



Dr David M Bailey



Dr Brian Shine

## Future-proofing the specialty training curricula: compliance with PMETB 'Standards for Curricular and Assessment Systems'

To comply with the PMETB Standards the College embarked on a comprehensive review of pathology curricula (Microbiology, Virology, Chemical Pathology and Histopathology) with proposed new curricula submitted to the PMETB for consideration at the end of 2009. The lead authors of these new documents describe the process and content of these revisions, with the hope that the curricula have now evolved to keep pace with current training and service needs. The process has generated much debate, and ongoing comment and feedback on the new documents is welcomed.

The Postgraduate Medical Education and Training Board's (PMETB) *Standards for Curricula and Assessment Systems* (July 2008) demands full compliance with the standards contained therein by 2010. The most recent versions of the Royal College of Pathologists' (RCPath) specialty training curricula were written in 2005 and updated to minor degrees in 2007 and 2008. These curricula only complied with some of the standards in the original document.

In early 2008, the College Advisory Training Teams (CATTs) for Histopathology, Chemical Pathology, Medical Microbiology and Virology began the process of re-writing the specialty training curricula so that they met the PMETB's *Standards*, and to bring them into line with service developments and requirements within Pathology and the NHS as a whole.

The process of curriculum review started with the CATTs, and with Histopathology, a specific Curriculum Review Group (CRG) (see below). Once draft curricula had been produced, these were circulated to the members of the Joint Committee for Pathology Training (JCPT), the relevant Specialty Advisory Committees (SACs), the Trainees Advisory Committee (TAC) and the Lay Advisory Committee (LAC) for comment. Once all comments were received and incorporated where appropriate, it was released for a 2-week consultation period to the Fellowship via the RCPath website, before being submitted to Council for final approval. The approved draft curricula were sent to the PMETB for consideration on 24 December 2009. A team from the Training and Educational Standards, Examinations and Assessments Departments, together with representatives from the CATTs and Examination Panels met with the PMETB on 9 February 2010 to answer questions about the proposed curricula

and assessment processes. The feedback from that meeting is pending at the time of writing.

### Medical Microbiology

#### Out-of-hours working and training curricula

In February 2007, the Medical Microbiology CATT (MM CATT) was asked for its opinion as to whether the 'out-of-hours' (OOH) section in the then current curriculum would *require* all trainees to work OOH. This was because training in one region would potentially be compromised by the refusal of some of the training placements to pay for OOH working. At that time, the MM CATT recommended that the competencies listed in the OOH section of the curriculum could be achieved by means other than actually working OOH. The MM CATT therefore took the view that whilst the competencies listed in the OOH section of the curriculum contributed to training a CCT holder to work OOH, working OOH as a trainee could not be mandated within the curriculum. The important consideration was that the trainee would gain the 'OOH competencies' by a mechanism that would ultimately be acceptable to the PMETB; this should be decided and delivered locally in Deaneries. When making this interpretation, the CATT also noted that OOH working was considered by Deaneries and Trusts as service work, and should therefore be paid for by Trusts. Subsequent informal discussion with the PMETB confirmed that it does not want curricula necessarily to mandate particular settings for training, and that it considered OOH working by trainees as service work.

The reasoned and pragmatic interpretation of the Medical Microbiology curriculum provoked a dichotomy of views, and much debate, in the College and beyond. One view was that the actual context of working OOH was absolutely critical to adequate

training and to gaining the required competencies. In failing to mandate OOH working, the College was thought to be submitting to financial pressure and not seeking to maintain training standards. However, another view was the belief that 'OOH competencies' were those that were being obtained throughout training, and the context in which they were maintained was not absolutely critical. To mandate OOH working, the College would be acting outside its remit. The MM CATT had discussed the possibility of 'piloting' training with and without OOH working. However, the CATT felt that the time scale required to run a pilot, the difficulties in defining objective and measurable outcomes, and the heterogeneous nature of OOH working in different training centres would prevent an evaluable pilot.

