



Royal College of
General Practitioners

SAPC

Society for Academic Primary Care

Teaching general practice

Guiding principles for undergraduate general practice curricula in UK medical schools

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Foreword

General practice underpins the whole of our National Health Service, making the greatest proportion of patient contacts and providing essential continuity by holding patients' medical records for their life course. Now more than ever we need to promote the expert medical generalist role as we plan for the future. To paraphrase the Chief Executive of NHS England, Simon Stevens, 'there is arguably no more important role in modern Britain than that of the family doctor.'

Medical schools have a responsibility to educate and prepare approximately half of all their graduates for careers in general practice – this guide shows how best to place emphasis on teaching and promoting general practice as a career which is professionally and intellectually rewarding. It has been consciously aligned to the 'By Choice – not by chance' report which was produced by HEE/MSc in 2016, and is a forward-looking document, describing guiding curriculum principles that will take medical students forward into healthcare for the next decade and beyond.

I am delighted that this guidance document is being launched in the year we are celebrating the 70th Anniversary of the NHS. It is the result of a constructive collaboration between colleagues from SAPC and RCGP and a testimony to our shared values and vision for the future education of medical students.

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Background

The Society for Academic Primary Care (SAPC) and the Royal College of General Practitioners (RCGP) have collaborated to produce this guidance on the design and delivery of general practice (GP) learning and teaching in UK medical schools.

The guidance is based on published evidence and current best practice in UK medical schools, and has been refined through consultation with the Medical Schools Council (MSC), General Medical Council (GMC) and the MRCGP Curriculum Development Group. It aims to support implementation of the recommendations of the recent Health Education England (HEE) and the Medical Schools Council 'By choice - not by chance' report on raising the profile of general practice at medical schools. (1)

It does not propose a one-size-fits-all curriculum or syllabus, but rather a set of guiding principles providing ample space for individual undergraduate programmes to adapt and innovate. We recommend that medical schools use this document to inform thinking around the quantity, content and process of general practice teaching, both on placements and on campus. This process should integrate with local medical school curricula and also broader GMC curriculum outcomes (GMC 2015).

Introduction

All professions must define the knowledge for which they take public responsibility, and which they must therefore impart to those entering the profession. In undergraduate medicine this task is particularly important as students need to understand the intellectual heritage underpinning each of the major medical disciplines to inform their eventual career decisions. In general practice this task of professional definition has arguably not been fully achieved (2). Whilst general practice is now well established as an ideal setting in which to learn clinical skills and the principles of clinical medicine, a lack of sign-posting intellectually stimulating undergraduate experience in general practice is likely to be one of the reasons why lower numbers of students choose general practice than are required to sustain the profession or fulfil Government mandates (3-5).

Definitions

Curriculum

We use the term "curriculum" to describe guidance as to both *what* should be taught (content) and *how* it should be taught (process). This is in contrast to the term 'syllabus' which refers to content only.

This document proposes a different way of delivering curriculum in general practice. Instead of viewing curriculum as a detailed list of specialities and conditions, we suggest that learning is organised around principles. We propose that these principles are delivered firstly through understanding the content and research evidence underpinning the principle and secondly by applying these principles through "doing" various relevant learning activities. By discovering the breadth and depth of these principles through appropriate activities, students will gain a deeper understanding of their developing clinical knowledge and how it is integrated and used in practice.

Curriculum development process

Curriculum development is an ongoing and active process involving meaningful interaction between teachers and students in a continuous cycle of quality improvement.

Therefore, in generating this guidance we have:

1. Undertaken an extensive review of the literature relevant to curriculum development in classroom and work-based learning contexts (6).
2. Consulted and debated widely within the general practice teaching community (7, 8), with regular meetings at a national level where curriculum is discussed to gain consensus of curriculum content and delivery methods.
3. Reviewed curriculum documents from all UK medical schools, outlining what is currently taught in or about general practice and how it is taught.

This document does not cover principles of assessment, not least because a national licensing exam is currently under development. However, following widely adopted educational principles this curriculum document is fully amenable to mapping onto assessment criteria.

These undergraduate guidelines aim to complement guidance offered in the RCGP curriculum for postgraduate general practice training. They are also informed by an extensive BEME systematic review of UK undergraduate medical education in general practice settings (9). We see this guidance very much as a starting point for further development and continuing debate.

