# *World Orthopaedic Concern*

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*This Newsletter is circulated through the internet, and through all WOC Regional Secretaries in the hope that they will be able to download and distribute it to those who may not be connected through the "net." It is addressed to all interested in orthopaedic surgery in areas of the world with great need but Limited Resources.*

The problems of training in surgical technique is fraught with difficulty, not least because of inequality of facility, of medical education, of opportunity; but also of socio-economics – a subject touching on politics, about which we have no intention of touching, even if we knew anything about it. The following reports from two parts of Sub-Sahran Africa **(S-S A**) depict differing experiences of personal comments are honestly sought: --

## **1.** A report from a Visitor new to **Ethiopia** - **Michael Mowbray**; he writes:-

"Addis Ababa, the capital of Ethiopia, bears many similarities to other capital cities in the developing world. Conspicuous wealth contrasts with abject poverty and modern high rise buildings exist cheek by jowl with shanty towns. It behoves the visitor to be extremely vigilant if one is to avoid losing valuables to the deft fingered local pickpockets. Addis is sited on a plateau north west of the African Rift Valley, at an altitude of 7500 ft. The climate is therefore congenial with a daytime temperature seldom exceeding 25 C and a night time no lower than 10 C. Fortunately, I was assured, the anopheline mosquito is not a problem at this altitude.

The Black Lion Hospital in central Addis is attached to the University Medical School. It is a modern hospital offering a wide range of specialist services. Orthopaedic surgery is housed in a Rehabilitation block built five years ago by the Chinese. Poor maintenance is evident by the dilapidated state of some parts of the building and the theatre suite, in particular, does not provide the level of sterility required for major implant surgery.

Medical training at state medical schools is funded by the public purse, and all new graduates have been, until now, expected to spend two or three years of national service as General Practitioners in the rural community. But this imposition still does not provide enough medical cover for the 78 million population living outside major towns. Often a villager in a remote area will have access only to a traditional “bone setter”, whose skill levels vary. In the case of Orthopaedics the training lasts for four years with an exit exam at the end of this period.

I found the trainees (N= 45, half of whom are dedicated to orthopaedic rather than general) surgery, to be both industrious and well informed, in English. They have a good exposure to complex trauma usually related to road traffic accidents and farm and factory machinery, poorly regulated by ‘health and safety’ standards. Injury and death from RTA’s is a spiralling problem all over Africa. Paediatric pathology, including ‘club foot’ and joint deformity, secondary to injury, septic arthritis and burn contracture, are a common presentation in the Orthopaedic clinics.

The Ethiopian Health Care Service has some provision for publicly funded hospital care. The very poorest members of society will receive free treatment on the basis of a “chitty” provided for them by a government agent who has local knowledge of the claimant’s financial circumstances. Pestrians injured in road traffic accidents, become the responsibility of the owner or driver of the vehicle involved, who becomes financially responsible for the treatment of the casualty, usually through his insurance scheme.

The timetable for the visiting surgeons follows that of the trainees. A morning trauma meeting at 8am is based on the Xrays from the previous days trauma “take”, are reviewed and treatment plans discussed. This is a rich seam of clinical instruction. Thereafter are ward rounds, clinics and daily operating lists.

On Thursday mornings there is a meeting in the Xray Department at 8 am at which the Radiologists present interesting cases, often tumours, infection or metabolic bone disease. After the Xray session, the whole day is devoted to case presentations, papers and discussions of specifically educational topics. The residents displayed a high level of IT skills, most having laptops or ‘tablets’ enabling them to access information from Orthopaedic literature. There is a well stocked orthopaedic library, but judging by its dust, little evidence of its use.

One of my own tasks was to investigate the prospect of simple arthroscopic techniques in the knee. The residents showed a familiarity with the concept, but the condition of available arthroscopes does not lend itself to techniques more

complex than simple diagnosis and biopsy. The faults lie in the variety of pieces of equipment. Differing manufacturers do not make instruments which are interchangeable; and maintenance is minimal. The question remains whether the narrow specialisation, now practiced in the West, equips visiting surgeons to instruct on the broader orthopaedic skills required throughout the third world.

