Reply to Sepsis in Non-ICU Patients: A Call for Guideline Reassessment

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We were pleased to read the letter by Chang et al. (1) supporting our view that early warning scores are more useful than the quick Sequential [Sepsis-Related] Organ Failure Assessment (qSOFA) for identifying patients at risk of adverse outcomes, irrespective of infection status. Chang et al. also support our call for the re-evaluation of the Sepsis-3 task force recommendation (2) to use qSOFA as the system of choice for identifying non-ICU patients with suspected infection.

A key motivation for our study (3) was to investigate whether qSOFA should be introduced in the United Kingdom (UK), where an alternative scoring system, the National Early Warning Score (NEWS), is already mandated for use in all acute hospitals (4). Our results suggest that introducing qSOFA in these settings would (a) have no additional benefit over NEWS, (b) reduce sensitivity compared to NEWS, and (c) likely introduce disadvantages, e.g., increased workload, increased educational needs.

Our findings have significance for hospitals seeking a high-performing system for identifying patients at high risk of adverse outcomes from any underlying condition. Chang et al. suggest that, although early warning scores may be used in the UK, their acceptance in other countries may be limited. This is incorrect - early warning scores, often NEWS - are already in widespread use globally. Where countries do not use early warning scores, they often use Medical Emergency Team (MET) criteria for the detection of patient deterioration. We have already shown that at an equivalent specificity, NEWS has higher sensitivity than any of the 44 MET criteria (5). Such evidence might progress the introduction of early warning scores, and NEWS in particular, in the United States.

As noted by Chang et al., our study did not cover vital signs obtained in the emergency department (ED). However, as reported (3), we did undertake a post-hoc comparison between patients admitted directly to the ward and those admitted via the ED, which showed the discrimination of NEWS was not materially different. However, we agree that future analyses should also include ED populations.

Finally, the availability of an electronic health records (EHRs) is not necessarily a barrier to implementing an early warning score across general hospital wards. Whilst the UK lags behind the US with respect to the wide-scale adoption of EHRs, NEWS can be, and is, calculated manually in many

UK hospitals. If the relevant stakeholders can be galvanised, perhaps supported by organisations such as the Institute for Healthcare Improvement, we would encourage US hospitals to use early warning scores, calculated manually or automatically within EHRs.

References

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