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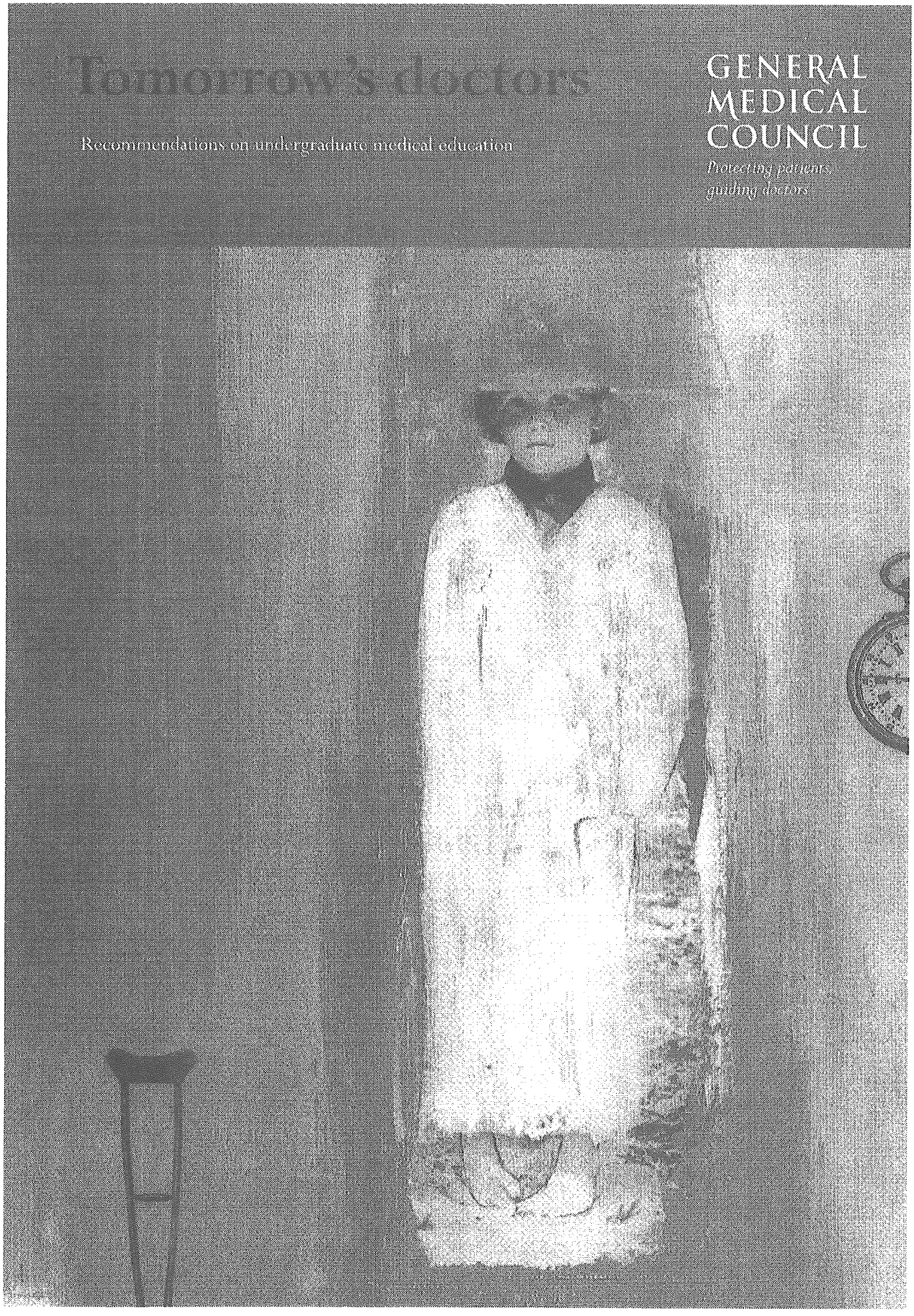
# Tomorrow's doctors

Recommendations on undergraduate medical education

GENERAL MEDICAL COUNCIL

*Protecting patients, guiding doctors*



## *The duties of a doctor registered with the General Medical Council*

**Patients must be able to trust doctors with their lives and well-being. To justify that trust, we as a profession have a duty to maintain a good standard of practice and care and to show respect for human life. In particular as a doctor you must:**

- make the care of your patient your first concern
- treat every patient politely and considerately
- respect patients' dignity and privacy
- listen to patients and respect their views
- give patients information in a way they can understand
- respect the rights of patients to be fully involved in decisions about their care
- keep your professional knowledge and skills up to date
- recognise the limits of your professional competence
- be honest and trustworthy
- respect and protect confidential information
- make sure that your personal beliefs do not prejudice your patients' care
- act quickly to protect patients from risk if you have good reason to believe that you or a colleague may not be fit to practise
- avoid abusing your position as a doctor, and
- work with colleagues in the ways that best serve patients' interests.

**In all these matters you must never discriminate unfairly against your patients or colleagues. And you must always be prepared to justify your actions to them.**

Approved January 2003
Published February 2003

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# Introduction

The undergraduate curriculum is the first stage of medical education. It provides a foundation for future learning and practice as a pre-registration house officer (PRHO) and beyond. Graduates who have gone through this process must be aware of, and meet, the principles of professional practice set out in our publication *Good medical practice* (published in May 2001). These principles make clear to the public the standards of practice and care they should expect.

We first published *Tomorrow's doctors* in 1993. This signalled a significant change in the form of our guidance. Our emphasis moved from gaining knowledge to a learning process that includes the ability to evaluate data as well as to develop skills to interact with patients and colleagues.

Medical schools welcomed our guidance and introduced new, ground-breaking curricula. We carried out a series of informal visits to UK medical schools to monitor their progress in putting our guidance into practice, highlight and share good practice, and identify areas causing difficulty or concern. A valuable part in the process of developing and delivering undergraduate curricula has been the ongoing and developing partnerships between medical schools and the NHS.

We carried out a second round of informal visits between autumn 1998 and spring 2001. We then reviewed progress, considering the strengths and weaknesses of our guidance. This review took account of developments in educational theory and research, and professional practice.

These recommendations, which replace those published in 1993, identify the knowledge, skills, attitudes and behaviour expected of new graduates. They:

* put the principles set out in *Good medical practice* at the centre of undergraduate education;
* make it clear what students will study and be assessed on during undergraduate education;
* make it necessary for all medical schools to set appropriate standards; and
* make necessary rigorous assessments that lead to the award of a primary medical qualification (PMQ).

