Difficult Decisions

The Council and the B.M.A.'s major committees have now discussed this Government's proposals for reorganizing the National Health Service in England. Strong objections were voiced to the short time given for discussion. There was distrust of the Consultative Document's vagueness and concern about its lack of reference to clinical needs, dislike of the emphasis on management and the absence of professional participation, and some sharp criticism of the Government's sidestepping of the Health Service's financial problems.

Demands for outright rejection of the proposals were tempered by the realization that the Government was almost certainly pressing ahead with the preparation of a White Paper based on the Consultative Document. Thus rather than let the profession's views go by default and despite the shortage of time the major standing committees and the Council have commented on the proposals in some detail (see Supplement, pp. 1 to 9). Their conclusions will be debated at a Special Representative Meeting at Leicester. A Special Conference of Representatives of local Medical Committees will be held to discuss the G.M.S. Committee's report on 14 July.

The Consultative Document is imprecise about the area and district administration of the N.H.S., which is disturbing because it is on its performance at local level that the public judges the Service. It was clearly apparent when the document was published that the working parties proposed in it (paras 7, 8, and 12) could be crucial in determining the detailed administrative framework of the N.H.S. The discovery, therefore, that the Department of Health does not propose to invite nominations from the profession to serve on these working parties is disquieting (see Supplement, p. 9).

The B.M.A. is seeking an urgent meeting with Sir Keith Joseph to impress upon him the importance of including professional representation which has the confidence of doctors. What matters first in a health service is good medicine, not good management. There is already serious concern among doctors about the virtual exclusion of the health professions from management in the reformed N.H.S. They are concerned lest clinical care will take second place and their patients suffer. Management's aim should be to provide the best facilities for treating patients that budgets allow, and this requires a constructive, equal partnership between doctors, nurses, and other health personnel and the managers. Medicine is not the same as business.

The likely effects of the reforms on the different branches of the profession have, naturally, coloured their reactions. Public health doctors, while appreciating the advantages to them of joining their medical colleagues within the N.H.S., have criticized the failure to mention transfer arrangements for public health staff, deplored the continuing separation of social from health services, and asked for statutory safeguards for providing medical advice to local authorities. The general practitioners’ independent status and their statutory committees will be preserved, but the G.M.S. Committee is worried about the control that area authorities seem likely to have over allocation of resources to general practice and is chary about the idea of monitoring suggested in the Consultative Document. Despite the reintroduction in England—though not in Wales—of the two-tier administration it asked for after the second Green Paper, the Central Committee for Hospital Medical Services was highly critical of the proposed reforms, strongly opposing the paramountcy of management expertise over clinical requirements. Among other recommendations on hospital administration, it wants at least one-third of the membership of area and regional authorities to be elected by doctors and medical advisory committees to be statutory.

If the Consultative Document as it stands is translated into legislation, then the Health Service seems destined to have management based on cost-effectiveness. While this may be fine for industry it is not the way to provide good medical care. Integration of the branches of the Health Services, which was an original objective of reorganization, and one which attracted wide support, will be advanced only a little. The social services remain apart, the school health service is in limbo, the relationship between hospital and general practice will be much as before, and occupational health has been ignored. The sketchiness of the proposals and the Government's haste in pressing on towards legislation contrast oddly with the implications of Sir Keith Joseph's comment in his foreword to the Consultative Document: "...the reader may not readily grasp just how far-reaching the changes we now propose really are." The Representatives Body will have some difficult and important decisions to take on 24 July.

Safety with Lasers

Lasers are optical devices which generate monochromatic light of high energy at precise wavelengths. The emergent beam is narrow and diverges very little, so that high densities of light capable of causing serious damage to the eyes can be produced at distances up to several miles. These devices are playing an increasingly important part in industrial processes and are being applied to communications, meteorology, aeronautics, and geodetics.

The light pulses from lasers vary in duration from microseconds to milliseconds or they may operate continuously. A laser with a pulse duration of 50 μsec could produce a minute explosion within the retina and even perforate the globe, while a pulsed laser of 500 μsec could cause retinal burns. Continuous-wave lasers may irradiate the eye for a period at least as long as the blink reflex (70-100 msec). The wavelength of a laser is also important from the safety aspect. Far infra-red radiation, for instance, generated by a carbon dioxide laser is absorbed by the transparent media of the eye and may produce a corneal burn, while other lasers, such as the ruby and the neodymium, generate radiations which are transmitted by the media and may produce retinal damage.

Energy thresholds for minimal damage have been established in the rabbit and monkey. The thresholds for such damage are then modified by a factor for safety regulations and this factor depends frequently on the whim of an expert or even the convenience of the user. In fact it is now clear that at least in the case of the rabbit eye the retina and cornea are particularly sensitive to laser radiations while the so-called safety factor may be much greater than necessary, leading to unwarranted restriction of laser use.

