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Decision-making in the detection and management of patients with sepsis in resource-limited settings: the importance of clinical examination

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We read with interest the study by Andrews et al. [1] and the related correspondence from Shrestha et al. [2]. We share the concern that clinical examination (and observations) appear(s) to be perceived as relatively unimportant in both the detection of the unwell patient and in the titration of interventions such as fluids, oxygen, antibiotics and vasopressors in LMICs. Studies have highlighted the limited availability of clinical observations in acutely unwell LMIC settings, which in addition to hindering detection of the deteriorating patient also complicates evaluation of an individual's treatment and standards of care evaluation; for example, the assessment and implementation of early warning scores and prognostic models [3]. In settings where potential for rescue by resource-intensive interventions (e.g. ventilation) is remote, we too are surprised by the absence of a more central role for clinical examination and observations. It is of further concern that such limitations remain in the relatively high-resource, high-visibility environment of a clinical trial.

These findings raise questions regarding our understanding of the decision-making process of LMIC clinicians in the detection and management of the acutely unwell patient. Clinicians may be utilising additional cues in a manner different to their HIC contemporaries; such as the presence of relatives as carers at the bedside or a nursing decision to place a patient in a specific location in the ward. Work done to evaluate the impact of setting-adapted practical training on the management of common emergencies in LMICs has highlighted the limited priority given to practising such skills in existing training programmes for both doctors and nurses [4, 5]. It is also possible that clinical examination and vital

signs measurements are performed but poorly recorded: in part a consequence of disparate paper-based records.

Greater understanding is essential if we are to better influence the processes that contribute to acute and critical care mortality in LMIC settings. Mixed-method approaches combining qualitative techniques to capture clinicians' perceptions of the importance of clinical assessment alongside setting-adapted electronic tools to improve the capture of granular information of the patient journey—currently being undertaken by our group in multiple LMIC settings—could enrich our understanding of the management of acutely unwell patients. Greater understanding of these clinical priorities and their importance in acute care in diverse settings would offer valuable insights to inform subsequent trial design and the end points selected for evaluation.

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