

IPIJ

The Official Journal of FIP



Making a Difference:

Pharmacists on the headline

PET: Education and Patient Outcomes

A call for a needs-based approach

Developing New Economic Models for Payment

For services for pharmacists

Patient Outcomes – are you ready?

Taking responsibility at and beyond the FIP Congresses



International Pharmacy Journal

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Dear Reader

What does it truly mean to take responsibility for patient outcomes? And how do we, as pharmacists, fulfill this responsibility?

These are pinnacle Questions of the Moment for the profession and for the pharmaceutical sciences. In reality, we can't guarantee a medicine will work; we can't be sure that the patient will take it as told; and, with the rise of counterfeit medicines the world over, it is getting increasingly difficult for many of our colleagues to assure the safety and quality of medicines.

So what can we do? And are we ready to do so? These issues were the main theme of the recent FIP Congress in Istanbul, Turkey, which drew almost 3000 pharmacists and pharmaceutical scientists from all over the world, eager to arrive at some answers.

If one were to discern a starting point, taking responsibility for patient outcomes begins with taking responsibility for our own continued education and for the education of the next generation of practitioners and scientists. Pharmacy Education is an issue of increasing importance for FIP and our stakeholders. The fourth Global Consultation on Pharmacy Education held at the Congress in Istanbul drew an influential audience of those striving to improve pharmacy education for the eventual betterment of patient outcomes. This issue of the IPJ focuses on how these and other sessions at the Congress explored the role of pharmacy education, continuing education and teaching methods in impacting those who may directly affect patient outcomes, both good and bad.

However, although an imperative starting point, a sound and visionary education is of little worth if it is not used to connect with the right audiences. The link between getting a good education and employing a good education is com-

munication. Pharmacists have the ultimate responsibility to effectively communicate with patients – the more communication and interaction, the better chance of influencing patient outcomes. Further to that, however, is that pharmacists have the responsibility to communicate about themselves – advocating for the role of the pharmacist, what we know and why we should be listened to is of utmost importance in shifting healthcare to a more efficient balance. A story from the FIP Member Organisation in Costa Rica, which was presented at the first FIP Congress Workshop on Communications, reports of how pharmacists and the National Organisation had a direct impact on the health of the community through advocacy and media attention.

All this being said, there must still be in place the proper framework that both allows and requires pharmacists to fulfill these roles; a framework that is continually challenged to ensure that the required and allowed roles are truly fitting for the current situation of our own and other professions. This comes in the form of regulation and legislation, which will be the topic under discussion at the upcoming World Health Professions Conference on Regulation in Geneva, Switzerland in February of 2010. Professor Ian Bates, a speaker at the upcoming conference, has offered a glimpse into the current issues of pharmacy regulation that will be further explored in Geneva.

And so, in broad views, the responsibility for patient outcomes is embedded in the invaluable tools of education, communication and regulation. This issue explores them all - we hope it offers inspiration to take the next steps.

Myriah Lesko Editor

Lowell Anderson Co-Editor

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Presidential Address

at the FIP Congress Opening Ceremony

Dr Kamal K Midha, FIP President

Theme – Are you ready?

Our congress theme ‘Responsibility for Patient Outcomes – Are you ready?’ makes us reflect on where we are in our professional development and what we need to do to add further value to patient care.

Exciting times lie ahead. Before moving forward, however, I want to share with you the journey, the cross-roads we have come upon, and a map of paths to reach our destination.

Are you ready? Estão preparados? HAZIR MISINIZ?

Simply stated, the foundations of our work are Science, Practice and Education. To ensure patients are well served, we face challenges in balancing this triangle within complex healthcare and education systems, with a clear focus that the patients are at the centre. Without innovative and high quality science, we will not develop the drugs needed to fight ever-evolving diseases. Without good pharmacy practice, we will fail to ensure people can have access to appropriate medicines and use them rationally.

Without sufficient and proper education, we will be short of the practitioners and scientists required to tackle local and global health needs. Currently, we do not have treatment for over 30 neglected diseases that kill 11 million worldwide every year. In addition, we need urgently to address 127 product areas, including adjuvants, diagnostic tests and delivery technologies to improve therapies. A wide gap still exists in access to medicines. 30% of the world's population lack regular access to essential medicines; in the poorest parts of Africa and Asia this figure rises to over 50%.

Evidence warns us that inappropriate use of medicines continues to be a widespread problem:

- Less than half of patients were treated for common diseases according to clinical guidelines.
- Less than two-thirds of children with diarrhoea received oral rehydration therapy, whereas more than 40% received antibiotics, often unnecessarily.

We struggle to ensure that all medicines are of the best quality and as safe as possible. Our efforts are undermined by the over 1500 recorded incidents of counterfeiting that occurred in 2008 alone.

Countries without comprehensive pharmacy education struggle to develop the pharmacy cadres, with well prepared specialists who can address local health needs. This challenge has been underlined by the United Nations Education, Social and Cultural Organisation (UNESCO). Their studies show that “places with limited local education have less research into local solutions, and fewer practitioners available to support their implementation.”

Leaders in the FIP Board of Pharmaceutical Sciences are providing dedication and creative directions for the future of pharmaceutical sciences. A wide range of International experts – academia, industry, regulators, banking, venture capitalism, and sociology – met to draw up scenarios, tracing out the possible consequences of forces driving the pharmaceutical sciences through the year 2020. This outstanding conference report has now been published in the International Pharmacy Journal. We must, as per this report, challenge the status quo. Exploring wider surroundings will stimulate creativity and innovation.

Good pharmacy practice has been at the heart of FIP for decades; ensuring that patients receive effective, safe and affordable medicines. At the World Health Assembly, FIP spotlighted the central role pharmacists play in improving rational use of medicines. FIP emphasised that national policies must support pharmacists' roles in health promotion, patient access to information, improved prescribing, and pharmaceutical care.

Counterfeit medicines remain a global concern and a public menace. As a member of the WHO IMPACT taskforce and leading Working Group on Communication, FIP is studying the scale and effect of counter-



“Places with limited local education have less research into local solutions, and fewer practitioners available to support their implementation.”

feit medicines on public health, developing tools to document potential harms. To support National Member Organisation activities FIP developed and disseminated a framework guide on counterfeit medicines for pharmacists, in French, English and Spanish.

For pharmacists to contribute effectively to local needs-based patient-centred care and public health, they must acquire the knowledge and skills necessary for this role.

The FIP Pharmacy Education Taskforce leads the way. Through the shared goal of developing and strengthening pharmacy education, stakeholders are contributing to the global vision for pharmacy education and networking with peers. All of you are invited to attend the 4th Global pharmacy education consultation taking place here at this congress.

The Global Framework for Quality Assurance of Pharmacy Education, adopted by FIP, sets out core principles and elements essential for effective quality assurance of pharmacy education. Already 24 countries have validated and assessed local applicability of this Global Framework.

As active and responsible community members, we share our expertise through daily practice, publications, and participation in healthcare meetings. To ensure that FIP's vision is fulfilled, over the last year FIP representatives have attended numerous events to share our collective expertise.

Whenever and wherever medicines are discussed – FIP is at the table.

Are we equipped to be members of a sustainable economy?

FIP is the only organisation that has collected pharmacy workforce data on a global level.

The dire situation facing the Global pharmacy workforce demands a view from a wider lens to see how it affects the health and wealth of nations. FIP provides that lens to show the important role pharmacy plays in local and national health economies – as medicines and human resources require significant investment from governments, the private sector, and individuals.

The 2009 Global Pharmacy Workforce report launched at this Congress is a timely reminder of the significant impact pharmacists and pharmacy practice make on the global community.

Are we prepared to communicate effectively?

Effective communication is imperative whether you are in an emergency situation or undertaking day to day tasks.

FIP has been acknowledged for its innovative communication in supporting health literacy through creating pictograms for patient counselling. The FIP Military and Emergency Pharmacy Section initiated this project to provide visual reminders to patients on how to take their medicines.

FIP is also strengthening communication with you, our members. The re-designed FIP website improves access to information, including regular updates and news. This year, FIP is adding facilities to support networking among FIP members.

To enable FIP member organisations to improve their own communication flow, this week FIP is presenting a workshop to explore traditional and new technologies and to share best practices across organisations.

To further dialogue in sharing your experiences and views with a global audience, the international journal, 'Pharmacy Education', has been re-released. New publication technology enables individuals to comment on articles, facilitating growth of an interactive community of researchers on pharmacy education, stimulating both research and debate.

As a founding partner of the World Health Professions Alliance (WHPA), FIP plays a key role in bringing together pharmacists, nurses, physicians, and dentists worldwide. Our joint initiatives recognize the unique values and distinctive contributions that each profession brings to patient care. Our working together supports efforts by governments, policy-makers, and the WHO, and is already achieving amazing levels of success in global public health.

Are we taking action to build solid partnerships?

This year the FIP Council is reviewing the concept of Collaborative Pharmacy Practice. This model highlights pharmacists' critical role in collaborating with other health care professionals and the positive impact such collaboration makes on public health.

In order to expand our advocacy, gain more knowledge, and provide member organisations with useful tools, FIP has entered into partnerships with global organisations including the WHO and UNESCO. Pharmacy Education Taskforce case country studies provide an outstanding example of where these stakeholders have successfully joined together.

FIP Mission

Based on the "Vision 2020" mandate, unanimously adopted last year in Basel, FIP is implementing and growing its partnerships, increasing its visibility, and strengthening all 3 key foundations: science, practice and education.

FIP is ready.

At the heart of it all – we must remember that our mission is "To improve global health by advancing pharmacy practice and science to enable better discovery, development, access to and safe use of appropriate, cost-effective quality medicines worldwide."

A wealth of opportunities lies ahead. There are so many ways for you to take part – the young pharmacist group, the Sections, the Board, the Bureau, and the Regional Forums. FIP needs leaders like you to take up these roles, to grow, develop and, build world class science, practice and education for pharmacy.

There are so many valuable FIP projects and events to be proud of. Here I have highlighted only a few of the many in which FIP staff, representatives and many of you who are in the audience are involved. As dedicated volunteers, you are the driving forces. I thank you for taking this interest.

When discussing pharmacy issues at the global level, the directions and paths are numerous. Still they all lead back to one place, FIP. I hope many of you become more actively involved in this global federation, in your national organisations and in your local workplace, to make the most of the knowledge and networks that you will gain from this event.

FIP is the platform. You make it happen.

Enjoy the Congress.

Making a difference:

Pharmacists on the headline

Maria Lorena Quirós Luque

Have you noticed that we, pharmacists, are never famous characters on movies or TV shows series?

Have you ever wondered why?

In our organisation, Colegio de Farmaceuticos de Costa Rica (COLFAR) it has been a growing concern to find out if society really knows who are pharmacists and what do we do, because we noticed that whenever the subject was medicines, the media most of the times interviewed physicians and not pharmacists.

Aren't we the experts on medicines? So, shouldn't we be the ones leading every aspect related to them? This became our main goal when we started our Image Campaign back in 2005.

Through a Public Relations Plan, which was known as being more cost-effective than publicity, we started to position pharmacists as necessary health care professionals, useful to society and build a positive image among the community, starting with the media, because once they know it they will tell society about it.

Throughout these years, we have built a brand, defined our key messages and our targets: media, society, patients and pharmacists. We started sending press releases, training key pharmacist speakers and answering to media inquiries, about medicines, and institutional or political issues.

By now, we have some amazing results.

Chronology of a real case:

Last December, 2008, a new Traffic Law was published: it stated that vehicles must carry a First Aid kit, but it didn't specify the contents. We sent a letter to the Ministry of Transports asking about the specific required content of the kit, and they answered that it will be officially published.

During the following weeks, we started to make some measurements of temperatures inside a car, in different places and times during the day. The results were surprising, the temperatures reached 48,2°C (118.8°F). Most of the medicines are registered in our country to guarantee stability under storing conditions at temperatures not higher than 30°C (86°F)

On July 8, 2009 the required contents is published and among other first aid things, it stated that it must include "at least" acetaminophen (paracetamol), so we sent a new letter to the Ministry of Transports and also to the Ministry of Health expressing our opposition to the presence of any medicine in the kit, stating many technical reasons why medicines must not be stored inside a car and including the data of temperatures mentioned above. ►

The next day, August 11, we sent an official press release with our statement opposing the including of medicines in a car's first aid kit, including the technical reasons and the temperature data.

On August 14, only one day after, the Ministry of Transport communicated that the First Aid kit will not be required at

We pharmacists promoted a change in a political decision related to medicines.

