Note of the editors: This is a BOWMAN-generated English translation of the officially indexed Spanish-language article, which should be cited as Emergencias 2026;38:323-324. In this translated version, the editors have supervised the process; however, it cannot be ruled out that some errors resulting from the artificial intelligence translation process may have gone unnoticed.

EDITORIAL

How can sepsis be suspected at triage?

¿Cómo sospechar la sepsis en el triaje?

Juan González del Castillo

Few actions have as much influence on the prognosis of a patient with sepsis as the decision made by the triage professional during the first few minutes in the emergency department. That initial classification determines how quickly the patient is medically assessed, blood cultures are obtained, and, above all, antibiotics are administered; in the most severe cases, delays in antibiotic treatment are associated with increased mortality.[1,2] The problem is that the triage systems used in everyday practice were not designed to detect sepsis, but rather to prioritise a heterogeneous population according to severity, and their performance in a condition such as sepsis, with such diverse clinical manifestations, remains unresolved. The study by Schondelmaier *et al.* accompanying this issue has the merit of examining this blind spot.[3]

Through a secondary analysis of the multicentre LIFE-POC study, the authors compare the Manchester Triage System (MTS) and the Emergency Severity Index (ESI) in a total of 1,424 patients with suspected organ dysfunction, 388 of whom were ultimately diagnosed with sepsis within the first 24 hours. Both systems classified most patients with sepsis into urgent categories (ESI with a sensitivity rate of 99.0% and MTS with a sensitivity rate of 88.2%), but at the cost of negligible specificity, 2.7% and 17.5%, respectively. The ESI left fewer patients undertriaged, whereas with the MTS the risk of sepsis was more clearly concentrated in the highest-urgency categories. Notably, 7 of the 22 patients with sepsis undertriaged by the MTS ultimately required intensive care, indicating that classification into a non-urgent category did not necessarily identify low-risk patients.

However, the temptation to proclaim a winner should be resisted, because the study does not compare 2 triage systems directly, but rather 2 cohorts of centres using different systems: the MTS at the 2 Berlin hospitals and the ESI at the hospital in Jena, all in Germany, with differences in age, qSOFA, recruitment, and nursing practice. The authors themselves acknowledge that this precludes a direct comparison and describe their findings as exploratory. An additional consideration is that selecting the cohort on the basis of qSOFA ≥ 1 could structurally favour the ESI, which incorporates vital signs overlapping with qSOFA. Furthermore, the very low specificity is largely a consequence of the study design, because by including patients with qSOFA ≥ 1, those without sepsis were not healthy controls either, but patients with at least 1 abnormal vital parameter whom the triage system would likewise classify into urgent categories. With so few true negatives, specificity was inevitably going to be low. Measuring specificity for sepsis at triage is debatable *per se,* because a patient without sepsis may be entirely appropriately classified as urgent if another serious condition is present. Of note, defining sepsis at 24 hours makes some cases appear to have been undertriaged even though they were not yet recognisable at the time of triage, meaning that some of these cases may reflect subsequent clinical evolution rather than a classification failure. Finally, the outcome that truly matters is missing: time to antibiotic treatment, without which we cannot state that better classification translates into earlier treatment.

Despite these considerations, the underlying message is difficult to dispute: neither the MTS nor the ESI is, *per se,* an appropriate screening tool for sepsis. In this cohort, high sensitivity was achieved by classifying almost all patients as urgent, whether or not they had sepsis, thereby reducing discriminatory capacity, although this does not automatically equate to overtriage. It is precisely here that the study, perhaps unintentionally, points towards where we should be looking. If the performance of conventional triage systems appears limited for this purpose, the most tangible opportunity for improvement currently lies in the automated analysis of data that we already generate at first contact. Machine-learning models trained on information available at triage—vital signs, level of consciousness, chief complaint, and even free-text nursing notes—have shown greater discriminatory ability than conventional clinical rules for identifying infection, sepsis, or septic shock at the time of triage.[4-6] Furthermore, although more recent models incorporate interpretability techniques that explain to clinicians why an alert is triggered,[7] it remains to be demonstrated whether this improvement in predictive performance translates into clinical benefit when implemented prospectively.

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This is probably the most promising alternative for overcoming the limitations of current triage tools. The aim is not to replace the judgement of the triage professional, but rather to provide a safety net capable of identifying the subtle patient who currently escapes clinical detection. Caution remains essential, because external validation of some commercial models has produced disappointing results and alert fatigue is a genuine risk, but the direction is clear, and our own setting has already begun to move in this direction, with experiences involving automated detection in emergency departments[8] and reflection on the role of open data and artificial intelligence in patients with sepsis.[9] Nevertheless, access to artificial intelligence is still uncommon in emergency care settings. Therefore, to strengthen detection from the first point of contact, a simple and evidence-supported adjunct is to measure lactate on the patient's arrival at the emergency department, a parameter considered by neither the MTS nor the ESI but one that helps identify high-risk patients early.

None of this is useful, of course, unless suspicion triggers an appropriate response. Earlier detection reduces mortality only when followed by blood cultures obtained beforehand, early empirical antibiotic therapy,[10,11] prognostic stratification that prioritises the most severely ill patients,[12] and the orderly implementation of the full bundle of measures;[13] a chain that could, moreover, begin even before the patient reaches the emergency department, during prehospital assessment.[14]

The question, therefore, is not whether the MTS outperforms the ESI or vice versa. It is how we can expand the capacity of human triage, which, however good it may be, was not designed for this task. The study by Schondelmaier *et al.* shows where the problems lie. The challenge over the coming years will be to demonstrate, in prospective studies, that adding artificial intelligence to triage not only improves receiver operating characteristic (ROC) curves, but also enables earlier implementation of management protocols and improves patients' clinical outcomes.

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