

Blue Skies Agenda for Microbiology:
How do we deliver
microbiology services for the next decade and beyond?

Introduction

The Blue Skies Meeting on Microbiology: How do we deliver microbiology services for the next decade and beyond? (21 Jan 2004) raised many issues through the presentations and the discussions that followed, and these have been distilled into an Agenda for Microbiology. After consultation we have finalised the agenda and are planning the work programme to implement it. This work will require the contribution of many microbiologists, and will consider the responses received during the consultation and include individuals who have volunteered their services. It will also require the various professional organisations and specialist societies to work closely together and share the work. Inevitably there is some overlap between items on the agenda and some of this work is already underway. We shall not neglect some excellent work that has been done in recent years and it may be appropriate to revisit previous work and adapt and amend the outputs as necessary. What is important, however, is that the work has cohesion and makes a contribution to robust development of the specialty.

This agenda has been drawn up under the auspices of the Specialty Advisory Committee on Medical Microbiology of the Royal College of Pathologists, (SAC on MM of the RCPATH), which has been expanded to provide a national forum for medical microbiology and has in its membership individuals representing the following organisations who are committed to working together in taking this forward:

Association of Clinical Microbiologists

Association of Clinical Pathologists

Association of Medical Microbiologists

Association of Academic Medical Microbiologists and Virologists

British Society for Antimicrobial Chemotherapy

Chairs of College Advisory Training Teams for Microbiology and Virology

Chair of Examiners in Microbiology

Chair of the Virology Sub-committee of the MM SAC

-and through them The UK Clinical Virology Network Committee

Health Protection Agency

Hospital Infection Society
 Inspector of Microbiology
 Oral Microbiology
 Royal College of Pathologists Council and trainees
 Society for General Microbiology

Summary

There are three main areas that are each addressed through the agenda, and the items that will contribute to work in those areas are shown below. The 14 individual agenda items are set out on the pages following.

A) Delivering a Robust and Professional Service

1. Specification and standards of service
2. Workload and service delivery
3. Configuration of services
4. Workforce recruitment and retention
5. Professional roles
6. Academic Medical Microbiology

B) Communicating Effectively.

7. Professional Advocacy
8. Interaction with patients and the public
9. What's in a name?
10. Working together

C) Addressing the Major Challenges.

11. Health protection
12. Control and prevention of infection
13. Antimicrobials
14. Using and informing technical innovation for the next decade.

Methods

Members of the Specialty Advisory Committee for Medical Microbiology have identified lead organisations for each agenda item. The lead will draw up a group for the work from their own and partner organisations and from individuals who have expressed an interest in the work and their willingness to participate. The group will develop a work plan and use the template in Appendix 1 to identify the work, timescale, delivery points and resources required. The SAC will receive updates from the work groups at each of its quarterly meetings, and will bring the groups together at intervals as the work proceeds. A summary of progress will be published regularly, and individual groups will wish to consult on their work.

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1.SPECIFICATION AND STANDARDS OF SERVICE

There is a lack of clarity around what medical microbiology/virology/infection services should be offered or expected, and to what standard. There is, therefore, inequity for users and patients in terms of access to these services.

Microbiologists and virologists should prepare a service specification for clinical, infection control and public health services, including standards of service, which would be endorsed by the profession and would relate to the delivery of the NHS standards

This might also usefully define the resources required to support these services.

Need to include subspecialties, eg mycology, parasitology etc

The Inspector of Microbiology would use this specification and the standards in determining the criteria to be included in the Health Commission inspections.

ACTION: AMM to lead, ACM, HPA

2. WORKLOAD AND SERVICE DELIVERY

There is too much work and the workload is increasing.

- ***Where can the most effective contribution be made? Is there work that is a waste of time? Would a review on “microbiology of little or no value” be helpful? What things should we be doing which we currently aren’t?***

- ***What can we or should we do differently? e.g. who does what, how are services arranged, what will be the impact of greater use of automation and molecular technology on future configuration and work flows.***
- ***We should consider the broader requirements of hospital infection services and how medical microbiology will need to adapt to optimally support these.***
- ***Is there a more effective way of evaluating and communicating best practice?***

The extension of Point of Care Testing will give more direct patient and GP involvement in microbiological investigation and management of infections.

Microbiologists need to ensure that they are part of and supervise the quality assurance programme, that records are linked to laboratory test results and that surveillance data are captured from non-laboratory testing.

