Outside Europe

Harry's Angels

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Swaziland's 400,000 inhabitants are served by about 50 general medical practitioners. This ratio of one doctor to 8,000 of the population would horrify the medical authorities of Europe and of North America, but in Africa (outside South Africa and Rhodesia) this is possibly one of the best doctor-patient proportions.

Early in 1968 the then Permanent Secretary for Health in Swaziland, Dr. Charles Runciman, presented me with the following problem. He said that whereas Swaziland was reasonably well endowed with general medical practitioners (by African standards) there was no specialized help of any sort, and patients requiring medical procedures, surgical or otherwise, of a highly specialized nature often died because such assistance was unobtainable within the borders of Swaziland. At first this seemed easily soluble: these patients could be referred to provincial hospitals in South Africa, mainly in the Transvaal, and specifically to Baragwanath Hospital near Johannesburg, where specialists are quite happy to attend to any patient who may require their skills.

However, any foreigner coming to South Africa from any country was categorized as a full-paying private patient, and as such the fees charged by our provincial hospitals would be much more than Swaziland could afford. The yearly budget of the Ministry of Health in Swaziland at that time was about R1m. This constitutes an expenditure of R2.50 per head per year—less than 1/20th of the budget of the most conservative medical aid or benefit organization in South Africa. By the very nature of the cases likely to be referred from Swaziland to South Africa the fees incurred would run into hundreds and possibly thousands of rands per patient, which the Swaziland Ministry of Health could not afford.

It was thus obvious that if the patients could not come to the specialists, the specialists would have to go to the patients. Initially eight medical colleagues were contacted, representing the broad spectrum of medical specialties, with a view to driving down to Swaziland at intervals of two, three, or four weeks. The acceptance of this proposition was unanimous.

Inception of Scheme

Entirely in an honorary capacity, during 1968 specialists from institutional, hospital, and private practices in Johannesburg, using their own transport, at their own cost, and paying their own hotel bills, left Johannesburg on Friday mornings to arrive in Swaziland in the afternoons. They saw patients in clinics, outpatients departments, and wards on Friday afternoons, and where necessary, operations were arranged for the Saturday mornings. The last would start at about 8 a.m. and with brief tea and lunch breaks would continue through to the late hours of Saturday night. The operating theatres were

again used from 8 a.m. on Sunday morning till after lunch. The doctors would then pay their hotel bills and depart by car back to Johannesburg, which they would reach after dark on Sunday.

Soon it was obvious that this was a time-consuming and tiring procedure, and in addition it was found that the facilities, instruments, and equipment at Mbabane Hospital, where the work was undertaken, were inadequate to some extent for the specialized skill of our consultants. It was therefore necessary, firstly, to acquire air transport and, secondly, to acquire money for the purchase of instruments and equipment.

With these necessities in view I interviewed Mr. Harry Oppenheimer, chairman of the Anglo American Corporation of South Africa, who immediately was aware of our problems and placed a company plane, usually a 12-seater de Havilland Heron, at our disposal (Fig. 1). In addition he made a sum of R10,000 available for use during 1969. This sum for use in a provincial hospital or nursing home in Johannesburg would be a "drop in the ocean." Used judiciously in Swaziland, however, the money equipped a physiotherapy department in

FIG. 1—Twelve-seater de Havilland Heron aircraft used by team until replaced by 14-seater Gulf Stream in 1972.

Mbabane (Fig. 2) and a pathology laboratory in Manzini and provided the necessary instruments and equipment for the operating theatres in Mbabane and Hlatikulu; furthermore, a great deal of orthopaedic equipment for Mbabane was purchased.

Since 1969 every two or three weeks the aircraft leaves Jan Smuts Airport at lunchtime on Friday and arrives at Matsapa Airport in Swaziland a little over an hour later. On board always there has been a minimum of 10 doctors accompanied by paramedical personnel. At Matsapa the team splits into two groups. The smaller group, consisting of a general surgeon, an anaesthetist, and a physiotherapist, drives 80 miles (130 km) by sand road to Hlatikulu. The larger team, comprising an ophthalmologist, an orthopaedic surgeon, a plastic surgeon, and two anaesthetists, travel by tarred road to Mbabane.

The remaining seats on the aircraft are occupied at different times by a urologist, a neurologist, a neurosurgeon, a paediatrician, a physician, a dermatologist, an ear-nose-throat

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FIG. 2—Physiotherapy department at Mbabane Hospital.

specialist, a radiologist, and paramedical personnel such as physiotherapists and orthopaedic technicians.

