

COMPETENCIES OF THE FUTURE PHARMACY WORKFORCE

Future roles and competence requirements for pharmacists working in the pharmaceutical industry, higher education and private healthcare

SECTION 6 OVERALL CONCLUSIONS

6.1 Introduction

This section summarises the changes to the competency requirements (i.e. knowledge, skills, attitudes and behaviour) for pharmacists in each of the three sectors, which have emerged from this study. Although the roles of pharmacists in industry, higher education and private health and social care seem to be developing in different directions in some aspects, there are also common themes, also discussed below. Finally we explore in more detail the potential implications of ongoing changes for pharmacy undergraduate and pre-registration preparation.

6.2 Sector specific changes to the competency requirements of pharmacists

Pharmaceutical industry

- Broad understanding of the policy and regulatory context in which the pharmaceutical industry operates;
- Good scientific and clinical knowledge;
- Familiarity with processes relating to development, production, marketing and sales of pharmaceuticals.

Our investigations indicated a need for pharmacists working in the pharmaceutical industry to have broader and in some aspects more in-depth knowledge of the context in which the pharmaceutical industry operates. This would include strategic understanding of how the industry is developing both nationally and globally, implications for the industry of regulation and government health policy, and issues relating to drug development, production, marketing and sales. The study also showed that pharmacists in industry require leading edge understanding of relevant developments in clinical practice, science and technology, and the ability to understand and work with pharmacists in other sectors, particularly healthcare, where pharmaceutical products are used.

A key issue arising from these findings is whether, and at what stage, pharmacists in training should be given an option to gain specialist knowledge and practical exposure to industrial pharmacy. In the context of a review of basic pharmacy education and training, it may be relevant to discuss the possibility of a preparatory module on industrial pharmacy and practice placements in the pharmaceutical industry.

Higher education

- Skills and knowledge of practice based teaching methods;
- Strong research skills;
- Knowledge of process for audit and quality assurance of teaching and research.

This study confirmed that the job roles of pharmacists working in higher education are focused primarily on teaching and preparing students for pharmacy practice, and on research into applications of pharmacy or pharmacy practice. Growing pressures to include more emphasis on the development of clinical pharmacy skills in initial pharmacy education and training (i.e. the undergraduate degree and pre-registration training programme) suggests much higher use of practice based teaching methods in the future; and increasing requirements that HEIs, including Schools of Pharmacy, produce high quality research highlight the need for pharmacists in higher education to have strong research skills and scientific knowledge.

Whereas it would be excessive to require all pharmacy students to obtain high level competencies relating to teaching and research, it may be necessary to identify ways of encouraging undergraduates to consider entering academic pharmacy. Indeed, our findings indicated that it is vital for those in undergraduate training to be encouraged to consider academic pharmacy careers in order for sufficient academic pharmacists to be available to meet future teaching and research requirements.

Private health and social care

- Strong clinical skills, including communication skills;
- Understanding of the principles of patient-centred care
- Competence in budget and financial management.

A key message from our investigation of areas of competence required by pharmacists in private health and social care is that these are not very different to those required by pharmacists working in the NHS. A key driver for this has been the transformation of the business model underpinning the established UK private hospital sector from a relatively low volume of high cost insurance funded elective surgical procedures to a higher volume of lower cost publicly funded procedures commissioned to reduce NHS waiting lists and times in England.¹ The recent convergence between the NHS and private healthcare sectors is likely to become even stronger when the regulatory standards for pharmacy in both publicly and privately provided health and social care are the same.

The differences between NHS and private care arise from the more commercial context in which private health and social care providers operate, and the implications of this for relationships with patients, carers and other healthcare professionals. Private sector providers tend to use flatter hierarchies, and to expect their pharmacists to work in more broadly based and multi-tasked roles. In smaller providers these pharmacists may find themselves working as sole operators who must be able to work self sufficiently, in contrast to the large pharmacy teams found in the biggest NHS acute trusts.

Regarding basic pharmacy education and training similar questions arise to those with pharmacists in industry i.e. is there a case for offering any specific preparation for working in private sector healthcare, and if so at what stage? Is there a case for arranging practice placements with private health and social care providers as part of pre-registration or undergraduate training? If there is such a case, providers, NHS or independent sector, would need funding to provide placements, and placements would be arranged through contracts between them HEIs.

