has been compared with the Apgar score of the baby one minute after delivery. If the dip area was small, the baby was usually in good condition at birth, but there was no obvious relationship between the dip area and Apgar score of babies in poor condition. The likely reason for this discrepant finding is that the dip area is chiefly a measure of amplitude and does not take into account other changes in fetal heart rate associated with asphyxia such as bradycardia or tachycardia between contractions. It may be actually misleading when the serious, late, shallow decelerations are the only sign that the fetus is asphyxiated.

In a second paper the authors overcome some of these objections. In this they report a composite scoring system, which they have called an index of fetal welfare, for determining the Apgar score of the baby. In addition to the dip area they take account of abnormalities of the fetal heart rate between contractions and meconium staining of the liquor. The index gives remarkably good correlation with the one-minute Apgar score of the baby, but to what extent it is an index of asphyxia is difficult to say. One of the major contributions of these authors has been to draw attention to the importance of meconium staining when the fetal heart rate is abnormal, particularly when the fetus is immature, for in the past this sign has often been overlooked in studies on the detection of fetal asphyxia by continuous heart rate recording. C. J. Hobel has confirmed this view by showing that in the presence of continuous abnormalities of fetal heart rate acidoses appears earlier when meconium is present.

Any scheme for monitoring the fetus which excludes the use of pH may be thought incomplete. Heart rate can provide only a limited amount of information about the condition of the asphyxiated fetus, while the pH is a measure of the metabolic response, which is to some extent independent of circulatory changes. The heart rate is abnormal in about 30% of high-risk fetuses, but only just under one-third of them actually develop acidoses. There is also a need at the moment to learn more about the significance of the continuous fetal heart rate in relation to blood gas and acid base values.

All classifications of fetal heart rate patterns such as the index of fetal welfare, owing to their tendency to oversimplify, lead to the loss of useful information. The importance of the studies by Tipton and Shelley is that in constructing their index they have clarified some of the more important signs of fetal asphyxia, but until continuous monitoring is more widely used it would be more informative if these signs were described individually rather than compounding them into a score.

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**Clofibrate in Ischaemic Heart Disease**

Ischaemic heart disease is the cause of more than a quarter of all deaths in the United Kingdom, and epidemiological studies in many countries have shown its incidence is increased in those who are overweight, inactive, smoke, or have high serum lipid levels. Not surprisingly, in recent years increasing attention has been given to measures which might protect the patient who already has ischaemic heart disease in the community—primary prevention—which might protect the patient who already has ischaemic heart disease from sudden death or myocardial infarction—secondary prevention.

Among the measures proposed for primary prevention of ischaemic heart disease have been reduction in weight, increasing physical exercise, stopping smoking, and adoption of special diets. All these measures are easy to propose but difficult for most citizens to accept. But when a patient who has already had his first myocardial infarction or is suffering from angina, though it is late in the day, he is more ready to listen to unpalatable advice and is prepared also to accept long-continued drug treatment.

Unfortunately the natural history of i-chaemic heart disease is such that it is not easy to measure the effectiveness of such measures. The one enduring legacy of the unhappy experience of the use of anticoagulant therapy is an appreciation of the importance of carefully planned and properly controlled therapeutic trials. The enthusiasm generated by the early trials of anticoagulants, trials which in retrospect were poorly planned and inadequately controlled, created a belief that failure to use anticoagulants in patients who had had a myocardial infarct almost constituted negligence. This impeded further studies and resulted in many patients receiving treatment which was not without hazard and which was later shown to be of little value.

After the anticoagulants, interest turned to drugs which reduce serum lipid levels, such as oestrogens, triparanol (MER 29), nicotinic acid, and clofibrate (Atromid S). The situation five years ago was that clofibrate looked the most promising, but evidence was needed whether the use of this drug to reduce serum lipid levels benefited patients. Now in this issue of the *B.M.J.* two large groups of physicians in Scotland and Newcastle upon Tyne report well-planned, controlled trials of clofibrate in which they have watched 1,214 patients for four or five years (pp. 775 and 767). Dr. M. F. Oliver in Edinburgh and Dr. H. A. Dewar in Newcastle, who undertook the planning of these trials, have prepared a joint commentary (p. 784) on the reports. The results of the trials are in some ways disappointing. Of 620 patients in the two trials who did not receive clofibrate, 79 (13%) died suddenly from myocardial infarction during the period of observation, while of 594 patients who did receive clofibrate 59 (10%) died. This bare statement suggests that this therapy, like anticoagulant therapy 15 years ago, is not going to make much impact on ischaemic heart disease. But detailed analysis reveals important, but puzzling results. Patients with pre-existing angina were protected more by clofibrate than patients who had suffered myocardial infarction but had not had angina, and the protection seemed unrelated to the effect of clofibrate on serum lipids. This protection was shown in a reduction in the number of both fatal and non-fatal infarcts in the treated groups. But the differences between the findings in
patients with and without angina and the mechanism of action of the drug remain unexplained. Further research will be needed to characterize those patients who stand most to benefit from clofibrate and to examine how these benefits are produced. It may well be, as the authors hint, that some pharmacological action other than the effect on serum lipids is important. If this can be identified, there may be other related compounds which may be more effective than clofibrate.

