

An emergency physician's role in Africa: the experience of an international health cooperation

El papel del médico de urgencias en África: experiencia de un cooperante internacional

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Introduction

I carried out my humanitarian work between January and June 2023 in a first-level hospital that serves as the referral center for one of the 47 regions that make up Kenya (Africa). Located on an island approximately 100 km from the Somali border, in a predominantly Muslim and economically disadvantaged region, the hospital has a catchment area of nearly 150,000 people.¹ In Kenya, 69% of the population lives in rural areas,² which means that access to tertiary-level hospitals is considerably limited.

When I arrived, I initially thought that the protocols used in emergency departments of Spanish regional hospitals could be easily adapted to the reality of rural emergency services in this part of the world. But the reality is far more complex and harsh—just like the continent per se.

In recent decades, following decolonization, Africa has come to represent multiple countries and multiple realities within a single continent.³ With a population of approximately 1.2 billion, only 6.4% are older than 60 years, while more than 40% are under 15. This extremely young and resource-limited population represents a paradigm of its own in emergency care, as solutions cannot be approached using Western health care criteria.

Emergency departments on the continent have been implemented in recent years through the creation of dedicated emergency units. Their development has reduced mortality and contributed to improved quality of care across healthcare systems. Even so, many challenges persist: the lack of trained personnel, limited technical resources, shortages of medications, and poorly equipped medical transport are just some of the problems faced daily by these services.⁴

In Kenya, emergency medicine has been recognized as a medical specialty since 2017.² Physicians may enter the specialty through two training pathways: Medical Officers (equivalent to a 6-year medical degree) and Clinical Officers (a similar program, but short-

er in duration—4 years).⁵ The Clinical Officer role also exists in other countries (such as Uganda) and is particularly useful in a continent with scarce resources and vast rural areas, as it allows faster training of local health care personnel.

Emergency medicine training is available only in 2 hospitals in Nairobi, the nation's capital, and is supported by several universities. The training period for future adult emergency specialists ranges from 12 to 18 months. Pediatric emergency medicine is also recognized as a specialty and requires 2 years of training.² This division is logical considering the demographic profile of the country, which mirrors other nations on the continent.

Given the varying realities of health care facilities, studies have examined the role of triage in reducing pediatric mortality in rural hospitals, demonstrating reductions of up to 45%.⁶ Training non-medical personnel to perform triage has shown high concordance (kappa index 88.7%) with triage performed by healthcare professionals. Triage training for lay personnel produces a remarkable improvement in care quality in regions with a high pediatric population.

Another major challenge for African emergency departments is the large proportion of the population living with human immunodeficiency virus (HIV).⁷ HIV prevalence among individuals aged 15–49 reaches 21% in countries such as South Africa and approaches 30% in some provinces. Overall, 68% of all people living with HIV worldwide reside in Africa.

In addition to the high prevalence of HIV, two major tropical infectious diseases—dengue and malaria—remain endemic.⁸ Tuberculosis (TB) also has a high burden, and among HIV-positive individuals, TB coinfection is highly prevalent. This further complicates safety and workflow in African emergency departments and widens the diagnostic spectrum.

HIV-positive patients are often assigned lower triage priority levels on arrival, although

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their clinical reality is very different: they have a 48% higher hospitalization rate than HIV-negative patients and require more imaging and laboratory tests ($P = .006$).⁷

Diseases caused by poor control of cardiovascular risk factors—such as ischemic stroke—have increased in recent years due to rising life expectancy and progressive lifestyle changes.⁹ Africa currently has one of the highest global incidences of stroke. These time-dependent conditions coexist in emergency departments with malaria, tuberculosis, and HIV, within a context of poverty and armed conflict.

Hypertension is the major cardiovascular risk factor associated with stroke in Africa.¹⁰ Genetic predisposition, barriers to diagnosis, poor access to medication, and inadequate blood pressure control all play a fundamental role.

One of the key principles of international coopera-

tion—across all fields—is to do in a developing country only what you can do well in your own.

Faced with a reality so radically different from our daily practice in Spanish emergency departments, the role of the emergency physician in African healthcare systems is to contribute our best, particularly our ability to distinguish what is truly urgent from what is not.

Among the challenges faced by emergency physicians upon arrival in Africa are strengthening triage systems in different settings, improving patient safety during interhospital transfer, reducing time to treatment for infectious and ischemic conditions, and managing admissions in the context of scarce resources.

To address these and many other adverse situations, I believe that Spanish emergency physicians are well prepared—and that the African continent is waiting for us.

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REFERENCES

1. Minor R. "Lamu: a brief history" Editorial *Old Africa*; 2021. pp.10-15.
2. Lee JA, Wanjiku G, Nduku N, Aluisio AR, Kharel R, Simiyu JT, et al. The status and future of emergency care in the Republic of Kenya. *Afr J Emerg Med*. 2022;12:48-52.
3. Frank M, Lugea MF. África en la actual geografía transnacional. Territorialidades múltiples y actores emergentes. En: *La desnutrición infantil en foco. Entre la soberanía alimentaria y el uso de las tierras*. Memoria académica. (Accessed 22 September 2023). Available at: Available at: https://www.memoria.fahce.unlp.edu.ar/trab_eventos/ev.13695/ev.13695.pdf
4. Kannan VC, Tenner A, Sawe HR, Osiro M, Kyobe T, Nahayo E, et al. Emergency care systems in Africa: A focus on quality. *Afr J Emerg Med*. 2020;10:S65-S72.
5. Saswata B, Omar F, Aubery RJ, Jaffer B, Michael W. Bridging the health gap in Uganda: the surgical role of the clinical officer. *Afr Health Sci*. 2005;5:86-9.
6. Dekker-Boersema J, Hector J, Jefferys LF, Binamo C, Camilo D, Muganga G, et al. Triage conducted by lay-staff and emergency training reduces paediatric mortality in the emergency department of a rural hospital in Northern Mozambique. *Afr J Emerg Med*. 2019;9:172-6.
7. Maharaj R, Jeena L, Hahn E, Black J, Reynolds SJ, Redd AD, et al. Performance of the South African triage score among HIV positive individuals presenting to an emergency department. *Afr J Emerg Med*. 2022;12:498-504.
8. Kuate Defo B. Demographic, epidemiological, and health transitions: are they relevant to population health patterns in Africa? *Glob Health Action*. 2014;15:22443.
9. Akinyemi RO, Ovbiagele B, Adeniji OA, Sarfo FS, Abd-Allah F, Adoukonou T, et al. Stroke in Africa: profile, progress, prospects and priorities. *Nat Rev Neurol*. 2021;17:634-56.
10. Mufunda J, Chatora R, Ndambakuwa Y, Nyarango P, Kosia A, Chifamba J, et al. Emerging non-communicable disease epidemic in Africa: preventive measures from the WHO Regional Office for Africa. *Ethn Dis*. 2006;16:521-6.