INTRODUCTION

1. Defining the role of medical graduates in pathology services has concerned the College almost since its inception. In 1976, Sir Robert Williams, the fourth President, commented: "Next there is the question as to what pathologists in the various disciplines will (or should) be doing in the future, with particular relation perhaps to increased involvement in clinical work; here we come up against the sometimes delicate question of the distribution of duties and responsibilities between medically qualified pathologists, non-medical graduate scientists and laboratory technicians or scientific officers."

2. The purposes, roles and duties of medical graduates in many other specialties have also been questioned, as non-medical healthcare professionals gradually assumed tasks and responsibilities traditionally associated with General Medical Council (GMC) registration. Writing in 1994, Sir Kenneth Calman, the former Chief Medical Officer (England), considered that doctors were essentially for diagnosis, a process requiring medical judgement: "However, there is one aspect of practice of profound importance which is generally carried out by doctors – that is in making a diagnosis and assessing its consequences. This raises a further issue of what is meant by a diagnosis and what are its dimensions. This can clearly range from a provisional working hypothesis through to histopathological confirmation." (Calman K. The profession of medicine. Brit Med J 1994:139;1140.)
3. At its meeting on 6 November 2003, the Council of The Royal College of Pathologists discussed the future role of medical graduates and consultants in pathology services. Three short papers were presented; these were subsequently published in the College Bulletin (RCPath Bulletin 2004;125:10–12) and comments were invited from Members and Fellows.

4. In addition to the need for medical graduates in pathology services, there are further questions about their role specifically as consultant medical practitioners. Traditionally, consultant pathologists have been the leaders of the service; they managed all aspects of their departments and patients appreciated the lengthy training they had received and respected their decisions. Most had time in the working day for reading, research and teaching. The current situation is different: "Nurse specialists now carry out many procedures formerly undertaken by medical staff and will soon become nurse consultants... Clinical scientists and biomedical scientists undertake research, perform cut-ups, run laboratories and can become consultants. Educationalists train the medical students and consider the average hospital consultant inadequately trained for this purpose. There is no longer any time for research in the average pathologist's working week." (Pocock M. RCPath Bulletin 2004;125:10.)

5. In view of the increasing need to review and redefine professional roles throughout healthcare, The Royal College of Pathologists has produced this document to guide the future development of the workforce in pathology services. Recruitment and job satisfaction may improve if the role of the medical workforce in pathology services accords with their clinical training and career aspirations. This document may also assist workforce planning to ensure that the balance between medical graduates and clinical scientists serves the future needs of the National Health Service.

BACKGROUND

6. Several factors force a reconsideration of the role of medical graduates in pathology and, more widely, in other healthcare services.

- The United Kingdom has one of the lowest population densities of medical graduates in the ‘developed world’. The skills of this relatively scarce resource need to be deployed optimally.
- The increasing demands on the NHS exceed its current capacity. The availability of medical staff is one limiting factor.
- Role redesign and multi-professional working are core elements of the NHS modernisation programme.
- Clinical scientists in many pathology specialties can become MRCPATH by examination, can lead multi-professional teams and can be appointed to consultant-equivalent posts.
- Professional regulation of the non-medical workforce in healthcare has been reinforced and formalised (the Health Professions Council oversees biomedical scientists and clinical scientists), thus affording the same safeguards for patients and the public hitherto available only from the GMC in respect of medical graduates.
- The scientific content of the undergraduate medical curriculum has been reduced, but the need for scientific knowledge and skills in pathology services has increased. The GMC's Tomorrow's Doctors encourages learning about multi-professional working and exploiting and embracing workforce change.
- Many medical graduates in some of the pathology specialties (e.g. haematology and medical microbiology) have reduced their involvement in the laboratory aspects of their service – clinical scientists have assumed these roles – and increased their ward-based and clinic-based activity.
7. Wider consideration of the relative roles of medical graduates and healthcare professionals in other specialties is exemplified by the Chief Nursing Officer’s *10 Key Roles for Nurses*:
   - to order diagnostic investigations such as pathology tests and X-rays
   - to make and receive referrals direct, say, to a therapist or pain consultant
   - to admit and discharge patients for specified conditions and within agreed protocols
   - to manage patient caseloads, say, for diabetes or rheumatology
   - to run clinics, say, for ophthalmology or dermatology
   - to prescribe medicines and treatments
   - to carry out a wide range of resuscitation procedures including defibrillation
   - to perform minor surgery and outpatient procedures
   - to triage patients using the latest IT to the most appropriate health professional
   - to take a lead in the way local health services are organised and in the way that they are run.

8. As part of its modernisation programme for the NHS, the Department of Health’s *Workforce of all the Talents* emphasised these core principles:
   - teamworking across professional and organisational boundaries
   - flexible working to make the best use of the range of skills and knowledge of staff
   - streamlined workforce planning and development, which stems from the needs of patients not of professionals
   - maximising the contribution of all staff to patient care, doing away with barriers that say only doctors or nurses can provide particular types of care
   - modernising education and training to ensure that staff are equipped with the skills they need to work in a complex, changing NHS
   - developing new, more flexible careers for staff of all professions
   - expanding the workforce to meet future demands.

