Pathology across Europe: differences and similarities 2 Microbiology

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Organisation of services

Eight of the 12 European Community (EC) countries recognise medical microbiology as a distinct specialty but its practice varies considerably in each of the member states. As might be expected, most university hospitals have Departments of Medical Microbiology that are responsible for teaching and research. Many also have variable but sometimes extensive service commitments. Although medical microbiology is not only recognised but almost invariably practised as a monospecialty in the United Kingdom, there being now only a very few general pathologists, this is not generally the case in the EC. Despite being designated as a monospecialty in eight member states, medical microbiology is often practised by those providing multidisciplinary services, particularly in smaller hospitals.

In Britain non-medical scientists have an important role in academic units of medical microbiology as well as in specialist reference laboratories. They are not heads of hospital departments, however, and do not have important clinical responsibilities in diagnostic laboratories, regardless of the size of the hospitals concerned. In contrast, non-medical scientists often assume a greater degree of responsibility for providing services within the EC—for example, in France—where pharmacy graduates may have considerable service responsibilities.

Close cooperation between microbiologists and clinicians, which is now very much part of the approach to the diagnosis and management of patients with infections in Britain, may therefore not occur in many smaller hospitals in many member states. Because of this, clinicians who may have little or no training in microbiology are more likely to be involved in developing antibiotic policies as well as infection control procedures. Needless to say, such activities are likely to be practised with a varying degree of competence.

Training

The General Directive introduced by the European Commission is to be implemented by January 1991. Its objective is to improve opportunities for professionals, both medically and scientifically qualified, to practise in the EC, recognising, within certain limits, that those qualified in a member state may practise in another. Medically qualified persons have already been allowed to practise in EC countries, however, although language problems and compatibility of training have been limiting factors.

Although the Advisory Committee on

Medical Training has laid down guidelines for training, they relate mainly to quantity rather than quality. Thus in most member states training in medical microbiology as a specialty is conducted over four to five years. Training in clinical pathology, however (described as clinical biology by the EC), usually takes about five years as well, trainees rotating through such other disciplines as clinical chemistry and haematology.

Entry qualifications for non-medical scientists is by a university degree in all member states. In Belgium and France graduates in pharmacy predominate whereas in the rest of the Community qualifications in biochemistry or chemistry are more usual. Formal post-graduate specialist training is available for such persons, however, this being mandatory in Belgium and France. In other countries such as the Republic of Ireland and the United Kingdom vocationally oriented university courses leading to MSc degrees are available.

Accreditation for medical specialists is generally the responsibility of national or regional licensing bodies. Some European member states find it difficult to understand why Britain places so much emphasis on accreditation by examination. Although the standard training required to pass the MRCPPath, by which accreditation is generally obtained in the United Kingdom, is unlikely to be achieved by other member states in the immediate future, it is encouraging that the Union of European Medical Specialists (UEMS) is now carrying out an extended and in-depth analysis of training in monospecialties in an attempt to improve and harmonise the quality of training.

In the United Kingdom, the balance between opportunities for specialty practice in medical microbiology at the consultant level in relation to the number of trainees is reasonably satisfactory; the Joint Planning Advisory Committee has a specific duty to regulate this. Consequently the scope for qualified specialists applying for senior posts in Britain is limited. In some member states, however, no such arrangements exist; in West Germany there are about 4000 unemployed doctors. This situation is now compounded by the movement of doctors from East to West Germany. Indeed, the standards of training in the German Democratic Republic are generally below those in the Federal Republic.

Research

Most senior microbiologists are convinced of the importance of trainees conducting some

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research during training. Indeed, recent modifications to the MRCPPath examination were made, in part, to encourage this. Research within member states is often of a very high standard, particularly in molecular biology. It is encouraging that, although not regarded as essential for training, most member states recommend some research experience during this period.

Collaborative research, often generously funded, is encouraged in the EC. Advice about this may be obtained in Britain from the Medical Research Council.

Standardisation

The European Committee for Standardization (CEN) is responsible for preparing standards for in vitro diagnostic systems under the auspices of its technical committee CEN/TC 140. The United Kingdom's input into this activity is under the aegis of the British Standard Institute Technical Committee HCC/69 on which professional bodies and the diagnostics industry are represented. Dr D M Harris (consultant microbiologist, Sheffield) and Dr C Roberts (deputy director, Public Health Laboratory Service) are the United Kingdom microbiology representatives on HCC/69.

Standardisation of safety requirements, quality assurance, and examination of antimicrobial substances against micro-organisms are among issues for discussion. Currently, however, there is a difference of viewpoint within HCC/69 because some countries, including the United Kingdom, are anxious to ensure that the quality of test results is of paramount importance; other member states, particularly West Germany, wish to impose vertical standards, prescribing detailed methods of test procedures.

The Commission is also committed to developing harmonisation in the field of "medical devices", including various directives such as in vitro diagnostic products. This directive apparently will relate only to essential requirements; products complying will have unrestricted movement between member states from 1992.

Future requirements

The undoubted complexity of the EC and its

decision making process inevitably makes British pathologists, regardless of their specialty, somewhat wary of arrangements for the practice of their specialty after "1992". The EC could, however, provide additional and worthwhile dimensions for the practice of medical microbiology. Input from various national professional organisations, including the Royal College of Pathologists, is essential if various EC directives are to be moulded successfully to the practice of pathology specialties. Among issues which need to be considered are the following:

(1) Exchange of trainees

Facilities already exist for interchange of research workers between member states but not for those involved in diagnostic work. Professional bodies must try to persuade the EC of the importance of such an initiative.

(2) Medical input into medical microbiology

The EC must be made aware of the importance of a medical input in the running of departments of medical microbiology, with particular emphasis on the critical role of doctors interpreting results and in the organisation and implementation of infection control procedures and antimicrobial policies. Although the role of microbiologists in the above procedures is now well established in the United Kingdom, this is by no means so in many EC member states. Lack of initiative in persuading the EC of the importance of medical input may well result in pressure groups being formed by pharmacists or other groups of scientists who may wish to extend their influence in the field of diagnostic services to the detriment of patient care.

(3) Standardisation of reagents and kits

In the United States diagnostic reagents and kits are extensively tested and assessed by the Food and Drug Administration (FDA) and before product licences are issued. There is no such system in Britain or in other member states. This means that organisations of varying degrees of sophistication, including individual laboratories, have to carry out their own assessment. This unsatisfactory state of affairs could be resolved if a European equivalent to the FDA was formed which assessed reagents and kits before a licence was provided.