3 British Medical Journal, 1971, 2, 481.
Experimental studies have raised complicated issues, and at the present time of uncertainty the clinical ophthalmologist carries an important responsibility. It is recommended that persons engaged in laser work should have a full initial eye examination. The findings should be recorded accurately and in detail and should define the normality or otherwise of the eye. An abbreviated examination should be carried out annually to reassure the worker and to check the efficiency of the safety programme. A further full examination should be carried out at the termination of employment to assess any change which may have taken place from inadvertent exposure and to record any ocular change which may have occurred naturally. In addition the eyes must be examined after accidental exposure to laser radiation. It is not to be expected that exposure of the eye to laser light will affect all its functions, but a latent disability unconnected with exposure might appear and be blamed on the conditions of employment.

Initial and final examinations should embrace accurate observations of the visual acuity for far and near, an objective refraction, estimation of the ocular muscle balance for far and near, and a recording of the peripheral and central fields. A slit-lamp microscope examination of the transparent media of the eye, including the periphery of the lens normally hidden behind the iris, should be included, together with a full examination of the fundus by both direct and indirect ophthalmoscopy. A photographic record, an illustration, or a detailed description of any deviation from normal should be made, however insignificant the change. The intraocular tensions may suitably be measured in older people or if symptoms or signs of glaucoma are present. This may appear to be a formidable task, but it is neither more nor less than that generally laid down for the routine examination of a professional civilian or military pilot, and with the aid of modern screening devices, such as the Globuck or Friedman screener for the examination of the central visual field, it need not be too time-consuming.

Much discussion has centred round the value of routine retinal photography. It must be appreciated that the field of view of these cameras is limited, and the variation of normal film and processing characteristics makes minute changes difficult to assess. Probably photography is best limited to the recording of lesions of the cornea, lens, and fundus that are obvious and which may in future be confused with damage produced by a laser.

The annual examination may with advantage be carried out by practitioners of occupational medicine, particularly those associated with laser-using establishments who have some knowledge of the hazards involved. Close association with the individual may lead to early recognition of significant or inexplicable changes for which specialist advice is necessary. On these occasions, in the absence of untoward symptoms or signs, it is satisfactory to confine the examination to recording the central visual acuity and central visual fields by means of the Amsler chart. The transparent media should be examined by means of the slit-lamp microscope or 10 ophthalmic loupe with focal illumination, and the fundus should be examined with the pupil dilated.

After accidental exposure to laser radiation an immediate specialist examination is needed. In the case of a serious catastrophe little can be done except to record accurately the ruins of a previously normal eye. In other cases, particularly those in which there is a persistent after-image, the procedures recommended for the initial examination should be carried out with particular reference to any area of the visual field in which a scotoma or after-image is apparent. This area should be examined in detail by visual field plotting, ophthalmoscopy, and, if practicable, by photography, and it is perhaps in these cases, in which the radiation level is near threshold and in which no immediate retinal damage can be seen, that fluorescent fundus angiography may be of great value in prognosis for the eye and as an aid in the reappraisal of a safety programme.

Though little experience has been gained in the use of safety regulations it is nevertheless a wise precaution to have a safety code for all who work where lasers are used. The code published by the former Ministry of Technology provides a reasonable basis in the light of present knowledge.

The experimental investigation of laser irradiation of the eye is clearly no field for the amateur. It requires the skills of an experienced ocular anatomist, an ophthalmologist trained in scientific method, and biophysicists who are familiar with the optical and electronic aspects of laser systems. It should be stressed that the physical properties of laser light are incompletely understood, a fact which has been demonstrated by a recent report that some lasers can emit extremely short pulses of very high energy. This has been termed mode locking and could have a serious effect on the eye unless the phenomenon is appreciated. Until more is known about lasers, measures taken to protect people working with them should be strict and if anything err on the side of the conservative.


More Money for Mental Health

The Government's recognition that in many large mental hospitals the daily routine "is a life of minimal satisfaction for patients and staff alike" is welcome. Sir Keith Joseph's white paper, Better Services for the Mentally Handicapped, is unusually frank about the defects of the present system, and there will be general agreement with his long-term plans for improving domiciliary services so as to encourage families to keep handicapped members at home, reducing the size of mental hospitals, and raising the number of places for adults and children in training centres and small, purpose-built residential units.

Doctors will be disappointed, however, to find that little attention has been given to recruitment of medical and nursing staff in the hospitals which carry the burden of the long-stay patients. The report acknowledges that compared with ten years ago patients are more severely handicapped and many more are over 55. The old days when there were plenty of able-bodied inmates to help in domestic work within the hospital are gone for ever. Morale is already low in many of these hospitals, and retention and attraction of staff is likely to be even more difficult during the process of gradual closure of the larger hospitals and an overall reduction in beds from 52,100 to 27,000 over 15-20 years. The Government calls for more voluntary help by school children, students, and others, which can do much to cheer the lives of patients who may never see their families. But the routine of cleaning, bed-making, cleaning up after incontinent, and similar mundane work needs professional staff.