Three Delays Model Applied to Sepsis Care Seeking and Provision in a Private Hospital in Lagos, Nigeria

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Background

Sepsis is a life-threatening systemic syndrome and a leading cause of morbidity and mortality in sub-Saharan Africa. Although progress has been made in sepsis outcomes in high-income countries, low and middle-income countries continue to experience disproportionate morbidity and mortality from sepsis. An organized emergency response hinged on early recognition and institution of resuscitative care and sepsis bundles is critical to improved outcomes in sepsis. In Nigeria, factors that contribute to poor outcomes include poorly resourced emergency departments, lack of trained emergency care specialists, patients' delays in care seeking, high cost of emergency care, and poor health insurance coverage. Using the three-delays model, we explored the barriers patients and clinicians face concerning sepsis management in a private hospital in Lagos, Nigeria.

Methods

We are executing qualitative exploratory research to identify barriers and challenges to accessing sepsis care for patients and delivering sepsis care to physicians. Fifteen (15)

clinicians were from all access points were recruited via a purposeful convenient sampling and enrolled in dyads and triads group discussions to identify barriers to providing sepsis care in our resource-constrained environment. Due to challenges of staffing and availability of clinicians for focus group discussions, we were unable to schedule focus group discussions and hence had dyad and triad discussions. Patients who presented with sepsis to the hospital are being enrolled prospectively for in-depth interviews in March 2024. Data is being analyzed through a deductive, reflexive thematic analytic method.

Results

The main themes identified in the interim results are shown in Figure 1. In the decision to seek care (Delay 1), patients presented late due to difficulties in identifying illness severity which were influenced by the minimization of their symptoms and seeking health advice from non-clinical persons. Financial constraints and the absence of a health insurance plan also impacted patients' decision to seek care. After the decision to seek care is made, the next delay occurs in accessing care and includes challenges such as the disorganized prehospital emergency care and an unregulated referral system between facilities. Also, financial challenges in the form of the quality of insurance plans subscribed to by a patient impacted their ability to access certain care packages including certain investigations and medications. The choice to utilize traditional care facilities and poor-quality facilities where improper care was delivered was also discussed by participants. In the provision of care (Delay 3), the level of training and experience of the clinician determine their understanding of sepsis pathophysiology, their ability to recognize the illness and what type of treatment they placed the patients on. Clinicians expressed delays or refusals from insurance companies in treatment approvals, and delays in receiving test results from the laboratory. We also observed poor recognition of case severity regardless of physician training due to a lack of standardized sepsis care protocols for our locality.

Conclusion

Patient and physician barriers must be addressed to improve sepsis outcomes in our context. Heightened patient awareness of sepsis is required to ensure that presentation at an early stage and to the right facility is encouraged. Healthcare advocacy must include emergency care in universal healthcare as a central pillar of equitable healthcare access, this limits the burden on out-of-pocket payments by patients and insurance approvals to institute resuscitative care. There is also a need to develop a clinical practice guideline for sepsis in our context, which considers our resource constraints.

Figure 1: A schematic representation of the themes, codes and pertinent quotes from an interim analysis of the barriers to sepsis management in Lagos, Nigeria.