

A crisis and its solution: setting up the UK Clinical Virology Network

Reported on behalf of the UK Clinical Virology Network
by M Zuckerman, C Aitken, B Carman, PP Mortimer,
K Cartwright

Clinical virology is a young discipline. Its origins can be found in the series of technical innovations that came to fruition during the second half of the twentieth century: cell culture as a substrate for virus isolation; electron microscopy; availability of antigens for a widening range of serological tests; monoclonal antibodies; solid phase assays; and, most recently, the greatly enabling polymerase chain reaction. It is no exaggeration to state that virology now sets the pace in the development of medical microbiology, and that its techniques of rapid diagnosis, serology and molecular typing have become the standard by which the rest of microbiology should be judged.

Yet a staffing crisis looms in medical virology in UK. The advent of Calman training, the discontinuation of SHO posts, a reduction in national training numbers in microbiology and failure to renew consultant virology posts have all contributed to a paucity of interest for training posts. This may also be linked to the erosion of pathology teaching in the undergraduate curriculum and the reduction in academic posts in microbiology and virology. Few medical schools and universities support chairs in these specialities, a problem highlighted in a recent report from the Academy of Medical Sciences.

Currently, clinical virology services in the United Kingdom are provided by 44 consultant medical virologists, (38 full time) and a dozen grade C scientists who do clinical work as part of their duties. In most district general

‘It is no
exaggeration to
state that virology
now sets the pace
in the development
of medical
microbiology...’

hospitals, consequently, the provision of virology advice falls largely to consultant medical microbiologists, few of whom have received specialist training in virology. As clinical virology becomes more complex, many of them are now requesting updates in clinical and laboratory aspects of diagnostic virology. They recognise the rapid developments in molecular diagnostics and antiviral chemotherapy, the new viral vaccines, the identification of new human viruses, and the problems of managing virus infection control in the hospital and local community. They know that

the demand for specialist virological advice and support to genitourinary medicine, renal dialysis centres, foetal medicine units and tertiary referral services such as cancer centres, bone marrow transplant and solid organ transplant units also has increased substantially over the last 10 years.

Because the 1990s saw no overall growth in the numbers of consultant clinical virologists, each provides, on average, a consultative service for more than a million people. However, the distribution of consultant clinical virologists today is distorted, reflecting past patterns of investment and current ability to fill posts, rather than current need. Workforce planning has been further disrupted by several early retirements and by the loss of at least 10 accredited clinical virologists to industry. As a result many virologists are carrying very large clinical workloads. They are maldistributed geographically, and too many are practising in isolation. A recent Royal College of Pathologists report recommended that single-handed consultant microbiological and virological practice should no longer be regarded as acceptable because of professional isolation and unreasonable on-call commitments. The specialty of clinical virology in the UK is in danger of losing its critical mass unless some remedial steps are swiftly taken.

Last year two well attended meetings identified clearly the problems facing medical virologists in the UK, and sought solutions. A national strategy was formulated, based on the provision of a stable, high-quality clinical virology service, working to common standards, responsive to local needs, and with equity of access across the country. Further points made were

- the continuing need for high quality surveillance of respiratory, sexually transmitted, blood-borne and vaccine-preventable virus infections

- the attractiveness of a model that delivered services from about 25 specialist virology centres, each staffed by two to three consultant clinical virologists and at least one grade C scientist
- the potential for the specialist virology centres to provide clinical support, regular training and updates for medical microbiologists working in district general hospitals in their vicinity
- the need in the short term to support single-handed consultant virologists and in the longer term to redistribute consultant clinical virology posts so that single-handed practice is phased out
- the need to increase the rate of deployment of molecular diagnostics (current overall usage is too low, and is highly variable from centre to centre)
- the need to create sufficient training centres and training posts to safeguard succession planning, and to recognise the value of close interaction between the PHLS, NHS and universities
- the need to draw to the attention of Workforce Development Confederations the case for increasing the numbers of consultant medical virologists and clinical scientists
- the need to attract sufficient, good quality trainees into virology
- the need to keep the health department and chief medical officers informed of the

development and implementation of this national strategy for clinical virology services

- finally, the potential value of a national clinical network of virologists with regular meetings and defined outputs.

The concept of a national clinical virology network was supported by the great majority of those attending the second national meeting. It was agreed that it could facilitate

- development of standardised clinical, laboratory and training protocols; and national quality standards
- timely and more complete dissemination of professional and management information
- regular updating of workforce planning information, ensuring accuracy and timeliness
- clinical and laboratory audits
- improved interaction between staff, including trainees, in different centres
- better liaison with main stakeholders including health departments, universities and the PHLS.

Further meetings of the 'UK Clinical Virology Network' have been arranged for 2002, and a programme of work drawn up. Comments have been sought from medical, clinical scientist and biomedical scientist colleagues in both virology and medical microbiology across the UK, and dialogue has begun with the PHLS, the Royal College of Pathologists and the Academy of Medical Sciences. A clinical virology national strategy document is in preparation.

The formation of this network has been received with enthusiasm by virologists, but they need to ensure that momentum is not lost and that colleagues in medical microbiology support the initiative. The present proposals provide a foundation on which to build virological services in the UK, but even with extra funding this will still be a difficult process. The model will only be sustainable if the present problems of training and advancement in virology are addressed so that clear career paths are discernible to medicine and science graduates, and training posts are protected from over-commitment to service demands.

What as yet is missing is national policy that will endorse and support the Clinical Virology Network. The network is a means to achieve resolution of present difficulties, but it has neither power nor resources, and its proposals can easily be allowed to drift and the present crisis allowed to deepen. If that happens the quality of virology services in UK is almost certain to deteriorate, to the progressive detriment of patients and of public health.

Address for correspondence:

Dr Mark Zuckerman
 Department of Virology
 South London Public Health Laboratory
 and Department of Infection
 Kings College Hospital (Dulwich Site)
 East Dulwich Grove
 London SE22 8QF
 tel: 020 7346 6155/6
 fax: 020 7346 6477
 email: mark.zuckerman@kcl.ac.uk