The issues around OOH training were raised in College Council over some period and no easy resolution was found. In autumn last year, Council decided that the SACs would define what competencies were specific for working OOH; the CATTs would then incorporate the competencies and an assessment system into the new specialty curricula. The newly revised specialty curricula, which were to incorporate these changes, were required by the PMETB by the end of December 2009.

Having jointly discussed the issue of OOH working, the MM CATT and SAC devised the form of training, with competencies and assessment, designated 'Developing Independent Practice'. This was included in its draft curriculum that went out to consultation. A large number of responses to this consultation were opposed to the apparent removal by the College of the requirement for OOH working in the curriculum. This consultation also raised the discrepancy between the Medical Virology curriculum which apparently required OOH working, and the Medical Microbiology curriculum which did not.

The discrepancy between the Medical Microbiology and Virology curricula with respect to OOH work arose due to a combination of editing of previous versions of these documents, and the individual discussions within the relevant groups involved in revising the two (now separate) curricula. This discrepancy was resolved after consultation between the Chairs of the two CATTs, the Chair of the Medical Microbiology SAC, the Locum Director for Training and Educational Standards and the Lead Dean for Medical Microbiology and Virology.

The College's role is to advise the PMETB on specialty training standards and curricula; it does not have a role in determining Terms and Conditions of employment, which are a legal responsibility of the employing authorities. It is therefore not appropriate for either the Medical Microbiology or Medical Virology training curricula effectively to state Terms and Conditions to employers by mandating OOH working. The curricula should simply define the quality and content of training. In addition, manda-

tory OOH working might discriminate against those trainees who, for various reasons, are unable to develop the competences for independent practice through the medium of OOH training alone. However, in reviewing the curricula after the consultation, it was agreed that the Medical Microbiology curriculum would be modified to state the case for OOH working as strongly as possible given these constraints. An extract from the relevant section of the revised Medical Microbiology curriculum is included below. The Medical Virology curriculum has similarly been modified. The curricula are at present with the PMETB for their review and approval.

#### **Developing independent practice**

*Objective: Throughout their training, trainees are given increasing responsibility and independence appropriate for their demonstrated level of competence and professional development, as judged by their clinical and educational supervisors. The purpose of this component of training is to take such graded responsibility further, to enable the transition to the independent practice required of a CCT holder.*

*Demonstration of the skills required for independent practice is a requirement of the curriculum, and the relevant competencies must be assessed and achieved prior to completion of the training programme.*

*Currently, the most appropriate context in which to train for and achieve the competencies for independent practice is out-of-hours working, in an 'on-call' setting. However, there may be practical alternatives to this training context. If a training programme does not offer the opportunity to develop and demonstrate these skills through out-of-hours working, there must be alternative arrangements agreed by the Training Programme Director in consultation with the local Deanery Specialty Training Committee or Postgraduate School of Pathology Board.*

#### **General curricula changes**

Other changes to the Medical Microbiology curriculum include the integration of the Medical Leadership Curriculum and Core Competencies of Doctors, which were developed by the Academy of Medical Royal Colleges, the General Medical Council (GMC) and the PMETB. The inclusion of these curricula was a requirement of the PMETB. In the specialty-specific section of the curriculum, no major changes have been made. There has been some rephrasing of competencies in recognition of new healthcare organisations and different arrangements in the devolved administrations, e.g. health protection agencies. The Infection Control section has been expanded a little, since this area of activity is of increasing importance to microbiologists. Specific mention is made of the need to be able to manage resources, such as bed capacity, in this section and the Develop-

ing Independent Practice section of the curriculum. Finally, the descriptors of the competencies in the curriculum have been rephrased to make them less passive and to enable trainers and trainees to have a clearer understanding of the competence required.