Our key message here is: What is not communicated doesn't exist. We should make ourselves visible to society and exercise our expertise, we deserve it, but most of all, society deserves it, too. ■

Dr Maria Lorena Quiros Luque

is a pharmacist, MBA and CEO of the Costa Rican Pharmacists Association

[illegible]

Infectious Disease Pharmacists

Involvement in medically-related global activities

Christine U. Oramasionwu and Alice K. Pau

A primary focus for the 2008 Annual Meeting of the Society of Infectious Diseases Pharmacists (SIDP) was to address global health initiatives in infectious diseases. Five SIDP members trained in infectious diseases practice and/or research shared with the participants their experience in program development, research, and training in communities and programs around the world. In preparation for the annual meeting, an anonymous survey was conducted to describe the level of involvement in global health initiatives amongst members of SIDP. We present the results of this survey to increase awareness of different roles pharmacists can play in extending our expertise to resource-limited countries, especially in the area of infectious diseases, which continues to be the major cause of morbidity and mortality worldwide.



Methods

All SIDP members (an estimated 500 members with active email addresses) were sent, via email, a link to an anonymous 10-question survey in August 2008. Pharmacists were questioned regarding their individual participation in medically-related activities worldwide. They were asked questions pertaining to their level of involvement in global service, geographic locations for such activities, whether their activities were primarily related to infectious diseases, duration they spent overseas, the type of activities they were involved in, and if the activities were a component of their employment. Responders were instructed to select any and all responses that best described their level of involvement. Only those members who have been involved in such activities were asked to respond to the survey. No compensation was given for completing the survey.

Results

Thirty-one SIDP members responded to the survey. These pharmacists were primarily employed in academia (62%), followed by U.S. governmental agencies (13%), pharmaceutical industry (13%), non-governmental agencies (6%), or other areas of employment (6%). Pharmacists reported participation as a part of the following: a volunteer medical mission (48%), their employment (42%), a paid activity outside of their employment (16%), or other (16%). Most pharmacists reported involvement in treatment and care (58%), training/education (55%), or clinical research (32%).

Within two years prior to the survey, most pharmacists (55%) spent less than four weeks abroad, whereas 24% spent 4-12 weeks abroad, followed by 21% spending more than 12 weeks abroad. Over half of the pharmacists reported working in Africa (56%), followed by Central America (32%), Asia (28%), and South America (20%). A map highlighting all locations is illustrated in Figure 1.

Many described their disease-related activities to be primarily related to infectious diseases (64%). The most common infectious diseases-related work was in the area of Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) (75%), tuberculosis (56%), tropical infections (19%), malaria (19%), and avian influenza (13%).

Discussion

This survey allowed us to report on infectious diseases pharmacists' involvement in global, medically-related activities. SIDP members are primarily clinical pharmacists, researchers, and trainees specializing in the area of infectious diseases with the goal of promoting appropriate use of antimicrobial agents. This survey highlights that these pharmacists not only practice infectious diseases pharmacotherapy locally, but that their efforts extend to the global community as well. Most members reported involvement in activities that pertain to communicable diseases that are increasingly problematic in lower-income countries, regions that are designated to be of high-priority by the World Health Organization (WHO).¹ For example, over half of pharmacists reported working in Sub-Saharan Africa, a continent greatly affected by numerous infectious pathogens. As of 2007, 22 million (67%) of the 33 million people with HIV/AIDS worldwide were living in Sub-Saharan Africa.² Additionally, 86% of the estimated 247 million cases of malaria in 2006 were in the African Region.³ Not immune to these statistics are Asian and Latin American countries, which also carry a great burden of various tropical infections. The WHO estimates most of all incident cases of tuberculosis originate in Sub-Saharan Africa and South-Eastern Asia, a figure that is increasing each year.¹ The WHO South-East Asian region accounted for 37% of the 1.2 billion individuals at high risk for contracting malaria in 2006, and accounted for the largest proportion (34%) of all new cases of tuber-

Figure 1. Map of locations where infectious diseases pharmacists participated in medically-related activities



culosis in 2005.^{3, 4} In addition to these aforementioned diseases, Latin America continues to be an area of high endemicity for many other tropical diseases including leishmaniasis, leprosy, and Chagas disease.⁵ Based on our survey, it appears that work done by SIDP members is concurrent to the needs of these WHO priority regions. Pharmacists have long been failed to be formally classified as healthcare professionals within the public health work force.^{6, 7} However, pharmacists are important resources for health information as they are expertly trained to ensure safe and effective use of medications, engage in disease-state management, and optimize drug therapy. With the development of universal health initiatives and increased funding from programs such as the President's Emergency Plan for AIDS Relief (PEPFAR), the U.S. Global Health Initiative, and The Global Fund to Fight AIDS, Tuberculosis and Malaria, an increasing number of patients are receiving or will soon benefit from treatment for tuberculosis, HIV/AIDS, malaria, and other infectious diseases. Pharmacists will have an increasingly visible role in public health and should be given the skills necessary to lead this charge. Unfortunately, in many of these resource-constrained regions of the world, there are severe shortages of healthcare professionals, including medical doctors, nurses, and pharmacists.^{8, 9} This makes it all the more critical for the existing medical workers to be trained in caring for their patients. Pharmacists working abroad can play a key role in program implementation, capacity building, and training of local pharmacy and medical personnel in disease management. Internet communications have brought the world closer together; pharmacists who have been involved in training other health professionals overseas can continue to provide long distance mentorship via email and teleconferencing.

Limitations

This survey may not be a representative sample of all infectious diseases pharmacists involved in global activities in the United States. Only SIDP members were surveyed which may limit the generalizability of the survey results. Additionally, the survey response rate may appear to be low (~6%). However, only SIDP members who have been involved in international activities were asked to complete the survey; we anticipated most SIDP members would not have had personal experience in global health initiatives abroad.

Conclusions

Pharmacists, who have specialized training in infectious diseases, are best suited to contribute to the fight against these deadly infections in the many regions around the world. Hopefully, pharmacists with other areas of expertise will also be able to participate in these unique experiences and extend their work to others in need. ■

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Learning to Teach Workshop Report

Juha Mönkäre, Sonak Pastakia, Vibhuti Arya, Zhining Goh, Tina Brock

More than 40 academics and clinicians from 28 countries participated in the first Learning to Teach Workshop co-organized by the WHO UNESCO FIP Pharmacy Education Taskforce and the FIP Young Pharmacists Group and held during the 69th International FIP Congress in Istanbul, Turkey.

The idea for the session arose from discussion about the need for more guidance in educational methodology and academic mentoring globally, to ensure that teachers can best support students in their learning and in building students' competencies to take responsibility for patient outcomes. Juha Mönkäre, a PhD student at the University of Kuopio, Finland noted that, "Many young academics feel well prepared for their scientific responsibilities but haven't received instruction in how to be a good teacher." Zhining Goh, a clinician at Singapore General Hospital, remarked that, "Young pharmacists – in schools and hospitals – can feel intimidated about asking for help when teaching and supervising students. They feel like they are supposed to be naturally good at it and don't know what resources are available if they aren't."

In response to these and similar comments, the Learning to Teach Workshop was designed to address the primary challenges experienced by new teachers with specific emphasis placed on basic principles of good teaching and strategies for improving teaching. Although the session was initially targeted at new and potential faculty members, several experienced academicians as well as pharmacists from community and hospital sites joined in the active discussion. Participants rightfully noted that many of the educational methods required for good teaching are similar to those used when educating patients in the clinical setting. Likewise, with the increasing global emphasis on experiential learning, pharmacy students are spending more time in hospital, community and industrial placement sites, with practitioners being responsible for additional teaching and mentoring roles.

The Workshop began with a role-play of scenarios commonly faced by new pharmacy academics – (1) reconciling time spent on research and teaching responsibilities, (2) determining how best to prepare for a course and lecture delivery, and (3) recruiting a professional support network for teaching. Ian Bates, London School of Pharmacy played the role of a senior staff member struggling to work with a new academic hire, played by Tina Brock from Management Sciences for Health. Their interactions highlighted that one must consider the perspectives of both the new and experienced teachers when determining how to best support one another in the workplace. Senior



staff should take care to introduce new staff to all facets of academic responsibility – teaching, service and research. And junior staff, who may have more experience with technology and contemporary learning strategies, can often provide guidance to their supervisors about this. Open communication is key; and schools are encouraged to formalize the mentoring process in order to ensure good collaboration between all staff.

Following the role-play, there were presentations from teaching experts from around the world. Billy Futter of Rhodes University spoke about Top Tips for Teaching and Mentoring. Much like the pressure necessary to turn elemental carbon into a fine diamond; he used the example of the pressure of a new academic staff with a variety of skills and needs facilitating the organisational change necessary to improve pharmacy education worldwide. Billy also advocated for a learner-centric environment, where students and tutors feel comfortable participating in active discussion and debate.

Sonak Pastakia of Purdue and Moi Universities discussed his methods for supervising (also called “precepting”) pharmacy students in the hospital or clinic. Sonak currently mentors pharmacy and medical students from the USA and Kenya and described positive experiences with creating opportunities for students to learn from one another, capitalizing on the strengths of both cultures and professions. He suggested that focusing on the patient’s well-being in pharmaceutical care discussions helps students to understand that clinical practice is often much more complex than solving cases in a textbook.

Jennifer Marriott of Monash University focused on supervising research students at both the undergraduate and postgraduate levels. She acknowledged that it can be awkward to transition into the role of “mentor,” particularly when the age of the student and the age of the teacher are not dissimilar. When possible, research students should undergo careful interview to ensure that the interests and working style are well-matched with the supervisor. Clear communications of expectations, perhaps even using a learning contract, may also help to minimize risk of misunderstanding and conflict once the project commences.

After an active tea break where teaching stories were shared and business cards were swapped, workshop participants addressed a case study describing the experience of a struggling new pharmacy academic (“Stella”) and her concerned but puzzled senior colleague (“John”). Vibhuti Arya of St John’s University led the case discussion and small group facilitators included the session presenters plus Claire Anderson (University of Nottingham), Catherine Duggan (London School of Pharmacy), Zhining Goh, Yaman Kaakeh (Purdue University), Sarah Whitmarsh (FIP), and Tana Wuliji (FIP).

Vibhuti highlighted that many of the challenges faced by Stella were common causes of stress and dissatisfaction for new staff and asked the groups to focus on viable solutions to the problems, considering the perspectives of both parties. Participants suggested that once again, open communication was the key success. In the case, Stella must be able to accurately self-assess her teaching skills and to seek help from a variety of sources without fear that she will be punished for not being perfect. She must also be able to discuss with John about his failure to support her research needs. John must be able to be honest about Stella’s performance and to advise her accordingly without feeling that he is being overbearing or judgmental. He should also be

more considerate about meeting research deadlines. The groups suggested that while the University described in the case had made some progress in improving staff relations (eg, establishing a faculty development committee), there were still additional measures to be taken toward creating a positive environment for teaching dialogue.

Participants left the session with a hand-out describing ten common teaching mistakes as well as a sense of fellowship that the challenges they face in their sites are not so different than those faced in other schools of pharmacy around the world. The session also reinforced that both teaching and learning are lifelong processes for all and, if done effectively, can support the ability of the profession to accept more responsibility for patient outcomes. In addition, there was consensus that the workshop should become a regular offering at future FIP Congresses and that participants should maintain their connection to one another as virtual peer mentors. ■

The Second Learning to Teach Workshop to be held in Lisbon is being organized by Vibhuti Arya, Luther Gwaza, Zoe Lim and Yaman Kaakeh. If you are interested in being part of the planning activities, please contact vibhuti.arya@gmail.com. If you are interested in joining the online community of practice dedicated to global pharmacy education, please contact education@fip.org.

Box 1: Top Tips from Learning to Teach Workshop

1. Teaching is (much) more than telling.
2. It is important to determine whether your teaching is designed to improve knowledge, develop skills or change behaviors. This decision may be influenced by the specific content, your natural teaching style and the learning styles of the students.
3. It's okay for teachers not to know everything. It's much better to demonstrate life-long learning skills with equal (if not more) emphasis on process as content.
4. The "Alphabet" of Teaching includes Anchoring, Bridging, Considering, Doing, Evaluating, Feeding-back, and Growing.
5. A teaching mentor – whether this is via an expert, peer, or peer group – is a good way to find support.