Links to national SOPs, pathology modernisation, results from consultant workload questionnaire, cancer structure developments for nurses, biomedical scientists, and pharmacists. Work with and others, e.g. AMM/RCP/FPH/RCS to examine how laboratory and clinical infection services might be best configured and delivered to optimally support healthcare and public health delivery in the future.

Links to agendum 3 & 14

ACTION: AMM to lead, ACM, RC Path, HPA

3. CONFIGURATION OF SERVICES

There is an expectation that microbiologists will engage with pathology modernisation and continue to look at configuration of services. How do we best do this locally, regionally, and nationally? There is a great deal of useful experience (positive and negative) that should inform developments.

Because of the public health aspects of infection, microbiology professional networks need to be wider than just the management networks being developed under the pathology modernisation programme.

The current RCPATH/AMM report on configuration of services needs review and republication in the light of guidance on pathology modernisation and the further requirements of 'Getting Ahead of the Curve'

Links to agendum 2 & 14

ACTION: RC Path

4. WORKFORCE RECRUITMENT AND RETENTION

We need to consider short, medium and long term solutions for;

i) Medical staff

- ***undergraduate exposure and education, i.e. curriculum, role models, academic resource, profile of infection specialists***
- ***postgraduate exposure and education (as above), plus infection tasters (structured study leave), foundation year two programmes***
- ***relationships with Department of Health Workforce Planning, Postgraduate Deans, Workforce Development Confederations and Inspector of Microbiology***
- ***SpR numbers and funding***
- ***retention of experienced colleagues***

ii) Clinical scientists

- **recruitment and retention**
- **training programmes, to support and develop existing Grade A training programmes leading to state registration and to increase opportunities for higher specialist training.**
- **workforce numbers and distribution**
- **funding for trainees**
- **role development**
- **career structure and identified resources**

ACTION: RC Path to lead, ACP, ACM

5. PROFESSIONAL ROLES.

We need to review the professional role of the medical microbiologist, the clinical scientist and the biomedical scientist, and how other staff such as lab assistants and clerical and secretarial staff can help. There is a debate about what each staff group should do.

We need to look at the jobs to be done and the skills and knowledge required in the context of role redesign and medical accountability for delegated work. This needs to include the inter-professional relationship between microbiologists, nurses (infection control) and pharmacists (specialising in antimicrobials).

This work would link with:

- Configuration of services and range of staff and expertise

- Work with Association of Clinical Microbiologists – role and numbers;
- Professional development for clinical scientists
- Work with Institute of Biomedical Science – extended roles, Agenda for Change.
- Results from microbiology consultant questionnaire
- Workforce planning – WDC-s, training numbers etc
- How clerical and office staff are used
- Revisit RCPATH and other Colleges' published advice on workforce planning
- Review relationship with: Infection Control Nurses in relation to Nurse Consultant development and with specialist antimicrobial pharmacists.

ACTION: RC Path to lead, AMM, ACM, ACP

6. ACADEMIC MEDICAL MICROBIOLOGY

Given the problems identified in the agenda, then the perilous state of academic medical microbiology is of major concern. Strong academic medical microbiology is part of the solution to the problems identified in the agenda. We cannot turn the clock back, nor is there a quick fix.

- ***We need to look at innovative ways of ensuring that teaching and research happen and are valued.***
- ***Ensure that research programmes are properly focused on healthcare and public health priorities***

ACTION: SGM to lead, AAB, CVN

7. PROFESSIONAL ADVOCACY

Public, patients, commissioners and users do not necessarily understand what services are offered by medical microbiology/virology/infection departments, or how

these services contribute to the healthcare of individuals and the population as a whole. Public, patients, managers and commissions know little about our subject, and why these services are important. We must improve on our advocacy skills and how we explain ourselves to others, to ensure people realise the importance of these services.

Individuals and organisations need to engage with users and commissioners, locally, regionally and nationally.

We must show how our services can influence healthcare delivery, clinical outcome, infection prevention and control, public health, policy development, research and development, education and training. This includes how we can influence non-infection targets as well as infection targets.

[Link to agendum 8](#)

ACTION: RC Path

8. INTERACTION WITH PATIENTS AND THE PUBLIC

The public is increasingly better informed about health matters. There is an insatiable interest in matters medical with access by the public to journals and other information previously the realm of only the medical profession.

Individual patients are also better informed. The government wishes the public to take more responsibility for their own health and to be involved in decisions about their health care. The development and use of e-integrated health care records will make it easier for patients to access their own medical records.

Consultant's letters to GPs are already being copied to patients giving patients access to test results.

Should Microbiologists be available to interpret test results for patients wishing further information? Should patients or their carers be able to directly request a particular test?

