

A report and sequelae of a specialist volunteer physician

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Introduction

In 2006 volunteers were required for a USAID sponsored project under the Academy of Educational Development (AED). The aim was to transfer skills that would contribute to the reconstruction of Southern Sudan. I was privileged to take an assignment from 6 September to 21 October 2006. In a private voluntary capacity I returned for a month in 2010 and 2012, again to transfer skills, and so help in the reconstruction of the health sector. I worked in Juba Teaching Hospital (JTH), the Juba Medical Complex and for local television and radio.

Results of 2006 assignment

1. Training trainees

It was unfortunate that during my visit in 2006 the Trainee Clinical Officers or Medical Assistants were on leave. There were no House Officers or Medical Officers attached to the Department of Medicine. Hence there was a missed teaching opportunity.

2. Clinical services

I did daily ward rounds in the Emergency Ward and alternated daily ward rounds with a colleague from the International Committee of Red Cross (ICRC) in the Medical Ward 4. My host, the Head of the Department, did ward rounds in the First Class and Professor Woodruff amenity wards, ran weekly Medical Out-Patient Clinics and performed ultrasonography and echocardiography.

• **Workload:** According to Medical Insurance Relative Value Schedules¹ General Physician should spend not less than 45 minutes on seeing a new patient, and 15 minutes on subsequent follow-up in an outpatient clinic setting, In Private Practice where this schedule applies only Specialists see in-patients. If seen by a non-Specialist a different tariff applies. As most of the JTH patients

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¹ Relative Value Schedule. This is one aspect of a concept of value for money agreed between Health Services Financiers (Medical Aid Societies) and Private Practitioners in South African Sub-region where a Physician by the nature of his/her job spends more time on consultation (at least 40 to 45 minutes) or else he/she gets paid General Practitioner's fee.

Table 1. Summary of a 4-week work load according to the Medical Insurance Relative Value Schedules

Total working days in four weeks	23 days
Average number of patients seen in emergency ward	32 a day, working 24 hours/day non-stop
Average number of patients seen in ward 4	20 a day, working 5 hours/day non-stop
Total average number of patients seen (32+20)	52 a day, working 29 hours/day non-stop

Table 2. Summary of discharges

Ward	Discharges	Deaths (%)
Emergency ward	210	4 (1.9%)
Ward 4	336	5(1.4%)
Total	546	9 (1.6%)
Early readmission	2	1 (50%)

were rarely seen again due to logistic reasons, detailed consultations are needed to formulate a comprehensive management plan. On the basis of these Schedules the workload was overwhelming (as shown in Table 1) and there would have been no time for training although this can be carried out opportunistically on ward rounds, in the clinic and during the weekly grand rounds. Also assuming a labour regulation of no more than a 40 to 45-hour week, an average of only eight minutes would be available per patient. Hence a critical mass of clinicians is needed to share out the large work load.

• **Discharges and deaths:** Despite the workload and inadequate paramedical support there were very few readmissions and overall mortality was low (Table 2) - perhaps because patients did not return to the hospital or sought treatment elsewhere.

• **Clinical spectrum:** Malaria was the commonest indication for admission. Seventy seven percent (77%) of the cases were diagnosed on clinical grounds. The malaria slide positivity rate was 68.1%. The majority of the slide-positive cases did not have features of severe and complicated malaria. The mortality rate of slide-positive severe cases was 2 out of 5 (40%). The picture could have been different had data from the paediatric and antenatal wards been included. According to data available at the time HIV/AIDS was rare. Of great concern were the

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commonly encountered clinical features of liver cirrhosis and hepatocellular carcinoma. This may suggest a high prevalence of viral hepatitis B which may be complicated by these conditions. Severe anaemia was very common possibly due to a combination of factors such as parasitic infestations, malnutrition, various medical conditions and multiple pregnancies.

3. Continuing Medical Education

- **Attendance at a clinical talk:** Invitations were distributed to attend a talk on “Common Clinical Disorders in Juba Teaching Hospital - a Four Week Experience”. 14 people attended including the Medical Director. This was the first clinical meeting of its kind. I suggested establishing regular weekly or monthly lectures and an annual “Professor Woodruff Memorial Lecture” in memory of the late co-founder of the Medical School of Juba University.

- **Contribution to a book:** Prior to my assignment I had been one of the contributors of the book ‘Prevention and Treatment Guidelines for Primary Healthcare Centers and Hospitals in Southern Sudan’.

4. Constraints to my assignment

- **Lack of trainees:** The lack of potential trainees resulted in missed opportunities in an assignment that aimed at training trainees and transferring skills.

- **Lack of facilities:** There was lack of back up facilities such as adequate imaging and laboratory analytical capability.

- **Lack of certain essential drugs** hampered patient care.

- **Lack of interdepartmental coordination:** This particularly applied to the relationship between the public health programmes and hospital based clinical services.

- **Lack of educational fora:** There were no educational fora in the various departments or the hospital at large.

5. Forecast of future needs of a physician

- **Manageable workload:** I suggested a better structure for the deployment of the medical manpower in the hospital by building teams consisting of middle grade clinical support staff (clinical officers, house officers and registrar), registered nurses and specialists to ensure that there is a chain of command to delegate work and share responsibilities without leaving wards short of cover.

- **Allied healthcare professional support:** Adequate and appropriate laboratory and radiological support is essential for optimal clinical practice.