Purpose of national guidance

We hope that all medical schools will consider this guidance and decide how it might inform their own individual curricula. This will be influenced by the existing shape of local curricula, their individual ethos, local NHS service configuration and the broader GMC curricular objectives as set out in 'Outcomes for graduates' (10). This document covers some elements of undergraduate general practice curriculum that are not currently addressed in GMC guidance and should therefore be read in conjunction with current GMC guidance (10). It particularly aims to provide:

- **Guidance on the different but complementary roles of placement teaching on the medical school campus.**

It has been suggested that there is a direct relationship between the percentage of clinical curriculum devoted to authentic general practice experience and subsequent career choice (5). The recent overall reduction in general practice placements in many undergraduate medical curricula (11) is therefore something all medical schools should carefully consider and address.

Whilst there is much to be said for integrated medical school curricula, consensus suggests that teaching about general practice at medical schools should be delivered mainly by general practitioners, and be clearly signposted as general practice in curriculum documents. A range of general practice teachers is preferable, demonstrating the diverse nature of career options open to GPs (including partner, salaried, sessional, portfolio and trainees). Academic GPs and primary care scientists should be visible to medical students to demonstrate the breadth and depth of primary care research and scholarship and their important contribution to individual and population healthcare. Medical schools should take steps to ensure that GP lecturers have similar honorary and substantive appointments to lecturers from other disciplines - anecdotal evidence suggests a disparity. For medical students, this can cause perceived imbalances in career prospects and status, and adversely affect recruitment to general practice. Medical schools should be aware that teaching about topic areas such as medical ethics, sociology and communication skills, whilst vitally important, should not be considered as placements or experience in general practice.

- **Guidance on teaching general medicine/clinical skills and teaching the discipline of general practice on GP placements.**

Recent GMC documentation (10. Paragraph 7) has emphasised the importance of graduating competent generalist physicians, and general practice settings are ideal locations in which to learn clinical skills and the principles of clinical medicine (12). The GMC gives detailed guidance on the relevant basic, clinical and social sciences necessary for undergraduates (10). These more detailed outcomes can and should be integrated and delivered through broad discipline themes developed in collaboration with specialist colleagues, and delivered using a range of methods including joint teaching in some areas.

Curriculum principles

Modern work-based learning literatures, together with contemporary curriculum and knowledge transfer literatures all suggest that guidance regarding learning in work-based environments should allow adaptation to highly variable contexts such as clinical placements.

In adopting these contemporary approaches, this guide moves away from the conventional curriculum approach listing conditions to see, and instead highlights key principles of general practice allowing adaptation to differing contexts. This document also draws upon experience from a large number of medical schools, and on data from national surveys carried out by the SAPC Heads of Teaching Group and joint work with the RCGP. There are two main sections:

1. A framework for general practice teaching that can be translated into core principles to be used in planning learning experiences.
2. Following from this, suggestions as to what might usefully be learnt and taught on clinical placements and on the medical school campus.

A green-tinted photograph of a lecture hall. A lecturer in a dark suit stands on the left, gesturing towards a large group of students seated in tiered rows. The students are looking towards the lecturer. The text 'Teaching framework' is overlaid in white in the center. A student in the foreground on the right has a '#Team' logo on their shirt. The room has a curved ceiling with recessed lights and a projector screen at the front.

Teaching framework

A framework for general practice undergraduate teaching

For the purpose of undergraduate learning we define general practice as follows:

General practice comprises the practical and scholarly aspects of delivering highly effective personalised care to individuals, their families and populations in primary care and community settings.

This simple, working definition encompasses three broad areas of enquiry that can be delivered in both university and work-based placement contexts:

1 Person-centred care

Including development of fundamental clinical skills of history taking, physical examination, differential diagnosis and management; person and family-centred holistic approach; promoting generalism; consulting in community settings; first-contact care; preventative healthcare; continuity of care; referral; prescribing; management of uncertainty and the diagnosis and management of many acute and chronic illnesses in the community that are not necessarily seen in hospitals.

2 Population-centred care

Including team-working with extended community and secondary care teams, public health and primary care organisations.

3 Providing care in a highly efficient way in community settings

Including an understanding of the cost-effectiveness of primary healthcare systems where they exist and the relative merits of other models of healthcare (13, 14).



