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LETTERS TO THE EDITOR

Should Surgeons Work in Rural District Hospitals in Africa?

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To the Editor,

As a surgeon and the head of the surgical department at Tintswalo Hospital, a rural district hospital in Mpumalanga, South Africa, I strongly support Dr. Merry's view that the few available general surgeons in rural Africa should work at regional and tertiary hospitals, and that non-surgeons should perform basic emergency and elective surgery at district hospitals [1].

Tintswalo is a 329-bed hospital that serves a catchment area of 1.5 million persons. Like most district hospitals, complications from trauma and infections define the majority of surgical care. Similar to typical caseloads described by others [2], most operative procedures are minor, such as debridement, closed reduction of fractures, amputations, incision and drainage, and skin grafts. Elective surgical cases are dominated by removal of lipomas and cysts, excisional biopsies, herniorrhaphies, and hydrocelectomies.

Certainly, some patients have benefited from my presence as a surgeon. Over a dozen district hospitals refer patients to the provincial tertiary hospital 2–3 h away. Bed shortages and lack of operative time are common there. Emergency medical services are unreliable, and there are few critical care transport vehicles. Severely injured trauma victims and patients with acute abdomen are more expeditiously treated because I am at the district hospital. Waiting lists for elective surgical cases at the tertiary hospital are over a year long; my ability to operate at the district hospital has reduced the referral burden of these cases.

However, major surgery requires more than a surgeon and Tintswalo, like most district hospitals, is not appropriately staffed for this activity [3]. Tintswalo does not have an anesthesiologist, and the postoperative recovery room is not equipped to handle postoperative complications such as cardiac arrhythmias or respiratory distress. Intravenous cardiac inotropes and vasopressors are unavailable. There is no intensive care unit. The surgical ward nurses are not trained in the postoperative care of patients after major procedures. During the night, there is often not a single professional nurse staffing the surgical ward, and the nurse/patient ratio is too high for the acuity of care needed, often exceeding 20:1.

Most district hospitals in Africa have similarly limited human resources [2]. In resource-limited settings, medical officers should perform minor surgery and provide basic anesthesiology at district hospitals. The scope of operations appropriate for a district hospital has been cited previously [4]. Medical officers with experience in surgery and anesthesia are desperately needed, especially in the rural areas. The College of Medicine of South Africa offers diplomas in anesthesia (6 months) and surgery (2 years) [5, 6]; however, most medical officers in the rural areas do not have these qualifications. At present, the Ministry of Health of South Africa does not require a medical officer to have these diplomas to perform surgical care. Therefore, the abilities of these non-surgeons and non-anesthesiologists are variable. The government should offer incentives to medical officers to participate in these training programs with mandatory service in the rural areas afterwards. With a cadre of surgically skilled medical officers at most district hospitals, the number of unnecessary referrals to provincial

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hospitals would be drastically reduced, allowing surgeons to care for patients with more complicated conditions.

Such a strategy would in turn ensure that surgeons are more appropriately placed at regional and tertiary hospitals, where the system can support their ability to manage complex cases. At these centers, specialists should not only train surgical residents (registrars) but as many medical officers as possible, with the objective to teach them to operate independently at the district level. Surgeons should also participate in outreach to district hospitals in order to provide bedside and operating room supervision for medical officers.

As in the rest of Africa, there is a critical shortage of general surgeons in South Africa [7]. Surgical providers of all levels are needed, but given the scarcity of resources to meet the high burden of surgical disease, consideration should be given to ensure the optimal distribution of each level of provider at each level of care.

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