Our recommendations provide the framework that UK medical schools use to design detailed curricula and schemes of assessment. They also set out the standards that we will use to judge the quality of undergraduate teaching and assessments when we visit medical schools and ask for written information.



# The main recommendations

**Attitudes** and behaviour that are suitable for a doctor must be developed. Students must develop qualities that are appropriate to their future responsibilities to patients, colleagues and society in general.

The **core curriculum** must set out the essential knowledge, skills and attitudes students must have by the time they graduate.

The core curriculum must be supported by a series of **student-selected components** that allow students to study, in depth, areas of particular interest to them.

The core curriculum must be the responsibility of clinicians, basic scientists and medical educationalists working together to **integrate** their contributions and achieve a common purpose.

**Factual information** must be kept to the essential minimum that students need at this stage of medical education.

**Learning** opportunities must help students explore knowledge, and evaluate and integrate (bring together) evidence critically. The curriculum must motivate students and help them develop the skills for self-directed learning.

The **essential skills** that graduates need must be gained under supervision. Medical schools must assess students' competence in these skills.

The curriculum must stress the importance of **communication skills** and the other essential skills of medical practice.

**The health and safety of the public** must be an important part of the curriculum.

Clinical education must reflect the **changing patterns of healthcare** and provide experience in a variety of clinical settings.

**Teaching and learning systems** must take account of modern educational theory and research, and make use of modern technologies where evidence shows that these are effective.

**Schemes of assessment** must take account of best practice, support the curriculum, make sure that the intended curricular outcomes are assessed and reward performance appropriately.

When designing a curriculum, putting it into practice and continually reviewing it, medical schools must set up effective **supervisory structures** which use an appropriate range of expertise and knowledge.

Selection, teaching and assessment must be **free from unfair discrimination.**

# Curricular outcomes

## The principles of professional practice

1 The principles of professional practice set out in *Good medical practice* must form the basis of medical education.

*Good clinical care*
Doctors must practise good standards of clinical care, practise within the limits of their competence, and make sure that patients are not put at unnecessary risk.

*Maintaining good medical practice*
Doctors must keep up to date with developments in their field and maintain their skills.

*Relationships with patients*
Doctors must develop and maintain successful relationships with their patients.

*Working with colleagues*
Doctors must work effectively with colleagues.

*Teaching and training*
If doctors have teaching responsibilities, they must develop the skills, attitudes and practices of a competent teacher.

*Probity*
Doctors must be honest.

*Health*
Doctors must not allow their own health or condition to put patients and others at risk.

2 The following curricular outcomes are based on these principles. They set out what is expected of graduates. All curricula must include outcomes that are consistent with those set out over the following pages.

## Outcomes

3 Graduates must be able to show that they can meet the following outcomes.

4 *Good clinical care*
- a. Know about and understand the following.
  - i. Our guidance on the principles of good medical practice and the standards of competence, care and conduct expected of doctors in the UK.
  - ii. The environment in which medicine is practised in the UK.
  - iii. How errors can happen in practice and the principles of managing risks.
- b. Know about, understand and be able to apply and integrate the clinical, basic, behavioural and social sciences on which medical practice is based.
- c. Be able to perform clinical and practical skills safely.
- d. Demonstrate the following attitudes and behaviour.
  - i. Recognise personal and professional limits, and be willing to ask for help when necessary.
  - ii. Recognise the duty to protect patients and others by taking action if a colleague's health, performance or conduct is putting patients at risk.



5 *Maintaining good medical practice*
- a. Be able to gain, assess, apply and integrate new knowledge and have the ability to adapt to changing circumstances throughout their professional life.
- b. Be willing to take part in continuing professional development to make sure that they maintain high levels of clinical competence and knowledge.
- c. Understand the principles of audit and the importance of using the results of audit to improve practice.
- d. Be willing to respond constructively to the outcome of appraisal, performance review and assessment.

6 *Relationships with patients*
- a. Know about and understand the rights of patients.
- b. Be able to communicate effectively with individuals and groups.
- c. Demonstrate the following attitudes and behaviour.
  - i. Accept the moral and ethical responsibilities involved in providing care to individual patients and communities.
  - ii. Respect patients regardless of their lifestyle, culture, beliefs, race, colour, gender, sexuality, disability, age, or social or economic status.
  - iii. Respect the rights of patients to be fully involved in decisions about their care, including the right to refuse treatment or to refuse to take part in teaching or research.
  - iv. Recognise their obligation to understand and deal with patients' healthcare needs by consulting them and, where appropriate, their relatives or carers.

7 *Working with colleagues*
- a. Know about, understand and respect the roles and expertise of other health and social care professionals.
- b. Be able to demonstrate effective teamworking and leadership skills.
- c. Be willing to lead when faced with uncertainty and change.

8 *Teaching and training*
- a. Be able to demonstrate appropriate teaching skills.
- b. Be willing to teach colleagues and to develop their own teaching skills.

9 *Probity* – graduates must demonstrate honesty.

10 *Health* – graduates must be aware of the health hazards of medical practice, the importance of their own health and the effect that their health has on their ability to practise safely and effectively as a doctor.

# Curricular content, structure and delivery

Content

11 The curriculum must be intellectually challenging and place greater demand on students as they progress. Students should have time for reflection and personal growth, to catch up on elements they have missed because of illness, or other good reasons, and to deal with difficulties in coming to terms with a particular part of the curriculum.

12 The following curricular themes set out the knowledge, skills, attitudes and behaviour expected of graduates. It is not a complete guide. Medical schools will need to add to them when they design curricula.

*The scientific basis of practice*

13 Graduates must have a knowledge and understanding of the clinical and basic sciences. They must also understand relevant parts of the behavioural and social sciences, and be able to integrate and critically evaluate evidence from all these sources to provide a firm foundation for medical practice.

14 They must know about and understand normal and abnormal structure and function, including the natural history of human diseases, the body's defence mechanisms, disease presentation and responses to illness. This will include an understanding of the genetic, social and environmental factors that determine disease and the response to treatment.

15 Graduates must know about biological variation, and have an understanding of scientific methods, including both the technical and ethical principles used when designing experiments.

*Treatment*

16 Graduates must know about and understand the principles of treatment including the following.

a. How to evaluate effectiveness against evidence.

b. How to take account of patients' own views and beliefs when suggesting treatment options.

c. The effective and safe use of medicines as a basis for prescribing, including side effects, harmful interactions, antibiotic resistance and genetic indicators of the appropriateness of drugs.

d. Providing surgical and perioperative care.

e. Recognising and managing acute illness.

f. The care of people with recurrent and chronic illnesses and people with mental or physical disabilities.

g. Rehabilitation, and care within institutions and the community.

h. Relieving pain and distress.

i. Palliative care, including care of the terminally ill.