Contents of teaching framework

What does the framework comprise?

Some key principles of the discipline of general practice are outlined below. The guide is also informed by research concerning what is currently taught on existing and proposed undergraduate general practice programmes (7, 8). It is essential that students experience both the academic and practical aspects of each principle. This may be achieved by combining a core academic programme with relevant placement activities illustrating the principles. Some exemplar reference sources are included. References and reading lists for students around the curricular themes could comprise a mixture of nationally and locally generated research, so that students can appreciate the rich research heritage of general practice.

In summary each principle therefore should comprise:

- 1. The academic content and key research underpinning the principle (for online study or delivery on campus).**
- 2. The means through which a principle can be translated into teaching and learning opportunities on placements.**

The principles do not replace core clinical knowledge and skills expected of each medical student and reflected in GMC documentation. These will continue to be taught and learned through the multiple and diverse contacts with patients that constitute the hallmark of authentic clinical learning (5). Rather, the principles provide a mechanism to marshal this clinical diversity into a meaningful way of structuring curricula on campus and on placements adding interest and further academic content to student learning.



Curriculum principles derived from definition

1

Person-centred care

- a. General practice must work with all the other disciplines in the medical school to produce clinically excellent graduates competent in all aspects of the traditional clinical process including:
 - i. Clinical knowledge, history taking, physical examination, differential diagnosis and management of acute and chronic conditions.
 - ii. Applying evidence and guidelines in clinical decision-making.
 - iii. Clinical skills and procedures relevant to a general practice setting.
- b. Holistic care and the biopsychosocial paradigm (15). 'Patients at the heart of learning' should underpin all aspects of the general practice curriculum.
- c. The physiological basis for linking psychosocial processes with biological aspects of disease (18).
- d. The therapeutic doctor/patient relationship in primary care.
- e. Medical ethics in a primary care setting.
- f. The role of continuity of care (16, 17).
- g. Communicating with patients from all backgrounds, including collaborative co-production and shared decision-making - skills to facilitate the empowering of patients to be experts in their own circumstances, capable of making decisions and active contributors to their healthcare plans.
- h. The psychology of chronic disease (19), including principles of behaviour change, applied in particular to stopping smoking, weight management and healthy living (20).
- i. Social prescribing.
- j. Multi-morbidity and the implications of over-diagnosis, under-diagnosis, treatment burden and iatrogenesis.
- k. Uncertainty in a primary care context. Developing knowledge of normal variation in people and diversity in populations and how to deal with uncertainty when patients present with unexpected clinical symptoms.
- l. Seeing patients in different settings: practice, out of hours, home, clinics, online, telephone consulting and GPs with extended roles.
- m. Emergencies in primary care.
- n. How to learn from patients and clinical practice in a primary care setting (for example the uses of reflection and PDPs). Students should appreciate how appraisal and revalidation works for clinicians.

2 Population-centred care

- a. The social determinants of health (including inequality) (19).
- b. Environmental and climatological factors in health maintenance and disease causation. The role of primary care in developing environmentally sustainable healthcare practices.
- c. Principles of prevention, health promotion and promoting wellbeing.
- d. Patient safety, clinical governance and quality improvement in primary care, including how quality of care is assessed in general practice and primary care.
- e. Examples of clinical quality markers for clinical care at a practice level.
- f. The use of IT including electronic note-keeping, coding and recall systems.
- g. Teamwork and leadership in general practice.
- h. Working with the wider primary healthcare team - including community teams such as mental health and social care.

3 Efficacy of general practice

- a. The role of general practice in providing economically effective care. Comparing differing models of healthcare between the UK and abroad (13).
- b. First contact care - the role of the GP as coordinator of care.
- c. The role of primary care in reducing healthcare inequalities (14).
- d. The history and current structure of general practice, and how it is changing and developing.
- e. An understanding of how general practice currently fits into the NHS and a basic understanding of how it is structured and how it functions.
- f. An understanding of the business models underpinning GPs as independent contractors, including elementary understanding of commissioning and how individual practice finance works.
- g. The research base for general practice. Knowing how to access, critically appraise, and apply the evidence for practice and policy in primary care.