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Vibhuti Arya, *St John's University, USA*

Zhining Goh, *Singapore General Hospital*

Dr Tina Brock, *Management Sciences for Health*

Ian Bates, London School of Pharmacy played the role of a senior staff member struggling to work with a new academic hire, played by Tina Brock from Management Sciences for Health





Education and Patient Outcomes:

A Call for a Needs-based Approach

Sarah Whitmarsh for the Pharmacy Education Taskforce

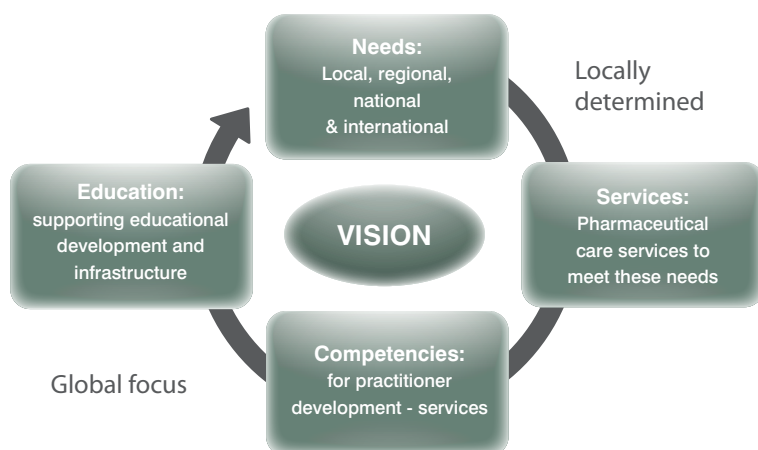
The influence of pharmacists on patient outcomes and public health has been widely reported. Pharmacists in community, hospital and other settings reduce the cost of medicines use, improve health, reduce morbidity and mortality, reduce avoidable hospital admissions, reduce medication errors, improve rational use and prescribing of medicines, and increase access to healthcare and medicines, particularly for underserved populations.^[1-9] Having a clinically competent, scientifically based profession will lead to better health care outcomes on a wide variety of variables.^[10-15]

But while taking more responsibility for patient outcomes culminates most visibly with a pharmacist's interaction with patients, pharmaceutical care success also depends on another relationship: educator to student. In order to have a fully functional, capable workforce to improve patient-focused services, strong and robust educational systems must be in place to prepare both current and future pharmacists to provide these services.

For those in education development, the link between patient needs to professional education translates to the term needs-based education. In essence, needs-based education asks the question: What does society need pharmacists to do, and what do pharmacists need to learn to deliver those services to society? ►

It is a cycle further explained in the Needs-Services-Competencies-Education model (See figure 1). This model illustrates that education is determined locally by evaluating the services required and the competencies needed to provide such services and using that to plan education which would support the development of such competencies.

Figure 1



Established on this tenet of needs-based education, the WHO UNESCO FIP Pharmacy Education Taskforce seeks to provide guidance for competency and education development and engage stakeholders to reach consensus on a global vision for pharmacy education. Pharmacy education in this context refers to the education continuum from pre-service education to continuing professional development relating to the lifelong training of the pharmacy workforce in order to ensure lifelong capabilities in providing the scope of required pharmaceutical services, including practice and science. ^[16]

The purpose of the Pharmacy Education Taskforce is to oversee the implementation of the Pharmacy Education Action Plan 2008–2010 ^[16], identify resources and serve as a connection for stakeholders. The aim and objectives of the Action Plan, which have previously been described ^[17, 18], were built upon recommendations from two global consultations held on pharmacy education at FIP Congresses 2006 and 2007. At these consultations, key stakeholders in pharmacy education identified seven domains for global action (see Table 1) and reached a consensus prioritising four of these: developing a vision and framework for education development, quality assurance, building academic workforce capacity and developing a competency framework. Three Taskforce Project Leads were appointed to oversee the activities in these domains in accordance with the Action Plan.

Table 1

Domains of Work
1. Vision for pharmacy education development
2. Quality assurance
3. Academic and institutional capacity
4. Competency framework
5. Training for pharmacy technicians and other cadres
6. Advocacy and policy for pharmacy education and health workforce development
7. The role of undergraduate education and lifelong learning – CPD





Providing a focus: Country Case Studies

With the educational systems linked so firmly to patient outcomes and other pharmaceutical services, what happens when educational institutions are hampered by limited resources and academic capacity?

According to the 2009 FIP Pharmacy Global Pharmacy Workforce Report:

"The capacity to provide pharmaceutical services in each country is dependent upon having an assured competent workforce and a similarly integrated academic workforce to train sufficient numbers of new pharmacists and other support staff at both basic and enhanced levels."^[19]

Since the scaling up of the pharmacy workforce is necessary to ensure improved access to and rational use of medicines and health-related 2015 Millennium Development Goals, the Taskforce has focused its efforts on planning and coordinating country case studies in sub-Saharan Africa, where workforce needs are greatest.

Seven countries agreed to collaborate with the Taskforce; a Dean or Head of School was appointed from each country to serve as liaisons to the Taskforce. Leads

were identified from Ethiopia (Jimma University), Ghana (Kwame Nkrumah University of Science and Technology), Kenya (University of Nairobi), Malawi (University of Malawi), Tanzania (Muhumbili University of Health and Allied Sciences), Uganda (Makerere University), and Zambia (University of Zambia).

The first meeting of the Taskforce and Country Case Study (CCS) Leads was held at FIP Congress 2008 in Basel, Switzerland. During a panel session at the Taskforce's 3rd Global Education Consultation, the CCS Leads expressed several challenges they faced, including a severe shortage of practicing pharmacists and few experience faculty members to educate students.^[20]

The Taskforce subsequently organised a workshop in Nairobi, Kenya in August 2009 to further explore the themes raised during the Basel workshop: academic capacity development, curriculum development and reform, quality assurance and overcoming the challenge of limited resources. The discussion took place in a roundtable format, with each of the CCS Leads sharing their needs, strategies, experiences and ideas for collaboration within each of the themes; Taskforce Leads briefly shared their findings and tools from the literature relevant to their domains and areas of responsibility on the Taskforce.

The Taskforce and CCS Leads prioritised key activities for collaboration and reached consensus on a proposed programme of work. The work plan provides an evidence-

based approach to operationalise needs-based education capacity development advocated by the Taskforce. It aims to strengthen needs-based pharmacy education capacity in country case studies through regional and international collaboration for academic capacity, quality assurance systems, strategic vision and advocacy; and to develop evidence-based tools and guidance to inform global pharmacy education strategic development.

Looking to the Future

With the end of the Action Plan approaching in 2010, the Taskforce convened the 4th Annual Global Education Consultation at FIP Congress 2009 to revisit the original seven domains of work and discuss the future of the Taskforce in 2010 and beyond. More than 120 representatives and leaders of global, regional and national pharmacy education, pharmacy students and young pharmacists, professional and scientific bodies and FIP gathered for the morning consultation – the largest attendance to date.

Participants were asked to consider one of the seven domains and to brainstorm new domains. A commentary and record of the discussions and feedback was taken in order to produce a consensus-driven report on the themes that emerged from the discussion.

Several activities emerged across the discussion with regard to a potential role of FIP in pharmacy education:

- (1) FIP should continue to strengthen partnerships with global organisations such as UNESCO and WHO, and also facilitate the formation of new partnerships at the regional and national level with Ministries of Education and Health, universities, professional bodies, regulators and accreditation organisations.
- (2) FIP should be an advocate for pharmacy education in activities to
 - a. Encourage pharmacists to undertake teacher training
 - b. Encourage academic institutions to implement the Quality Assurance Framework and other types of self-assessment
 - c. Develop key messages about the role of pharmacists and pursue resolutions at the WHO-level
 - d. Promote needs-based education
 - e. Establish a World Pharmacy Day
- (3) FIP can provide opportunities, tools and resources for
 - a. Joint research, especially in developing countries
 - b. Teacher training
 - c. Student assessment
 - d. Continuing professional development

For the established domains of the Pharmacy Education Taskforce, all participants agreed the work should continue beyond 2010. It was recommended that the other three previously-identified domains – Advocacy and Policy, Training for Pharmacy Technicians/Assistants, and Continuing Professional Development should become active domains.

Within the Academic Capacity domain, new ideas for activities emerged such as a global assessment of clinical curricula and sharing models and examples of how teacher training is implemented. For the Competency domain, it was suggested that the Taskforce could provide a bridge between competence and education. In Quality Assurance, the need to move forward with the Global Framework for Quality Assurance of Pharmacy Education was emphasized, such as encouraging associations and institutions to implement the framework and adapt it to the country's needs.

Within Advocacy and Policy, the need for opportunities to publish was underscored; the peer reviewed Pharmacy Education journal was identified as a possible solution. Noting the context of pharmacists and pharmacy technicians – the blurring of lines in the professions, such varying roles and education between countries and regions – the need for a defined competency framework and roles for all was emphasized. Activities of the CPD domain should include: identifying the different levels of CPD in countries; building adaptable guidelines for specifying standards and rules for credits and programmes; implementing frameworks for testing competencies; and developing a portfolio of shared evidence and experience from countries. It was suggested that CPD should go by the more general term “Lifelong Learning.”

The Taskforce and FIP are currently reviewing the recommendations and ideas from the consultation participants and will be putting together an action plan for post-2010 work. Expectations are great; but then again, so are the needs. ■

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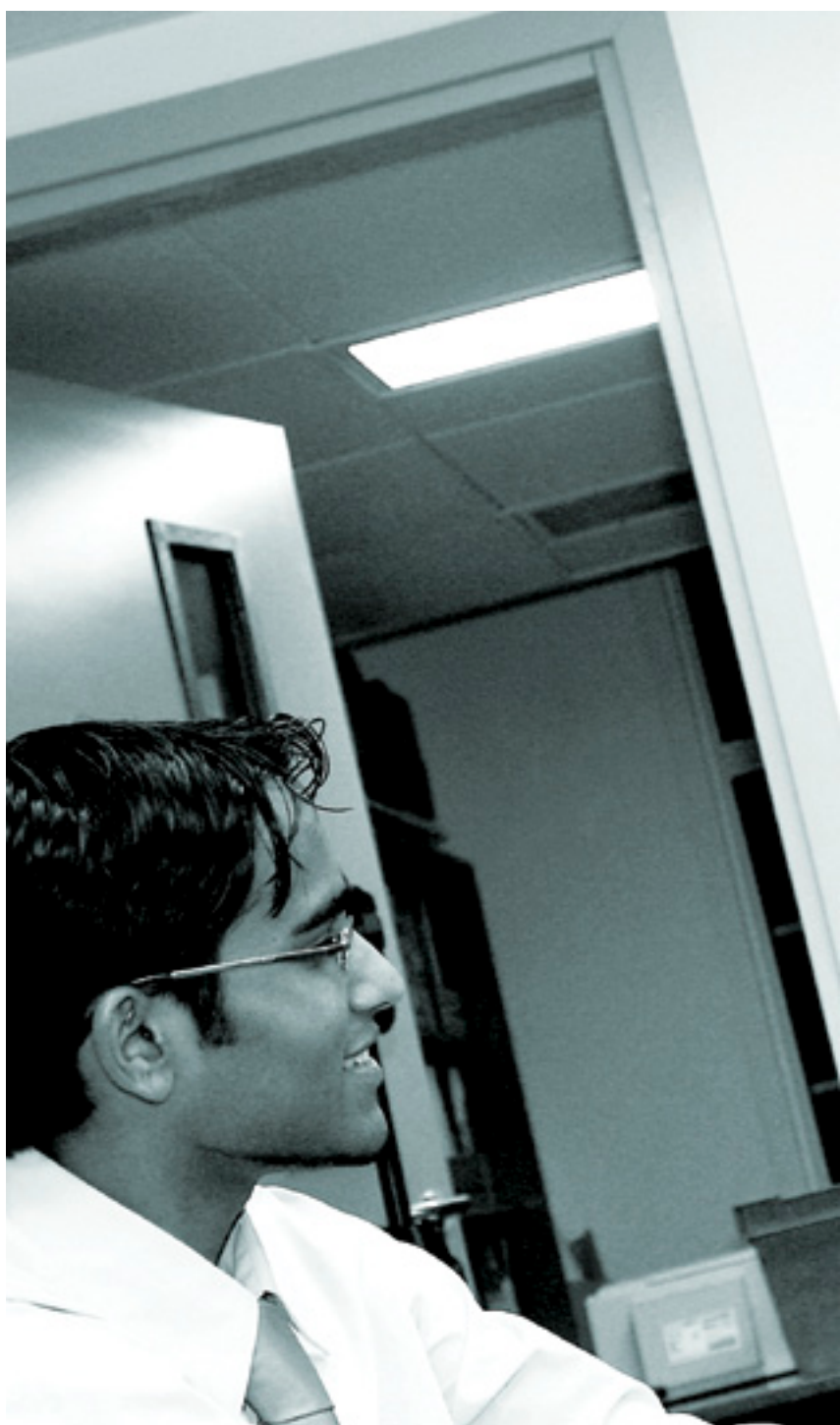
Continuing Professional Development (CPD) in Pharmacy Practice:

Is it really about learning to learn or legislating learning?