17 They must also know about and understand the role that lifestyle, including diet and nutrition, can play in promoting health and preventing disease.

18 They must be aware that many patients are interested in and choose to use a range of alternative and complementary therapies. Graduates must be aware of the existence and range of such therapies, why some patients use them, and how these might affect other types of treatment that patients are receiving.



*Clinical and practical skills*

19 Graduates must be able to do the following safely and effectively.

a. Take and record a patient's history, including their family history.

b. Perform a full physical examination, and a mental-state examination.

c. Interpret the findings from the history, the physical examination, and the mental-state examination.

d. Interpret the results of commonly used investigations.

e. Make clinical decisions based on the evidence they have gathered.

f. Assess a patient's problems and form plans to investigate and manage these, involving patients in the planning process.

g. Work out drug dosage and record the outcome accurately.

h. Write safe prescriptions for different types of drugs.

i. Carry out the following procedures involving veins.

   i. Venepuncture.

   ii. Inserting a cannula into peripheral veins.

   iii. Giving intravenous injections.

j. Give intramuscular and subcutaneous injections.

k. Carry out arterial blood sampling.

l. Perform suturing.

m. Demonstrate competence in cardiopulmonary resuscitation and advanced life-support skills.

n. Carry out basic respiratory function tests.

o. Administer oxygen therapy.

p. Use a nebuliser correctly.

q. Insert a nasogastric tube.

r. Perform bladder catheterisation.

*Communication skills*

20 Graduates must be able to communicate clearly, sensitively and effectively with patients and their relatives, and colleagues from a variety of health and social care professions. Clear communication will help them carry out their various roles, including clinician, team member, team leader and teacher.

21 Graduates must know that some individuals use different methods of communication, for example, Deafblind Manual and British Sign Language.

22 Graduates must be able to do the following.

a. Communicate effectively with individuals regardless of their social, cultural or ethnic backgrounds, or their disabilities.

b. Communicate with individuals who cannot speak English, including working with interpreters.

23 Students must have opportunities to practise communicating in different ways, including spoken, written and electronic methods. There should also be guidance about how to cope in difficult circumstances. Some examples are listed below.

a. Breaking bad news.

b. Dealing with difficult and violent patients.

c. Communicating with people with mental illness, including cases where patients have special difficulties in sharing how they feel and think with doctors.

d. Communicating with and treating patients with severe mental or physical disabilities.

e. Helping vulnerable patients.

*Teaching skills*

24 Graduates must understand the principles of education as they are applied to medicine. They will be familiar with a range of teaching and learning techniques and must recognise their obligation to teach colleagues. They must understand the importance of audit and appraisal in identifying learning needs for themselves and their colleagues.

25 Graduates must be able to do the following.

a. Identify their own learning needs.

b. Use different techniques to record, organise and present information, including computers and IT resources.

c. Use and evaluate a variety of teaching techniques to communicate information to colleagues.

*General skills*

26 Graduates must be able to do the following.

a. Manage their own time and that of others.

b. Prioritise tasks effectively.

c. Reflect on practice, be self-critical and carry out an audit of their own work and that of others.

d. Use research skills to develop greater understanding and to influence their practice.

e. Follow the principles of risk management when they practise.

f. Solve problems.

g. Analyse and use numerical data.

h. Take account of medical ethics when making decisions.

*The working environment*

27 Graduates must understand the working, organisational and economic framework in which medicine is practised in the UK, including:

a. the organisation, management, provision and regulation of healthcare; and

b. the structures and functions of the NHS.



28 Graduates must be aware of current developments and guiding principles in the NHS, for example:

a. patient-centred care;

b. systems of quality assurance such as clinical governance;

c. clinical audit;

d. the significance of health and safety issues in the healthcare setting;

e. risk assessment and management strategies for healthcare professionals; and

f. the importance of working as a team within a multi-professional environment.

*Medico-legal and ethical issues*

29 Graduates must know about and understand the main ethical and legal issues they will come across. For example, how to:

a. make sure that patients' rights are protected;

b. maintain confidentiality;

c. deal with issues such as withholding or withdrawing life-prolonging treatment;

d. provide appropriate care for vulnerable patients;

e. respond to patients' complaints about their care;

f. deal appropriately, effectively, and in patients' interests, with problems in the performance, conduct or health of colleagues; and

g. consider the practice of medicine within the context of limited financial resources.

30 Graduates must understand the principles of good practice set out in our publication *Seeking patients' consent: the ethical considerations*. These include:

a. providing enough information about conditions and possible treatments to allow patients to make informed decisions about their care;

b. responding to questions;

c. knowing who is the most appropriate person to ask for consent;

d. finding out about a patient's ability to make their own decisions and to give their consent; and

e. statutory requirements that may need to be taken into account.

*Disability and rehabilitation*

31 Graduates must know about the following.

a. The rights of people with mental or physical disabilities.

b. How the opportunities available to disabled people can be affected by society's view of them.

c. The potential strengths and contribution of such individuals.

32 They must also recognise the importance of responses to illness and providing help towards recovery, as well as managing chronic disease and relapse, and reducing or managing impairments, disabilities and handicaps. They must be aware of issues surrounding the needs of parents with children who have mental or physical disabilities.

*The health of the public*

33 Graduates must understand the issues and techniques involved in studying the effect of diseases on communities and individuals, including:

a. assessing community needs in relation to how services are provided;

b. genetic, environmental and social causes of, and influences on the prevention of, illness and disease; and

c. the principles of promoting health and preventing disease, including surveillance and screening.

*The individual in society*

34 Graduates must understand the social and cultural environment in which medicine is practised in the UK. They must understand human development and areas of psychology and sociology relevant to medicine, including:

- reproduction;
- child, adolescent and adult development;
- cultural background;
- gender;
- disability;
- growing old; and
- occupation.

35 They must understand a range of social and cultural values, and differing views about healthcare and illness. They must be aware of issues such as alcohol and drug abuse, domestic violence and abuse of the vulnerable patient. They must recognise the need to make sure that they are not prejudiced by patients' lifestyle, culture, beliefs, race, colour, gender, sexuality, age, mental or physical disability and social or economic status.

36 Graduates must take account of patients' understanding and experience of their condition, and be aware of the psychological effect that this can have on them and their families. This is particularly important when dealing with vulnerable patients, such as:

- children and older people;
- people with learning disabilities or mental health problems;
- patients whose complaints are not easily explained as biological abnormalities or diseases; and
- patients who are worried about their condition.