Teaching delivery

Methods of teaching delivery

Each one of these principles comprises:

- 1. A theoretical base** - e.g. what is 'continuity?'
- 2. A research base** - e.g. what is the evidence base that outlines the advantages and disadvantages of continuity?
- 3. Practical elements of delivery** - e.g. how is continuity delivered in practice?
How does it differ from the theory? What skills are necessary to deliver continuity?
How might students best learn about continuity on placements?

The theoretical and research elements may lend themselves to GP-led classroom-based teaching at medical schools, whereas the practical elements lend themselves to delivery on general practice placements. In this way an academic programme of general practice at the medical school complements learning on placements.

Central teaching delivery at medical schools

At medical schools it is important that the content outlined above is delivered as far as possible by practising GPs, including those with academic roles. The involvement of academic departments/units of general practice and primary care in undergraduate education is vital to help bridge the division between teaching and research that quite often exists in general practice departments in medical schools. By making academic general practice more visible to students they will recognise the intellectual challenges of general practice and the fact that scholarship lies at its heart.

The traditional lecture format of content delivery at medical schools appears to have become more unpopular, not least perhaps due to competition from online learning resources. Attention should therefore be paid to active and varied teaching methods at medical schools making use of short delivery bursts, quizzes and use of online and IT-based teaching methods.

Teaching delivery on placements

The Government have mandated that 50% of graduates opt for a career in general practice. Experience in undergraduate general practice is directly related to subsequent career choice (5). Based on this research, but also recognising the practicalities of demand on curriculum time and pressures on primary care services, we recommend that all medical schools should regularly review their balance clinical between placements in general practice and hospital settings. Local circumstances in relation to placement capacity and quality will vary over time. The most recently quoted national mean of 13% of clinical placements in general practice (11) is clearly low, and we would suggest a target of at least 25%.

GPs who teach students on placements should be aware of teaching taking place on campus and in hospital and be able to use examples from their practice to consolidate the students' previous theoretical and clinical learning. Faculty development and CPD programmes may be needed to ensure that GPs feel comfortable teaching the above content. Medical schools may want to give thought to how faculty development of its teaching staff can integrate with wider CPD structures. SAPC and RCGP are planning to develop further joint national guidance and support in this respect

When planning placement learning, the following factors should be considered:

- General practice is the arena where the majority of diagnostic and management decisions are taken regarding the care of acute and chronic conditions. Opportunities to teach diagnostic reasoning, management of uncertainty and therapeutics may be particularly rich and appear under-taught in many schools.
- Electronic portfolios may help to bridge communication between practice tutors and the medical school and ensure appropriate clinical experience for each student. Use of tablets or smart phones can enable work-based assessments to be collated and standardised to demonstrate student progression.
- Opportunities for students to see and examine patients regularly may be far easier in general practice settings due to challenges in the acute sector (6). However, the context is different. Students may need specific teaching regarding how to adapt the 'clerking model' to shorter and more focussed consultations and examinations (21, 22).

Students in different years of training will have differing needs. For example, pre-clinical placements are likely to be more concerned with aspects of basic sciences, whilst early clinical placements may be more concerned with appropriating basic clinical knowledge and skills. This may be reflected in setting different foci for each year of placement. One such approach is outlined opposite:

Adapting learning to the needs of medical students at different stages in the curriculum on general practice placements

| Year | Clinical reasoning expectations | Likely emphasis |
|------|--|---|
| 1 | Unstructured interest-led questioning of patients. | <ul style="list-style-type: none"> • Basic sciences and early communications skills, social and psychological aspects of medicine. • Person-centred attitudes and approach - appreciating the patient's ideas, concerns and expectations regarding their condition. |
| 2 | More structured questioning, some structured clinical examination. Some adaptations may be necessary for the different context of general practice (23). | <ul style="list-style-type: none"> • Basic sciences and early clinical medicine including basic hypothesis generation. |
| 3 | Structured and adaptable questioning, structured examination, structured clinical reasoning abilities, some management knowledge. | <ul style="list-style-type: none"> • Basic clinical medicine, team working and structure of the NHS. • Longitudinal clerkships. |
| 4 | Adaptable questioning, examination and clinical reasoning based in part on developing experience. Increasing management knowledge. | <ul style="list-style-type: none"> • More advanced diagnosis and management. Involving patients in co-production of care. |
| 5 | Integrated clinical practice including appropriate knowledge of management for common acute and chronic conditions. Limited facility with multiple complex agendas and diseases. | <ul style="list-style-type: none"> • Integrated practice. |

Teaching on placements: Teaching methods

Whilst a wide range of teaching methods are employed during general practice placements the majority of schools promote one-to-one or one-to-two teaching, involving students observing GP consultations and seeing patients on their own before or after their supervisor. We strongly recommend students seeing patients themselves from an early stage in training, ideally in supervised 'booked' surgeries. We suggest that students need to undertake a sufficient number of these "surgeries" to see a wide breadth of clinical presentations.