Andreia Bruno, Sue C. Jones, Barry Jubraj

Continuing Professional Development (CPD) remains a controversial topic for pharmacy worldwide. The authors have first-hand experience of researching and facilitating CPD in the United Kingdom (UK), which may be similar internationally depending on the CPD recording methodology used. Pharmacists are often confused, frustrated or challenged by the very nature of an approach that was intended to help them in their day to day work.^[1] Most practising pharmacists recognise the pressure to evaluate what they need to know in order to practise safely^[2]; yet there are sometimes gaps between theory and practice, academics and practitioners, regarding how to learn and develop new skills to implement in practice.^[3]

The purpose of this article is to draw readers into the very philosophy of CPD with respect to adult learning theory, approaches, obligations, semantics, efficacy and challenges and to see there is a new way of looking at professional development.





Education of Adults and Adult Learning Theory

Learning and learning theory are complex and subject to continued debate. Much has been written about how we learn as individuals and there is a tendency to oversimplify learning into isolated events, in an attempt to understand exactly what it is. By trying to reduce learning to its component parts, we can lose the overall meaning. In the 1970's Steiner attempted to assimilate the various domains of learning, including the acquisition of new knowledge, skills, and attitudes.^[4] By ensuring that each of these domains are considered, learning needs should in theory be identified and managed appropriately, leading to improved outcomes such as competence and performance. The fact that there are many "theories" available to us, and many schools of thought associated with these theoretical paradigms, it is perhaps more pragmatic to consider these as "approaches to learning", or the changing contexts within which we learn as adults.

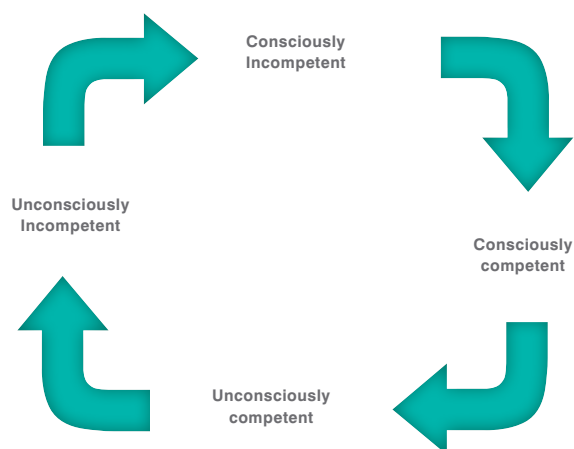
Learning and competence

Historically, as technology and technological outcomes have become a basis for civil society, a societal consensus developed that learning should not cease at school-leaving age but continue (for example through university) to widen access and participation of adults in education – particularly for vocational-related education.^[5] This paralleled an increasing demand from industrialized societies for a competent and literate workforce to undertake new roles.^[6] With the development over time of the concept of professionalism, a pharmacy professional's competence has become an evident expectation, and the competencies expected of a practitioner need to be clearly identified in order to ensure adequate assessment and moderation.^[7]

Dreyfus et al (1986) considered a model of skills acquisition that we could apply to help pharmacy educators to understand and explain the challenges of post-registration development and learning, particularly the expectation that post-qualification pharmacists will be competent in their working environment (Figure 1).^[8] Dreyfus et al suggested that for adults to gain skills in the workplace, a number of stages need to be worked through from novice to expert. How could this perspective 'fit' with pharmacy and CPD? Perhaps CPD could

be the steer along a career pathway from a foundation competence towards defined expertise.

Figure 1.
A Model of Skills Acquisition (After Dreyfus & Dreyfus 1986)



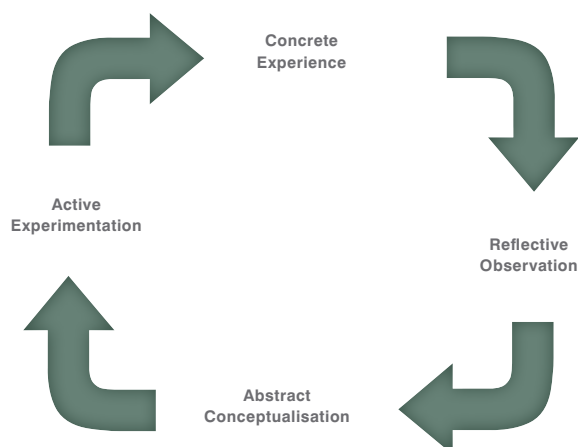
By way of illustration let us consider the process of assessing a prescription for legal, clinical and patient suitability. For an individual at the immediate post-registration (post licensing) stage there is a perceived competence and the newly qualified pharmacist (novice/advanced beginner in the Dreyfus et al model) is still aware of all that is occurring around them; hence they are “consciously competent”. After a time in practice (“experience”), which may be a few months or years post-registration, the skills of medicines assessment may be taken for granted and often the pharmacist may not recall all of the prescriptions they assessed that day.

They are hence in the “unconsciously competent” phase, following their standard operating procedures (SOPs) with effectiveness (competent/proficient in the Dreyfus et al model). Finally, during the unconsciously incompetent phase, there could have been a critical incident such as a near miss or a dispensing error which reached the patient. This alerts the pharmacist, consciously, to their incompetence leading to an evaluation of cause and effect.

We suggest that the Dreyfus et al model could complement another model that has been widely adopted by many professions which was first described by May and Kruger (1988).

When learning new knowledge, skills or behaviours, it is suggested that practitioners work their way around this adapted cycle of competence with the expectation of remaining at the unconsciously competent stage (Figure 2). This means that the practitioner is working with competence but the tasks they are performing each day are below the level of consciousness; that is they are working safely and efficiently but not analyzing everything that they do in a conscious manner.

Figure 2.
An Adapted Cycle of Competency (After May & Kruger) ^[9]



Where such an incident occurs it is often a time in practice for deep reflection on the part of the pharmacist and here they may identify possible changes to their practice to prevent recurrence. Here it would be valuable for the pharmacist to reassess their competence and to consider recording some CPD of the event.

The developmental challenge is that by reducing incidents to component parts and following some sort of cycle, pharmacists may believe that they have ‘ticked the relevant box’ and can move on in their practice. Many of the concepts introduced in figures 1 and 2 could lead practitioners to do this yet the nature of professionalism and level of expertise lack definition and true consensus.

The Semantics and Terminology of Post-Registration Education in Pharmacy

Maintaining competence throughout a career is a life-long goal for healthcare professionals, including pharmacists. How competence is maintained is a key issue, and a shift has occurred across the sectors of practice in some countries, from continuing education (CE) towards continuing professional development (CPD).

Any survey of the literature in the field of professional development yields a range of terms, often without clear definition or consensus around CE and CPD.^[10] CE is often defined and based on a credit points system, compared with CPD which is often based on a portfolio and involves a variety of learning methods. As such, CPD does not necessarily replace CE.^[11] The acronym CPD has often been interchanged with Life Long Learning (LLL), Continuing Professional Education (CPE), Continuing Education and Training (CET) or, for medicine, Continuing Medical Education (CME). This has added to confusion amongst practitioners.^[12]

The debate continues regarding the relationship between CPD and CE, with some asserting that they are more or less identical, whilst others suggest that development and education are different.^[13]

Lifelong learning, is defined as the lifelong, life-wide, voluntary, and self-motivated pursuit of knowledge for either personal or professional reasons. The United Nations Scientific and Cultural Organization (UNESCO) adopted the term lifelong education/learning in 1970. The concept of LLL is currently based upon four pillars – learning to know, learning to do, learning to live together and learning to be. In Europe, lifelong learning is intended to empower citizens to move freely between learning settings, jobs, regions and countries in pursuit of learning.

Demonstrating Life Long Learning, competence and commitment to CPD in pharmacy

Pharmacy across the world is typically subject to some form of regulatory activity associated with a public protection mandate that aims to ensure the competence of those registered. The need to train pharmacy practitioners for the 21st century, who can deal with rapid advances in drug treatment and to encourage lifelong learning among pharmacy graduates is clear.^[14]

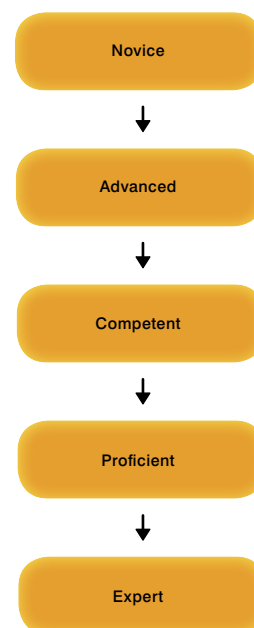
CPD has therefore emerged as a professional requirement for registered pharmacists and is compulsory to maintain practising rights in some European countries such as Portugal (2001) and France (2002). Non-European countries have also implemented different methods for revalidation, for instance maintaining a learning portfolio, self-reported evidence among other methods. Examples include Australia, Canada and New Zealand.^[15]

In the UK it is possible to trace a consultation of the pharmacy profession published in 1996 about CPD which led to the pilot of a process to CPD in 1999 and roll out to the membership in 2002 (RPSGB 1996, Wilson 2009). From this year, pharmacists and pharmacy technicians are legally required to maintain their CPD records with the RPSGB routinely calling and reviewing their records every three to five years for inspection and validation.^[16] The International Pharmaceutical Federation (FIP) has adopted the concept of CPD as the “responsibility of individual pharmacists for systematic maintenance, development and broadening of knowledge, skills and attitudes, to ensure continuing competence as a professional, throughout their careers”.^[17]

“By ensuring that each of these domains are considered, learning needs should in theory be identified and managed appropriately, leading to improved outcomes such as competence and performance.”

Many models of CPD are based on a cycle containing five stages; self-appraisal, personal plan, action or implementation, documentation and finally evaluation, enabling pharmacists to satisfy their personal learning needs. The concepts of CPD are often based on a modified Kolb's learning cycle as shown in Figure 3.^[18]

Figure 3.
A Learning Cycle (After Kolb, Rubin and McIntyre 1974)



Does CPD ‘work’?

One of the criticisms with this application of the CPD cycle is the lack of understanding of the process before starting, how practitioners are supposed to document learning experiences, and how they will be evaluated – in other words, the value placed on the “process” itself.^[19] The authors continue to encounter a lack of understanding and engagement in their day-to-day facilitation of front-line practitioners’ CPD. One common challenge is the relationship between learning and outcomes, particularly since a view remains that the best way to improve pharmacy practice is to ‘go on a course.’ Yet it is difficult to demonstrate that attending a course leads to enhanced practitioner competence. Perhaps the mindset of ‘going on a course’ has historically impeded development of more effective ways of promoting continued learning that can lead to improved outcomes. In addition to this, a literature search reveals that there is little, if any, evidence to associate the accumulation of CDP “credits/points” with enhanced performance of practitioners, across a range of health care professions.

Neither engagement in CPD nor CE alone can assure competence. CPD can contribute to the competence of professionals, but it is not a measure of competence for the pharmacist that is involved with the process, since it does not guarantee that s/he is able to achieve the tasks that are expected, regardless of the setting.^[20]



It is also important to recognize the difference between CPD undertaken as part of a work-based learning programme with prescribed learning outcomes, compared with some CPD opportunities without a curriculum, where the self-directed learner can reasonably decide what is to be learnt and how something should be learnt.^[2;12]

The approach of giving more responsibility to pharmacists themselves is intended to facilitate the development of lifelong learning, which in turn should result in a more sustained behavioural change. Yet this assumes that practitioners are able to effectively and correctly identify their own learning and development needs.^[12] This has implications for tutoring and facilitation in the workplace, particularly the need to identify and develop those with the skills to do this.^[21] Evidence suggests that, particularly for young or inexperienced practitioners, identifying “perceived” learning needs does not correlate well with the actuality of need.^[22]

Conclusion

Adult learning theory and knowledge of how professionals maintain and develop competence are placing increased emphasis on self-directed learning and signposting to competency-based approaches to continued pharmacy education.^[23] Perhaps pharmacy has spent too much time debating the semantics around professional development, when time would be better spent focusing on the goals and methods of post-registration education and development, for both pharmacists and allied staff, such as pharmacy technicians.