The specialists start work in both hospitals between 4 and 5 p.m. on Friday and see patients in the outpatient departments and in the wards until 10 or 11 p.m. Patients who require operative procedures are prepared for the operations which start at 8 a.m. on Saturday. At Hlatikulu an average of 20 operations are performed over the week-end, and at Mbabane the average is about 35. Thus some 55 operations are performed each week-end and 150 to 200 patients are seen in the outpatient and inpatient departments.

Since the inception of this programme over 3,000 operations have been performed and about 12,000 patients have been examined. In any medical institution in the world where operative procedures are undertaken the average operative mortality rate, including major and minor operations is about one in 2,000. In Swaziland there have been no operative deaths. All have been major operations and include eight major heart operations (seven mitral valvotomies) which were highly successful. The minor operations are undertaken by local doctors in our absence during the week.

Operative Procedures

During the first two years of this scheme, though all varieties of operations had been performed we felt that cardiac surgery

FIG. 3—Dr. Patrick Makhoba, who stayed with the team until 1972.

could not be undertaken in a small village-type hospital until the thoracic surgeon was satisfied that the patients would have as good a chance of survival as at any recognized hospital in a major centre. Anaesthetic facilities had to be as superb as they are anywhere else in the world where cardiac surgery is undertaken, and the team undertaking the operative procedure would have to be satisfied that theatre staff and postoperative care would be as good at Mbabane as anywhere else in the world. It was only after the scheme had been functioning in Swaziland for over two years that Dr. Patrick Makhoba (Fig. 3), a consultant physician-specialist, emigrated from South Africa to Swaziland and provided our thoracic surgeon and his team with the postoperative medical care necessary before cardiac operations could be undertaken.

When we felt that all the requirements had been met, and after months of careful preparation in which each step had been considered in detail, our thoracic surgeon was prepared to undertake what we believe was the first mitral valvotomy performed outside a major hospital centre and under the very elementary conditions which exist in Mbabane Hospital. The patient was a 14-year-old girl with a stenosed or partially closed mitral valve. She could not climb a flight of stairs without breathlessness and her condition was deteriorating rapidly. Her case was felt to be especially important because if the operative procedure proved successful on her then operations could be performed on many other cardiac patients in Swaziland otherwise destined to die. It was felt that if this case was unsuccessful then we dare not undertake further operations and that any other subsequent patients needing the help of a thoracic surgeon and his team would have to die without surgery.

The patient was thoroughly investigated preoperatively and a decision was made by Dr. Makhoba, in combination with our team, that the case was ideally suited for the type of operation to be undertaken. The physician in Mbabane was in continual telephone contact with the thoracic surgeon and his team in Johannesburg for some days before the operation.

The team left Johannesburg on Friday at lunchtime and immediately on arrival at Mbabane Hospital prepared for the operation, which was to take place next morning. Preoperative investigation by all members of the team led by the thoracic surgeon, including careful examination by the physician and anaesthetist, had confirmed that she was fit enough for the operation. Preoperative breathing exercises were taught to the patient by the team's physiotherapist.

On the Saturday morning, after 90 minutes of surgical drama, it was announced that the stenosed mitral valve had been successfully opened and widened. An operation of this type performed in a major hospital centre elsewhere in the world would be of no real medical importance; however, performed in Swaziland under the conditions that prevail in the operating theatres in Mbabane Hospital it was one which of necessity provided much drama and worry for the skilled thoracic team accustomed to undertaking many such operations a week in Johannesburg.

Within minutes of the patient being wheeled out of the operating theatre the physiotherapist demanded that she breath deeply in and out and that she cough in order to re-expand her lungs, and she responded magnificently. Within 24 hours she was sitting up in bed and within two or three days was walking round the hospital happily without her preoperative breathlessness.

Within the space of this short article it is impossible to relate the many happy conclusions to the various operative procedures undertaken during the four years that the scheme has been operating in Swaziland. It is difficult to describe one's feelings when seeing deformed children with bowed and distorted limbs being carried into hospital by their parents; children stunted by years of malnutrition who, after being fed balanced diets for a few months and given orthopaedic operative procedures to straighten their deformed limbs, are able to

run out of hospital once again, perhaps a year after admission, into the waiting arms of their parents. I cannot tell you of the miracles which our plastic surgeon has performed. There is perhaps just one case which may be mentioned.

A very old man returning one night to his hut some 10 minutes' walk from Mbabane Hospital rather under the influence of liquor fell face first into the brazier burning in his hut. His face was so horribly disfigured that he horrified the village children, with the result that the village elders decided that he would have to be evicted from the village.