- **Research:** Research facilities and funds contribute to the development of physician’s skills and enquiring minds for younger clinicians. Basic research to determine local prevalence of communicable and other common clinical problems needs to be supported in order to plan the delivery of services at the Hospital.

- **Continuing Professional Development (CPD):** All clinicians working within a constantly evolving profession that requires life-long learning must engage in CPD. Professional development includes updating medical knowledge and skills as well as generic skills such as information technology, clinical audit and management.

Recommendations

1. **Training needs:** Tailor training needs to the local circumstances after carrying out a needs assessment.

2. **Coordination:** Make sure public health policies and principles of clinical medicine complement each other.

3. **Institution:** Improve all aspects of Juba Teaching Hospital so it reflects its name and the purpose of such a hospital.

Results of 2010 and 2012 visits

The opportunity for voluntary service diminished in Juba Teaching Hospital while locums at Juba Medical Complex and presentations on the media were readily available as shown in table 3.

Table 3. Summary of results of voluntary service in 2010 and 2012

Activities	Period	Outcome	Period	Outcome
Clinical services at JTH	2010	Ward rounds in Emergency Ward	2012	Did not materialise
Clinical teaching at JTH	2010	Did not materialise	2012	Did not materialise
CME/CPD at JTH	2010	One session. Excellent turn up	2012	Two sessions did not materialise
Television presentations (South Sudan)	2010	One session. Excellent	2012	One session. Good experience
Radio presentation (Bakhita Radio)	2010	Not planned	2012	One session. Excellent
Part time Juba Medical Complex	2010	Good experience	2012	Good experience

Discussion

One striking observation was the rapid rate of development taking place in South Sudan, especially in the health sector. The infrastructure and staffing of the health services appeared to have improved tremendously including the establishment of thriving private sectors. The opportunity for voluntary service in Juba Teaching Hospital which had received tremendous support in 2006 had waned, for reasons that were unclear.

My offer to speak to the media was welcomed and I was invited to act as a Locum Physician by the Juba Medical complex, an indication of possible lack of critical mass of trained specialists in the South Sudan.

Recommendations

1. Institute a comprehensive public health system to include provision of clean water, sewage and waste disposal
2. Incentivise doctors, nurses and clinical officers to engage in CPD.
3. Provide adequate accommodation for overseas volunteers who wish to offer their services free of charge to South Sudan
4. Form links with institutions in developed countries and better-off African countries to support the health system in South Sudan
5. Establish comprehensive primary health care programmes in rural areas to stem the tide of rural-to-urban migration, a trend which compounds health problems in South Sudan.

Conflict of interests. The 2006 service was sponsored by USAID facilitated by AED for a modest incentive. The locum at Juba Medical Complex was after JTH ward rounds in 2010 and in the evenings in 2012. In return I received 70% of the consultation fee.

CMAM FORUM:

Calling all nutrition workers in South Sudan – join the new ‘Forum for the Community-based Management of Acute Malnutrition (CMAM)’

The CMAM Forum at www.cmamforum.org is an information sharing site which aims to:

- bring together resources and initiatives (protocols, guidance, reports, research, training, advocacy materials etc.) related to the management of acute malnutrition into one ‘home’
- summarise current thinking on different technical issues relating to CMAM through the development of ‘Technical Briefs’ and Frequently Asked Questions.

The forum allows you to be in contact directly with others, to share resources, ask for advice, etc. So the forum is a great way to meet other nutritionists around the world and know who is doing what. At the time of writing the forum had over 450 members in >60 different countries – with 5 in South Sudan. It links to three websites from South Sudan - one is SSMJ and another is the Nutrition Cluster South Sudan Website at <https://sites.google.com/site/nutritionclustersouthsudan/>.

So if you are dealing with acute malnutrition this is an important resource. It is easy to become a member and then you can share relevant resources by emailing cmamforum@gmail.com.

****Also remember this WHO nutrition site at <http://apps.who.int/nutrition/en/contains> much useful information and is often updated****

ANSWERS TO QUIZ

- A.** Answer number 2 is correct. Hypoglycaemia is a serious complication which may be aggravated by the effects of quinine. It is easy to diagnose with a bedside “stix” test and is reversed with intravenous glucose. Complicated malaria is usually accompanied by a haemoglobin of less than 5g/dl.
- B.** Answer number 2 is correct. Meningitis remains a possibility in any patient with impaired consciousness. Artesunate intravenously may reduce mortality from malaria by about one third compared to quinine. Diclofenac may be nephrotoxic. ALL members of the medical team are responsible for the close observation of our patients.
- C.** Only answer number 2 is true. Urbanised Africans have equal cardiovascular risks compared with Western

populations. Cancer deaths in Africa are 600,000 each year and a third are preventable.

D. Only answer number 3 is true. 90% of patients with haemorrhagic stroke have hypertension. Reduction in salt intake plays an important part in the management of hypertension in Africa as it does everywhere. There is some evidence that Black Africans are more sensitive than white people to the effects of reducing salt in their diets. Obesity has increased in Africa especially in urban populations.

E. Only answer number 1 is true. 95% of the world’s cases of guinea worm infestation occur in South Sudan and Ghana. Boiling or filtering drinking water is important. Zinc supplements are helpful in the management of diarrhoea.

Compiled by David Tibbutt, SSMJ.