SOCIETY FOR SOCIAL MEDICINE

XV ANNUAL MEETING, SEPTEMBER 9-10, 1971

Held in the Moyne Institute, Trinity College, Dublin

FIRST SESSION (Chairman: W. J. E. JESSOP)

Social Medicine Participation in an Integrated Pre-clinical Course. J. P. KEVANY (*Department of Social Medicine, Trinity College, Dublin*).

The changing patterns of health and disease that have occurred in recent decades have substantially altered the requirements for medical education in contemporary society. The teaching of social medicine is an important step in response to these changes; however, courses in this field are not always supported by a knowledge of the basic principles of sociology as they refer to public health and medical practice.

In 1970 the medical school introduced a nine-hour course in medical sociology as part of the integrated pre-clinical teaching programme. In addition to the mandatory course, electives in medical sociology can be undertaken during the summer term. The course includes subject areas in sociology, demography, social structure and organization, education, the sick role, social factors in the provision of health services, and the evolution of the medical profession. Topics for electives are left as far as possible to the students provided they fall within general guidelines.

The course has been well received to date and 25% of the class prepared electives in this field in 1971. Difficulties have been encountered in providing a suitable text-book. The benefits of this course will be identified in 1972 when the first class will receive the course in social medicine.

Objectives in the Clinical Section of the Curriculum. P. G. S. BECKETT (*Department of Psychiatry, St. Patrick's Hospital, Dublin*).

In any educational exercise it is most important to specify precisely one's objectives. These may be thought of at five levels of increasing complexity: (1) recall of information, sometimes vulgarly called 'regurgitation'; (2) transfer or generalization of this recalled information to a wider field; (3) the solution of simple problems at a theoretical level; that is, from a written (or taped) history and examination the student should be able to answer questions about diagnosis and management; (4) problem-solving at the clinical level, which is always unpredictable and varied; (5) therapeutic intervention. This, however, is mostly concerned with postgraduates rather than undergraduates.

The nature or quality of the objectives in medical education is another matter. What qualities do we hope a doctor will have? It is suggested that four aspects of a

doctor can be separated. (1) He should be a biological scientist; traditionally one learns this from lectures, text-books, and practicals. (2) He should be an expert in clinical technique, traditionally learned from his supervisors in hospital work. (3) He should have an interest in the human condition of his patients; but he is traditionally not taught this, rather it is learned by 'osmosis'. (4) He should be a man of high ethical principle, learned from the example of his teachers.

It is suggested that additional techniques could be used to facilitate the learning of these objectives. In learning to be a biological scientist, programmed instruction and tape-slide teaching machines have their place. In learning to be an expert in clinical technique the use of actors as subjects, television tape to see oneself in action, and computer-controlled simulators might all be used. As regards interest in the human condition, movies and television tapes on interviewing technique, and assignment to families for a period of several years are most useful. Finally, in the learning of ethical principles, a plea is made that the lecture should not be abandoned. This format offers the student a chance to identify with the complete doctor standing before him, warts and all.

Screening for Vitamin C Status. C. M. W. WILSON and J. P. KEVANY (*Depts. of Pharmacology and Social Medicine, Trinity College, Dublin*).

It is being recognized more and more that measurement of the vitamin C status of the tissues is of clinical importance. The tissue status is low in gastrointestinal disease; ascorbic acid (AA) plays a role in rheumatoid arthritis; it has been shown to be involved in haemopoiesis; and there is controversy about its beneficial effects on the common cold.

During the last four years a simple measure of tissue AA status has been examined, namely the 2:6 dichloroindophenol tongue test in which a drop of the 3% blue dye is placed on the tongue. As the reduced AA in the tongue reacts with the dye, the blue colour disappears. A short tongue test indicates a high concentration of AA in the tissue, and a long test indicates a lower concentration. The characteristics of the tongue test in three groups of individuals—two student groups and a third group from a government service agency (G.S.)—have been investigated. There was no significant difference in characteristics between the two student groups, however the G.S. group in addition to being older had a significantly longer tongue test time (TTT). The students had an early peak at 31-50 seconds whereas the latter had a less marked peak

occurring at a longer time of 51–90 seconds. Even more interesting, there was a small secondary peak at 111 + seconds. Analysis of the TTT in other subjects with various diseases suggests that the existence of a long TTT may have some clinical significance. A highly significant correlation between plasma and leucocyte AA values was found and a significant relationship between TTT and leucocyte values. There was, however, no relationship between plasma AA and TTT. It can therefore be concluded that TTT, like leucocyte AA values, provides a measure of tissue AA storage and metabolic requirements.