Whichever terms are used, the approach of giving more responsibility to pharmacists for their ongoing development raises a number of challenges. Giving responsibility can inculcate a sense of ownership and empowerment that in turn could result in a more

sustained behavioural change. However, although there is global awareness that the CE approach is not sufficient for changing the behaviour of pharmacists with respect to their development, the shift towards ‘CPD’ has arguably not yet made an impact.

There are likely to be many reasons for this, from barriers such as time to record CPD to a sense of the process being out of practitioners’ control. As pharmacists in our practice we are always required to make decisions that are precise and accurate. With CPD, the process must consider the grey and imprecise areas of practice, where reflection and feedback is vital to the success or impact of the process.^[12] This may partly explain why many of the countries which have adopted CPD still continue to use CE elements such as the credits system.^[19] This is akin to the so called “Mcnamara Fallacy”: First step, measure what can easily be measured; Second step, disregard what can’t be easily measured or give it an arbitrary value; Third step, presume what can’t be measured easily isn’t important; Fourth step, say what can’t be measured easily doesn’t exist. It is easy to measure CPD points – but is there a value for this? Equally, it is easy to measure the number of CPD records made by a practitioner – but how does this translate into improving competence? Conversely, it is relatively hard to measure competence and performance as applied to health; however, this does not obliterate the need to do so. Matching public expectation and confidence in the profession should remain paramount.

With fast-moving technology and therapeutic advances facing pharmacy practitioners, there is a need to update and develop practitioners’ knowledge and skills. CPD in the form of lifelong, self-directed, work-based learning, leading to a transparent demonstration of competence, is important for practitioners to embrace at an early stage of one’s career.

This is not only for the individual's practise, but in order for them to help develop the next generation of practitioner through effective facilitation. If some experienced practitioners feel like novices with respect to CPD, it will be difficult for them to help true novices. If pharmacy worldwide can robustly and consistently develop its definitions and methods around CPD, its impact may increase for the benefit of patients and the profession. ■

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Practice, Progression and Regulation

Widening the discussion

Ian Bates

No one would argue about the need for professional regulation in the health care sector; what we can discuss is the approach and attitude towards regulation, from the perspectives of the practitioners, the regulators, the professional constituency and, naturally, the recipients of our practice – patients.

There is little need to look behind us in a historical sense, except to acknowledge the driver of tradition. The more recent patient safety agenda, driven in part by uncovering of incompetence in health care professionals, is well known and has quite clearly been the backdrop to a raft of government and health systems policies aimed at providing greater security and assurance of practitioner competence. Even more recently, several governments have implemented annual competence checks of physicians, and despite some apprehension within the medical profession about the mechanics of this, it is clearly a move welcomed by the general public and completely necessary to maintain public confidence in health care provision. There is little doubt that re-validation for pharmacist practitioners will follow in the near future, and has already been implemented in some states.

For pharmacy, the linkage is clear enough; to press forward with the service development for general and advanced practice will in turn require a greater demonstrated commitment to career-long continuing pharmacy education, which in turn needs to be assured through contemporary and enlightened regulation and supported by enhanced support roles for Professional Leadership Bodies. The rewards and returns for pharmacists, patients and health ministries in this new landscape are evident.

Levels of practice

Are there different levels of practice within the profession? Yes – of course. No one would seriously doubt this, and neither can we hide that levels of practice exist across all sectors of pharmacy (hospital, primary care, community), scientists, industrialists, technicians, specialists, generalists, juniors, seniors. A recently registered pharmacist will be performing at a different level (and have differing competencies and competency needs) compared with

a demographically matched pharmacist with 10 years of experience. This fact is recognised in our closest comparable profession, medicine, and should cause no particular surprise. The popularity and acceptance of the Advanced to Consultant level framework (the ACLF, see Department of Health 2005) in the UK population of experienced practitioners further supports the pragmatic concept of practitioner development towards higher level skills and competencies.

Let's get serious – CPE not CPD

Continuing pharmacy education (CPE) is a clear requisite if we are to realise the potential of pharmaceutical care. This means moving forward from the current CPD paradigm into a more structured way of thinking about career-long development for practitioners, and the credentialing of quality assured experience and competencies. Ultimately, given the interactions between services, levels of practice and the professional “curriculum”, regulation of higher levels of practice is an appropriate response, given the rewards for patients, practitioners and the health service that assured advanced levels of practice will bring. And to be clear, this includes competent general levels of practice, without which the profession would be moribund.

This modern and contemporary outlook requires us to move from the current rhetoric of life-long learning towards a realistic practitioner development model that fully supports health service reforms and patient care. Practitioners will want the regulation of the profession to be “pre-emptive”, to be supportive and to have a progressive attitude towards continuing pharmacy education. This translates into prevention of poor performance as a major driver, rather than policing poor performance per se; controlling entry, identifying and rectifying poor performance is essential, but so is having a competent



workforce that rarely will have to deal with incompetence. Realistic continuing education that has a focus on credentialed competence and performance is key to this, ensuring that aspirational workplace (and work-based) education is at the core. Having evidence-led developmental frameworks for practitioners, at all levels, is essential for appropriate regulation and professional leadership.

Infrastructure gains

Having a progressive regulator means having a progressive professional body, and the relationship between these two is crucial in any context. However, there are third and fourth actors in this relationship – practitioners and patients. The public has an understandable expectation that professionals will be members of a professional body – whatever we might think about this, it is overwhelmingly true. It is essential that a national professional leadership body is the overt steward and “owner” of the professional “curriculum”, and takes leadership in ensuring effective practitioner development, within a robust continuing pharmacy education model (ie. beyond CPD). Successful models do exist both in our own profession, and of course with our colleagues in medicine. The

benefits for all parties – including patient assurances of competence – are obvious.

Advocacy of continuing pharmacy education, and practitioner development to meet the expectations of the public and government, must be an integral part of any reform package. Regulation should provide support and advocacy for improving performance which must be the dominant driver over approaches that condense into the minimum necessary to stay on, or be admitted to, the Register. The opportunity to unite a common vision for a clinically and science led-profession, from pharmacists to technicians, now exists within our grasp. Bravery and enlightened policy initiatives are required from our leaders in this critical time of professional evolution. ■

Author's Information

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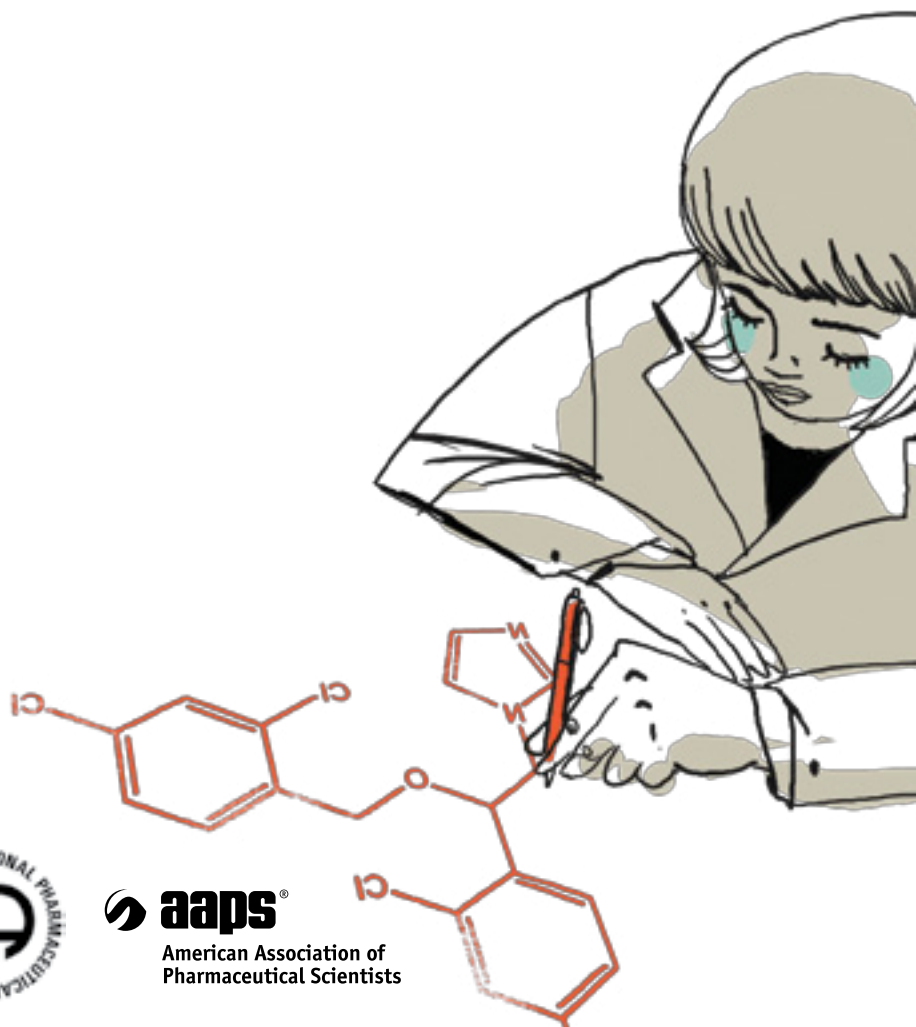
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Developing New Economic Models for Payment for Services by Pharmacists

The Report of the Working Group

Cecilia Bernsten, Yves Gariepy, Eugene M. Lutz, Patrick W. Reid and Philip J. Schneider

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Community pharmacists have traditionally sold medicines at a profit which has enabled them to provide their professional services at no cost to the patient. The community pharmacy economic model has been the one generally used in retail trade. Historically this could be explained by the fact that pharmacists were the professionals responsible for preparing medicines, and were paid for the product the patient received. When providing the medicine to the patient the pharmacist often explained how to use the medicine, but the medicine itself was the core of the exchange. When the preparation of medicines was assumed by the pharmaceutical industry, many pharmacists became merchants of ready-made medicines.

Pharmacists have the competence to perform multiple roles. They not only distribute medicines to patients, they also provide a wide range of services to help patients make the best use of their medicines. There is a growing awareness of the problems with the sub-optimal use of medicines and associated health care costs^(1,2) thus creating the need for pharmacy professional services to improve safety and treatment outcomes. For instance, it has been estimated that the cost of adverse drug events is at least as high as the cost of the medicines themselves.⁽³⁾ Around 50% of the medicine users do not take their medicines as intended by the prescriber and this results in about 11% of hospital admissions.^(4,5) As a result, it has been suggested that a lower proportion of the overall pharmaceutical budget should be spent on dispensing activity and a higher proportion on clinical activity.^(2,6)

Despite the need for professional services, the broad clinical competence of the pharmacists is often not evident to the public, payers, or the medical profession. Pharmacists have unique competence to monitor the effects of medicines. This is also an area where pharmacists are uniquely placed, but the ability to and time needed for pharmacists to monitor the effects of medicines is often underestimated.⁽⁷⁾ Furthermore, pharmacists may experience problems with access to patient data, poorly developed relationships with primary care physicians and sometimes inadequate methods for targeting services to patients in need of medication management help.⁽⁸⁾

The problem with sub-optimal use of medicines has also affected the drug industry and has led to the introduction of "performance-based contracts" and "financial-based contracts". With these concepts, governments and insurers pay for a medicine based on the products' performance as measured by agreed outcomes. Performance-based contracts and financial-based contracts have not yet reached beyond treatment of selected

conditions and have not directly affected payment to pharmacists. Pharmacists may, however, be paid to assist in the selection and development of pay-for-performance measures, development of consensus guidelines for providing care, and are also working with pharmaceutical manufacturers to define optimal patient outcomes.^(9,10)

Because of the constant pressure on health care resources, and the need to improve effectiveness and quality of care, the value and costs of pharmacy professional services are of concern to public policy makers and health care payers. The clinical and economic benefits of pharmacy services in hospitals and primary care settings have been well documented.^(11,12) However, little is known about the effects of the different payment models for pharmacy services. Pharmacists are typically paid for supplying medicines and consideration is rarely given to payment for pharmacy services in the broader context of the total budget for health care. Instead pharmacy services are often seen as a cost to the payer in addition to the cost of the medicines, rather than an investment in health care that result in improved quality, safety, treatment outcomes and costs savings in the long term.