9. This has paved the way for a growing number of consultant nurse practitioners and other non-medical staff whose work includes tasks and responsibilities formerly associated only with medically qualified doctors.
   - The Royal College of Surgeons of England is fostering the development of non-medically qualified practitioners in surgery.
   - The Royal College of Radiologists published *Skill Mix in Clinical Radiology* (1999), paving the way for advanced radiographer practitioners to help with mammographic screening.
   - Recent developments pioneered by The Royal College of Pathologists include advanced practitioners in cervical screening cytology, the extended role of biomedical scientists in the sampling of surgical resections, and the recruitment and training of clinical scientists in molecular histopathology.

10. The Changing Workforce Programme of the NHS Modernisation Agency has reviewed and is redeveloping and evaluating professional roles across thirteen areas, including some of relevance to the pathology specialties such as diabetes, diagnostics and cancer. The ultimate test has been the criterion ‘better for patients, better for staff’. In conjunction with the National Institute for Clinical Excellence, the NHS Modernisation Agency has also produced guidance on developing protocol-based care to enable role redesign and to improve capacity in clinical services.

11. The ultimate responsibility and accountability of the medical graduate in a multi-professional team is made clear in the GMC’s *Good Medical Practice* (paragraph 46): "Delegation involves
asking a nurse, doctor, medical student or other healthcare worker to provide treatment or care on your behalf. When you delegate care or treatment you must be sure that the person to whom you delegate is competent to carry out the procedure or provide the therapy involved. You must always pass on enough information about the patient and the treatment needed. You will still be responsible for the overall management of the patient.”

MEDICAL GRADUATES IN PATHOLOGY SERVICES

12. All pathology specialties are practised along a spectrum, ranging from machine-based quantitative testing through interpretive opinions to direct patient contact. There is no discrete point along this spectrum beyond which a medical qualification is needed, except where so required by law. In effect, medical graduates tend to practise in the spectral zones of interpretation, consultation, treatment and patients’ clinical management, rather than in the purely numerate or analytical aspects of the pathology service.

13. A modern, high quality pathology service requires multi-professional and multi-disciplinary collaboration. Partnership between professional groups (medical, clinical scientist, biomedical, etc.) is essential both nationally and locally. Medical consultants are often the clinically oriented leaders of multi-professional teams in pathology services.

14. Pathology services require sufficient consultant medical graduates who are ultimately responsible for delegation of tasks associated with GMC registration; thus permitting other professional groups to have extended roles under their supervision.

15. Extending the roles of other non-medical staff in pathology services does not necessarily reduce the need for medical graduates. The main benefits are:
   • increasing the capacity of the service
   • providing better quality assurance by releasing medical time for audit
   • advancing knowledge through clinically directed research, service development and innovation
   • releasing time for education and training.

16. Changes in the undergraduate medical curriculum increase, rather than decrease, the need for medically qualified personnel in pathology services. Tomorrow’s doctors are likely to be more dependent on medical staff in pathology services for advice about the most appropriate investigations and the significance of the results. A full medical education coupled with postgraduate training in pathology often enables the greatest depth and breadth of the guidance that can be given and the medical accountability for the consequences of that advice. The distinctive characteristic of a medically qualified pathologist is the dual training: medical and scientific.

17. The Royal College of Pathologists believes that patients might benefit if medically trained pathologists had clinical roles in pathology specialties in which medical graduates are currently under-represented, such as genetics and histocompatibility.

18. The Royal College of Pathologists has an essential role in setting and maintaining standards of practice that will enable any further delegation of work to non-medical personnel in pathology services. The College should initiate and facilitate this process, especially where there could be significant benefits for patients.

19. Medically trained pathologists are clinicians, first and foremost. Diagnostic pathology is a clinical specialty requiring knowledge and understanding of clinical medicine for the
interpretation of diagnostic samples and results in order to achieve the best outcome for patients.

20. Emphasising the clinical role of medical graduates in pathology services should aid recruitment into the specialty, since most medical graduates wish to pursue a clinically oriented career.

21. Consultant medical graduates in pathology services who are responsible for tasks associated with GMC registration, and that they delegate to other personnel, should ensure that the work is done according to approved protocols.

22. Thus, medically trained pathologists:
   a) are primarily clinicians whose practice is predominantly interpretive, consultative and therapeutic, often involving patient contact and clinical care, rather than in the purely numerate or analytical aspects of the pathology service
   b) understand the wider context of the clinical practice to which pathology services contribute
   c) use clinical judgement and knowledge to deal with unexpected, atypical and complex work
   d) work predominantly at the interface between the pathology service and the patients and clinical colleagues responsible for their care
   e) are ultimately responsible, in accordance with the GMC's Good Medical Practice, for work delegated to other healthcare professionals in the pathology service
   f) should work in and often lead multi-professional teams in pathology services in partnership with and supported by non-medical personnel who can have delegated responsibilities for which they continue to be responsible
   g) often have strategic and leadership – rather than day-to-day managerial – roles in the pathology service, with major responsibility for clinical effectiveness and governance.

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