Serum cholesterol levels were estimated in the G.S. group as part of a screening programme for coronary heart disease conducted by the Irish Heart Foundation. In the younger age groups there was no significant correlation between serum cholesterol and TTT. There was, however, a significant correlation between cholesterol and tissue AA values in the tongue in the oldest age group.

The tongue test provides a simple and quick method for measuring the turnover rate and metabolism of AA in the tongue and is representative of the tissue status of AA. The AA tongue test time, like that of the AA concentration in the leucocytes, falls with increasing age. It shows certain population characteristics which may be associated with pathological conditions.

Screening for Coronary Heart Disease Risk Factors. N. HICKEY (*Irish Heart Foundation*).

In 1969 the Irish Heart Foundation began a screening programme for coronary risk factors. The object of the study is to test the acceptability of such a programme and to determine the yield of high-risk individuals.

The screening procedure was outlined and the risk categories of the initial 10,000 male subjects presented. The prevalence of overt coronary heart disease and of high-risk category individuals was approximately 19% of those screened.

A follow-up study among the general population and in industry will shortly start to determine the extent to which the risk factor status of individuals can be altered.

SECOND SESSION (Chairman: J. PEMBERTON)

The Association of Place of Birth in South Wales with Central Nervous System Malformation Prevalence. C. J. ROBERTS (*Dept. of Social and Occupational Medicine, Welsh National School of Medicine, Cardiff*).

There is good evidence that environmental influences play some part, possibly a major part, in the aetiology of neural-tube malformation in the human embryo. A strong pointer in this direction is the degree to which malformations vary from country to country and from area to area within countries.

For three years beginning 1 January 1964 information about all infants born to women resident in a defined area in South Wales and about all the congenital defects identified in the birth population has been collected. The area surveyed was defined by the county boundaries of Glamorgan and Monmouthshire. In the three years of the investigation, 92,980 infants (live and still births) were

born to women resident in these areas; of these infants 90,921 were the outcome of singleton pregnancies and 740 of these were ascertained to have neural-tube defects.

Marked differences in area prevalence were observed, particularly high rates were recorded in certain mining valleys of Monmouthshire and those of East and West Glamorgan. When (for the purposes of more detailed statistical analysis) the total sample was divided into eight subpopulations defined (before data were collected) on the basis of certain geographical, occupational, and cultural characteristics, area differences (although not so prominent) were still in evidence. These ranged from 9.6 per 1,000 singleton births in the eastern mining valleys of Glamorganshire to 5.3 for Newport County Borough. However, since parity, social class, and maternal age were also found to be strongly associated with CNS malformation prevalence, the problem was to determine the extent to which the observed association between area and malformation prevalence was dependent upon the secondary association of both variables with parity, social class, and maternal age. This was approached by use of multivariate analysis in which the dependent and independent variables were measured on a binary scale.

The results of this analysis showed that adjustment for biological parity, social class, and maternal age further reduced the magnitude of the area differences reported above. On the basis of these findings it is concluded that in South Wales the effect of area (defined in this study on the basis of occupation—mining/non-mining and geographical—east/west, valleys/coastal plan criteria) is considerably less than that of biological parity, probably less than that of social class, but greater than that of maternal age.

Social Attitudes to and Utilization of Cervical Cancer Tests. N. D. RICHARDS and P. J. M. MCEWAN (*Centre for Social Research, University of Sussex, Brighton*).

The Yield of Disease obtained at Screening a Middle Aged Population. HARRIET TREVELYAN (*Dept. of Clinical Epidemiology, St. Thomas's Hospital Medical School, London*).

The South East London screening study is a controlled trial of multiphasic screening and surveillance in middle age. The aim is to evaluate the effect of such screening in terms of (1) the long-term effect on morbidity and mortality, and (2) the yield of previously unknown disease which is considered to require management.

The study population includes all individuals between 40 and 64 years in nine general practitioners' lists in two group practices. This population is randomly allocated to screening and control groups. The screening group is invited for screening every two years. The screening process consists of a symptom questionnaire, anthropometry, electrocardiography, respirometry, blood pressure recording, tests of vision and hearing, blood tests, and a physician's examination.

Of those allocated to the screening group, 3,100 individuals were known to be still on the practice list. Of these 73% accepted and were screened. The refusers were older, had a lower consultation rate in the previous