

PROVIDING UROLOGICAL TRAINING IN AFRICA

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One important aspect of improving the practice of genito-urinary surgery and enhancing its services in Africa is to provide urological training. Although several efforts have been provided by governments, non-governmental organizations, missionary hospitals and volunteer services, yet, urology in Africa is in need of a great support in developing areas, especially in sub-Saharan Africa.

The World Health Organization (WHO) and the World Bank have indicated in their annual health reports^{1,2} that sub-Saharan Africa has very poor health indicators (Table 1).

The Société Internationale d'Urologie (SIU) as the leading global professional body set up a committee to perform a survey on the Strategic Issues in World Urology (SIWU) in 1993³. The results demonstrate a number of important aspects affecting urology practice both in developed and developing countries and show that the density of urologists per population in developing countries is notoriously small; most are urban-based and have received part of their training abroad (Table 1).

However, the problem of poor practice of urology in sub-Saharan Africa is not only due to the limited number of qualified medical personnel and the lack of training but also due to lack of equipment and its maintenance. When describing his experiences in East Africa, Evans indicated that no expert service, spare parts or money funds were available to adequately repair or replace non-functioning equipment or parts of it⁴.

The health situation in sub-Saharan Africa is further complicated by other general constraints as illiteracy and malnutrition prevailing in over half and one third of the population, respectively². Moreover, wars, political conflicts, famine and major infection epidemics (HIV/AIDS, TB, Malaria, etc.) considerably affect the status of health in the areas in question.

The difficult situation of urology in sub-Saharan Africa is reflected by the prevalence of some diseases which are rarely encountered in the developed world, such as extensive vesicovaginal fistulas, advanced genito-urinary cancers, neglected outflow obstruction, persistent urinary tract infections and renal impairment.

Establishment of Training Centers

An extensive training program has been established by the British Association of Urological Surgeons (BAUS) through the volunteer efforts by Urolink at the Kilimandjaro Christian Medical Center in Moshi, Tanzania, East Africa⁴⁻⁷.

Moreover, the Pan African Urological Surgeons' Association (PAUSA) has provided several training opportunities for young African specialists at the Urology and Nephrology Center, Mansoura, the Al-Azhar Urology Department, Cairo, and the Urology Department of Assiut University, Assiut, Egypt. During their training, the young doctors are involved in the full daily activities at the urology departments in question including hands-on-training endoscopy workshops and general urologic operations and services.

An important role of providing training opportunities for urologists in developing countries has been taken over by the SIU. One of the main SIU initiatives is the provision of scholarships at centers disposing of acceptable training facilities in various countries, among them South Africa, Egypt, Tunisia, various European countries and others. In these centers trainees have a unique chance to join in hands-on-training on patients under the guidance of expert trainers who express interest in promoting the evolution of urology in Africa. SIU efforts are progressing further to support a training center in Sudan. At Wad Medani, University of Gezira, Professor Ghoneim of

Table 1: Health Indicators in Africa ^{1,2}

Indicator	Incidence – mean values (range)
Infant mortality rate	107 (25 – 125) per 1.000 live births
Under-5 mortality	172 (105 – 295) per 1.000 population
Maternal mortality rate	593 (210 – 1100) per 100.000 population
Probability at birth of surviving up to 65 years:	
- males	36.6%
- females	41.4%
Expected life expectancy	48.8 years (29 – 66 years) (less than 45 years in 38 nations of sub-Saharan Africa)
Population per physician (mean)	23.540
Public expenditure on health (as % of GDP*)	2.1% (0.6 – 5.3%)

* GDP = gross domestic products

Egypt has initiated and supported the idea and financial supply to establish a training center at Gezira Hospital for Renal Diseases through the help of SIU.

The establishment of these training centers will offer urologic services to African patients and provide high-quality training for urologists, general surgeons practising urology, nurses and technicians.

Implementation of Training

The training schedule should include the definition of an objective, a curriculum for the training program, a system for the evaluation of the achievement of the goals and the provision of an accreditation.

The objectives have to be defined in relation to the prevalent disease conditions and the type of equipment available taking into consideration the Medicare system applicable in the country in question.

The curriculum should be tailored to the needs and disease profile of the community. The following elements should be included:

- a systematic textbook-based study program,

- a monthly oral presentation of case reports,
- training in the operating theatre.

The trainee's progress can be monitored by keeping log books of all activities, such as pre- and postoperative care progress reports, teaching, conferences, subspecialties and related fields necessary for the successful practicing of the art of urology.

The strategy has to be defined in the form of specific observable tasks addressing major urologic diseases with an emphasis on clinical cases. Hands-on-training workshops, live operations and seminars are the forum of work.

The efficacy of traditional operating room-based training of urological residents is presently re-evaluated by the recent development of hands-on laboratory practical training to facilitate the acquisition of skills and the familiarity with tissue and instrument handling⁸. This cost-effective technology can be provided through different international urological associations.

Accreditation sites for the training of residents of urology provide educational material for the training program related to the education standards expected. Incentives for train-

ees and training centers should be provided by the training authorities.

Continued Education

After completion of the urologic training, a continued education is greatly advised. This could be done by workshops, video presentations or electronic education via the Internet, if available. A mechanism should be provided to review the quality control of the training by a continuous assessment of the assigned tasks and their completion. Links to accredited centers in European and African countries with acceptable urological services can be established with the help of international urological associations, such as the AUA, EAU, SIU and BAUS. The WHO and health industrial companies can help with the funding of further training courses.

SUMMARY

The provision of training of urologic medical staff is greatly needed in sub-Saharan Africa to improve the practice of urologic surgery and enhance its services.

Urologic training should be community oriented and tailored to the specific needs of the national health systems and the requirements of the population.

Health care reforms specific to each region of sub-Saharan Africa should be adopted.

High-quality urologic training programs can be established at existing hospitals in Africa in

partnership with other university hospitals or institutions. The Sudan project of the SIU is an example of such endeavor of providing a training center.

We propose the establishment of a training council in Africa to provide finance, education, publication, resident selection and evaluation.

Urologists worldwide are invited to offer their services as liaisons for volunteers and thus to contribute to the improvement of urologic health services in Africa.

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