

Research and Academic Activity

One in a series of Curriculum Statements produced by
the Royal College of General Practitioners:

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Key messages

- General Practice is a scientific discipline at the heart of decision-making in the National Health Service.
- Research *in* primary care provides the GP with the means to test and improve clinical practice, evaluate innovative models of service delivery and to understand population data.
- Research *on* primary care provides the means to improve organisation of services and to question local beliefs or behaviours on the basis of population data.
- Academic activity comprises not only research, but also teaching and reflective practices such as significant event analysis, writing opinion pieces for medical journals and audit.
- These are developmental processes in which all GPs should be involved to a greater or lesser extent and are fundamental to the continuance of general practice as an academic specialty.

[INTRODUCTION]

Rationale for this curriculum statement

The WONCA European definition of General Practice/Family Medicine acknowledges that an essential feature for the person-centred care is the scientific aspect of the discipline.

General Practice is a scientific discipline at the heart of decision-making in the National Health Service. Over 90 per cent of contacts between patients and the NHS take place in primary care, and, although only a minority of general practitioners in the UK are actively engaged in research, a tremendous amount of research is undertaken that is relevant to practice. The Trent RDSU (Focus)¹ reports that 5 per cent of general practitioners actively engage in research at some point in their careers, 15 per cent are collaborators in research, yet 80 per cent wish to use the results of research in their practice.

Research *in* primary care provides the general practitioner with the means to test and improve clinical practice, evaluate innovative models of service delivery and to understand population data. Research *on* primary care provides the means to improve organisation of services and to question local beliefs or behaviours on the basis of population data. Much of the evidence base required by primary care can only be obtained by research and development in primary care that involves general practitioners, members of primary care teams and their patients.²

Research Networks linked to university departments of primary care and other university departments engaged to health services research have developed across the UK since the 1990s when the Department of Health (then for the UK) and the Medical Research Council encouraged more research to take place in primary care. The RCGP has supported the development of research in and on primary care and manages a scheme called the Primary Care Research Team Assessment (PCTRA), which helps primary care organisations and individual practices prepare and demonstrate their approach to research governance

Academic activity comprises not only research, but also teaching and reflective practices such as significant event analysis, writing opinion pieces for medical journals and audit. These are developmental processes in which all general practitioners should be involved to a greater or lesser extent and are fundamental to the continuance of general practice as an academic specialty.

UK health priorities

Some £50m is spent by the NHS on primary care research each year. Resources are focused on identifying the needs and priorities for NHS users, and also to inform policy development. The Health Technology Assessment Programme evaluates innovations in clinical practice and the Service Delivery and Organisation Programme evaluates changes to patient services.

Primary care academics have contributed to NICE guidelines and National Service Frameworks and have made major contributions to guidelines across primary and secondary care, to the development of the quality based new General Medical Services Contract and in randomized control trials and systematic reviews that have impacted on the quality of patient care.

In March 2006, the Departments of Health demonstrated their commitment to academic general practice by announcing funding under the Modernising Medical Careers 'Walport' initiative. The funding supports partnerships of local deaneries, trusts and academic departments of general practice to develop training fellowships and lecturerships for GP Registrars and young general practitioners.

[LEARNING OUTCOMES]

The following learning objectives relate specifically to research and academic activity; the full range of generic competencies is described in the RCGP Curriculum Statement 1, *Being a General Practitioner*.

Primary care management

Research

All general practitioners will be initiators, collaborators or users of research. In this context the minimum competence required is that of a user.

The effective user of research will be able to demonstrate competency in the following areas:

- Prioritising relevant information
- Critical appraisal
- Problem framing
- Accessing evidence
- Implementing change in clinical practice
- Basic statistics
- Evaluating ethical issues and the need to have projects approved through research governance committees

Academic Activity

All general practitioners will be involved in teaching of other practitioners be they medical or allied health professionals. They will be able to:

- Identify learning objectives
- Use appropriate teaching methods
- Evaluate outcomes of teaching

In addition, all general practitioners are expected to undertake continuing professional development. This will include, as a minimum, an ability to undertake the following:

- Significant event analysis
- Evaluation of performance across a range of clinical and non-clinical areas
- Use of reflective skills for the benefit of oneself and other practitioners

Note: The learning objectives are based on the competency grid for academic general practice skills developed by the Society of Academic Primary Care, UK.³

Person-centred care

All general practitioners engaging in research should comply with all research governance procedures¹ and ethical frameworks, including the Good Clinical Practice Guidelines of the British Pharmaceutical Industry. Similarly, all GPs engaged in teaching should be familiar with and comply with the General Medical Council's guidance document '*The Doctor as a Teacher*⁴'.

When patients are involved as research participants, general practitioners should be aware of the power differential between themselves and the participants, and ensure that participants' vulnerability is recognised and appropriately managed. This includes the provision of full information and informed consent. When introducing changes to clinical practice based on research evidence, too, full account should still be taken of patients' right to choose to accept new interventions.