37 Exploring patients' fears and concerns can help them to understand their condition and to take an active part in decisions about their treatment.



Structure

38 The curriculum must have a core and student-selected components (SSCs). The core curriculum must take up most curricular time. We expect that in a standard five-year curriculum between 25% and 33% would normally be available for SSCs.

39 Together the core curriculum and SSCs must allow students to meet the curricular outcomes. This will make sure that graduates have the necessary knowledge, skills and attitudes to practise as a PRHO. Medical schools must determine the way in which the curricular outcomes are met.

40 SSCs support the core curriculum and must allow students to do the following.

a. Learn about and begin to develop and use research skills.

b. Have greater control over their own learning and develop their self-directed learning skills.

c. Study, in depth, topics of particular interest outside the core curriculum.

d. Develop greater confidence in their own skills and abilities.

e. Present the results of their work verbally, visually or in writing.

f. Consider potential career paths.

41 At least two thirds of each student's SSCs must be in subjects related to medicine, whether laboratory-based or clinical, biological or behavioural, research-orientated or in humanities related to medicine.

Delivering the curriculum

*Supervisory structures*

42 Medical schools must set up supervisory structures that involve individuals with an appropriate range of expertise and knowledge. Clear lines of authority and responsibility must be set out. This will allow medical schools to plan curricula and associated assessments, put them into practice and review them. Combining educational expertise within a medical education unit can help this process.

*Teaching and learning*

43 Modern educational theory and research must influence teaching and learning. Medical schools should take advantage of new technologies to deliver teaching.

44 Every doctor who comes into contact with medical students should recognise the importance of role models in developing appropriate attitudes and behaviour towards patients and colleagues.

45 Medical schools must make sure that every person involved in educating medical students has the necessary knowledge, skills and attitudes. Staff-development programmes should promote teaching and assessment skills. All staff should take part in such programmes.

46 The quality of teaching must be monitored through a number of different systems, including staff appraisals, student feedback and reviews of teaching by peers.

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# Assessing student performance and competence

### The principles of assessment

62 Schemes of assessment must support the curriculum and allow students to prove that they have achieved the curricular outcomes. This means assessments must allow students to demonstrate the breadth and depth of their knowledge, and to show what they can do. Professional attitudes and behaviour must also be assessed.

63 Student performance in both the core and SSC parts of the curriculum must be assessed and must contribute to their overall result. Students who have not satisfied the examiners in both parts of the curriculum must not be allowed to graduate.

64 Medical schools should use a range of assessment techniques that are appropriate for testing the curricular outcomes. Medical schools should determine the most appropriate scheme of assessment for their curriculum. However, schemes must meet best practice in assessment, and medical schools must be able to provide evidence that the schemes are valid and reliable, and that they have processes for setting standards and making decisions about student performance.

65 When students get close to graduating, their knowledge, skills, attitudes and behaviour must be thoroughly assessed to determine their fitness to practise as PRHOs.

### Assessment procedures

66 Schemes of assessment must be open, fair and meet appropriate standards. Medical schools must make sure that:

a. there is a clear indication of how the scheme of assessment deals with all the curricular outcomes;

b. there is a clear indication of how individual assessments and examinations contribute to the overall assessment of the curricular outcomes;

c. when they design individual examinations and assessments, there is a clear indication of how the targeted curricular outcomes have been met;

d. students have clear guidance about what is expected of them in any examination or assessment;

e. examiners are trained to carry out their role and to apply the medical school's assessment criteria consistently;

f. examiners have clear guidelines for marking assessments, which indicate how performance against targeted curricular outcomes should be rewarded;

g. systems are in place to determine the pass mark; and

h. external examiners are employed to make sure that standards are met.



### Appraisal

67 Students must receive regular, structured and constructive appraisal from their teachers during the mainly clinical years of the curriculum. This allows the medical school to judge their clinical knowledge and competence against the principles set out in *Good medical practice*.

68 It provides students with information about their progress and performance, allowing them to deal with any areas of concern. This will also help students prepare for the regular appraisal of their performance that will take place once they are qualified.

### Student progress

69 A small number of students may discover that they have made a wrong career choice. Medical schools must make sure that these students, whose academic and non-academic performance is not in question, are able to gain an alternative degree at the end of three years, or are able to transfer to another degree course.

70 Only those students who are fit to practise as doctors should be allowed to complete the curriculum and gain provisional registration. Students who do not meet the necessary standards in terms of demonstrating appropriate knowledge, skills, attitudes and behaviour must be advised of alternative careers to follow.

71 Medical schools must have robust and fair procedures, including an appeals process, to deal with students who are causing concern on academic and non-academic grounds, such as ill health or poor conduct. The arrangements for dealing with students and PRHOs must be consistent. This will help to manage the transition from student to PRHO.

72 These procedures will vary depending on each medical school's statutes and individual circumstances. Medical schools themselves will have to determine the most appropriate form of these procedures. However, Universities UK and the Council of Heads of Medical Schools have produced helpful guidance about setting up fitness-to-practise procedures that may be useful for medical schools.

73 Medical schools should tell students about these procedures so that they understand their rights and obligations.

# Student health and conduct

### General principles

74 We, the universities and the NHS all have different roles in medical education. We have statutory responsibility for setting standards for protecting the public. Universities are responsible for selecting students into their medical schools and for providing a curriculum that will deliver the learning outcomes that we set. NHS acute trusts and primary care organisations are responsible for making available the facilities and practical support necessary for delivering the clinical parts of the curriculum.

75 We have no direct statutory role in matters of student health and conduct. However, the award of a medical degree automatically entitles the graduate to be provisionally registered by us and to practise under supervision as a doctor. As a result, we have a strong interest. The purpose of this guidance is to provide help to universities and medical students in dealing with matters of health or conduct.

76 As long as they meet a university's regulations, anyone can graduate provided that they meet all the outcomes and curriculum requirements in these recommendations. Our view is that students with a wide range of disabilities or health conditions can achieve the set standards of knowledge, skills, attitudes and behaviour. Each case is different and has to be viewed on its merits. The safety of the public must always take priority.

### Confidentiality for medical students

77 It is important that medical students who have problems with physical or mental health, or drug or alcohol misuse, are encouraged to get appropriate help so that they might receive informed advice and support, including adapted training. Medical students who are ill have the same right to confidentiality as other patients.

78 Doctors providing medical care for students should follow the guidance in *Confidentiality: protecting and providing information*. Passing on personal information without permission may be justified where failure to do so may result in death or serious harm. Doctors should not pass on information without the student's permission, unless the risk to patients is so serious that it outweighs the student's rights to privacy. They must remember that students will be in close contact with patients from an early stage of their training.

