

EDITORIAL : VAN DIE REDAKSIE

SOUTH AFRICAN JOURNAL OF RADIOLOGY

The first issue of the *South African Journal of Radiology* is published as a supplement to this issue of the *South African Medical Journal*.

As we have pointed out on a previous occasion,¹ there has been a growing tendency in recent years for medicine to develop along the lines of specialist group interest, in spite of the fact that it is still generally agreed that general practice, as we have known it in the past, will, for many years to come, remain the basis of medical practice in this country.

In order to fulfil the need for a specialist journal for those groups of specialists who desire it, we have decided, on the suggestion of the Radiological Society of South Africa, to use the weekly *Journal* of the Medical Association (which is being circulated among all members of the Association) as the basis for the publication of

specialist supplements. The first supplement of this nature, the *South African Journal of Obstetrics and Gynaecology*, was published on 2 March 1963, and we intend publishing regular quarterly issues of this *Journal*, as well as one or two more issues of the *Journal of Radiology* in the course of this year.

In this way it will be possible for us to publish several specialist journals in South Africa in spite of the relatively small number in each specialty. Moreover, by merely supporting the Medical Association and its *Journal*, every member will have access to other South African specialist journals. Our aim is therefore to make some contribution towards the ideal of attaining unity within diversity. The wholehearted cooperation and support of every member of the Association in this undertaking will be greatly appreciated.

1. Editorial (1963): S.Afr. Med. J., 37, 223.

SUID-AFRIKAANSE TYDSKRIF VIR RADIOLOGIE

Met hierdie uitgawe van die *Tydskrif* verskyn daar ook die eerste uitgawe van die *Suid-Afrikaanse Tydskrif vir Radiologie*.

Soos ons alreeds tevore aangetoon het,¹ ontwikkel die medisyne al meer in die rigting van gespesialiseerde groepsbelange — ten spyte van die feit dat die algemene praktyk nog jare lank die basis van ons mediese praktyk sal bly.

Om in die behoefte van 'n gespesialiseerde vakblad te voorsien vir dié groepe wat dit verlang, het ons op aandrang van die Radiologiese Vereniging van Suid-Afrika besluit om die weeklikse *Tydskrif* van die Mediese Vereniging (wat onder alle lede van die Vereniging sirkuleer), as basis te gebruik vir die publikasie van gespesialiseerde byvoegsels. Ons het reeds al so 'n byvoegsel, die *Suid-Afrikaanse Tydskrif vir Obstetrie en Ginekologie*, gepubliseer op 2 Maart 1963. Daar sal vanjaar hopelik

gereelde kwartaallikse uitgawes van die laasgenoemde *Tydskrif* verskyn, sowel as nog een of twee radiologiese uitgawes van die *Tydskrif*.

Op hierdie manier sal dit wel vir ons moontlik word om in Suid-Afrika gespesialiseerde tydskrifte te publiseer ten spyte van die feit dat die aantal spesialiste in elke groep relatief klein is. Lede van die Mediese Vereniging sal ook hierdeur die voordeel hê dat hulle, net deur die Vereniging en sy *Tydskrif* te ondersteun, spesiale uitgawes in hul eie vakgebiede kan kry. Sodoende kan 'n positiewe bydrae gemaak word om die ideaal van eenheid in verskeidenheid in die mediese wetenskappe te probeer verkry. Die samewerking en ondersteuning van alle lede van die Vereniging, om van hierdie ondernemings 'n sukses te maak, sal ten seerste waardeer word.

1. Van die Redaksie (1963): S.Afr. T. Geneesk., 37, 223.

TOWARDS BETTER RADIOLOGICAL SERVICES

Departments of diagnostic radiology in large hospitals are heavily burdened by the clinical departments, but this does not bring them much sympathy. Patients have long waits, and experienced radiographers are hard to come by. These aggravating factors reinforce one another to such an extent that the Nuffield Provincial Hospitals Trust instituted an enquiry in the United Kingdom*¹ to analyse the causes of the first and to mitigate the effects of the second.