¹ Private Sector set to gain access to 'sustainable NHS market', *Financial Times*, 9 November 2004

6.3 Overarching themes between the three sectors

- Continued focus on appropriate and effective use of medicines;
- Overview of pharmacy practice in all sectors;
- Cross professional, organisational and sector working;
- Processes for quality assurance;
- Business and commercial skills;
- Up-to-date scientific knowledge and skills.

Overview of pharmacy practice in all sectors

Against the background of changes and developments in healthcare, in higher education and in industry, one message for basic pharmacy education and training is a need for pharmacy graduates, including those who will go on to work in the NHS and in community pharmacy, to have an overview of the organisational and working environment in which pharmacists practise, including the linkages between the different sectors of pharmacy. This might include:

- understanding of developments in the provision of health and social care, both in the NHS and in the independent healthcare environment, including how working relationships between the two sectors are changing, how partnerships are developing and what this means in terms of regulation and standards of practice
- understanding, in principle, the aims and practices of other sectors including the political, economic, and clinical environment in which industry, higher education, and health and social care providers operate and how ongoing changes and developments in different sectors are connected. There is also a need for all pharmacists to have basic knowledge of how statutory regulation operates in various areas.
- understanding of pharmaceutical research and development and how higher education, the NHS and industry contribute in different ways to this. This might also cover the basics of regulatory requirements in research.

Cross professional, organisational and sector working

Closely related to the need for a wider overall understanding of the different contexts in which pharmacists work, is a further need for future pharmacists to be able to work effectively across organisational and sector boundaries, including those between the public and the private sector. This requires the ability to work with diverse groups of stakeholders including pharmacists in other sectors, other healthcare professionals and academic groups. It also means the ability to contribute to and work in partnership arrangements with others in practice, both of which require cooperation and delivery of services across boundaries.

The growing focus on partnership working arises from the recognition of the benefits of practising professionals having a holistic understanding and approach to their work, and is particularly significant for those who work in healthcare or associated fields. This suggests that inter-professional learning should have a more prominent position in pharmacy education and training.

The importance of skills for working effectively across organisational and sector boundaries encompasses such communication skills as networking and influencing. Communication skills also featured highly in our earlier work to identify the areas of competence required by NHS and community pharmacists, and were endorsed by the expert advisory group to the

project. A related area of competence which arose in our investigations in all three sectors, and also emerged from our earlier work on pharmacists in the NHS and community pharmacists, was the need for skills in multi-professional team working.

Quality standards and risk management, including clinical governance

The study has also pointed to a need for pharmacists in all three sectors to be broadly aware of the importance of quality assurance, setting and maintaining standards and risk management, including how all of these fit in with clinical governance requirements. Part of this could include awareness of key legislation affecting the provision of health and social care, and in particular how pharmacy services fit in with service delivery requirements and what this means in terms of pharmacy practice. However, although understanding of the importance of the underlying principles of quality and risk management is probably required at all stages of pharmacy education, detailed knowledge and the application of practical measures may be less important at undergraduate level than it is at later stages (i.e. during practice placements or in first jobs).

For instance, the potential academic pharmacist does not need to acquire in-depth knowledge of the full range of quality assurance processes and measures that apply to teaching and research until they enter academia. The same is true of pharmacists planning to enter industry. By comparison any involvement by pharmacists in patient-centred work calls for a full appreciation of the risk management and governance implications that this carries for their practice. Awareness of this should therefore be covered in the undergraduate programme. This is particularly the case in community pharmacy where, uniquely among the main sectors in which pharmacists work, a newly-registered pharmacist can take sole charge of a pharmacy and work without clinical supervision or mentoring. In all the other main sectors, new pharmacists receive on-the-job training and are supervised.

A key concept for resolving such variations is what some refer to as 'just in time learning' i.e. an approach to pharmacy education and training that takes full account of what pharmacy students and practising pharmacists need to know and be able to do at different stages of their career development, and when these stages are in terms of graduation, registration and post registration requirements. The GMC adopted this approach in *Tomorrow's doctors*², which described what medical schools needed to cover to prepare students for their first clinical roles. Crucially, curriculum content which would not be needed in those roles was removed from the framework.

The 'just in time' approach is particularly important in considering how, when and in what level of detail fundamental issues such as quality, standards and clinical governance in pharmacy practice should most appropriately be covered in pharmacy education and training.