The eviction took place one Saturday morning, and more through good fortune than anything else he made his way to Mbabane Hospital on a morning when our plastic surgeon was in attendance. The surgeon could not promise him the same face as he had before the accident but could promise him a somewhat different though presentable face. More, I think, to acquire free board and lodging than to acquire a new face the patient gladly accepted the challenge of five or six operations and a stay of a year in hospital.

A year later I was in attendance when he was due to be discharged. During his stay in hospital he had received no visitors from his home village and there had been no communication between him and his friends and relatives at home. I thought of the complications which could arise when this man suddenly presented himself at his home village after an absence of a year. With this in view I asked a staff nurse to accompany him.

The staff nurse returned late that evening, some six or seven hours after his discharge from hospital, with the following story. His fellow villagers did not easily recognize him and, having suspected that he was long dead, refused to acknowledge him when he claimed that he was the man who had been evicted from their village a year previously.

Among his grandchildren, however, was a little girl who was blind and who did not have to distinguish his facial features in order to recognize him. She recognized his voice. "It's Grandpa, it's Grandpa," she cried. Soon the other grandchildren took up the cry as well as recognition dawned on them, and within a short period it was the grandchildren who persuaded the rest of the village that this was indeed their prodigal grandfather who had returned.

A beast was slaughtered, the beer began to flow, and soon the whole village were eulogizing the miracles of Mbabane Hospital and of "Harry's Angels."

This moving story made me ask the staff nurse why the little girl was blind, at which she was very surprised and blankly answered "I don't know." "Please see if you can bring the child into hospital tomorrow morning," I requested, and indeed the next morning the little blind girl saw our ophthalmologist. He pronounced that the blindness was curable, and today she can see and is a constant visitor to the hospital (in

a social capacity) on Saturday mornings when Harry's Angels are in attendance.

The Future

What of the future? In the immediate short term the future of the scheme is indeed bright. The panel of eight specialists who initially motored down to Swaziland has grown to a panel of 130 medical consultants representing every aspect of medical life, all of whom are available at very short notice when their services are required. Any facilities, equipment, or instruments that are needed for the specialists to function adequately are paid for by the chairman's fund of the Anglo American Corporation. There have been additional very useful donations from other large South African organizations to help purchase necessities.

A unique project to be undertaken in the very near future will be the provision of spectacles for those who cannot afford them. This is being undertaken by a South African branch of an international service organization. I doubt very much whether at any time in history a whole nation or country has had optical services provided to them by groups of people stationed in an adjacent or neighbouring territory. At present a child in the grades or early standards of primary school may become a "drop-out" even though he or she may be university material because the child cannot see the blackboard and because the parents are unable to afford spectacles. In the very near future all such children will be provided with the optical aids that they need.

Conclusion

When our scheme first started in Swaziland there was an absence of medical consultants in that country. Now, some four years later, there is an able physician at Mbabane, an excellent paediatrician (with an Edinburgh postgraduate fellowship) at Hlatikulu, a Korean surgeon at Hlatikulu, an American surgeon at Manzini, and a British surgeon at Mbabane. I have little doubt that in 10, 15, or perhaps 20 years Swaziland will have, living within its own borders, every type of medical consultant it requires. When that happens we will make our last trip back from Matsapa to Jan Smuts Airport, thus cutting the umbilical cord that joins Swaziland to the medical fraternity of Johannesburg; thus with a sense of reluctance but thankful for the opportunity given us to serve the people of Swaziland.

Impressions of Cogwheel

A Medical Advisory Committee Chairman's Views

FROM A SPECIAL CORRESPONDENT

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The two Cogwheel reports^{1,2} both concerned the organization of hospital doctors, not the actual medical work done in hospitals. If the reports were put into practice completely one result could be a chain of administration or even clinical command from the Chief Medical Officer to the individual consultant, Mr. Warminster,* a consultant surgeon, maintained, voicing the fears of himself and his colleagues. Of course, he continued, the chairman of the group medical advisory committee had a duty to tell his colleagues about decisions and

*the name is a pseudonym

policies recommended by the regional boards and hospital management committees, but it was only a small step for him to have to see that the recommendations were carried out. Indeed, Mr. Warminster believed that the position of chairman would soon become very distasteful: no-one would take it on voluntarily and they would have to be offered payment as an inducement—particularly in the new organization of 1974.

In his hospital group, one of four in the area, divisions had been set up in the major specialties but no group medical executive committee had been formed. This made his group one of the 30 Cogwheel structures without one of these