



# Improving Sepsis Management Timeliness in Zambian District Hospitals: An Evaluation of a Quality Improvement Collaborative in the Southern Province, 2002

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## Abstract

Sepsis is a leading cause of mortality in low-resource settings, where timely intervention is critical. District hospitals in Zambia face systemic challenges in delivering prompt sepsis care within the first hour after patient presentation. This study evaluated the impact of a quality improvement collaborative (QIC) on reducing the time to key sepsis management interventions in district hospital emergency units in the Southern Province of Zambia. A quasi-experimental, pre-post intervention study was conducted. Multidisciplinary hospital teams participated in structured learning sessions and implemented plan-do-study-act cycles. The primary outcomes were the median time from patient arrival to administration of intravenous fluids and first-dose antibiotics. Data were collected via retrospective review of adult sepsis patient records. Following the QIC, a significant improvement in timeliness was observed. The median time to antibiotic administration decreased substantially across participating facilities. Adherence to a protocolised one-hour bundle of care also improved markedly. The quality improvement collaborative was an effective strategy for accelerating sepsis management in resource-constrained district hospitals. The approach fostered local ownership and adaptation of clinical guidelines. Scale-up of the QIC approach to other provinces and clinical areas in Zambia is recommended. Sustainable integration requires dedicated mentorship and minimal essential resources for data collection and feedback. Sepsis, Quality Improvement, Emergency Care, District Hospitals, Zambia, Timeliness This paper provides empirical evidence from a low-resource African context on the utility of quality improvement collaboratives for improving adherence to time-critical clinical protocols in public health systems.

**Keywords:** *Sepsis management, Quality improvement collaborative, District hospitals, Sub-Saharan Africa, Emergency care, Clinical audit, Zambia*



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