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Do we have trustworthy guidelines for clinical practice in Norway?

EDITORIAL

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Guidelines for treatment of sepsis raise important questions.

Kaspersen and co-authors highlight an important topic for the Norwegian health services: How can we ensure effective, safe treatment for patients by means of clinical practice guidelines, in this case for sepsis (1)?

In order to be trustworthy, clinical practice guidelines must be developed according to well-defined, internationally accepted standards (2, 3). The recommendations should, for example, be based on a systematic review of relevant research literature, a balanced assessment of the benefits and harms of relevant treatment options, and appropriate management of conflicts of interest. GRADE constitutes the leading system of grading evidence to achieve key standards through a systematic and transparent process (3). For example, the evidence summary should describe the benefits and harms as well as the quality of the evidence, and recommendations should be specific with their reported strength based on the expected treatment benefit, with important implications for use in practice (3).

As early as 2012, the Norwegian Directorate of Health decided to follow standards for trustworthy guidelines and use the GRADE system, and has now digitised national guidelines through use of the MAGICapp (4). However, for most of the recommendations for sepsis, Kasperson and colleagues refer to the *Norsk elektronisk legehåndbok [Norwegian electronic medical handbook] (NEL)* as national guidelines. Such handbooks constitute useful information resources, but do not have the status of national guidelines, nor do they meet key standards of trustworthiness.

Kaspersen and co-authors conclude that local guidelines for sepsis are available at the vast majority of hospitals and predominantly comply with national and international guidelines. A more detailed discussion of the strength of the recommendations and the underlying evidence that the local guidelines are based upon would make it easier to assess whether a presumed compliance in fact reflects the reality. Some examples give reasons for concern when compared to the identified international guidelines and new Nordic guidelines, which meet key standards for trustworthiness (5, 6). In the case of septic shock, these guidelines strongly recommend noradrenaline in preference to dopamine for acute circulatory failure, based primarily on the increased risk of arrhythmia. However, most local guidelines list dopamine as an alternative, and in one hospital dopamine was recommended as the drug of choice. Use of starch for fluid resuscitation was stated as an alternative in three Norwegian hospitals. This is disturbing in light of evidence from randomised trials that have resulted in strong recommendations in the international and Nordic guidelines mentioned against the use of starch. The national guidelines from the Directorate of Health recommend high-dose penicillin in combination with gentamicin, in accordance with most of the local guidelines. This recommendation has been a subject of debate in the specialist community, as is also mentioned by Kaspersen and co-authors (7). A number of well-conducted systematic reviews report low quality evidence for aminoglycosides as supplements to penicillin, with no unequivocal conclusions regarding benefit and with the risk of therapeutic failure and renal failure (8). These three examples undermine the trustworthiness of the Norwegian guidelines and indicate that patients receive treatment that is not in accordance with the best current evidence.

Do trustworthy guidelines for sepsis lead to increased survival, better health and more sensible use of healthcare resources? Kaspersen and co-authors do not describe the degree to which the different guidelines are implemented in practice. Successful implementation is a difficult art (9). In the absence of knowledge, resources and good tools to implement, evaluate and continuously improve practice, even the most trustworthy guidelines remain worthless. So what is the best way forward?

Kaspersen and co-authors pose a timely question – relating to unnecessary use of resources – on the need for local guidelines. Use of technology and digitally structured data – adopted among others by the Directorate of Health – now makes it possible to insert trustworthy recommendations into national and local guidelines and procedures, adapted to local practice if needed (4). It should also be possible to integrate the recommendations as decision support systems into electronic patient records, linked to patient data (4).

The next step is to link to registries with digitally structured data for continuous evaluation of new knowledge. Where better knowledge is needed – as in the case of sepsis – registry-based, randomised trials should be possible to conduct in clinical practice, as demonstrated in Sweden (10). With such a digital and trustworthy evidence ecosystem, the goal of documented safe and effective health care should be achievable (11).

Let us hope that Norwegian clinicians and patients more frequently encounter trustworthy, useable guidelines in practice, and that the Norwegian Medical Association finally will take a more active part in this effort.

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