In addition to such directly supervised clinical teaching we recommend consideration of the following delivery methods as part of general practice placements. These additional methods may suit delivery of certain themes at certain schools, for example following a panel of patients can be an effective way of learning about continuity.

1. Students attending practices in small groups for protected time, themed teaching involving selected patients (including Expert Patients).

2. Student involvement in audit and research opportunities at practices through authentic projects and assessments that benefit the practice and its population.

3. Students assuming appropriately supervised practical roles contributing to healthcare delivery for part of their time on placement (for example, undertaking routine health checks, assisting in phlebotomy, vaccination, screening and health promotion clinics).

4. Students following a group or 'panel' of patients on longitudinal attachments.

5. Students engaging in appropriately supported Self Directed Learning (SDL). There is evidence to suggest that unstructured SDL in clinical environments is by-and-large ineffective. Structured SDL may include activities such as:
 - a. Follow-up of patient cases in the notes after a surgery
 - b. Follow-up of panel patients; face-to-face, telephone or review of notes
 - c. Preparing presentations on patients or clinical topics
 - d. Working on previously prepared index cases
 - e. Working on PBL-type cases specific to general practice
 - f. Viewing remotely transmitted live surgeries in groups

6. Use of senior medical students, foundation doctors or GP trainees to teach medical students (near peer teaching). This can be especially useful for role modelling.
7. Use of portfolio GPs as clinical teachers - especially since there is a growing trend for students and newly-qualified doctors wanting to pursue a portfolio career. Current placement provision sees students predominantly placed in a traditional general practice setting. Involving sessional GPs, GPs with Extended Roles, GPs working in Out-of-Hours Centres can both diversify the general practice experience for students and give them opportunities to explore 'non-traditional' career choices.
8. Authentic experiences of practice and NHS management and organisation - practices might for example consider students taking part in partners' meetings, practice clinical meetings and multi-disciplinary meetings. They should have the opportunity to see how a CCG, cluster or STP operates, and relate this to their learning on leadership and team working.

We recommend using a variety of these methods in order to implement different themes. In addition, differing teaching methods may be appropriate for differing years and may also depend on the nature of local finance and capacity considerations. The approaches listed above can be combined into a booklet or online resource that guides or supports students on 'how to get the most out of their time on a general practice placement'.





Conclusions and recommendations

This document aims to provide detailed guidance on the design, development and delivery of general practice learning and teaching at UK medical schools. It is based on best available evidence and wide consultation, including GP teaching leads at all UK medical schools. Whilst we believe that each school must have freedom to develop the details of its own general practice curriculum according to local circumstances, we urge all schools to consider the general principles outlined in this guidance. The need to provide sufficient quantity and quality of GP teaching must be addressed in order both to promote general practice as a positive career choice and to ensure that future hospital specialists are equipped to work in an increasingly community-based National Health Service. To this end we conclude with the following five specific recommendations:

1. All medical schools should review annually the balance they provide between clinical placements in general practice and in hospital, working towards a goal of delivering a minimum of 25% of their clinical placements in general practice.

2. A significant amount of dedicated general practice academic content should be delivered on medical school campus which should also be reinforced on clinical placements (8). This teaching should communicate the importance of scholarship, a generalist approach to medicine, and the rich research base of general practice.

3. General practice teaching should encompass three broad areas of enquiry:
 - a. Person-centred care
 - b. Population-centred care
 - c. Providing care in a highly efficient way in community settings

4. General practice teaching, both in practice and on campus, should be provided by a range of GPs with different clinical and academic interests in order to demonstrate the breadth and depth of the discipline.

5. All medical school curricula should reflect the recommendations contained within the HEE/MSc 'By choice - not by chance' report on raising the profile of general practice at medical schools (1).

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