This is a fundamental problem which may only be resolved by increasing demand. It cannot be claimed that the arthroscope is ever a life-saving device, but neither is it associated with serious complication. The incidence of sepsis is vanishingly small. The problems of the parts of the world with **low income** are ones of priority, of competing demand, of relative safety and danger of creating morbidity.

I did however have an opportunity to visit several private clinics in the city. The ready availability of good quality MR scanning, often undertaken by “stand alone” imaging facilities, at modest cost, will clearly lead the way to an advanced surgical service for knee problems, which at present are simply not being presented. Demand is already high in the private sector and the gifted surgeons on the staff of the Black Lion are making use of the extramural “private facilities.”

Certainly there is a strong desire amongst the senior residents to learn new techniques. There are advanced plans afoot to provide a new theatre suite at the Black Lion with funds donated by a Western Australian charity (ADfA). The theatres will provide modern facilities for complex joint replacement, trauma and arthroscopy. It is clear, however, that such a project must come with a fully funded maintenance programme and continuing detailed training for the surgeons likely to use the facility. Paradoxically the majority of joint replacement is likely to be more complex than that currently practised in the west on a regular basis. This is because in the west, most major joint replacement is “routine” work carried out on degenerative joints in the elderly. In Ethiopia with a life expectancy of 47 yrs replacement arthroplasty will be confined to complex problems following gross trauma, neglected congenital deformities and dislocations rather than the simple problems related to degenerative joint disease in the elderly. This type of surgery will demand a high degree of expertise. Instruction from specialist arthroplasty surgeons from the west will have a part to play. Surgeons visiting the developing world under the auspices of WOC or other charities, can make a special contribution by developing orthopaedic techniques adapted to the locally prevailing economic circumstances and technology.

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## **2.** UPDATE ACTIVITIES WOC-NL IN WEST-AFRICA (March 2013)

As announced in the WOC Newsletter 121, (c.f.) a Dutch surgical team (consisting of two orthopedic surgeons (**Ton Schlosser** & **Jan Bos**), with a physiotherapist and a scrub-nurse) visited **Dolisie,** in **Congo-Brazzaville,** September 2012.
Under intense media and political interest (daily broadcasts on local television and regular visits by the Minister, or her Chef de Cabinet), the team tried to meet the high local expectations (and did). in addition to extensive outpatient clinics, they operated on 45 patients. The pre-travel plan was followed through this tumult, under pressure. The young and dedicated local doctor **Fleur Kaya** had to leave Dolisie for Ivory Coast, to finish her studies, so we had some concern about the aftercare. However that proved to be acceptable, covered by local staff and regular visits by **Dr Koutaba** from Brazzaville.

Despite our request to the Congolese organization to take into account the limited capacity of the next team (and the local infrastructure) the February 2013 team (**JB** & Belgian colleague **Nicolas Van Der Hauwaert**) was confronted with more than 250 patients on their preliminary operation list (preselected by the local staff)! In addition, requests were received to send teams to other areas of the country. As a primary reaction to the huge discrepancy, between the number of patients on the provisional operation list and the actual treatment capacity, the Ministry of Social Affairs decided to give priority to children below the age of 6 yrs

**(Dr Jan Bos**) "This diminished the numbers considerably. Of the 42 children operated in September 2013, we were able to review 38 during our recent mission. There were 70 new cases for consultation. We were able to perform 86 operations on 70 children, most of them with "club feet." With better organisation and coordination the number of children to be treated would increase. Education will also play an important role. During our last mission we had two surgical assistants from Brazzaville who showed a great motivation and learned much during their 2 weeks. We will discuss the future of this project taking into account that French language and experience in orthopaedics in the third world are important prerequisites for participating in this particular project."

**Burkina Faso.** "After our preparatory visit to Kaya in Burkina Faso June 2012 we wrote and signed an "Accord de Coopération" with the Suisse Morija Foundation and our Swiss colleagues and we (**Dr Piet Konings** and **I**) just returned from our first two weeks active mission. The first days were spent together with the Suisse team in order to handover patients, instruments, documenting system &c. Following their departure, we filled all the "gaps" in the

department, - mainly cases of osteomyelitis, trauma-sequelae, some club-feet and other deformities.

“After an extensive debriefing, our plan is to alternate missions of two weeks with the Suisse group (total five per year). Longer missions have problems with bed capacity, with patients having to wait to be admitted.