Business and commercial skills

Our work on the changing roles of pharmacists in industry and private health and social care has indicated that both groups need basic commercial and business skills to operate effectively in either of these sectors. Similar requirements would apply to community pharmacists. In considering their relevance to NHS pharmacists, while there may be differences in the context, content and terminology in the application of this set of competencies, the need for good business and commercial skills is not unrelated to the expectations and pressures experienced by NHS pharmacists to work efficiently and effectively in meeting financial, patient-centred and other similar targets. It would therefore be worth considering how an introduction to business and commercial skills could be incorporated into basic pharmacy education.

² General Medical Council, *Tomorrow's Doctors: Recommendations on undergraduate medical education*, 2003; <http://www.gmc-uk.org/education/undergraduate/tomdoc.pdf>

Up to date technical and scientific knowledge and skills

Our work on the areas of competence required by pharmacists working in industry threw up a wide range of technical and scientific issues that they need to know about, many of them to do with leading edge developments and considered by some we consulted to be 'faddish'. Nevertheless it is arguable that all those graduating with pharmacy degrees should at least have some awareness of relevant developments in science, biochemistry, microbiology, biotechnology, genetics and molecular biology in order that they know about developments that may or may not become part of mainstream medicine in years to come. This echoes the need to provide for some 'futures' thinking by pharmacy undergraduates, not just in the world of socio-economic and political developments but also in relevant scientific and technological fields.

6.4 Implications for undergraduate education and training

Rapidly changing job roles throughout pharmacy practice may easily lead to the conclusion that the structure, nature and aims of pharmacy education should change too, in order to properly prepare all pharmacists of the future for work in pharmacy practice. However, it would probably be wrong to let this conclusion lead to a further conclusion that education should be reorganised so that it prepares every student to work in any or all of the different sectors of pharmacy. As this study has pointed out, working as a pharmacist in the UK today means a number of very different things, and education which endeavours to be everything for everybody may run the risk of being too unfocused and superficial to enable excellence in any field. However, the study also established that pharmacists in different positions increasingly work together across sector and organisational boundaries and that there is a need for them to have a broad understanding of how different sectors of pharmacy relate to each other. What complicates the matter is that this understanding of the organisational aspects of pharmacy practice must not be achieved at the expense of essential components of pharmacy education, such as the development of scientific understanding and clinical skills. This represents a substantial challenge.

One solution which may be considered is for Schools of Pharmacy to early on in the undergraduate course give students basic, rather than detailed, information as to what the roles of pharmacists in different sectors of pharmacy entail in practice. The aim of this would be twofold: firstly, it would enable students to make a well-informed choice of pre-registration training placement, and most likely future career and secondly, provide a broader understanding of different sectors of pharmacy practice and how they interact. Recent research commissioned by the Society has shown that over half (52.2%) of third year undergraduate pharmacy students know which sector they want to work in once they qualify.³ This proportion could potentially be increased if more focused information on the job roles and competency requirements of different sectors was provided early on in the pharmacy degree.

In addition to early intervention and information giving it may be worth exploring options for offering introductory modules on each of the main sectors of pharmacy (e.g. community, hospital, primary care, the pharmaceutical industry and biomedical research, and higher education) towards the end of undergraduate programmes (possibly subsequent to the arrangement of a pre-registration placement). Such modules could be developed to prepare students for the specific competency requirements of their sector of choice, and may be an

³ Willis, S, Shann, P, Hassell, K, *Studying Pharmacy: who, when, how, why? What next?, A Longitudinal Cohort Study of Pharmacy Careers*, Centre for Pharmacy Workforce Studies, University of Manchester, 2006, <http://www.rpsgb.org.uk/pdfs/studyingpharmrept.pdf>

additional opportunity to focus on aspects such as inter-professional and inter-sector collaboration.

6.5 What next: areas for further exploration

This work has pointed to a number of areas which may merit further exploration. With changing job roles and competency requirements for pharmacists in different sectors, there is now an urgent need to assess the extent to which these changes are accompanied by changes in professional identity. Key questions will be whether pharmacists in all sectors equally feel part of the same profession, how they define professionalism in pharmacy, who in their view are included in the membership of the profession, and what they expect to gain from the profession in terms of support and leadership. The issue of what constitutes 'pharmacy practice' and a 'practising pharmacist' could be illuminated by such an investigation.