These trials provide a reliable base for the necessary further examination of the place of clofibrate and related compounds in ischaemic heart disease. Cautious interpretation of this work and the maintenance of high scientific standards of design for further therapeutic trials should prevent a repetition of the unhappy history of anticoagulant therapy.


“All in a Working Day”

Any junior doctor in hospital knows that his on-duty hours are long and his work too often inefficiently organized. A report just published (see Supplement, p. 87) supports this as well as showing up many more well-known weaknesses in the organization of the work of young doctors in training. For example, it shows that some of the work presently done by doctors could well be done by non-medical personnel and it also shows that the amount of time devoted to education in a week—for instance, an average of only seven minutes for doctors in accident and emergency departments in the hospitals surveyed—is pitifully small.

Carried out by the Department of Health’s Management Services team on the instigation of the authors of the Cogwheel report, this report clearly spells out the many difficult problems facing junior staff. Observers closely followed the activities of 85 doctors in nine different hospitals for 7,000 hours and they showed that the average weekly duty time (including “on call”) for these doctors was 88 hours 15 minutes, though actual work occupied less than 40 hours of this. Of the three areas examined—general surgery, general medicine, and accident and emergency—junior doctors in general surgery averaged seven hours a week more “on call” than their colleagues in medicine, though the working hours for the two groups were almost the same at just over 41 hours. In accident and emergency departments the contrast between “on call” and working time was more striking—about 69 and 29 hours respectively—and to remedy this the report suggests a three shift system for staffing these departments. The statistics in this report support the B.M.A.’s Hospital Junior Staffs Group Council’s recent report (Supplement, 4 December, p. 55) on extra-duty payments and, in particular, justify the proposal made in that report that “on call” commitments should be reviewed. Analysing the workload between 10 p.m. and 9 a.m.—with peaks before and after midnight—the Management Services team’s proposal is that “on call” rota for surgery and medicine should be revised to reduce the number of doctors on call by 50% after 1.30 a.m., and it also recommends greater pooling of juniors in divisions as a way of giving them more time off.

Averages can be misleading, however, and flexibility is essential. Responsibility outside the normal working day is not just a question of tidily arranging names on a weekly rota. Many doctors prefer to be called out if their own patients are in trouble—particularly, for example, when a patient has had an operation that day—and rota systems must be able to cope with this situation. There is a danger that in demanding too cut and dried on-duty commitments young doctors may be undermining their own professional status. It is proper, therefore, that the report—produced independently of the Health Department’s policy makers—recognizes that doctors have a responsibility for organizing their own work and, in proposing a normal duty week of 40 hours, it also says that junior doctors should “ensure that they make the most efficient use of the time available during their normal working day.”

How much training do the young men get? The seven minutes a week in accident and emergency departments already referred to is bettered by surgery departments, which manage 29 minutes, while general medicine achieves one and a quarter hours on average. These depressingly low figures totally vindicate the complaints from junior staff that in most hospitals training arrangements are still woefully inadequate and subordinate to service needs. When, despite wide publicity about training deficiencies, a report like this states bluntly that (at the hospitals visited) “the amount of time identifiable as being devoted to the training, formal or informal, of junior hospital doctors was very little and in some hospitals was for all practical purposes nonexistent” then senior doctors and the Health Departments must act and quickly. It is indefensible for the N.H.S. to employ large numbers of doctors, whether from home or from overseas, in posts allegedly for training when they are nothing of the sort. Clinical discussion with senior doctors, referred to in the report, is not enough. One possible way of improving the situation and at the same time ameliorating the staffing crisis in accident and emergency departments—and the report underlines the serious problems here—would be greatly to expand the training facilities in these departments.

The authors of this report have covered a wide range of junior staff problems, many of which were highlighted four years ago by the B.M.A. in its “charter” for hospital doctors.1 But it is the condemnation of present training facilities just as much as the report’s proposals for reducing the unnecessarily long hours “on call” that the profession’s representatives and the Departments must really get down to when discussions start on the junior doctors’ “working day.”

1 British Medical Journal Supplement, 1967, 2, 93.