Much has changed in the profession of pharmacy worldwide. Pharmacists have strived to change and improve the professional and economic environment in which they work and this has been positively acknowledged by the World Health Organization who in their report 2008 concluded that the pharmacists have shown not only their interest but also their commitment to the areas in need of reforming.⁽¹³⁾

As a consequence of the above, there is a need to devise remuneration models for pharmacy services that considers the incentives created for pharmacists. The aim of this report is to give examples of new models for compensating pharmacists for their professional services.

Methods

Definitions

Reimbursement and remuneration are terms that in the literature are used interchangeably. The term reimbursement is often used in the US, while remuneration is often used in Europe where the term reimbursement often is associated with the benefit system.

In this report the following definitions are used:

Remuneration models for pharmacy professional services are defined as systems of allocating money to providers of pharmacy services by health care payers (e.g. government, insurers, patients). Providers can be both individual caregivers (pharmacists, pharmacy assistants) and institutional providers (hospitals, nursing homes, home health agencies).⁽¹⁴⁾

The term *pharmaceutical services* is widely used and even if there is no consensus of the definition of “pharmaceutical service”, the definitions of the European Society of Clinical Pharmacy and the American College of Clinical Pharmacy both refer to the contribution which pharmacists can make to the realization of a high-quality and rational medicines therapy. Our proposal is to define pharmacy services as the contribution of pharmacists and their assistants to medicines therapy as a part of the total care supplied to patients, in cooperation with physicians and other health care professionals, with a view to optimizing the efficiency, the effectiveness and the safety of medicines therapy. This report deals primarily with *professional services* provided by pharmacists meaning a service that is provided to individual patients or clients and is based on the individual need of that patient or client where the qualified pharmacist uses the unique knowledge the pharmacist gained during his/her academic vocational education and training and follows the ethical code defined by a professional pharmaceutical organisation.

Pharmacists also perform, and are paid for many services that are not considered as professional services, although they are very important and in many cases form the basis for providing professional services. Examples are pouring tablets etc into containers or retrieving a pack from a storage, sales, business transactions, and dealing with logistics. Such support services are not the focus of this report.

Literature search

A literature search was performed using the search terms ‘pharmacy remuneration’, ‘pharmacist remuneration’, ‘pharmacy reimbursement’ and ‘pharmacist reimbursement’. Since Chan et al (2008) covered most of the literature up until 2006; we chose to focus mainly on articles and reports published after 2006.⁽¹⁵⁾

The first search generated 8,070 articles with 761 published in 2007 or 2008. The second search generated 7,270 articles with 675 published since 2006. The third search generated 28,600 articles with 3,900 published since 2006 and the fourth search generated 22,900 articles with 3,640 published since 2006. The difference in yield from these different searches was attributed to the fact that the word “reimbursement” as a search term also generated publications covering institutional care while remuneration most often only yielded publications about outpatient care. Reimbursement as a search term also identifies publications about the payment the patient receives back from the medicine benefit scheme.

Additional data collection

Information on remuneration models in different countries was also gathered from using the assembled knowledge of the members of the Working group and consultants to the group, and from personal communication with people working either as researchers in the field of pharmacy practice research, social pharmacy, pharmacy health economics, or active in leadership positions within pharmacy in different parts of the world.

Classification systems used

Huttin et al (1996) analyzed remuneration systems from a sociological perspective.⁽¹⁶⁾ They found that systems for remuneration could be classified into two major types: product-oriented remuneration using a markup or graduated markup, and patient-oriented remuneration using a fee for service or capitation method. They also found that many systems were hybrids of these two types. We used Huttin’s model to analyze remuneration systems for pharmacy professional services in different countries, and added two categories including “business margin” for systems where the pharmacists’ income is based on the difference between the price from the wholesaler and the price from the pharmacy independent of official decision makers, and a “flat fee” category based on the pharmacists being paid a fee per prescription supplied.

Jegers et al (2002) analyzed how different payment systems influenced provider behaviour and affected the quality of care, efficiency and accessibility of the services. The first dimension is whether there is a link between the provider’s income and activity. The authors describe “variable” systems where the provider has an ability to influence earnings. They also describe “fixed” systems where this is not possible. The second dimension used in their analysis indicates whether the provider’s payments are related to the actual costs incurred. In “retrospective” systems, the provider’s costs are the basis for reimbursement after services are rendered. In “prospective” systems payments are not based on a link to the real

costs to the individual provider. A distinction is also made between incentives for the individual provider (micro-level) and the sponsor (macro-level).⁽¹⁷⁾

We used the typologies suggested by Huttin et al (1996) and Jegers et al (2002) in our analysis of different remuneration models of pharmacy professional services.

The report

In this report we give recommendations for new models for compensating pharmacists for their services. These recommendations are based on an analysis of current systems and include examples of new models for compensation. Much of the information derives from experience in Europe, Australia, Canada and the US. This is in part because information from other parts of the world was hard to obtain and because other remuneration systems often do not specify fees for professional services provided by pharmacists.

Results

In many countries, pharmacists receive part of their income from centrally negotiated or decided “dispensing fees” and mark-ups or margins on products sold, which are the same for all pharmacists. They may also receive income from discounts or rebates from wholesalers or manufacturers that are negotiated on an individual basis. This system has been criticized because there is little control over the cost of the pharmacy service in relation to the cost of the medicine itself. The traditional product-oriented business margin and margin/mark-up system appeals to those selling expensive medicines and to those who are motivated to increase sales. Other financial incentives include paying the pharmacist a fixed salary, a specified service fee, or paying the pharmacist in relation to the number of patients that are listed with the pharmacist (capitation schemes).⁽¹⁸⁾

Third-party payers are becoming more interested in controlling the drug budget, but they also want to know the cost of services provided by pharmacists.⁽¹⁹⁾ The literature about remuneration models for pharmacy professional services in the mid 1990’s focused on specific services or concluded that professional services beyond supplying medicines were remunerated in only a few countries and only for a small number of well-defined services.⁽¹⁶⁾

However, since the mid 1990s there have been significant developments in the community pharmacy industry. Self-employed community pharmacists are now being

paid for more types of services, although the number of countries where these pharmacists are being paid for performing services beyond the supply of medicines has not increased significantly.

There are an increasing number of pharmacists being employed in hospitals, government health agencies, homes for elderly, and in chain pharmacies. These pharmacists are paid a salary for providing services that is not based on the quality or the quantity of the service. Huttin et al (1996) noted that the conduct of the pharmacist might be affected by who receives the payment.⁽¹⁶⁾ An employed pharmacist may have another incentive for performing a professional activity compared to the owner of a pharmacy. Whether this has a positive or negative impact on the service provided has not been studied. An employed pharmacist may focus solely on providing professional services without having to worry about the income of the pharmacy. On the other hand, if the pharmacist is providing the service and the person receiving payment are the same, it is more likely that a service will be developed and marketed.

Remuneration models for pharmaceutical professional services are influenced by the health care and health insurance system. For instance, in the US, the federal government pays for some services (Medicare), the different states for some (Medicaid) and private insurances for some. The drug industry finance a small amount of care for those who cannot afford their medicines. Payments

for professional pharmaceutical services are included in some of the federal and state programs, but very seldom in other programs. In countries such as the UK, Australia and New Zealand where there are national health, and medicines insurance programs, pharmacists are paid for providing a large number of professional services.

But the results also show that the insurance system is not the only factor influencing the payment for professional pharmaceutical services. In the Nordic countries where health care and medicines are paid by national insurances, professional services are not remunerated. The only exception is found in Denmark, where asthma counseling is a remunerated service.

When there are different payers, there are differences in payment schemes within a country. The result of an analysis of these systems is therefore both country-specific and system-specific.

In most systems, payment for professional services is included in the payer's pharmaceutical budget. Depending on the system used to pay the pharmacists, an increase in the price of medicines will affect the pharmacists in different ways. If the income of pharmacists depends on the price of the medicines the income of the pharmacist will rise if the price of the medicines rises. And spending more resources on professional services will occur if the price of the medicines rises.

In reality, pharmacists actually face a reduction in payment when the price of medicine increases because it is in the interest of the payer to keep the total pharmaceutical budget static or even to decrease it. In this scenario, pharmacists are then expected to provide services with the same or even lower payment. If a fixed, dispensing fee system is used, the situation is the same. More costly medicines have a negative impact on the payment for professional services because there is less money available to provide service to the patient. This is a problem that will arise in most countries given that more new and expensive medicines will become available within the next five years.⁽²⁰⁾

In some countries including Hungary, Peru and Croatia, pharmacists are obliged by law to deliver professional services.⁽²¹⁾ This does not mean that they are paid to do so. In both Hungary and Croatia, the payment to

pharmacists does not include a service fee but rather a markup on the price of the medicine provided. In other countries such as Canada, UK and the Nordic Countries, professional services are not legally mandated, although elements of such services are required, such as counseling the patient when dispensing a prescribed medicine or emitting an Opinion in writing, such as in Quebec.

There is an extensive literature describing the various remuneration models throughout the world. Comparing, and describing them, is difficult. Every country has its own system with unique features not found in other countries. The information in Table 1 is based on available official sources, which we have compared and interpreted.

Table 1. International comparison of remuneration models for prescribed medicines

Country	Business margin	Fixed or regressive mark-up/margin decided by third party payer or authority	Fixed dispensing fee	Service fee	Capitation
Australia		•	•	•	
Austria		•			
Belgium		•		•	
Brazil	•				
Bulgaria		•			
Canada	•		•	•	
Cyprus		•			
Czech republic		•			
Denmark		•	•	•	
Estonia		•			
Finland		•	•		
France		•	•		
Germany		•	•	•	
Greece		•			
Hungary		•			
Iceland		•			
Iraq	•				
Ireland		•	•	•	
Italy		•			
Japan	•		•		
Jordan	•				
Korea (republic of)	•		•		
Kuwait					
Latvia		•			
Lithuania		•			
Luxembourg		•			
Mexico	•				
Netherlands		•	•		•
New Zealand		•	•		
Norway		•	•		
Peru		•			
Poland		•			
Portugal		•		•	
Saudi Arabia		•			
Slovenia			•		
Slovak Republic		•	•		
Spain		•			
Syria	•				
Sweden		•			
Switzerland		•		•	
Turkey		•			
United Kingdom	•		•	•	
United States	•		•	•	

There are 27 different pharmaceutical pricing and reimbursement systems in Europe. Pharmacy remuneration is regulated in all these countries,⁽²²⁾ but there are differences in the way pharmacists are paid for professional services beyond dispensing and selling medicines among European countries.

Most countries only regulate the payment when the medicine is paid for under the reimbursement scheme. But there are exceptions to this (e.g. Latvia) where there is a regulated mark-up for reimbursed as well as for non-reimbursable products. In Scotland, and parts of England and Wales, as part of The Minor Ailments Scheme, pharmacists can be paid by the National Health Service for their professional services when selling OTC products if certain conditions are met.

In Australia, the government is the primary payer in a remuneration model comprising the price of the medicine, a markup to cover the pharmacist's cost for storing and handling medicines, and a fee for the pharmacist's professional advice and services associated with dispensing the medicine, and fees for providing services such as Domiciliary Medication Management Reviews.⁽²³⁾

In the US there are different national (Medicare) and state (Medicaid) systems. Pharmacists are also employed in specialty pharmacies that provide case management (to establish care plans) and disease management services (provide standard care at lowest possible cost).⁽¹⁰⁾

In Germany, pharmacy based cognitive services have been developed in recent years. Belonging to a health insurance provider is mandatory for most citizens in Germany and the largest insurance company has introduced a "Family pharmacy contract" and pays the pharmacists for providing professional services including medication reviews.⁽²⁴⁾

The Belgian legislator has recently recognized the importance of pharmacy professional services by providing a definition and a remuneration model for professional services. This system rewards pharmacists not only for the supply of medicines (in the form of a specific percentage of the medicine price), but also for the services that they provide (in the form of a fee per package dispensed). The goal was to set three fee levels depending on the level of professional service that is required for a medicine. However, in practice, medicines were allocated to the three groups based on the Anatomical Therapeutic Chemical (ATC) classification system, a system which was not designed to reflect the level of professional service that is required to dispense the various items.

Using Huttin's classification,⁽¹⁶⁾ no country has a remuneration system that is purely patient-oriented. Australia, Canada and the US all have mixed systems.

Within Europe, some countries have a mixed system, while others have a product-oriented system.

