



# Methodological Assessment and Clinical Outcomes Evaluation of Emergency Care Units in Senegal: A Quasi-Experimental Study

Modou Diop<sup>1</sup>, Mamadou Niangué<sup>2,3</sup>, Ahmed Ndiaye<sup>4</sup>, Cheikh Sall<sup>5</sup>

<sup>1</sup> Université Gaston Berger (UGB), Saint-Louis

<sup>2</sup> Institut Sénégalais de Recherches Agricoles (ISRA)

<sup>3</sup> Université Alioune Diop de Bambey (UADB)

<sup>4</sup> Department of Internal Medicine, Université Alioune Diop de Bambey (UADB)

<sup>5</sup> Department of Epidemiology, Université Gaston Berger (UGB), Saint-Louis

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**Correspondence:** [mdiop@aol.com](mailto:mdiop@aol.com)

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## Author notes

*Modou Diop is affiliated with Université Gaston Berger (UGB), Saint-Louis and focuses on Medicine research in Africa. Mamadou Niangué is affiliated with Institut Sénégalais de Recherches Agricoles (ISRA) and focuses on Medicine research in Africa.*

*Ahmed Ndiaye is affiliated with Department of Internal Medicine, Université Alioune Diop de Bambey (UADB) and focuses on Medicine research in Africa.*

*Cheikh Sall is affiliated with Department of Epidemiology, Université Gaston Berger (UGB), Saint-Louis and focuses on Medicine research in Africa.*

## Abstract

Emergency care units (ECUs) in Senegal are critical for timely patient management during medical emergencies. However, their effectiveness and efficiency have not been systematically evaluated. A mixed-methods approach was employed, integrating quantitative data from patient records with qualitative insights from healthcare providers. Data were analysed using logistic regression models ( $OR = \beta \pm SE$ ; 95% CI). ECU patients had a significantly higher mortality rate compared to non-ECU cases ( $\hat{\omega} = 1.68 \pm 0.42$ ; 95% CI: 1.13–2.52,  $p < 0.05$ ), highlighting the need for further improvements. The study underscores the importance of standardised protocols and continuous quality improvement in ECUs to enhance patient outcomes. Implementing evidence-based guidelines and training programmes for healthcare professionals is recommended to improve emergency care delivery. Emergency Care Units, Senegal, Quasi-Experimental Design, Clinical Outcomes

**Keywords:** *Sub-Saharan, Quality Improvement, Randomization, Protocol Validation, Patient Safety, Clinical Decision Support Systems, Outcome Evaluation*

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