Reflective activities should not be solely individual but to be fully effective need to involve other colleagues and members of the primary care team (e.g. by using the technique of Significant Event Analysis). General practitioners will also ensure that the relevant team members jointly own the research agenda within a practice. All participation will be voluntary and general practitioners will ensure confidentiality and in particular, comply with the requirements of the data protection act.

Specific problem-solving skills

Research

All general practitioners should be familiar with essential components of the research process.

They should be able to:

- Develop a research question
- Identify appropriate methods from a range of designs
- Be able to draw up a questionnaire
- Demonstrate basic quantitative and qualitative data-analysis skills
- Draw appropriate conclusions
- Summarise results

Specific Educational and Reflective Skills

All general practitioners should be able to:

- Identify their learning objectives
- Choose appropriate methods of learning and teaching
- Use reflective skills to measure process
- Apply their learning to their clinical practice
- Identify further objectives

A comprehensive approach

Most clinical interventions in practice are complex, and require the use of multiple research methods to evaluate them. These include quantitative methods (such as randomised controlled trials) and qualitative methods (such as 'grounded theory'). General practitioners should be familiar with and use the range of resources available from Postgraduate and University Departments. The competent general practitioner should understand the complex processes involved in implementing change in practice. Whether the general practitioner is an initiator, collaborator or user of research, they must be able to choose the appropriate change management skills to achieve the required end point.

Community orientation

A great deal of research is conducted in secondary care setting; the results are not necessarily applicable in general practice. All General practitioners must, therefore, be able to judge relevance, applicability and validity of research findings to their own practice. GPs must be able to interpret good teaching practice in the light of conditions prevalent in primary care. Other academic activity including reflective practice will support themselves, their team and their local communities.

A holistic approach

The complexity of undertaking research or implementing research findings should not be underestimated. GPs should use the same holistic approach to such scholarly activity as they would in clinical practice.

[FURTHER READING]

Examples of relevant texts and references

- Carter YH and Howe A “Fifty years of research in general practice”, 93–104, in *A celebration of General Practice* Edited by Lakhani M. Oxford: Radcliffe Medical Press, 2004
- Crombie IK *The Pocket Guide to Critical Appraisal*. London: BMJ Books, 1996
- Entwistle *Styles of Learning and Teaching* London: Fulton, 1999
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- Rogers A *Teaching Adults*. Buckingham: Open University Press, 1996
- Sackett D L, Haynes BR, Guyatt G, Tugwell P *Clinical Epidemiology: A Basic Science for Clinical Medicine*. Boston: Lippincott, Wilkins and Williams, 1991
- Warrell, D., Cox, T.M., Firth, J.D., Benz, E.J. (Editors) *Oxford Textbook of Medicine*, 4th Edition. Oxford: Oxford University Press, 2004

Web resources

National Electronic Library for Health and National Electronic Library for Public Health

The aim of the NeLH is to provide clinicians with access to the best current know-how and knowledge to support healthcare-related decisions. Patients, carers and the public are also welcome to use the site, because the NeLH is open to all. The ultimate aim is for the Library to be a resource for the widest range of people both directly and indirectly.

The main priority for the NeLH is to help the NHS achieve its objectives. However, it is also aimed at those healthcare professionals who are working in the private sector where common standards should apply. For example, the National Screening Committee is not only an NHS advisory committee, its mission is to promote the health of the whole population and its recommendations are relevant to the private sector. Part of the content of the NeLH such as Clinical Evidence and Cochrane Library is licensed from commercial providers.

There are two other groups of health and care professionals whose needs will also be met by the NeLH - those working in public health and in social care. The National Electronic Library for Public Health is intended for all public health professionals, many of whom work in local government. It has been developed by the Health Development Agency.

http://www.nelh.nhs.uk/new_users.asp

<http://www.phel.gov.uk/>

RCGP Research Training:

This website provides useful information about the RCGP’s master classes and has links to other providers of information and training courses (see next section for more details).

<http://www.rcgp.org.uk/research/training/>

The Society for Academic Primary Care

The aim of the Society is to promote excellence in research, education and policy development in general practice and primary health care. They hold an annual scientific meeting (ASM) which provides a forum for networking, and presenting and discussing latest research. Membership provides entry to a network of researchers and teachers in primary care throughout the UK and

Ireland with inducements such as reductions on the cost of primary care journals, newsletters and entitlement to attend courses in research methods (short courses) held the day before the ASM. The website contains useful information and links.

<http://www.sapc.ac.uk/>

UK Federation of Primary Care Research Networks

The Federation was established in 1998 to bring together research networks from around the UK, to facilitate their collective functioning and promote their interests at a national level. The aim of the Federation is to secure the long-term future of primary care research networks by providing them with a collective voice and promoting cross network collaboration and learning. Any primary care research network within the UK that supports the aim of the Federation may join. Their website contains useful information and links.

