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STATE OF ANAESTHESIA AT DISTRICT LEVEL HOSPITALS IN AFRICA

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Introduction: District level hospitals are the main providers of surgical services for rural populations in Sub-Saharan Africa (SSA). Skilled teams are essential for surgical care and gaps in anaesthesia impact negatively on surgical capacity and outcomes. This study, from a baseline of a project scaling-up access to safe surgical and anaesthesia care in Malawi, Tanzania and Zambia, illustrates the deficit of anaesthesia care in district hospitals (DHs).

Materials & Methods: We undertook an in-depth investigation of anaesthesia capacity in 76 DHs across the three countries, July-November 2017, using a mixed-methods approach. The quantitative component assessed district level anaesthesia capacity using a standardised scoring system based on an adapted and extended Personnel, Infrastructure, Procedures, Equipment and Supplies (PIPES) Index. The qualitative component involved semistructured interviews with providers from 33 DHs, exploring how weaknesses in anaesthesia impacted district surgical team practices and quality, volume and scope of service provision.

Results: Anaesthesia care at district level in these countries is provided only by non-physician anaesthetists, some of whom have no formal training. Ketamine is widely used in all hospitals, compensating for shortages of other forms of anaesthesia. Paediatric-size supplies/equipment were frequently missing. Anaesthesia PIPES index scores in Malawi (M=8.0), Zambia (M=8.3) and Tanzania (M=8.4) were similar (p=0.59), but an analysis of individual PIPES components revealed important cross-country differences. Irregular availability of reliable equipment and supply is the main problem in Malawi, where only 29% of facilities have uninterrupted access to electricity and 23% constant access to water, among other challenges. Zambia is the most affected by staffing shortages, with 30% of surveyed hospitals lacking an anaesthesia provider. The principle obstacle in Tanzania was non-availability of functioning anaesthesia machines among frequent shortages of staff and other equipment.

Conclusion: Tanzania, Malawi and Zambia, comprising 120 million people, are falling far short of ensuring universal access to safe and affordable surgical and anaesthesia care for district and rural populations. Mixed methods situation analyses - measuring and understanding deficits in district hospital anaesthetic staff, equipment and supplies - can inform national responses.

Disclosure of Interest: None declared