The patient who is sent from the wards, from the outpatient or casualty department, or even from outside the hospital, and endures a long wait in the X-ray department, is perhaps justifiably aggrieved. The Nuffield investigation¹

* Abstracted in the *South African Journal of Radiology* on p. 361 of this issue.

found that his total stay, exclusive of the duration of his X-ray examination, averaged 29 minutes if he had to undress, or 19 minutes if not. If the hospital has a special casualty X-ray section, this time can be reduced. The obvious remedy, which would also benefit the inpatient faced with a substantial hospital fee, is the institution of an appointment system, but the investigators found ironically that those with appointments have sometimes to wait longer than the average because the uncontrolled flow from other sources tends to bring patients together at the same time instead of separating them.

On the other hand, if an appointment system is to work really well in a very busy department, its success depends on a capable reception staff with a sound knowledge of the various X-ray techniques. One hospital found

that a dedicated 'hostess' was an immense help. The senior radiographer is required to give active supervision, and priority problems require that a senior radiologist be consulted because he will have to bear the resentment of his clinical colleagues for whatever decision he gives.

The other side of the picture is the marked shortage of radiographers, particularly those with three to ten years' experience who are needed to supervise their more junior colleagues. Enough radiographers qualify annually from our training schools. If marriage has not removed them from the hospital scene two years later, they find that the reciprocal recognition of the South African diploma in the United Kingdom enables them to travel overseas and pay their way. Several years later they may reappear on a half-day basis when their children go to school. The shortage in this country is not as severe as in Britain, where staffing for emergency duty is a big problem. It is customary for night duty to be paid at special rates and a commercial firm of radiographers may be called in to do this chore. In due course, as industry is better able to offer inducements, this situation will be with us too.

Under the circumstances, to placate the waiting patients and use the services of radiographers economically, the work load must be adjusted. The report¹ found that radiographers are occupied with radiographing the patients for less than half their time, and X-ray rooms are in use for even less of the available working day. Clearly radiographers must confine themselves to work requiring radiographic training, which means that more integrated clerical and nursing support is needed than there is at present. Labour-saving devices must be used far more and many will be surprised to hear that automatic film processing is not available in all the large X-ray departments in South Africa. X-ray equipment should have, as standard fittings, easily accessible controls on the working side, such as electromagnetic brakes, light-beam delineation of field size, movable table tops and in due course, when perfected, automatic exposure timers.

Cassette transport by a conveyor belt system between the X-ray room and the dark-room should be used. Disposable containers and table coverings will eliminate a lot of time spent on sterilization and checking of laundry. Finally, in the design of the department, more attention must be paid to function; fortunately in Scandinavia there are examples for architects to follow in this respect.

In the Republic some departments cater for all races and this introduces another dimension in an already complex problem. Having regard to the heavy capital investment (an adequate unit for cardioangiography with some accessories, but not closed-circuit television, costs more than R30,000) and the high recurring costs of expendable material (120 sheets of film costing about R60.00 can be used in one examination), the efficient use of all human and material facilities needs more than just the shrewdness and managerial skill that years of experience can confer. In fact, the integration of all these facilities is becoming a mathematical problem of great complexity.

Fortunately an answer may conceivably come through the use of the electronic computer, which has the ability to 'see' rapidly all the possible solutions to a problem with many variables. In the process known as 'operational research' it has been able to re-route economically the deliveries of a fleet of trucks as well as to calculate the optimum size for maximum safety of a war-time shipping convoy. Accordingly there should be no difficulty in advising a Provincial Administration how to use, efficiently and economically, its radiological, radiographical and clerical staff, its X-ray equipment and the rooms in which they are housed, as well as its expendable material, to give an expeditious service to patients and provide for the training of medical and ancillary staff and yet allow for academic research. We await the answer to these problems with great interest.

1. Nuffield Provincial Hospitals Trust (1962): *Towards a Clearer View: The Organization of Diagnostic X-ray Departments*. London: Oxford University Press.