It may seem perverse that when there is a move to harmonise training between the infection-related specialties, the College curricula are now separating Medical Microbiology from Medical Virology, and there is still a curriculum in Medical Microbiology *and* Virology. There have effectively been two separate specialties for many years, both in clinical practice and in training. This separation predates the start of the Specialist Register in 1997. However, when the Specialist Register was started, the two specialties were combined by the GMC. When CCSTs and later CCTs were established, it was done using the specialties recognised by the GMC. The College's curriculum therefore took its form from this history. It has always been agreed that virologists need some experience of microbiology and microbiologists need experience of virology. For this reason, 'stage A' training is common to both specialties. For subsequent stages, there have effectively been two separate specialty curricula, which have led to the same CCT. This anomaly was recognised by the PMETB. The PMETB required the College to separate the two curricula from August 2009. For new entrants into training from this time, PMETB will in future only issue CCTs in Medical Microbiology or Medical Virology. The College is required to maintain a curriculum in Medical Microbiology and Virology whilst there are still trainees who will be awarded the CCT in Medical Microbiology and Virology. However, the training content has not appreciably changed in these two specialties, only the presentation as separate curricula, and the designation of the CCTs.

### **Virology**

The separation of Virology and Medical Microbiology into specialties with their own individual CCTs led to the need for separate curricula in Medical Virology and in Medical Microbiology, a process initiated by the PMETB. At the same time, the maintenance of a joint Medical Microbiology and Virology curriculum for those trainees still under the scheme leading to the CCT in Medical Microbiology and Virology offered the opportunity to review this curriculum as well so that the joint curriculum reflects very closely that of the two separate entities.

The three curricula are currently being reviewed by the PMETB with the outcome of that process awaited anxiously, for training towards the separate CCTs can only commence when the curricula have been approved by the PMETB. Importantly, the common initial stages of training which provide a 'comprehensive understanding of the principles and practice of medical microbiology and virology' have been retained in all three curricula; progress

will be assessed as previously through the common Year 1 assessment process and the joint FRCPath Part 1 examination.

While broadly similar to the Virology components of earlier joint curricula, changes have been made to the formatting in line with the PMETB requirements and a greater emphasis has been placed on the ways in which knowledge, skills, attitudes and behaviours will be assessed during training. The medical leadership curriculum and core competencies for doctors have also been incorporated.

Workplace-based assessments are highlighted throughout, although the Evaluation of Clinical Events (ECE), which has been adopted by Microbiology, does not have a role in Virology assessment.

The modular structure of specialist Virology training is retained, together with the current portfolio assessments, which must be completed before entry for FRCPath Part 2 examination in Virology. The competencies previously identified as requiring delivery through OOH training are to be delivered under the heading of 'Developing Independent Practice' as agreed jointly, although with the expectation that they will be achieved through OOH working wherever feasible.

In an environment where the ability of individual laboratories to provide training in all virological techniques listed in the curriculum is reducing, and where pathology and clinical service configurations are changing, the curriculum content will need to be kept under regular review by the Virology CATT. The infection training agenda will also drive change.

### **Chemical pathology Out-of-hours training**

Until recently, the curriculum in Chemical Pathology (Clinical Biochemistry) contained no mention of OOH training. As a result of the Council's instruction to provide a view, consultants and trainees have discussed OOH training at the CATT and SAC, within the TAC, and at meetings of both trainees and consultants. A large majority of both consultants and trainees feels that OOH training is desirable to develop the skills that are required in consultant clinical practice. These skills include answering clinical questions when outside the laboratory and taking into account the reduced numbers of staff and availability of assays overnight and at weekends. The majority view is that 'live' experience is more valuable than simulation. We have therefore included a paragraph setting out this view in the curriculum. This was not challenged by the PMETB at our meeting with them in February 2009. We now need to develop a list of the skills, knowledge and behaviours that specifically relate to OOH service and decide how these can be evaluated.

### **Histopathology General considerations and curriculum review process**

The first debate over the new curriculum took place at the CATT meeting in January 2008. The main

issues were the length of the training programme and optional autopsy ('autopsy-light') training. All training programmes are represented on the CATT through the College Regional Specialty Advisors (RSAs) or Training Programme Directors (TPDs), and many different options for the new curriculum were discussed over the subsequent 6 months. The major changes over the current curriculum, and the reasoning behind them, will be discussed below.

