45-minute standard for emergency care

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Executive summary

Health Council of the Netherlands

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In the Netherlands, the distribution and availability of acute care in hospitals is subject to the ‘45-minute standard’ (a hospital with an Accident & Emergency department or emergency obstetrics department must be accessible by ambulance within 45 minutes). It is not a performance standard. According to that standard, an Accident & Emergency department (A&E) may not be shut down if this would increase the number of residents who are unable to reach such a department by ambulance within 45 minutes, in emergency situations. In response to the recent closure of a number of A&E departments, the Minister for Medical Care and Sport has asked the Health Council of the Netherlands to determine whether the standard can be justified on medical grounds. A temporary committee – the Committee on the Reassessment of the 45-minute standard – has been appointed to address that question.

Model versus everyday practice

Accessibility analyses map the geographical distribution of acute hospital care. They are based on a theoretical model consisting of different time intervals between the emergency call and the moment that the ambulance carrying the patient reaches the A&E department. Reference values are specified for each of these time intervals. Real-world situations deviate from these reference values. For instance, in everyday practice, the time spent at the scene of the incident is, on average, more than the five minutes’ transfer time to the ambulance. This is because, in many cases, they have to be stabilised and treated at the scene of the incident.

Critical time intervals instead of a clear limit

The Committee explored six common types of emergency care. It searched the scientific literature for evidence of a relationship between the time taken to get a patient to hospital and their health outcome. This search found no unequivocal limit, however it did identify critical time intervals within which treatment must be started. This varies from one condition to another, and also between patients with the same condition, depending on the exact circumstances involved. In addition, for a number of conditions, the sooner the treatment is started, the more likely it is that the patient will achieve a better health outcome.

Various other factors are also involved

The time taken to get a patient from the scene of the incident to the hospital is not the only factor that determines their health outcome. It is also about what happens throughout the entire care chain: rapid detection, stabilisation, treatment, and triage at the scene of the incident, coupled with short waiting times outside and inside the hospital. In terms of patient outcomes, it is essential for all the links in the care chain to be

effectively coordinated with one another. Valuable time can be saved if some of the steps in the acute care chain are performed in parallel. In addition, some demands for acute care require treatment that is only available in hospitals with departments specialising in those particular fields.

How do other countries tackle this challenge?

The Minister has also asked the Council to find out whether the Netherlands can learn something from other countries in terms of managing the geographical distribution of hospitals. None of the countries studied by the Committee has an official standard (or a comparable standard) governing the geographical distribution of hospitals. However, every one of these countries is currently considering ways of reforming the hospital landscape in general and emergency care in particular. As in the Netherlands, their focus is on the further development of diagnosis and treatment at the scene of the incident, and also of providing the right care in the right place.

Recommendation

There are no medical scientific grounds on which the 45-minute standard can be justified, in terms of health outcomes. There are no medical scientific arguments in favour of adhering to this standard for the geographical distribution of hospitals, with regard to acute care. Evidence from the scientific literature for a relationship between the time required to get patients to hospital and their health outcomes tends to suggest that this involves critical time intervals, rather than unequivocal limits. However, getting the patient to the hospital on time is not the only key factor, it is also vital to get them to the right place as quickly as possible. In some cases, that means getting them to the nearest Accident & Emergency department as quickly as possible. In other cases, it means getting them to a centre of expertise that is able to provide the necessary specialist care, as quickly as possible. Accordingly, the Committee recommends that a distribution standard be viewed in a broader context. Furthermore, review of the geographical distribution of hospitals should not be limited to the time factor alone. It should also make allowance for the presence of the requisite expertise in specific hospitals and regions. One point that needs to be considered in this connection is that hospitals must have sufficient capacity in terms of healthcare professionals, ambulances, and facilities.

Finally, the Committee recommends that other factors capable of influencing the emergency care chain – and thus the health outcomes of patients – should also be taken into account. These include new options in the area of diagnosis and treatment at the scene of the incident. The emergency care chain can also be enhanced through cooperation with general practitioners (and medical centres), midwives/obstetricians, and emergency services, such as the fire brigade and the police, who are often the first on the scene (first responders), as well as with civilian emergency services.

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