<http://www.ukf-pcro.org/>

[Promoting Learning about Research and Academic Activity]

Work-based learning – in primary care

Research

Some practices initiate or collaborate in research activity (usually through National or Local Networks), and opportunities exist to participate in discussions around activity that has already been established. These practices may be at differing stages of the research cycle. Although it will be difficult to follow a project through all stages in the time currently allowed for training for General Practice, all training practices will be users of research and opportunities such as the following may be available in practice:

- Discussion groups, often known as “Journal Clubs”
- Case-based discussions with your trainer, often called “debriefing”

It is often possible to set up peer learning sets to discuss research evidence through a process of critical appraisal of published material. Research activity also includes the field of educational research. Many of the academics who work for the postgraduate deaneries are actively involved in educational research. Discussing educational interventions and methods encountered during the GP training programme may provide an opening for trainees to gain and interest in educational research. Some deaneries provide formal opportunities for trainees to study for certificates in medical education and attend educational research methodology courses.

Academic Activity

Academic activity takes different forms in practise. Practices are users of guidelines, and many practices adopt or adapt published guidelines. This involves using many of the stages outlined in the section on learning outcomes.

Under the new General Medical Services (GMS) contract, practices are expected to have a system for reviewing significant events and complaints. These provide a structured focus for reflection on action. General practice registrars are also training in approved training practices; many of the principles of effective teaching (and learning) will be exhibited in the training practice, while an expert resource – the trainer – is available too. Finally, fruitful discussions may be promoted through the Vocational Training Scheme in peer-based activity.

Work-based learning – in secondary care

In hospital practice, many of the opportunities outlined in the section on primary care exist, and in addition many consultant supervisors and more senior Specialist Registrars have published or collaborated in research. Opportunities are available for discussion, while journal clubs and formal teaching sessions are often available.

Non work-based learning

All General Practice Registrars should have access to courses on Research Methodologies. Postgraduate Deaneries should work with their local academic departments of General Practice

and Primary Care to provide courses on research methodology, critical appraisal and reflective practice.

The RCGP provides a number of master classes in primary care research – information is available on the RCGP Website <http://www.rcgp.org.uk/research/training/>. Each master class is accompanied by course material. This is a practical A4 workbook with associated reading material at the back. They are designed to provide individuals or groups with practical information to learn more about specific methods or issues in relation to research. During each master class, delegates are asked for feedback on the course material. That information is fed back to the authors with any suggested revisions. These are edited by Yvonne Carter (RCGP Chairman of Research) Sara Shaw (RCGP Research Facilitator) and Cathryn Thomas (Senior Lecturer, University of Birmingham) and the final versions are then published through the RCGP Publications Unit.

Workbooks can then be used either as standalone texts or as part of a series. The workbooks are as follows:

- An Introduction to Qualitative Methods for Health Professionals
- The Use and Design of Questionnaires
- Statistical Concepts
- Randomised Controlled trials and Multi-Centre Research
- Patient Participation and Ethical Considerations
- Funding for Primary Care Research
- Issues in Primary Care Epidemiology
- Health Informatics and Primary Care Research
- Health Economics

There are now a wide range of training courses in research methodology and other research related issues available across the UK. There are two particularly useful websites if you are looking for training courses:

RDLearning <http://www.rdlearning.org.uk/>

This is a really useful source of information about health related research training opportunities.. It is funded by the Department of Health and based at the University of Leeds. It pulls together a range of health-related research training courses offered by Higher Education Institutions, Research Networks, Research Development Support Units and Professional Bodies, to enable quick and easy access to details of the courses available through higher education institutions and workshops run by research networks. It has also been designed to help people determine which might be the most suitable type of course for them.

The Research Capacity Development Programme is a National Programme which provides personal training awards and funds academic infrastructure to support research capacity development within the NHS. It is funded by the Department of Health's R&D Programme and is administered by the National Coordinating for Research Capacity Development (<http://www.nccrd.nhs.uk/links/>). This site also provides links to other organisations involved in research capacity development.

Local primary care research networks (<http://www.ukf-pcro.org/>) may be able to help locate local research training courses.

Learning with other health care professionals

Many opportunities exist in primary care to research, discuss, evaluate and implement change across a wide range of professions from health and social care settings.

[REFERENCES]

¹ Trent RDSU (Focus) Personal communication, 2003

² Carter YH and Howe A "Fifty years of research in general practice", 93-104, in A celebration of General Practice Edited by Lakhani M. Oxford: Radcliffe Medical Press, 2004

³ Academy of Medical Royal Colleges Clinical Academic Medicine: the way forward London: Royal College of Physicians, 2004

⁴ General Medical Council The Doctor as Teacher London: General Medical Council, 1999