“A huge problem in this part of the world is the prevalence of hip necrosis and hip arthritis in quite young patients, calling for practical replacement solutions (which have to be cheap, reliable and safe) to maintain the working and earning capacity of the young breadwinners.

“In a special round table conference, October 2012, (Veldhoven. - NL) we invited several advocates from different countries to present their experience with hip prosthesis in a tropical setting with alternatives like Girdlestone resection and subtrochanteric osteotomy. After this conference our preliminary conclusion is that, contrary to traditional thinking, there is certainly a place for hip replacement in this part of the world. Indications and prerequisites should however be adapted and be very strict”.

Reported by Ton Schlösser ajj.schlosser@skynet.be

*Editorial comment; Ton’s very interesting report, above, begs important questions, for which the contrasted comments are earnestly and urgently requested --- In such situations, what is the preferred surgical management of hip problems in the young adult?”*

*Regarding Mike Mowbray’s report, In the education of young Ethiopian surgeons, where does the arthroscope fit?*

*In each of these situations, what is the task of the surgical instructor. How much influence and responsibility has he (or she) on the trainee, as either an individual or a member of the local medical community.?*

*Individual Nations fade in their distinction, one from another. The great centres of excellence have their place in the Premier league of Orthopaedics. To what extent do they have responsibility for the poorest of their own citizens.?*

*The very greatest Institutions in India and the USA, are at least as great as the same in Germany, Japan, France or Brazil; but each of those nations has its own areas of profound deprivation. Is the world to be divided by vertical or horizontal divisions? Is the world’s population to be separated by those who can afford good health, and those who cannot?*
*Without waiting for the answer to that question, in regard to orthopaedics, let us not forget how much can be achieved without great wealth.?*

**Corrsepondence**

We have had a message from **Laurence Wicks**, from whom we have had reports before (N/L 122). He is shortly about to depart for the northern Ethiopian city of **Gondar**, under the auspices of the Leicester University's collaborative scheme, in conjuction with **Dr Mohammed Kedir**. He (LW) has been granted an award by Leicester University to visit Ethiopia for "out of programme experience" and is encouraged to establish a long term link between Gondar teaching hospital and its Orthopaedic department. (He has been pleasantly surprised by the enthusiasm and lack of resistance from the powers that be!)

His own South African experience has persuaded him of the value of ex-fixateurs. He has communicated with the hospital in Gondar, and learns that they have a serious shortage of that device (a 30 year old one !) He is planning to take some perfectly serviceable but "elderly" fixateurs with him. In fact he has discovered many such, of unfashionable design, and asks if a countrywide search might usefully be made, of well used, ex-fix instruments?.
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## LIBYA

**Prof. Mohamed Rashed,** writes from Tripoli:- <mohbrashed@yahoo.com>

"The fighting in Libya, still grumbling on, has taken a huge toll of medical services in Libya. As a middle-income country, with no past experience of internal conflict, we had little experience of treating the war wounded. Most of the casualties were blast injuries, compound fractures and traumatic amputations. Most of the hospitals have been stripped of medical supplies.

The emergency situation has subsided, but as the crisis shrinks from the pages of the world's press, the depth of the medical problem escalates as the chronic, serious disabilities emerge.

The National Transitional Council, the Ministry of Health and particularly the hospitals all over the country, have the responsibility to take charge of rehabilitation. Not a single hospital or polyclinic as far east as the city of Tobruk, was left unscathed. The country has witnessed the flight of thousands of medical personnel at all levels, many of them third-country nationals from sub-Saharan Africa. They will be slow to return.

The scale of war-related injuries inevitably meant a change in medical priorities, diverting resources from routine, health care. War injuries have heavy implications for the health system. They block hospital beds; they displace other patients, and they consume both supplies and working hours from health providers.

Libya is a country with resources but without Orthopaedic manpower to rehabilitate its own working population. In normal circumstances, our health care system was more than capable of covering the needs of the population, with 96 hospitals spread across the country. The world sees Libya as affluent, but this rich country is in a crisis now. There is concern that the shrinkage of the whole health sector, from primary to tertiary, will take a generation to restore.   This picture speaks for itself. -

(M. Laurence)