A CRG was formed to focus the discussions over the proposed changes, and to initiate the composition of the new curriculum document. It included a mixture of University Teaching and District General Hospital pathologists, as well as representation from sub-specialty groups, autopsy pathologists, the examinations panel and the National ST1 Training Schools Board. Over a series of meetings in late 2008 and 2009, the final proposed changes to Histopathology training were confirmed.

The feedback from the online consultation consisted of 38 comments and ran to 32 pages, plus a specific response from the British Lymphoma Pathology Group. Again, these comments were assessed and, where appropriate, incorporated into the final draft, which went to College Council for consideration in December 2009, and thence to the PMETB as described above.

The actual pathology-related content of the curriculum has not changed a great deal. We have integrated the various aspects of the Medical Leadership Competency Framework, developed jointly by the Academy of Medical Royal Colleges and the NHS Institute for Innovation and Improvement (available at: [http://www.institute.nhs.uk/assessment\\_tool/general/medical\\_leadership\\_competency\\_framework\\_-\\_homepage.html](http://www.institute.nhs.uk/assessment_tool/general/medical_leadership_competency_framework_-_homepage.html)). We have also improved the Molecular Pathology and Information Technology components, but otherwise, the professional competency-based content largely remains the same. The major changes relate to sub-specialty training, duration of training, assessment systems and provision of optional packages of training in Autopsy Pathology, Cervical Cytology and Research Methodology.

### Sub-specialty training

The first issue that had to be resolved was the status of the recognised sub-specialties of Histopathology. After preliminary discussions with the PMETB, it became obvious that Forensic Pathology, Neuropathology and Paediatric Pathology training programmes could not continue in their current forms. Sub-specialty training (using the PMETB's definition) must include the full basic specialty (Histopathology) training programme, plus extra training in the relevant sub-specialty, a requirement that would have extended training in these areas to 7 or 8 years. It would also have been necessary for trainees to complete both general and sub-specialty Part 2 FRCPath examinations. Both factors could endanger recruitment.

After discussion at the relevant SAC or sub-specialty committee, all three sub-specialties decided to apply to the Department of Health to become full CCT specialties in their own right, a process that is already underway and which will hopefully be complete by the end of 2010. We have therefore not submitted new sub-specialty curricula in these areas at this time. The PMETB has allowed continued recruitment into the current sub-specialties under the current curriculum until the end of 2011. Cytopathology has decided to remain a sub-specialty, with 12 months of dedicated training during stage D, assessed by a Training Portfolio and Workplace-Based Assessments (WPBAs).

### Duration of training

There was much anecdotal evidence that, under the current curriculum, trainees were exiting training programmes significantly less well prepared for consultant practice than in previous years. The number of trainees succeeding at the FRCPath Part 2 examination at the first attempt had also dropped significantly. After discussion at the CATT, it was therefore unanimously agreed that the training programme should be re-extended to 5 years and 6 months, assuming that the trainees continued to undertake training in the soon-to-be optional packages of autopsy and cervical cytology training (see below). An element of flexibility was also introduced however, that allowed trainees who did not undertake either of these optional packages to complete training in 5 years, assuming all assessments were completed in a timely fashion.

### Assessments

The major changes to the assessments for Histopathology relate to the FRCPath Part 2 examination. As higher autopsy and cervical cytology training will become optional after stage B (see below), these elements will disappear from the Part 2 examination, and will now be undertaken as stand-alone modular examinations leading to College Certificates. Non-cervical cytology will continue to remain a part of the core curriculum and will be examined at Part 2. The ST1 OSPE assessment and FRCPath Part 1 will remain in their current forms.

WPBAs have had something of a poor press since their introduction to ST1 training in 2007, with complaints that they are not evidence based, and that they are not predictive of progression in training, due partly to the fact (under the regulations provided within the 'Gold Guide' for Specialty Training) that only successful WPBAs have to be presented at the end-of-year Annual Review of Competence Progression (ARCP). We have attempted to 'beef up' the WPBAs for ST1 and beyond by providing lists of recommended WPBA scenarios for the different stages of training and optional training packages, from which a proportion of a trainee's WPBAs must be chosen. The Peninsula Medical School is also currently reviewing the performance and validity of our WPBA process.