79 Doctors providing medical care for students should consult an experienced colleague or get advice from a professional organisation if they are not sure whether passing on information without a medical student's permission is justified.



### The responsibility of medical students to protect patients

80 *Good medical practice* requires doctors to take responsibility for their own health in the interests of public safety. Medical students should also follow this guidance. If a student knows that he or she has a serious condition which could be passed on to patients, or that their judgement or performance could be significantly affected by a condition or illness (or its treatment), they must take and follow advice from a consultant in occupational health or from another suitably qualified doctor on whether, and in what ways, their clinical contact with patients should be altered. Students should not rely on their own assessment of the risk to patients.

81 Guidance on infectious risk is set out in more detail in our document *Serious communicable diseases*, which medical students and universities should also follow.

### The responsibility of other doctors to protect patients

82 All those who teach, supervise, counsel, employ or work with medical students have a responsibility to protect patients if they have concerns about a student. Where there are serious concerns about a medical student's performance, health or conduct, it is essential that steps are taken without delay to investigate the concerns to identify whether they are well-founded and to protect patients.

### The responsibility of universities to protect patients

83 Universities have a duty to make sure that no member of the public is harmed as a result of taking part in the training of their medical students. Medical students cannot complete the undergraduate curriculum without coming into close, and sometimes intimate, contact with members of the public who may be vulnerable or distressed. The vocational part of their training, which prepares them for clinical practice when they become registered doctors, is such that they may not be directly observed or supervised during all contact with the public, whether in hospitals, in general practice or in the community.

84 By awarding a medical degree, a university is confirming that the graduate is fit to practise as a PRHO to the high standards that we have set in our guidance to the medical profession, *Good medical practice*.

85 Universities must have procedures to:

- identify (as early as possible) medical students whose conduct gives serious cause for concern or whose health is affected to such a degree that it could harm the public;
- provide those students with appropriate support; and
- make sure that if students are still a risk to patients they are not allowed to graduate with a medical degree.

# *Putting the recommendations into practice*

86 The Education Committee is responsible for making sure that UK medical schools put these recommendations into practice when designing curricula and associated assessments. It will do so within the statutory framework and responsibilities set out in the following pages.

### What the law says about undergraduate education

*UK law*

87 The powers and duties of our Education Committee under Part II of the Medical Act 1983 (as amended) are set out below.

88 Graduates who hold a UK PMQ are entitled to provisional registration. We have no say in this matter.

89 Provisional registration allows graduates to work under supervision as a PRHO. Our guidance in *The new doctor* (published 1997) describes the requirements for this period of training, as well as the experience needed for full registration.

90 UK PMQs include degrees of Bachelor of Medicine and Bachelor of Surgery awarded by the universities listed in Section 4 of the Medical Act 1983, and the Licentiates in Medicine and Surgery awarded by the Royal Colleges of Physicians and Surgeons in the UK, and the Society of Apothecaries. These are the organisations that may hold qualifying examinations, either alone or in combinations set out in the Act, or as otherwise approved by the Education Committee.

*European Union law*

91 European Council Directive 93/16 allows European Union (EU) nationals who hold an EU PMQ or specialist qualification to practise as doctors anywhere in the EU.

92 Article 23 of the Directive says the period of basic medical training must be at least a six year course or 5,500 hours of theoretical and practical instruction given in a university or under the supervision of a university. 'Basic medical training' is the period leading up to full registration.

93 Before being awarded a PMQ that allows them to practise, the EU Medical Directive says a student must have the following.

a. "Adequate knowledge of the sciences on which medicine is based and a good understanding of the scientific methods including the principles of measuring biological functions, the evaluation of scientifically established facts and the analysis of data."

b. "Sufficient understanding of the structure, functions and behaviour of healthy and sick persons, as well as relations between the state of health and physical and social surroundings of the human being."

c. "Adequate knowledge of clinical disciplines and practices, providing the student with a coherent picture of mental and physical diseases, of medicine from the points of view of prophylaxis, diagnosis and therapy and human reproduction"

d. "Suitable clinical experience in hospitals under appropriate supervision."

These quotes have been taken from EU Council Directive 93/16 of April 1993, article 23, paragraph 1.



### Responsibility for undergraduate education in the UK

*The GMC*

94 We are responsible for the following.

a. Deciding the knowledge, skills and attitudes graduates need.

b. Making sure (through written enquiries and on site visits) that the teaching and learning opportunities provided allow students to meet our requirements.

c. Setting the standard of expertise that students need to achieve at qualifying examinations or assessments.

d. Making sure (through written enquiries and on-site inspections) that the standard of expertise we have set is maintained by the medical schools at qualifying examinations.

e. Appointing inspectors of qualifying examinations and assessments, and visitors to medical schools and possible medical schools, to report on the standard of examinations and assessments and on the quality of teaching and learning.

f. In the light of the outcome of visits and inspections, recommending to the Privy Council to recognise, continue to recognise or no longer recognise individual UK PMQs.

g. Giving EU nationals with appropriate medical degrees provisional registration. This allows them to work as a PRHO in the UK and to gain the clinical experience needed for an EU PMQ.

h. Considering applications under Section 10 (4) of the Medical Act 1983 (see paragraph 97g on page 20).

*The medical schools*

95 Medical schools must follow these recommendations, and the requirements of the EU Medical Directive, when designing and putting into practice curricula and associated assessments.

96 Medical schools have a responsibility to the public, to employers and to the profession to make sure that graduates are fit to practise. When a medical school awards a PMQ, it is confirming to us that each graduate has completed, in full, a curriculum that meets our guidance and the requirements of the Medical Act and of the Directive.

97 The particular duties of medical schools include the following.

a. Selecting students, taking account of the qualities needed in a doctor, as set out in *Good medical practice*, and getting advice from the UK Health Departments on matters that may affect a doctor's eligibility for professional practice.

b. Giving us information that we have asked for on their arrangements for educating and assessing students, and any other matters broadly relating to the curriculum or the qualifying examinations (or both).

c. Assisting the work of Education Committee inspectors or visitors appointed under Sections 6 and 7 of the Medical Act 1983.

d. Making sure that (under the European Primary Medical Qualifications Regulations) degree certificates or other evidence of award of a UK PMQ make it clear whether students have spent more than 12 months of their training outside the EU.

e. Making sure that teachers, trainers and clinical supervisors, as well as those who assess student performance, understand and put into practice the guidance contained in these recommendations and in our publication *The doctor as teacher*, and are provided with the training necessary to carry out their role.

f. Setting up appropriate systems to plan, put into practice and continually review curricular changes.

g. Applying to us under Section 10 (4) of the Medical Act 1983 for approval of an alternative pattern of PRHO experience for any doctor who is prevented (by a lasting physical disability) from starting on, or completing, some of the experience needed for full registration.

