consciousness, breathing, circulation, pain, and paralysis—in 5 quantitative expressions. However, psychological problems are currently not captured by this confirmation number either. I have therefore proposed adapting the confirmation number accordingly (2).

The study from Hesse (3) compares the confirmation number with the MEES. Since the results are highly consistent, the confirmation number is recommended to capture the quality of results for the emergency services for Hesse because of its greater practical applicability.

If state-wide quality assurance is introduced in Bavaria, I recommend adopting the confirmation number (modified to include psychological diagnoses) as the primary quality parameter.

DOI: 10.3238/arztebl.2011.0094b

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Far From Reality

The conclusions reached by the authors may reflect the zeitgeist, but they do not reflect reality. It has become fashionable to evaluate one's own work as a part of quality assessment. In my opinion, however, the study data need to be interpreted differently. Only 80% of patients received a venous access and those a mean of 1.4 drugs. This is particulary astonishing since more than 50% of patients were reported to have had a NACA score of IV to VII. It defies me how such minimal treatment would have achieved such an enormous improvement in clinical symptoms (Delta-MEES) during the short treatment period allocated by the emergency physician to these severely ill patients. I have worked as an emergency physician for more than 10 years and cannot confirm these numbers from my own experience. In an estimated 80% of all pre-hospital emergencies it is found on arrival that an emergency physician would not have been required because no threat to life existed and no immediate medication was necessary. A real clinical improvement is not possible in such a setting. I don't believe in quality assurance and the conclusions drawn from it when they are based on subjective impressions and have not been further reviewed. For serious quality assessment, objective data are required. In case of pre-hospital emergency services there should be a follow up of the cases, for example reviewing their files of their following hospital stays. Otherwise not even the initially suspected diagnosis can be confirmed. This approach is indeed very laborious but the methods used so far are rather pointless.

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In Reply:

We thank your correspondents for their comments and addenda.

We agree with Hinkelbein on the need to establish a medical director for emergency services. Within the self-governing bodies, medical quality management is not handled with the required neutrality. Furthermore, all sites will need to be obliged to participate. The particular constellation of the area committee in Baden-Württemberg allows for health insurers and service providers to substantially determine emergency medicine, but on the other hand it has let them ignore the legal regulations concerning response times for years.

We thank Kohlund for his comment as it reflects the position taken by many emergency physicians, who think in the face of increasing use of emergency medical services that the emergency medical services are dispatched incorrectly. We wish to counter his comment by saying that such statements can be supported only by well documented cases and complete data. Unfortunately we have to admit to just such deficits. The affinity of many emergency physicians for having complete documentation is not great and requires improving. The MEES, derived from the internationally used Revised Trauma Score (RTS) (1), is an indispensable tool in this.

Büttner introduces the acknowledging number (RMZ) from the federal state of Hesse into the discussion and is hoping for more streamlined documentation as a result. The information gain is not comparable, since this confirmation number is validated only as information about the quality of the medical dispatch center (2). It therefore represents an additional parameter.

DOI: 10.3238/arztebl.2011.0095b

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The authors of all contributions declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.