

TRAINING SOUTH AFRICAN

**Doctors For
Today**

It is the responsibility of the medical schools of our country to produce competent first contact medical practitioners after six years of training. These doctors should be able to diagnose and give adequate initial treatment to 99% of the unscreened medically related problems presented to them. The confidence to do this will rest upon the appropriateness of their scientific training.

Science

For young aspirants to respect their chosen profession, in this age of cynicism and indiscipline, they will have to be inoculated with the tradition of strict scientific principles from the outset. Students are vulnerable to the easy option and the rationalisation which claims "it may not be explicable in scientific terms but it works". The pseudosophisticate who uses poor Heisenberg's brilliant uncertainty principle to advance the idiotic claims of the alternative practitioner must be drowned out by the accessible logic development from Plato, Aristotle, Galileo, Newton, Pasteur and Koch, in the attempt to stem the invasion of the hordes of mongolians on the borders of orthodox medicine.

First year medical students must thus be introduced very seriously into the realm of scientific medicine at the beginning of their studies. They dare not be fobbed off with uninvolved chemists, physicists and biologists. These offer hurdles in the form of dull primary principles of their respective subjects

without any relevance to medical application. The vast field of medical endeavour must be opened to the students and they must be made familiar with the modern tools of research, ranging from the microbiologist's laboratory to the physicist's reactor. Research methodology must be explained and relevant mathematics and statistics demonstrated. This will result in the intelligent perusal of any scientific journal from the outset.

The historical development of their chosen career, in which scientific truth is constantly doing battle with the human preoccupation with magic, must be sketched. As a demonstration of the exactitude required in medical research in modern times, an average protocol for a third phase drug trial will go far to discredit the claims of reflexologists and aromatherapists.

Ethics

The second important field of study for the fledgling should be a thorough understanding of medical ethics. This is a good counterpoint to the scientific dogma. Here the inter-relationship with the human condition will be explored. The historical background is again important but so are the dilemmas peculiar to modern times. Hipocrates did not dream about the genetic manipulator.

Their unique membership in the honourable society of medical practitioners must be spelled out to the aspirants at the very beginning of their careers.

They must be introduced into the strict rules of conduct not expected from most other professions. The guidelines of the SAMDC (South African Medical and Dental Council) must be made familiar to them in such a way that they understand why these fools have been accepted by the fraternity. Practical examples should abound to demonstrate the vulnerability of an individual entrusted with such an exacting code of conduct. Attendance at Medical Council Inquiries should be arranged.

Important documentation eg, the Declaration of Helsinki pertaining to Biomedical Research involving Human Subjects must also be thoroughly digested. Various other modern credos should be elucidated eg that of MASA (Medical Association of South Africa). These days, one has to examine the ethical implications of dealing with the human organism from pre-birth to after death.

Self-appraisal

The third part of the students' first year should consist of training in the competent utilisation of the only instrument the student doctor has brought with him to medical school – his or her personality. Communication skills need to be honed at this early stage in a profession where understanding of interpersonal relationships is absolutely essential.

The self-discovery on the part of students will also be important, in order to make an informed choice of where in the medical cosmos they would contribute best. This exercise needs to be an in-depth experience and not a superficial introduction to popular psychology platitudes. Decisions made at this stage are critical, and students should be counselled on an individual basis. Counselling should enjoy the status accorded to any other

therapeutic relationship in medical practice and serve as a model for future communication with patients.

Pre-clinical years

Once the students have absorbed rather than endured the first year of medicine, they should be ready for the next stage. They must now begin to appreciate the sciences of anatomy and physiology pertaining to the practice of medicine. Anatomy

should not be instructed as if it were Latin declensions, and the application to medical practice must be highlighted all the time. To memorise all the muscle attachments to all the bones in the body is a futile exercise in irrelevancy and dissection of a cadaver has no value unless superficial anatomy and the surgical approach to organs and other structures are demonstrated in a clinically relevant manner.

Anatomy, physiology and pathology should be linked in the students' comprehension from the outset or any practical value will be lost. Subsequent practical implications should always be borne in mind. After all, few students will become anatomy researchers or palaeontologists.

Teachers

The choice of teachers in a medical school is a problem. I would like to see lecturers judged by their ability in this regard and no other. Research should be undertaken in the relevant institutes separate from the medical school. Cross fertilisation could take place on a sabbatical basis. If teachers of the basic sciences were part of the medical school proper, you might even find them at ward rounds again. Their experience in actual medical practice should be a valued criterion in choosing teachers.