It is clear that the existence of remuneration for pharmacy professional services influences the provision of such services.^(25,26) In the Netherlands pharmacists are not paid for providing defined professional services but only receive a flat fee that covers all services provided. As a result, there is no incentive for pharmacists to provide more professional services or to spend the time in providing higher quality services. This is evidenced by the fact that the frequency of private consultations provided by pharmacists is low.⁽²⁷⁾

In countries such as Iraq, Jordan and Syria where the status of pharmacists within the society is very high, there is no need for the profession to seek payment for specific professional services provided. They receive a payment from providing medicines and they provide professional services out of their duty as professionals. With the exception of certain programs for providing people without economic means with medicines, medicines are paid for by the patient or by a private insurance provider. The pharmacist's income is the margin between the ex-wholesaler price and the price the pharmacist charges the patient.

In countries that have remuneration models for both drug dispensing and professional services, it is possible for these models to provide conflicting incentives to pharmacists. This is because remuneration models for professional services in these countries still tend to remunerate the pharmacist primarily for the supply of medicines. In England and Wales the pharmacists are paid for providing professional services, but they are also expected to add a margin on the price of the medicine to their income. Although it, for example, in the case of a patient with high cholesterol levels, it may be more appropriate for the pharmacist to advise the patient to treat their condition with lifestyle changes such as diet and exercise rather than supply them with a medicine. However, given the traditional link between remuneration and the supply function, current remuneration models tend to financially penalize pharmacists for providing this type of professional advice. The only example found of a country that has a remuneration model that acknowledges and rewards the fact that a pharmacy professional service involves the decision not to dispense a medicine is Quebec, Canada.⁽²⁸⁾

Remuneration for professional services also implies a commitment to assure the quality of such services in a number of countries. In Denmark, all community pharmacies need to perform regular quality assessments, which in turn are reviewed by the Danish Medicines Agency. Around 50% of pharmacies are certified under the DS/EN ISO 9001:2000 quality management system, the Danish variant of the international ISO 9001:2000 quality

management system. Under this system, community pharmacies need to attain certain standards for general as well as specialised cognitive services, and they need to conduct staff and patient satisfaction and performance assessments.⁽²⁹⁾ In the United Kingdom, community pharmacies need to provide evidence that they meet the conditions of a comprehensive quality assurance framework. For instance, they need to conduct at least 2 clinical audits (e.g. of inhaler use in asthma) and a patient satisfaction survey per year. They also need to establish a patient complaints system.⁽³⁰⁾

The implications of providing professional services for the organisation and layout of the pharmacy also need to be considered. It is quite common that there are certain conditions that have to be met concerning the layout of the pharmacy in order to get remunerated for the provision of certain professional services. As part of the overall framework for remunerating pharmacy services in Belgium, the condition has been imposed that each community pharmacy has an 'intimate corner' where such services can be provided to patients in a discrete and confidential manner from 2012 onwards. Similar, in Australia, those pharmacies participating in the diabetes medication assistance service must have a separate room or screening area (distinct from the general public area of the pharmacy) where the pharmacists can hold patient consultations. Also England and Wales have pre-condition for remuneration in order to respect the privacy of the patient.

A variety of pharmacy professional services that are not remunerated are offered in different countries. Examples are weight clinics, smoking cessation programs and conception clinics in Australia; measurements of blood glucose, blood pressure and cholesterol in Denmark; and point-of-care testing and follow up for several different diagnoses in Canada. It is beyond the scope of this report to describe all the different services since, in most cases, they are local or individual business arrangements and cannot be seen as systems for remunerating the pharmacy profession as a whole, although they in some cases they might well be the first step to gaining remuneration on a larger scale.

Furthermore, services provided within the framework of clinical pharmacy in hospitals and health care centres are not included in this report. These services are common in the US, UK, Ireland, and are growing in number in the rest of Europe, Australia, New Zealand and a number of other countries. The pharmacists in hospitals and health care centres providing these services are employed, and are therefore by definition paid for their professional services. However, they are providing professional services on the terms of the employer, and whether or not they can influence the content, quantity and quality of the service probably varies.

Different types of pharmaceutical services

As outlined above, there are a number of different professional services performed by pharmacists in different countries. These services can be categorized into four groups:

1. Health care services based on the patient having a specific diagnosis
2. Health care services based on the patient's use of medicines
3. Product-linked services
4. Distribution services

The filling and dispensing of a prescription normally includes the latter three types of services; namely medicine use service, product tied service and distribution.

In some countries the services are specified as professional pharmaceutical services, in some they are also remunerated. In the report are included services that are specified as professional pharmaceutical services in the respective country. It is noted if the service is specifically remunerated.

Services based on the patient having a specific diagnosis

These are services provided by pharmacists that are not based on a unique knowledge base or skill set, although the therapy includes the use of medicines. Examples are prevention, screening, monitoring, counseling or therapy management in relation to different types of heart and lung diseases, diabetes, Parkinson's disease, renal disease, STDs, ulcer and reflux diseases, pregnancy, minor ailments, palliative care, seasonal influenza, alcohol misuse, smoking, over-weight, and use of controlled substances. In some countries pharmacists are paid for providing these services in addition to the fee paid to the pharmacist for dispensing the medicine.

Pharmacists, nurses, physicians or assistants provide these services. In this respect, collaborative practice models where pharmacists work together with other health care providers have evolved in some countries. Formal incentives for pharmacists to work collaboratively with physicians are seen in Holland, Germany, and Switzerland.⁽²⁴⁾ For services that can alternatively be provided by other health care professionals, pharmacists must demonstrate to the payer(s) that their contributions are cost-effective before expecting to be paid for the service. There may be an expectation, on the part of the payer or the patient, for additional education and training for the pharmacist performing the service to assure competence. There is a vast literature from Australia on the evaluation of different health care services of this kind provided by pharmacists.^(31,32,33,34)

In Finland, professional services have been introduced by means of disease-specific programs with community pharmacists becoming key members of national disease management strategies. For instance, the Pharmacy Asthma Program was launched in 1997, the Pharmacy Diabetes Program in 2000, and the Pharmacy Heart Program in 2005. Within such programs, pharmacists collaborate with physicians, nurses, and other health care professionals at the local level.⁽³⁵⁾ At present, none of these services in Finland are however specifically remunerated.

In Germany, a system called Family Contract has been introduced. In this program the pharmacists are remunerated specifically for professional medication and disease management services provided to patients with Asthma/COPD.⁽²⁴⁾ The fee for service and the price of the product elements of the remuneration model have since long been separated in Germany. Pharmacists in Germany receive a flat fee for dispensing a prescription and an additional payment to compensate for the cost of storage and handling of medicines.

Estonia is an example of a country where professional services are under development in community pharmacies.⁽³⁶⁾

In the US, diagnosis-specific services provided by pharmacist are well developed. For instance, both the nation-wide reimbursement system for elderly patients (Medicare) and the state-based Medicaid system, aiming at people of lesser means, include diagnosis-specific services that are specifically involving and remunerating pharmacists for providing professional services.

Services based on the patient's medicine use

Medicines-use based services can focus either on the use of medicines as a whole, or on one specific type of medicine. Pharmacists have traditionally provided these services as part of their professional responsibility in supplying medicines to patients. Examples of these services include:

- Drug Utilization Reviews (DUR) – when the patient's medicines profiles are reviewed by a pharmacist with or without the patient being in direct contact with the pharmacist.
- Medicines Use Review (MUR) – one-to-one conversations between a patient and a pharmacist that are designed to identify any problems a patient is experiencing with medicines.
- Medication Therapy Management (MTM) or Medication Reviews includes a full clinical examination of the medicines used in relation to diagnoses, laboratory tests, and clinical history.

Pharmacists often view these services as being based on the pharmacist's unique knowledge and skills. However,

this view may conflict with the views of other health care professionals. Examples of services where there may be disagreement about the unique skills of the pharmacist include service such as independent prescribing and different types of MTM:s and Medication Reviews.

From a payer's viewpoint, decisions about who needs to pay for these services can be a problem since it is complicated by perceived roles of the different professions rather than on the actual service and social need. This has been handled by paying different professionals according to status and income rather than performance or result. In the UK, for example, more is paid for a physician making a Medication Review than a pharmacist doing the same job.

In England and Wales, the remuneration for professional services is divided into essential services (e.g. dispensing NHS prescriptions, repeat dispensing, waste disposal, and participation in public health campaigns), advanced services (Medicines Use Review and prescription intervention) and enhanced services (e.g. pharmacists prescribing, domiciliary visits, opioid substitution program enforcement, testing and counseling for different diseases, support programs for patients quitting smoking, and vaccine administration, weight management). All community pharmacies with an NHS contract need to provide the full range of essential services, whereas advanced and enhanced services are optional, and might require additional education, pharmacy layout etc. The essential and advanced services are commissioned by the NHS and covers people throughout the country. The enhanced services are commissioned by the local Primary Care Trust, and are thus not equally distributed over the country.⁽³⁰⁾

In the US, the Medicare Part D Medication Therapy Management Programs (MTMP) is an example of a reimbursed professional service based on the patient's drug use.⁽³⁷⁾ The intention of the programs is to ensure that drugs are appropriately used to optimise therapeutic outcomes through improved medication use, and to reduce the risk of adverse events including interactions. Not all patients are provided with the services as the programs target patients with multiple diseases, using multiple medicines or with a drug cost exceeding a certain sum per year.

Pharmacists are the leading provider of Medicare Part D MTM services in the US, although they are not the only providers. An MTM service in the US often involves a multi-disciplinary approach. However, it is clear that the value of the community pharmacist services continues to grow as the proportion of MTM programs involving and remunerating community pharmacists has doubled from 2007 to 2008.⁽³⁷⁾

Medicaid in the US reimburses pharmacists for some professional services, often demanding collaboration between pharmacists and physicians. Iowa has for example a Medicaid Pharmaceutical Care Management program. The program covers specific diseases and criteria regarding pharmaceuticals and is a service provided by physicians and pharmacists working together to closely manage the total medication regimens of their most complex patients. The Missouri Medicaid Pharmacy program is a disease management program where physician/pharmacist teams develop plans of care and completes follow-ups.⁽³⁸⁾ Pharmacists' services are, however, mentioned only in a minority of the State Medicaid Disease management programs.

The Minnesota Medication Therapy Management Program has been evaluated. The results showed that the clinical outcomes achieved in the program were positive, as well as the quality of care provided. Although there was a slight increase in total health expenditure with prescription drugs accounting for 24% of the increase it was concluded the potential impact of MTM services on health expenditure resulting from improvements in Quality of Care quality standards was noteworthy. Another important finding was that the ten most productive pharmacists in the project in the first year of the MTMS program were those establishing collaborative practice relationship with physicians and other care providers and were also a part of an integrated health delivery system.⁽³⁹⁾

Despite these positive examples, pharmacists' services are only mentioned in a minority of State Medicaid Disease management programs.

Product linked intellectual services

These services include education about specific medicines to patient and health care personnel, compliance reinforcement, and usage counseling. Pharmacists themselves have always viewed these services as one of the fundamental professional responsibilities of the pharmacist. The provision of these services has, however, traditionally been an area of "turf battles" between pharmacists, physicians and nurses.

Distribution services

Distribution services are those services provided by pharmacists which are fundamental to the pharmacy profession. Examples of these services include dispensing medicines, dose-dispensing, generic substitution, and handling medicine waste. These services are normally regulated through legislation in the respective countries. They are services that pharmacists have to provide and can sometimes be delegated to pharmacy staff that do not have formal pharmacy education but who are under the direct supervision of a pharmacist.

Strategies for obtaining remuneration for pharmacy services

Community pharmacists in particular face challenges that are affecting their traditional business model. For example the growth of managed care service that reduces the earnings of community pharmacists, deregulation of pharmacy ownership and competition with large chain pharmacy companies, and new technologies including automating dispensing systems that will force the pharmacists to change their practice.⁽⁴⁰⁾ These challenges form the background to the development of new professional and specified services, and the development of strategies for receiving payment for professional services

There seems to be agreement in most countries that pharmacists are not being used to their full potential. The reason for this has been discussed in the book *Regulating Pharmaceuticals in Europe: Striving for Efficiency, Equity and Quality*, produced by the European Observatory in their series on Health Systems and policies, 2004.⁽⁴¹⁾ In this book, it was concluded that although government policies, changing professional aspirations and rising public expectations could be sufficient to drive major transition in the role of community pharmacists towards a more clinical role, there are many factors inhibiting this, including:

- High levels of surplus of physicians in many countries.
- The nature of the logistic and economic challenges involved with safely supplying the large amount of prescription medicines.
- Existing forms of pharmacy services are embedded in local cultural structures that generate resistance to change.
- Professional and allied bodies, including pharmacy owners and the drug industry, that advocate against the interests of pharmacists.
- Lack of consistent public pressure for better pharmacy services and paternalistic attitudes among decision-making bodies.