Patients already do self manage their conditions often dealing with complex drug and treatment regimes. It may be more cost effective both for the patient and for the NHS if in certain circumstances patients can make their own referral.

Link to agendum 7

ACTION: RC Path LAC

9. MICROBIOLOGISTS WORKING TOGETHER

Microbiology has a fragmented voice, which reduces impact. It is a small specialty with various organisations and specialist societies, which do much excellent work. However, these organisations and societies have not necessarily been good at coordinating their efforts.

The membership of these various organisations expect improved liaison and a closer working relationship between them. The professional bodies and specialist societies have to grasp both their responsibilities and the opportunities to establish a more coherent voice. The Inspector of Microbiology and microbiologists and the various organisations require a national vehicle/forum to interact with each other.

This vehicle should not interfere with the remit of individual societies and organisations (which all have different memberships and remits). This forum will allow discussion of matters that affect microbiology, offering mutual support and awareness.

The RCPATH MM SAC, with its wide membership from key societies and organisations, including the Inspector of Microbiology, provides a useful immediate solution.

There is a need to strengthen communication between organisations and to develop mechanisms to coordinate responses as necessary, for subsequent appropriate division of work, and the presentation of a coherent voice.

Links also need to be strengthened between the SAC and the Institute of Biomedical Sciences and other medical Royal Colleges and Faculties, particularly RCP (Infectious Diseases) and the Faculty of Public Health. The Virology Subcommittee and the UK Clinical Virology Network Committee have already established the basis of a working model.

ACTION: All, RC Path to lead

10. WHAT'S IN A NAME?

Patients, healthcare colleagues and the public do not know what medical microbiologists/virologists, or microbiology/virology departments do.

Is the name unhelpful, confusing or inappropriate? Should the name be changed to medical microbiology and infection services, or infection services? Should we be consultant medical microbiologists and infection specialists or just infection specialists?

ACTION: RC Path to lead, ACP

11. HEALTH PROTECTION

Microbiology has an important role in health protection and laboratory diagnosis is essential to surveillance and to outbreak detection and investigation, and the relationship between microbiologists and the HPA (and Scottish HPO) is an important one, particularly as the role of HPA Regional Microbiologists develops. There is strong synergy between microbiologists and epidemiologists.

All parties must work towards developing and improving the relationship in their mutual interest.

Link to agendum 12

ACTION: HPA

12. CONTROL AND PREVENTION OF INFECTION

We need to consider the implications of developments in infection control, such as "Winning Ways"; increasing demands and workload, lack of capacity, impact on medical and scientific workforce, opportunity costs, lack of additional resources, training, who does what, conflicts of interest and priority setting.

The contribution of extended roles for nurses, Modern Matrons, Nurse Consultants, specialist pharmacists.

Explore the potential for developing the role of Clinical Scientists, epidemiologists, and information officers.

Link to agendum 11

ACTION: HIS to lead, PHMEG

13. ANTIMICROBIALS

The antimicrobial prescribing initiative is welcome and has been supported by funding for antimicrobial pharmacists. It is accompanied by increasing demands and workload, lack of capacity, impact on medical and scientific workforce, opportunity costs, lack of additional resource, training, and lack of clarity about who does what.

We need to develop the role of the Antimicrobial Pharmacist in the wider Infection Service

ACTION: BSAC

14.USING AND INFORMING TECHNICAL INNOVATION FOR THE NEXT DECADE INCLUDING POINT OF CARE TESTING

The “Molecular Revolution” has had variable impact on Medical Microbiology services across the country and the profession has not always had coherent involvement in decisions to implement new technologies at local or national level. We would be well placed to shape the application of future developments to influence outcomes for patients, and to drive development to meet clinical, infection control and public health need.

We need to develop better support and recognition for scientists and academics that have an interest in clinical research in the field of Infection.

The resource for proper evaluation of newer technologies, which resides with Medical Microbiologists and other infection specialists, needs to be harnessed.

Implementation of various technologies needs to be responsive to local need, but should not be stifled by narrow perspectives. Microbiologists should lead debate to inform healthcare commissioners.

Links to agendum 2 & 3

ACTION: CVN to lead, HPA, AMM

Royal College of Pathologists, Specialty Advisory Committee on Medical Microbiology. December 2004

List of names willing to contribute:**Charles Easmonn****Celia Aitken****Clive Taylor****James Nash****Jim Stephenson****Ken Mutton****Rick Holliman****Steve Barrett****Terry Riordan (2)****Barry Cookson (12)**