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Hands-on instruction

Now the other preclinical subjects can be introduced. We should always bear the same principles in mind. Our aim is to equip the primary care physician. A return to hands-on experience is imperative.

Today's young doctors cannot use a microscope and microbiologists and clinicians encourage this ignorance with the result that the doctor relies on simplistic highly fallible dipsticks or an expensive specialist laboratory. In most cases, the young ignoramus relies on diagnosis by failed pharmacotherapy. When he suspects the presence of an infective agent, he bombards the area involved with inappropriate broad-spectrum antibiotics. If the condition does not respond satisfactorily within 24 to 48 hours, he blasts the unlucky patient from the other barrel of his shotgun with a similar antibiotic with a different title. When the patient eventually recovers, he imagines he had a role in it. This ridiculous premise is of course preyed upon by an unscrupulous pharmaceutical industry.

A Gram's stain of the sputum or a simple blood agar culture of a throat swab would have reduced unnecessary treatment by at least 80%.

Responsible microbiologists have to take it upon themselves to inform the suggestible young students correctly. I can assure you that most clinicians they meet later, will be inclined to lead them to bad habits.

The same responsibility rests with the pharmacologists. Use of fashionable drugs should be seen in perspective. Here is another reason why an institute heavily indebted to the pharmaceutical industry for research funding, should have no jurisdiction over opinions expressed by the academic tutors of an independent medical school. I have great respect and admiration for the research done by the pharmaceutical industry; their marketing arm however, must be considered culpable in promoting inappropriate expensive therapy.

Departments of cytology and haematology also fail to teach the primary care physician practical skills.

Our rural practitioners who come fresh from medical school are more helpless at diagnosing diseases such as malaria and schistosomiasis than were practitioners sixty years ago.

Clinical years

When the clinical years are reached it becomes even more important to get hands-on instruction. Diagnosis is indisputably the cornerstone of orthodox medicine. Apart from adequate examination of the patient without elaborate instrumentation, the mastery of current appropriate technology must be encouraged. Here lies one of the greatest failings of our medical schools. Diagnostic techniques like endoscopy and smear and chemical pathology tests are jealously protected from general use for no other reason than the pecuniary interest of the specialist groups. One is reminded of the same attitude in the past about the use of obstetric forceps. Undergraduates should be encouraged to learn the correct usage of these instruments at medical school. Accreditation, control of standards and decommercialisation should take place.

Many general practitioners will in future have to practice together to reduce the costs of medical practice, and sharing expensive equipment will bring down the cost to the patient. We should encourage the eager young zealots to carry the advances of modern medicine to the people who have not enjoyed its benefits in the he past.

Multidisciplinary teaching

The multidisciplinary approach to undergraduate teaching has been discussed at length of late. There are many stumbling blocks in this regard. The only answer to this in my opinion is to cultivate generalists capable of straddling the primary care field comfortably. These generalists will not hesitate to demonstrate the use of consultants where appropriate. Good generalists do not necessarily come from the departments of family medicine. My basic instruction in general practice was given by a surgeon. The present system whereby different dogmatic approaches by different departments, without dialogue between them, are imparted to the unsophisticated student, leads to confusion.

Training Modules

I have stressed the importance of imparting skills to our medical students, because the young general practitioner is at present desperately trying to retain his self respect in a society that finds him wanting and competing with specialist colleagues who denigrate his value. In an effort to bolster their egos they resort to homeopathy and acupuncture; the more reckless attempt unsupervised surgical procedures and to bolster their finances they resort to dispensing expensive medicines. These practitioners should be encouraged to develop within the scientific medical fraternity.

There may not be enough time for the undergraduates to become expert in every facet of general practice within the allotted six years, but they would be able to select the modules most important for their immediate destination. The practical courses should be presented in the form of modules available to undergraduates and postgraduates. A modular system is the most suited for aspirant general practitioners in our country as there is no typical practice to which they are destined. A rural GP would benefit from modules in minor surgical techniques; a district surgeon would need to master a forensic examination module and the doctor responsible for a disadvantaged community's health would have to come to grips with the logistics of water supply and effluent control.

Post-graduate responsibilities

The modular system would lend itself to meaningful postgraduate training by the committed Medical Schools. It would ensure ongoing appropriate development of the Primary Care Physicians in their service to our diverse community. Even more importantly it would foster a comfortable communication between undergraduate and postgraduate and much valuable cross fertilisation is bound to occur.



**Save
face...**