*The UK Health Departments*

98 The Health Departments should make sure that NHS organisations work with medical schools so that students receive appropriate clinical training.

99 The Health Departments have a duty to make facilities in NHS hospitals and other premises available for students to receive clinical training.

100 The Health Departments are also responsible for deciding how students may have access to patients on NHS premises.



## The responsibilities of doctors

101 All doctors must follow the principles of professional practice that are set out in *Good medical practice*.

102 All doctors should be willing to contribute to the education of students.

103 Doctors with particular responsibility for teaching students must develop the skills, attitudes and practices of a competent teacher. They must also make sure that students are properly supervised.

104 Doctors must be honest and objective when appraising or assessing the performance of students, including those they have supervised or trained. Patients may be put at risk if a doctor describes as competent any student who has not reached or maintained a satisfactory standard of practice.

## The responsibilities of students

105 Students must accept responsibility for their own learning, including achieving the curricular outcomes in this guidance.

106 As future doctors, students should follow the guidance in *Good medical practice* from their first day of study, and understand the consequences if they fail to do so. In particular, students must appreciate the importance of protecting patients, even if this conflicts with their interests or those of friends or colleagues. If students have concerns about patient safety, they must report these to their medical school.

107 Students must follow the guidance issued by the UK Health Departments and other organisations about their access to patients in NHS hospitals and community settings. They should also be aware of any departmental guidance for healthcare workers, which may have an affect on their practice once they have gained registration.

108 Students must be aware that under Section 49 of the Medical Act 1983 it is an offence for anyone who is not a registered doctor to pretend to be a qualified doctor.

# Glossary

**Appraisal** — A positive process to provide feedback on the student's performance, chart their continuing progress, and to identify their development needs.

**Biological variation** — Any difference between cells, individuals or groups of individuals of any species.

**Curriculum** — A detailed schedule of the teaching and learning opportunities that will be provided. This includes the core curriculum and the student-selected components.

**Integrated teaching** — A system where the clinical and basic sciences are taught and learned together. This allows students to see how scientific knowledge and clinical experience are combined to support good medical practice.

**Medical school** — The universities and non-university organisations that are legally entitled to hold an examination for the purpose of granting a PMQ. Universities also run degree courses.

**Perioperative care** — The care given to a patient in preparation for, during, and while recovering from, surgery.

**Primary medical qualification (PMQ)** — A first medical degree awarded by a UK medical school.

**Revalidation** — The regular demonstration by doctors that they are up to date, and fit to practise medicine.

**Scheme of assessment** — The examinations and assessments that make sure all students have successfully achieved and demonstrated the knowledge, skills, attitudes and behaviour set out in the curriculum.

**Scientific method** — A rational approach to explain natural events and processes by formulating, testing and modifying a hypothesis.

**Self-directed learning** — A process in which students are responsible for organising and managing their own learning activities and needs.

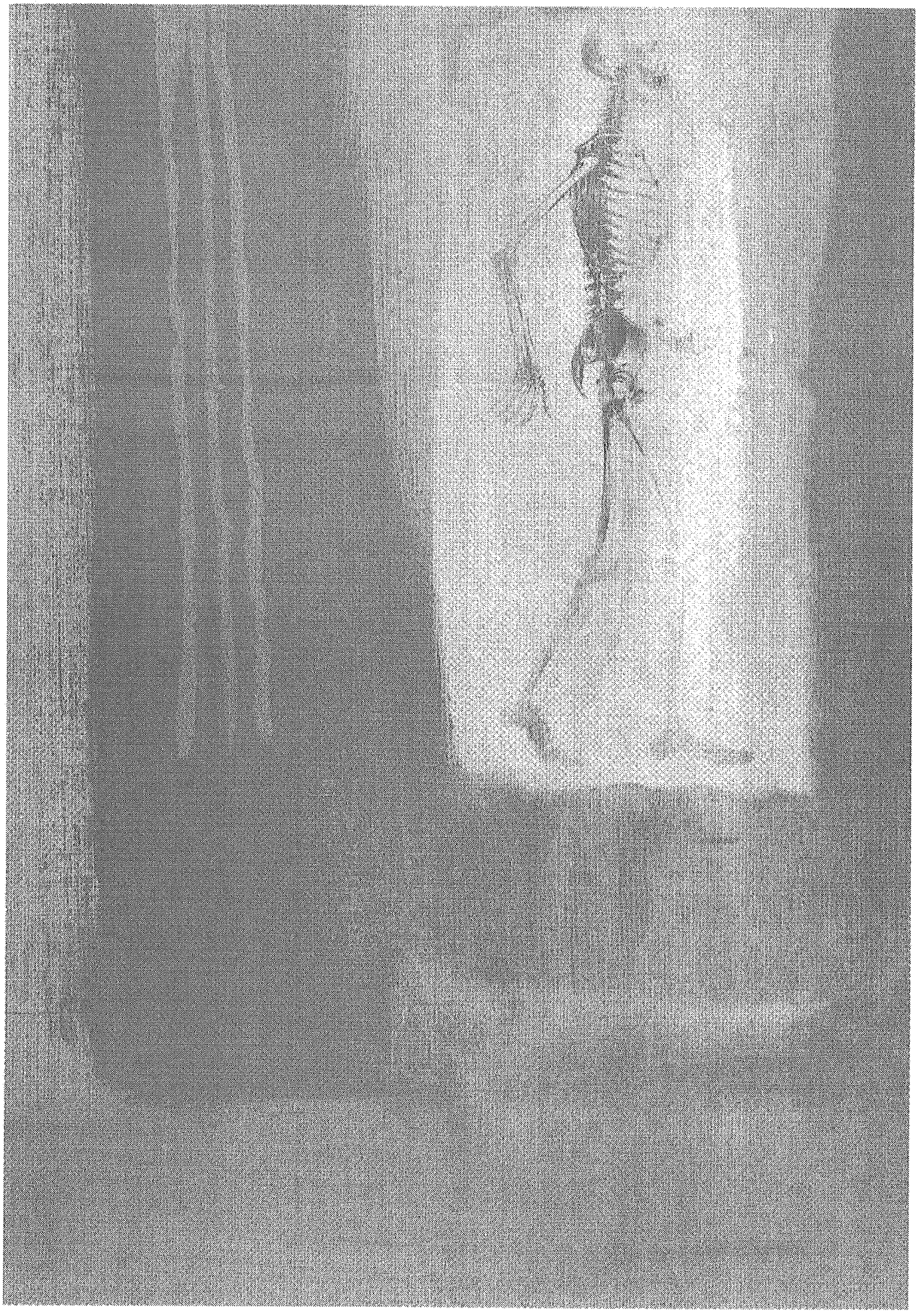
**Student-selected components (SSCs)** — Parts of the curriculum that allow students to choose what they want to study. These components may also offer flexibility concerning how, where and when study will take place.



