

# **Performance of the quick Sequential Organ Failure Assessment score for predicting in-hospital mortality in patients with suspected infection in rural Rwanda: a brief report**

---

M, a, r, i, e, A, i, m, e, e, M, u, k, a, n, t, w, a, r, i, ,, J, e, a, n, d, e, D, i, e, u,  
U, w, i, m, a, n, a

DOI: <https://doi.org/10.5281/zenodo.18538925>

## | Abstract

The quick Sequential Organ Failure Assessment (qSOFA) score is a bedside tool used to identify patients with suspected infection who are at risk of poor outcomes. Its performance has been validated largely in high-resource settings, with limited evidence from rural, low-resource healthcare environments in sub-Saharan Africa. This study aimed to evaluate the performance of the qSOFA score for predicting in-hospital mortality among adult patients with suspected infection presenting to rural district hospitals in Rwanda. A retrospective cohort study was conducted using routinely collected clinical data from adult patients admitted with suspected infection. The qSOFA score was calculated at admission. Its discriminatory power for in-hospital mortality was assessed using the area under the receiver operating characteristic curve (AUROC). The qSOFA score demonstrated poor discriminatory ability for predicting in-hospital mortality, with an AUROC of 0.62. A qSOFA score of  $\geq 2$  had a low sensitivity of 28% for identifying patients who died. In this rural Rwandan setting, the qSOFA score performed poorly as a prognostic tool for in-hospital mortality in patients with suspected infection. Its utility as a standalone screening tool in this context is limited. Further research is needed to identify or develop context-appropriate, simple prognostic tools for sepsis in low-resource rural hospitals. Clinical reliance on the qSOFA score alone for risk stratification in such settings is not advised. qSOFA,

sepsis, mortality, prognosis, low-resource setting, Rwanda, district hospital

This brief report contributes African data on the performance of a widely promoted sepsis screening tool, highlighting the potential need for context-specific modifications in resource-limited environments.

---