

Is Sub-Saharan Africa Ready for a Rise in Hip Fracture Incidence? A Perspective of Service Availability and Readiness From The Gambia

Kebba Marenah, MBBS; Anya Burton; Hannah Wilson; James Masters; Simon Matthew Graham; Matthew L. Costa, PhD, FIOTA; Kate A. Ward; Celia L. Gregson, MBBS

Purpose: Given the rising aging population and projected increase in hip fracture incidence, the aim of this work was to identify and quantify hip fracture service availability and readiness in The Gambia. To enable health service planning, detailed understanding of current fracture service provision is needed.

Methods: Between October 2021 and January 2023, all health-care facilities to which a hip fracture could present were identified through The Gambian Government Ministry of Health and health service-related networks; traditional bonesetters (TBSs) were also included (assessed using a TBS-specific survey). All facilities completed a modified World Health Organization Service Availability and Readiness Assessment. Availability of services per 100,000 adults ≥ 18 years, and general, fracture-specific, and hip fracture-specific care readiness (as frequencies and percentages or median or mean with range) were determined.

Results: 98% of facilities participated ($n = 150$). 99 were public (41 community health centers, 19 rural/district hospitals, 6 regional/provincial hospitals, 3 central hospitals), 14 private, and 36 others. 2470 inpatient beds were recorded, 198.2/100,000, of which only 195 beds were trauma and orthopaedic (15.6/100,000). There were 426 doctors (34.2/100,000) of which 9 were orthopaedic and trauma surgeons (0.8/100,000). 39.7% of facilities lacked regular electricity. 7 facilities (4.7%) had available and functional radiography facilities, with 28 radiographers reported across all facilities (2.2/100,000). 5 facilities (3.4%) could provide diagnostic investigation and surgery for hip fractures (0.4/100,000) and only one of these was a public facility. These 5 facilities reported 155 hip fractures in 2020. 35 of 42 identified TBSs (83.3%) participated. The median period worked as a TBS was 20 years (range, 2-72). 51.4% of TBSs reported being able to set a hip fracture; management included traditional medicines (57.1%), splinting (20.0%), manipulation (14.3%), and traction (5.7%). 14.3% of TBSs referred hip fractures to hospital. 25.7% had treated a hip fracture in the previous year.

Conclusion: Health services provision for diagnosis and treatment of hip fractures in The Gambia is low. The findings highlight important auditable gaps in care that warrant urgent focus. Fracture services, potentially including TBSs, will need to expand to meet demand.