# Index

*Note: numbers refer to paragraph numbers, a dash between numbers indicates 'to'.*

# *Useful GMC contacts*



厚生労働科学研究費補助金(医療技術総合評価研究事業)
分担研究報告書

# 2. 医学教育に関する臨床研修医を対象とした調査

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**研究要旨**：
新医師臨床研修制度の評価に関する調査研究班（主任研究者：福井次矢）と共同で開発したアンケート項目（研修経験、研修環境、習得技術など）を用いて、全国の臨床研修病院（合計 849 病院、内大学病院 104 病院）に在籍している１年次研修医 7,526 名、２年次研修医 7,344 名を対象として調査依頼をした。また広島大学、日本大学、筑波大学の附属病院で研修を修了する２年次の研修医を対象として、臨床研修および効果的な臨床研修を行うための要件などに関して、聞き取り調査を実施した。臨床研修医に対する調査により、効果的な臨床研修をすすめる観点からみた生涯を通した医学教育の課題および方向性を検討するための基礎資料を得ることが期待される。

## A．研究目的

平成 16 年度から新医師臨床研修制度が導入されるに伴い、入学や卒前教育との関連から医師の養成・研修システムを効果的にすすめていくための課題、方策を検討する。

## B．研究方法

１．臨床研修医に対する自記式アンケート調査

新医師臨床研修制度の評価に関する調査研究班（主任研究者：福井次矢）と共同で開発したアンケート項目（研修経験、研修環境、習得技術など）を用いて、２年次および１年次の臨床研修医を対象とした自記式アンケート調査を実施した。全国の臨床研修病院（合計 8,49 病院、内大学病院 104 病院）に在籍している１年次研修医 7,526 名、２年次研修医 7,344 名を対象として調査依頼をした。

２．臨床研修２年修了者に対する聞き取り調査

広島大学、日本大学、筑波大学の附属病院で研修を修了する２年次の研修医を対象として、臨床研修および効果的な臨床研修を行うための要件などに関して、聞き取り調査を実施した。

（倫理面への配慮）

インタビュー調査では、協力者の個人情報、および回答内容がそのまま公表されないよう配慮した。

## C．研究結果

1．臨床研修医に対する自記式アンケート調査

3月20日現在、アンケート回収中である。

2．臨床研修2年修了者に対する聞き取り調査

臨床研修修了者を対象としたアンケート調査および臨床研修についての現状を聞き取り調査した。

（1）広島大学における調査内容

○対象者

広島大学医学部附属病院および関連病院研修医2年目　12名、男7名　女5名（6名ずつのグループで2回にわけて聞き取り）

○インタビュー（概要）

1）教養教育と医学教育・臨床実習等の関連

・　教養教育と高等学校の課程との関連；生物の基礎的教養が必要であるが受験科目は物理・化学が主流であるため大学での生物および医学に関する基礎的な理科科目の教育が必要

〈注〉頭脳教育や二次的な面での物理・化学を否定することではない。

・　教養教育科目と医学教育の連携・継続・必然性；

一部に専門教育に直結の授業構成が望ましいという意見があったが、概ねは現行リベラルアーツ的な授業に不満はないこと、また、専門性に何が結びつくかは学生の判断は好みや時流に流され、むしろ、教官・大学サイドの提示に左右されるため、合目的な授業構成を期待するとの意見が主流であった。この点では、コアカリキュラムやＣＢＴ・ＯＳＣＩなどの導入の過渡期であり、今後の、臨床に必要な教養・スキル（手技）・知識等から演繹的に無駄のない（合目的・合理的・実利的な視点での検証による）連携した構成による教養教育の改善点の協議が必要であるとの意見があった。

・　教養教育が医学専門教育に役立つか否か等；同　上

2）基礎医学教育と臨床実習および卒後研修との関連

・相互の有効性・関連性；

臨床において直面する事象を理解する際や二次的には基礎医学教育の関連が分かるが、（当然のことながら）実践的でないため、振り返って考えると、直接の関連には乏しいとの印象であるとのこと。

また、臨床実習は基礎的な点では役立っており、模擬患者の体験は不自然な印象をその時は持つものの必要であり経験価値は十分にあったが、改善点は大きいとのこと。

・　改善点（プログラム・教育方法論・指導性・誘導性）等；

すべてにおいて学生側は受け身にならされており、改善点については、

①受講時点で合目的性に判断することの出来る情報（目的・学ぶべき事・提供される事象・状況や制限内容等・素材等）が与えられるか（得ることができるか）によるので、この点を明確にして努力目標等を提示して貰いたいこと。

②授業リズムが速く付いてゆくだけに終始する場合（普通の真面目な学生の場合）があり、改善点や教育方法については事後にしか判断できないことから、履修後のアンケートや懇談会等をもうけて、評価・反省・改善点の具体的な摘出・試案提示等を行っていくと良いプログラム等に行き着くため、根気と時間を要する取り組みが必要であること。

3）卒後臨床研修・2 年の経験と今後の卒後臨床研修の課題等

・ プログラムの標準化の是非；

完全かつ均一であることは期待していない。理由は、初めての臨床においてはすべてが勉強であるからであり、厳しくても指導を十分にしてくれる個人的な関係を得た者が充実した研修と感じたり、その契機で、事と次第や自分の果たすべき役割を認識しはじめたとのことから、自主的・積極的になり、良い経験を積んだとの充実感を感じることから、単にプログラムのみならず、むしろ、指導について指導者との関係等に配慮が必要であること。

・ 有用/有益/感謝の経験/実感等の長所および促進要因等；

時間的に無駄がない場合や貴重な症例を見た場合、また、対面的指導で何がどうなるかについての予測を立てつつ指導を受けた場合やチームの中での一員としての位置づけを明確にして取り組んで貰った場合等が研修に意欲を燃やす契機としての促進要因であったこと。

