

Hernia Surgery in rural Ghana, West Africa: Barriers to Health Care and Their Implications

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The information presented is a the product of a six week international rotation at Volta Regional Hospital and Royal Hospital through Blue-Med Africa, a non-governmental organization based out of Ho, Ghana. The goal of the rotation was to obtain an understanding of healthcare in Ghana and identify the differences between surgical procedures in West Africa and the U.S.



THE GHANAIAN HEALTHCARE SYSTEM

- The World Health Organization ranks Ghana 135th in world health systems (97 spots ahead of the United States). [4]
- In 1996, the Ghana Health Service (GHS) was established with the goal to make basic health services available to all Ghanaian citizens. [5]
- The National Health Insurance Scheme (NHIS) was created in 2004, taking place of the previous “Cash and Carry” system, and covers various medical expenses, including hospital stays, select medications, and regular physician visits for around 2 cedis (\$0.66) per month. [6]

- 45th largest country in the world by population at 25.9 million
- 87th largest GDP in the world at \$47.93 billion
- 12th most populated country in Africa
- 4.8% of GDP spent on healthcare



Evidence Based Medicine

- Much data has been gathered by the WHO and European researchers on methods to reduce the cost and the number of serious complications following inguinal hernia repair in Ghana.
- Many of these methods are already successfully in use in other regions of Africa.
- Evidence-based medicine shows the benefits of implementing these approaches in the hospitals in Ho.

INTERVENTIONS

- Require screenings performed soon after birth to identify congenital defects to reduce serious complications such as strangulation and bowel obstruction. [1]
- Creation of a “cost-effective package” for surgical repair of inguinal hernias that includes the method used for the procedure, the amount of training necessary for the surgeon to perform the procedure, as well as all materials and locations available to perform the procedure. [1]
- Epidemiological studies to determine the relative need for these packages, and their data factored into when, where, and to what extent these packages would be delivered. [1]
- The replacement of the currently used Bassini technique for hernia repair with the easily learnable Liechtenstein method and use of mosquito net instead of mesh to reduce costs and recurrence rates. [2]

HERNIA REPAIR

- The prevalence rate of inguinal hernias is 2.7% of the adult male population (3.15% total), and the annual incidence reaches 210 per 100,000 people, making the frequency of inguinal hernias more than five-times that of tuberculosis (0.4% of the adult male population).[1][2]
- Due to the emphasis on herbal and traditional remedies, most people living in rural Ghana do not seek care at a hospital as their first option, only presenting if these procedures fail. This results in two-thirds of all hernia operations being done under emergency conditions. [3]

The World Health Organization Assessment Tool was used to determine the capacity for surgery, obstetrics, and anesthesiology in Ghana. The WHO Assessment Tool, as well as numerous other studies, have identified the following as the most important barriers to hernia repair in Ghana:

- Physician shortage
- Supply shortage
- Available transportation
- High cost



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