Inka Puumalainen suggested three different types of strategies to improve patient counselling practice; legislative, professional and educational, on a societal, organisational and individual level respectively.⁽⁴²⁾ Strategies to improve counselling behaviour may also serve as the basis for gaining payment for providing the overall professional services.

When creating a strategy to achieve remuneration for pharmacy professional services, the perspective of different payers must be considered. Firstly these perspectives have to be defined and then a strategy to overcome obstacles has to be developed. Pharmacists can overcome some of these obstacles themselves such as the layout of the pharmacy, while other obstacles are more difficult to address such as a surplus of physicians.

In this report we have separated the factors affecting remuneration for pharmacy professional services to distinguish between those depending primarily on the activities of the pharmacists, which can be addressed within the profession, and those that also depend on the activities of others, who may in fact compete with pharmacists. These latter factors may be more difficult for the profession of pharmacy to influence.

Factors that can be influenced by pharmacists and pharmacy organisations

An important factor that influences pharmacists' remuneration for professional services is the lack of any sense of urgency within the profession of pharmacy. Many pharmacists are content with their present situation and are therefore reluctant to change.^(5,6)

Factors mentioned by the pharmacists when asked for reasons for not providing professional services include:

- Time constraint and lack of time to provide services beyond those adequately paid for.⁽⁴³⁾
- Lack of adequate clinical training.^(26,44)
- Lack of Internet coaching when trying to learn is an obstacle for female community pharmacists.⁽⁴⁴⁾
- Lack of a good relationship with physicians.⁽²⁵⁾
- Poor pharmacy layout, lack of separate area for consultation.^(25, 26, 45)
- Lack of adequate manpower/staff.⁽²⁵⁾
- Lack of good communication and teamwork.⁽²⁵⁾

The following are factors that are often mentioned as obstacles to payment for professional services. All these factors are intra-professional and can be addressed by the pharmacy profession.

- The lack of knowledge of the prevalence of inappropriate medicine use in society.
- Poor awareness of the prevalence of inappropriate drug use among payers.
- The lack of knowledge of the prevalence of negative medicines use events in society.
- Too few pharmacists are employed in government or other decision making bodies that make policy decisions about payment to pharmacists.
- Not enough effort and focus on reimbursement by pharmacists' professional organisations.
- The lack of a clear strategy for changing the profession's focus by pharmacists' professional organisations.
- The lack of cooperation between pharmacists' and physicians' professional organisations.
- The pharmacists' view of themselves as merely distributors of medicines instead of one that improves the use of medicines.
- The lack of good access to health care information from physicians.
- The resistance to change within the profession.

- Lack of knowledge in how to communicate with patients.
- Lack of ways of verifying the competence of pharmacists with special skills.

Factors that are less easy for the pharmacists and their organisations to influence

Budget

The budget the remuneration comes from can be seen as an important factor. A structure where the service fee is part of the pharmaceutical budget might put the pharmacists in a position where they are competitors to the drug industry. If the payment for pharmacist's professional service is part of the overall health care budget, they might be seen as competitors to the doctors and nurses.

Payer

The payer's view of the function of pharmacy in relation to health care is an important factor influencing the payment for pharmacy professional services. If the payer views pharmacy as part of the drug market rather than part of the health care team, obtaining payment for professional services might prove difficult. Also, paying for pharmacists' services is not seen as an advantage in the competition among different insurance companies in contrast to paying for physician services.

The payer is therefore important along with the rules governing the health care reimbursement system as a whole. The Department of Health in England is continuously working to improve the proper use of pharmacists' knowledge and skills. This might be because the remuneration system in UK which forces the pharmacists to negotiate medicine prices with the wholesalers and to get the bulk of their income from those negotiations. Pharmacists in UK seem to have their government's support for the expansion of their role but they do not have the financial incentives because of the demand for for documentation and the remuneration system.⁽⁴⁶⁾

Physicians

The number of physicians as compared to the perceived social need is an often-mentioned factor that influences expansion of the role of pharmacists. A shortage of physicians has been mentioned as one factor explaining the British effort to gradually extend the community pharmacist's role.⁽⁴⁰⁾ However, physicians may be negative to the expansion of the pharmacists' profession.⁽⁴⁷⁾

Patients

The beneficiaries of pharmacy professional services sometimes create obstacles. Patients might welcome the opportunity to talk to a pharmacist about their medicines, but still regard the doctor as the health professional in charge of their medicines. They therefore do not always appreciate the pharmacist making recommendations for change in their medicine therapy.^(25,48,49) On the other hand, the beneficiaries of professional services can play

a role in changing the remuneration for professional services.⁽⁴⁰⁾ Individual patients can put pressure on their policy makers to pay for professional services. For instance, research has shown that the majority of patients are willing to pay for professional services related to OTC medicines.⁽⁵⁰⁾

Suggested strategies for obtaining remuneration for pharmacy services

The process of obtaining remuneration for pharmacy professional services involves a number of steps that involve changes in the pharmacy profession, setting up standards for professional services, and documenting the value of professional services.

1. Within a country, there is a need for a strong and active professional organisation, which acknowledges the need for change, produces statements and tries to influence the governments, third-party payers and the profession. Recent examples can be seen in Ireland, England and Wales.⁽⁵¹⁾ In Canada, a country that has focused on a strategy aimed at changing the pharmacist's profession, eight critical steps have been identified to change pharmacist behaviour. These include establishing a sense of urgency, form a powerful guiding coalition, create a vision for practice, communicate the vision, remove obstacles to the vision, plan and create short-term wins consolidate improvements and produce more change, and institutionalise new approaches.^(5,52,53) In Australia, the Fourth Community Pharmacy Agreement negotiated between the Government and the Pharmacy Guild of Australia provides funding for a number of professional programs and services, including one aiming specifically at assisting the profession in changing to a more service-oriented model.
2. A country needs to adopt a definition and specification of pharmacy professional services. In Brazil, a proposal for national consensus on professional services was published in 2002 and was confirmed by the national policy of pharmaceutical services of the Department of Health. This consensus provided a definition of professional services and listing different services.⁽⁵⁴⁾ In Spain, the Pharmaceutical General Council formed a group called The Pharmaceutical Care Forum in February 2004 with members from both professional organisations and authorities. The aim of the Forum is to debate the future of Pharmaceutical Care with the purpose of establishing the means and strategies needed for its adoption and development.⁽⁵⁵⁾
3. Pharmacists must be competent to expand their services to improve the use of medicines in all settings. Unfortunately, pharmacists who invest in improving their knowledge and skills are often not being paid for the services that require those skills. There is a discrepancy between what pharmacists need to know and the public's perception based on their own needs. The public influences the payers either by democratic elections if the system is nationalized, or by choosing their own insurance provider. This is why payers require both transparency and control. Payers want to know what they are paying for and they want to judge for themselves if the cost is reasonable in relation to both the service provided and the outcome of the service. Pharmacists may perceive this as a lack of trust. However, pharmacists should understand that the payers and the public have the right to expect value for what they are asked to pay for.⁽⁵⁶⁾
4. It is important to set up standards for the service provided so that the payers can evaluate the service and the pharmacist can respond accordingly. The UK has a recently released document outlining the future for pharmacy in a visionary way.⁽²⁾ In this model it is suggested that pharmacy should display advance practice licenses that are visible to the public and the payers, and also to market those pharmacists who are accredited.⁽⁵⁷⁾ Accreditation of pharmacists is a professional tool enforced also by UK researchers.^(4,30)
5. There is a need to prove the value of professional services and to scientifically test new services to show them to be cost-effective. Demonstrating the value of professional services may be instrumental in arguing for remuneration for professional services.^(58,59) Economic evaluation techniques can be used as a tool to assess the efficiency of professional services by linking their impact on clinical and humanistic outcomes to the resources required to achieve these outcomes. Additionally, as policy makers appreciate the need to evaluate projects on the basis of their costs and benefits, the application of economic evaluation to professional services may serve as a way of communicating with policy makers and informing policy on professional services.⁽⁵⁸⁾
6. To address the issue of lack of time to provide professional services, it has been suggested that routine dispensing tasks be delegated to pharmacy technicians.⁽⁶⁰⁾ This should follow from making the provision of pharmacists' professional services visible so as not to be seen by payers as a way to decrease the cost of pharmacy. It is essential for the pharmacists to show value of their services before delegating tasks to lesser-trained pharmacy staff.
7. Teamwork where the pharmacist is part of a health care team has been proven to be a successful strategy.⁽⁶¹⁾ Examples of this can be seen in the programs Minnesota Medication Therapy Management Care and the Iowa Medicaid Pharmaceutical Case Management.^(62,63) Pharmacists want to extend their services and collaborate with physicians not only based on economic incentives.⁽⁶⁴⁾ When expanding services, and

seeking remuneration for professional services, pharmacists must realize that there might be competition for the provision of those services. It seems clear that in areas where pharmacists take on responsibilities that have traditionally only been performed by physicians, it is often perceived as moving into the physician's turf. Likewise, physicians are moving into the traditional turf of the pharmacist such as dispensing medicines or selling OTCs.⁽²⁾ Pharmacists in England and Wales now have the right to prescribe independently, or supplementary in collaboration with the responsible physician, both after having been accredited. In Alberta, Canada the adjustment of prescriptions by pharmacists could go as far as choosing a therapeutic (not generic) equivalent.

Overall there are different strategies used in different countries for obtaining reimbursement for pharmacists' professional services. In Canada the prime focus is an internal change of the profession. In Australia to prove the cost-effectiveness of the professional services provided. The profession itself by its professional organisations drives both these strategies. In Scotland the government is driving towards a more clinical role of the pharmacy profession when it negotiates with the profession for development and implementation of reimbursed professional services. Many countries use a mix of these strategies for instance the US, UK, Ireland, Denmark, and many other European countries.

Although the number of services that are being reimbursed continues to increase there is still a long way to go if pharmacists' professional services are to be paid for in accordance with the benefit these services provide to patients and society as a whole. Dale Christensen and Karen Farris 2006, note the need for a greater number of higher quality pharmacy practice research studies in order to effectively justify appropriate payment for professional services.⁽⁶⁵⁾ There is also a great need for a global strategy to develop professional services for patients who need them, and for the adequate reimbursement of the professional pharmacists providing these services.

Recommendations

Incentives are necessary to change behaviour. This is true for governments, professionals and patients. Examples of incentives are prestige and money. There is a strong need among patients for qualified support in using their medicines properly. At the same time, pharmacists struggle with lack of recognition, and with lack of reimbursement for providing this support.

The recommendations to governments and third-party payers would be first and foremost to provide the pharmacists and patients all over world with a legal framework that would enable pharmacists to provide the necessary services to patients. Secondly this work has to be adequately paid for. Expecting pharmacists to work without this payment will not assure the quality and quantity of these important professional services.

Based on experience and our observations, we offer the following recommendations:

- A strategy should be developed with the goal of paying the pharmacists for professional services provided instead of having the services provided being bundled as a markup for dispensing medicines.
- The pharmaceutical budget should be separated from the pharmacy service budget. On a national level, this separate pharmacy service budget should be a distinct part of the overall national health care budget.
- National quality standards for providing pharmacy professional services should be set and implemented.
- A financial incentive in the form of pharmacists and payers sharing the benefit of 'costs avoided' as a result of the provision of pharmacy services.
- For pharmacists who are already paid separately for professional services the level of payments must be linked to the complexity of interventions.
- The national professional organisations should formulate a clear national strategy for the development of the pharmacists' professional services with the goal of getting adequate remuneration for these services. A focus on proving the value of pharmacy professional services is also recommended.
- For the individual pharmacists should acknowledge themselves as part of the health care team and to view themselves as health care providers, not simply medicine dispensers.

Conclusion

Pharmacists cannot make a change alone. It is obvious that strong pharmacists' organisations with clear goals and strategies for change are needed. According to the theory of professions, the behavior of the pharmacists' organisations is crucial for success.

It is also important to acknowledge that payers want value for money. It is therefore necessary for pharmacists not only to demonstrate the value of their services to patients with a view to prompt payers to remunerate pharmacists for these services. It is also important to maintain quality assurance of the services provided.

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