・ 無駄／不明／不要の経験／実感等の短所および阻害要因等；

目的・方向・存在について明確でない場合や、直接の指導を受けることが出来ない場合、客扱いの場合等において阻害要因・消極的な取り組みになる原因であったこと。

4）その他・その 1（概論・総論的事項・社会医学に関する研修経験の実際）

・ 総体的には社会・医療機関に出て、まだまだ、自己座標軸の定かではない状況や、目的があり自己座標軸を定めつつあっても、経験を獲得する初期段階のため、着実かつ検討会・インタビューの目的に合った（開催した狙いとしての視点での）成果は、今後の実地臨床をある程度経験した場合に得ることができるとも感じられた。

5）その他・その 2（今後の方向）

・ 社会医学・地域医療等の公衆衛生についての意見を聞き取るグループを設定し検討会を開催すること。および精神科医療等での経験者による検討会を開催すること。

・ ならびに、主任研究者の要請する研修経験者による検討会の開催を企画すること等。

（2）日本大学における調査内容

○対象者

研修医 2 年目　男 5 名

年齢 26～30 歳

出身大学　日本大学 4、中国医科大学 1

○インタビュー（概要）

1）地域保健・医療研修について（保健所、老人保健介護施設または市中病医院で 1 ヶ月）

・ 大学病院で経験できないような訪問看護、病診連携の現場などの経験ができて有意義であった。

・ 外来で時間をかけて患者と向き合えた。

・ 単独の診療科の枠を越えたものの見方がよかった。
・ 初年度ということもあり、現場で何を研修させたらよいのか指導側の戸惑いが感じられた。

2） 2年間の臨床研修制度について
・ 1年前の学年に比べて不公平感がある。
・ 社会人入学をした人には医師として活躍する期間を短くしてしまうので一律義務化が良いのか疑問がある。
・ 自分が将来専門としない科にもローテートするので他科の考え方がわかるので意義がある。
・ 研修プログラムの違いがわかりにくいものがある。
・ 研修のためというより人手不足のところに回されている感じがあり雑用も多い。
・ 専門性が高い部署に回されることがあるが、将来的に自分が扱うかと考えると高度先進医療のような研修が必要か疑問を感じる(高度で専門的な内容より基礎的普遍的な内容を重視すべき)。
・ もっと選択できる柔軟なプログラムがよい。
・ プログラムさえ適切ならば研修制度自体は有益だと思う。
・ 指導医のトレーニングも必要である。
・ 研修時期により内容や指導医の質に差がありすぎる。
・ 宿舎などの環境や給料などの待遇が整っていないうちに無理矢理スタートさせたような印象を受ける。
・ 病棟よりも外来に重点を置いてほしい。
・ 研修制度は指導医も研修医も理解不足、準備不足。

3） 大学病院での臨床研修について
・ 出身大学だと内部をよく知っているので働きやすかった。
・ 教育に熱心である。
・ 待ち時間など時間的な無駄などが多い。
・ 狭さなど施設的制約がある。
・ 人材が豊富なので学ぶことが多かった。
・ ローテーション研修に慣れている。
・ 規模が大きすぎて患者を直接処置するなどの機会が市中病院より少ない。
・ 後期臨床研修のみでなく初期臨床研修も行うことに対しては賛成である。
・ 同じ大学でも付属病院による性格の違いがあるのでうまく組み合わせると効果が上がると思う。
・ 病床の多い大学病院と中規模病院にそれぞれ利点欠点があるので、うまく組み合わせると良いと思う。
・ 患者との接点は市中病院が有利だが、大学病院は症例が多いのが魅力である。

4） 研修評価について
・ 研修修了認定の基準が不明確である。
・ 評価の方法がわずらわしい。
・ EPOC の入力が手間取る。
・ レポート提出のあり方を考慮してほしい。
・ 自己評価させるならば評価される内容をすべて確実に教えてほしい。
・ 直接指導するのは上級医だが、評価するのはさらに上の指導医なので評価の妥当性が疑わしい。

5） 教養（卒前の一般教育）について
・ 大学での教育は充実していないが、大学生ならば自分の力で身につけるよう努力すべきものである。
・ 自己学習のきっかけとなる要素が乏し

い。

6）基礎医学科目について

・ 今になって重要性を認識した。

7）公衆衛生学教育について

・ 臨床の現場で役立つことが多かった。疫学統計学はこれからも必要性が高いと思う。

8）卒前臨床実習について

・ もっと期間を長くし実践的な内容にするほうがよい。

9）メディカル・スクールについて

・ 学部教育では教養教育で劣るが、2年多く臨床経験を積めるという点ではよい。

・ 日本で実例がないので比較が難しい。

10）その他

・ 臨床研修で回った科によって夏休みが取れなかった。休暇を取れた人と取れない人がいて不公平である。

・ 中国の医科大学は6年間の学部教育。日本より授業時間が長い。卒前臨床実習は日本の卒後臨床研修に近いものである。国家試験がなかった。

（3）筑波大学における調査内容

○ 対象者　研修医2年目、5名
性別　男4、女1、年齢26-28歳
出身地　茨城、東京、千葉、秋田
出身大学　全員筑波大学

○インタビュー（概要）

1）研修期間

・ 地域保健・医療は毎週1日6ヶ月間良くも悪くもないが、急性期疾患の経験を積むことが多い中、慢性的な変化等に対応できることは貴重な経験であった。施設を選択する際に研修内容をよく提示する必要がある。強制することは良くない等の意見があった。

・ 保健所で研修した者は健康危機管理のマニュアルを作成する仕事を行い、有意義であったとしている。現在エレクティブの選択肢には地域保健・医療が含まれていないので、入れるべきであるとの意見もあった。

2）医学教育

・ 入学前経歴　全員高校卒業後医学部進学

・ 教育と臨床研修；

・教養科目に関しては「あまり有益とは思わない」が大勢の意見で、その時間があるのであれば、より病院での実習や医療に触れる機会を増やした方がよいとの意見があった。その一方で患者とのコミュニケーションを図る上に有益であるとの意見もあった。

・基礎医学については、「ある程度有益と思う」が大勢の意見であり、研究に関心を持つ者にとっては有益である。微生物等の授業は有益であったとの意見があった。

・臨床医学に関しては「大変有益であった」が大勢であったが、頻度の少ない、まれな疾患に関するものが多く、もう少し頻度の高い疾患に対する講義が必要である。また傷病から症状ではなく、症状から鑑別診断といった臨床現場により近い内容を充実させるべきとの意見があった。

・ 卒前教育；

・模擬患者に関しては「ある程度有益であった」が大勢であったが、特殊な患者（いわゆる扱いにくい患者等）