



# Methodological Evaluation of Emergency Care Systems in Ghana: A Randomized Field Trial for Measuring Clinical Outcomes

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## Abstract

Emergency care systems in Ghana are critical for managing acute health conditions efficiently. However, their effectiveness varies widely across different regions and facilities. A randomized controlled trial was conducted with 150 patients randomly assigned to either the intervention group (receiving standard ECU care) or control group (standardised alternative). Data on demographics, clinical presentations, interventions provided, and outcomes were collected using a standardised questionnaire. The analysis revealed that in the intervention group, survival rates improved by 20% compared to the control group ( $p < 0.05$ ), indicating significant efficacy of the enhanced ECU care system. This study provides valuable insights into optimising emergency care systems in Ghana, particularly focusing on improving patient outcomes through targeted interventions. The findings suggest that further research should be conducted to replicate these results across different regions and facilities. Implementation strategies for scaling up the intervention are recommended based on this trial's success. Emergency Care Units, Clinical Outcomes, Randomized Field Trial, Ghana Treatment effect was estimated with  $\text{text}\{\logit\}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *African geography, randomized controlled trial, clinical outcomes, emergency care systems, health policy evaluation, data collection methods, outcome measures*

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