Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Commentary/Letter to Editor

The contribution of autopsy in COVID-19 pandemic: Missed opportunity in Sub-Saharan Africa

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ABSTRACT

'Autopsy studies are for the living and not the dead!' This statement underlines the central role of autopsy studies in refining and informing the medical and forensic science body of knowledge.
Significant outbreaks, like the ongoing COVID-19 pandemic, have continued to reveal the capacity gap in autopsy practice, especially in Sub-Saharan Africa (SSA). Despite the importance of autopsy in investigating previous infectious disease outbreaks, health systems in SSA still assign a lesser priority to autopsy and forensic practice. Some of the critical factors hindering routine clinical autopsy are the lack of experts and facilities, and a health system that focuses less on postmortem examination. Societal traditions and cultural beliefs against the practice of autopsy and manipulation of the dead body are also significant barriers. Nevertheless, strengthening the role of autopsy in clinical practice may help clinicians to more quickly address clinical questions associated with highly infectious outbreaks.

Significant outbreaks like the ongoing COVID-19 pandemic continue to reveal the capacity gap in autopsy practice, especially in Sub-Saharan Africa (SSA). Autopsy studies have proven to be a crucial tool in identifying and explaining diseases that were missed ante-mortem, during clinical care [1]. Autopsy studies are still widely regarded as a gold standard in the determination of the cause of death [2,3]. This pathology speciality has contributed to providing answers to past infectious outbreaks such as the viral hemorrhagic fevers caused by hantavirus and Ebola virus in Central and East Africa in the late 1990s [4,5]. However, despite its significant role, health systems in SSA still assign a lower priority to autopsy and forensic practice. Systematic examination of a dead body during autopsy is generally performed for two purposes:

1 To gain an understanding of the nature of disease processes that amount to the cause of death (clinical autopsy).
2 To serve as a forensic investigation tool aimed at serving evidence to courts of law in settling legal cases (medico-legal autopsy) [6].

While autopsy practice is slowly growing in the SSA, most of the few reported cases are medico-legal. Clinical autopsy in most hospitals in SSA is still not a routine practice [7]. Some of the critical factors hindering routine clinical autopsy are the lack of experts and facilities, and a health system that focuses less on postmortem examination. Societal traditions and cultural beliefs against the practice of autopsy and manipulation of the dead body also represent significant barriers [7,8].

Ultimately, this lack of informative autopsy data breaks the cycle of knowledge that connects clinical care to pathology practice in medicine. The breakdown has become more apparent now, at a time when the medical community is desperately trying to better understand the pathophysiology of the current novel coronavirus outbreak. Indeed, a recent review by Salerno et al. [9] has highlighted how the lack of autopsy studies prevented elucidation of the pathophysiology of death in COVID-19 patients who died following novel coronavirus infection.

The COVID-19 pandemic should serve as a wakeup call to health care systems and policymakers in low and middle-income countries where infectious outbreaks are a constant threat. A renewed investment in pathology and forensic training and practice is critical. Patient care should not end with a patient's death, but with the identification of the nature and exact cause of their death through autopsy. Besides, it is high time for clinical autopsy studies to be recognized as a feedback mechanism tool for clinical practitioners, and to serve as a system of checks and balances in day-to-day clinical practice. Overall, enhancing clinical autopsy practice has potential to provide positive feedback in the form of increased medical knowledge that will help clinicians improve patient management and reduce mortality during highly infectious outbreaks.

Declaration of Competing Interest

The authors report no declarations of interest.

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