



Delay in surgical treatment in low-income and middle-income countries: an editorial

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Dear Editor,

Low-income and middle-income countries (LMICs) are encountering an increasing burden of chronic diseases and non-communicable diseases^[1]. LMICs face an unparalleled rise in the burden of surgical conditions, contrasted by the persistent scarcity of surgical care and personnel^[1]. Africa has 24% of the world's global burden of disease; however, only 3% of the world's health workers use less than 1% of world health expenditures^[1]. The world's insufficiency of healthcare workers is about 4.3 million, with the highest inadequacy in Southeast Asia and Sub-Saharan Africa^[1]. Furthermore, there are only 168 medical schools in Sub-Saharan Africa, 24 countries only have 1 medical school, and there are no medical schools in 11 countries^[1].

One of the chronic diseases is traumatic injury, which accounts for a significant portion of the global surgical burden, especially in LMICs^[2]. An observational study in Tanzania found that the rate of deaths due to trauma before hospital admission was twice as high as the rate of deaths in hospitals^[3]. These findings are indicators of the problems posed by inadequate pre-hospital care and delays in seeking surgical treatment.

Furthermore, the study also showed that the most common cause of mortality after the surgical intervention was trauma, accounting for 64% of the deaths^[3]. Studies that have shown the relationship between mortality rates and the timing of surgical interventions have shown that it is likely that delays in surgical treatment may be a contributing factor^[3,4].

Delays and failures in the provision of surgical treatment to these patients are complicated by several risks. These include the development of early postoperative arrhythmias, as

outlined in a paper studying children with congenital heart disease^[5]. The implications of the highlighted surgical inequalities threaten the quality of and access to life-saving healthcare in LMICs. The resultant cycle of inadequate and delayed surgical treatment often leads to higher mortality rates in easily treatable conditions^[5].

Delays in surgical treatment can be due to various factors that can be categorized into various domains:

- (1) *Patient-related* include financial implications, and stigma.
- (2) *Physician-related* include poor communication with the patient or the patient's family, the standards of professional training and education are often very low in the LMICs, and inadequate pay professional burnout.
- (3) *Institution-related* include lengthy waiting times for surgical treatment, improper resource management, and lack of digital records and proper system of patient registration.

The succeeding step in enhancing the delivery of surgical care in LMICs requires promoting collective efforts between groups that are active within the fields. The oppositions of building and sustaining surgical ability in resource-limited environments where there are obstacles to access, provision, and coverage of surgical treatment are enormous. But with the active participation of main actors such as policymakers, managers, and health care providers, improving surgical treatment is a reality^[6,7].

Furthermore, attaining universal health coverage so that every individual receives the health services they require devoid of enduring financial deprivation is a principal policy goal of the Sustainable Development Goals agenda (SDGs)^[7,8]. To materialize a viable SDG, the following must be integrated namely: infrastructure, a sufficient and motivated workforce, good service delivery, financing, and information management^[9].

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Consent

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ATA: study concept or design. All the authors were involved in research data/images generation and manuscript writing and revision.

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