### Autopsy-light training

The concept of autopsy-optional training was floated within College committees and approved by College Council many years ago. The CATT has struggled until now to make this concept a reality however, in spite of the fact that almost a half of the Histopathologists in the UK do not undertake autopsy practice. With the discussion of a new, 'part-modular' curriculum, this option finally began to take shape. In the new curriculum, autopsy training will only be compulsory for all trainees in stages A and B. Thereafter, it will become an optional package of training, equating to 3 months' whole time training in this area. Professor Sebastian Lucas and his group were already substantially modifying the autopsy component of the Part 2 examination, and this will now form the examination that will assess this package, leading to a College Certificate in Higher Autopsy Training (CHAT). This will enable trainees to prove to potential employers that they are competent to work as a consultant in Autopsy practice.

### Cervical Cytology training

The same factors already described for Autopsy pathology also apply to Cervical Cytology. The introduction of liquid-based cytology and human papilloma virus (HPV) screening, and recent proposals to reorganise the delivery of cervical screening services in larger departments all point to reductions in workload for this area of practice. A roughly similar proportion of pathologists report cervical smears as those who undertake autopsies. After long discussions and debates within the CATT, SAC and Cytopathology Sub-Committee, it was agreed that Cervical Cytology should also become an optional package of training after compulsory training in stages A and B. It will also equate to 3 months' full-time training, and will be assessed by a new examination leading to the award of a College Certificate in Higher Cervical Cytology Training (CHCCT), again indicating to potential employers that trainees are competent to work at consultant level in this area.

### Research methodology training

In addition to autopsy and cervical cytology training, basic Research Methodology Training is also available as a 3-month optional package of training. Whereas the first two are designed to be taken in stage C of training, or exceptionally stage D, this package may well be best suited to trainees in stage B. If a trainee takes this third package in addition to the other two, the training programme should be extended by a further 3 months.

### Transitional arrangements

A group is currently being formed to examine transitional arrangements for trainees wanting to transfer from the current (2007/2008) curriculum to the new version, which will hopefully be available from late Spring 2010. It is likely that the most common transfer point will be trainees at the end of stage B as the training programme and assessments to this

point are largely similar between the two curricula. However, we will also need to look at the options for trainees who have, for example, failed to complete either the autopsy or cervical cytology components of the current Part 2 examination. The group will include representation from all interested parties. Although trainees will be able to transfer as soon as the new curriculum becomes available, the new autopsy and cervical cytology certificate examinations will not be available until Spring 2011 at the earliest, which will need to be taken into account when considering individual trainee's requests.

### Conclusion

Curriculum development is an iterative process. The CATTs will therefore continue to keep the curricula under review as training and service needs evolve. They will be officially reviewed in 2 years time; however the CATT and CRG Chairs will be delighted to receive ongoing comment and feedback on the new documents as they are implemented and adapted to suit the reality that is training in the many regions across the UK. A training day to be held at the College on 29 April 2010 will include sessions on the new curricula and assessment systems, as well as the Medical Leadership Competency Framework.

### Acknowledgements

An enormous amount of work has been put into revising the specialty training curricula over the last 2 years. It would be impossible to acknowledge and thank every individual who has contributed to the process, but special thanks are due to the President and Directors of the College, Chairs and members of the CATTs, CRG, JCPT, SACs, TAC, LAC, and all who took the time to comment during the online consultation process. Finally, the biggest thanks are due to Sandra Dewar, Acting Head of Educational Standards/Assessment Manager at the College, who had the unenviable tasks of coordinating the entire process, transforming our drafts into professional-looking documents and ensuring that everything made it to the PMETB in time, on Christmas Eve.

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**Dr David M Bailey**  
**Chair, Histopathology CATT**  
**Locum Director for Training and Educational Standards (Oct 2009–Jan 2010)**

**Dr Martin J Gill**  
**Chair, Medical Microbiology CATT**

**Dr Ken Mutton**  
**Chair, Virology CATT**

**Dr Brian Shine**  
**Chair, Chemical Pathology CATT**