

## Should Pharmacists Perform Physical Assessments?

### THE "PRO" SIDE

Pharmacists are responsible for ensuring optimal medication management in a variety of practice settings. When working with an individual patient, the pharmacist must determine if the medication is appropriate, effective, and safe. These decisions are made using a structured, systematic approach to gather and then critically evaluate subjective and objective information in light of the pharmacist's unique knowledge of pharmacology, medicinal chemistry, and pharmacotherapy.

Patient assessment should begin with an interview to obtain patient-specific information about medical conditions and medication use. An accurate history is essential for establishing a baseline understanding of the patient's medication needs. In addition, this interview will direct further investigations, such as a review of relevant laboratory tests and physical findings. Physical assessment skills are essential tools to help the pharmacist evaluate the effectiveness and safety of drug therapy.

Physical assessment is the use of observation and physical techniques to elicit information about the patient's bodily functions and condition.<sup>1</sup> Diligent observation, coupled with a sound knowledge of anatomy, physiology, and pharmacology, are necessary to identify abnormal physical findings and monitor for changes. Within the first few moments of careful observation, we can determine many demographic and anthropometric characteristics. Visual information about the patient's age, body composition, outward signs of illness, and demeanour can help direct subsequent interaction with the patient. Four techniques are used to enhance our ability to make observations: inspection, palpation, percussion, and auscultation.<sup>2</sup>

Inspection refers to the observation of physical signs. Physical signs can be gathered, literally, from head (e.g., nits near the base of a hair, indicating head lice) to toe (e.g., ulceration in a patient with diabetes mellitus). We use the physical assessment technique of inspection when looking, for example, for jaundice or the shuffling gait of a patient with parkinsonism. Depending on other factors, these particular physical signs might raise the possibility of a hepatic adverse reaction or lack of effective levodopa therapy, respectively. Inspection is not limited to visual data; we also gather olfactory and auditory information when interviewing patients. Did you realize that you are performing a physical assessment when you check the breath of a patient with diabetes for ketones or examine an infected wound for the presence of anaerobic bacteria?

Palpation involves the sense of touch. Our fingertips help us to distinguish if a skin lesion is elevated when assessing a potentially drug-induced skin rash or to sense the pressure changes when measuring a patient's pulse rate. Similarly, we can assess the effectiveness of diuretic therapy in patients with heart failure by checking for resolution of pitting ankle edema.

Percussion is used to determine the density of structures 4 to 5 cm below the skin. A dull sound over the lung is usually caused by fluid accumulation from pneumonia or pleural effusion. One sign of antibiotic effectiveness would be the disappearance of this dullness of sound.

Auscultation involves listening to sounds originating within an organ or body cavity. A stethoscope is often used to enhance these sounds. Pharmacists concerned about gastroparesis caused by certain medications or the progression of diabetic neuropathy will listen for bowel sounds. Similarly, pharmacists managing patients with asthma must listen for wheezing and other lung sounds to determine the effectiveness of bronchodilators and long-term use of corticosteroids.

Although similar in nature to the physical exam performed by a physician, a pharmacist's physical assessment has different objectives. Physicians perform a series of physical assessments to help in the diagnosis of a patient's medical condition, whereas the primary objective of a pharmacist's physical assessment is to evaluate the patient's response to drug therapy. For example, a pharmacist should measure the patient's blood pressure if the intent is to determine whether an antihypertensive medication is working appropriately. Similarly, assessment of the patient's sensory perception to a monofilament, tuning fork, or pin prick would help the pharmacist to evaluate the progression of microvascular damage due to poor glycemic control.<sup>3,4</sup>

Physical assessment by clinical pharmacists is a recognized skill set with a long history.<sup>1,5</sup> Numerous US pharmacy colleges integrated physical assessment courses into their curricula during the 1980s and 1990s, especially aided by the introduction of pharmaceutical care as a practice model.<sup>6</sup> Key reasons for offering these courses included the recognition that physical assessment forms an integral part of medication management and promotes better communication among health care practitioners.<sup>6</sup> With the advent of pharmacist prescribing, physical assessment skills should become an important part of this process.

The integration of physical assessment skills has been illustrated in 2 surveys. In 1989, Adamcik and Stimmel<sup>7</sup> reported that 262 (65%) of 405 respondents to a survey of pharmacists had training in physical assessment, yet only about 1 in 3 used these skills monthly. In 1997, Nabzdyk<sup>8</sup> reported that 23 (23%) of 101 Canadian hospital pharmacists had training in physical assessment, yet only 9% reported regular use of this skill. In both surveys, lack of time, concern over role identification,



and lack of training were common reasons for not using physical assessment skills regularly. Physical assessment is a skill set that requires structured training and opportunities to practice this new knowledge, factors that, in the past, appear to have been significant barriers.<sup>7,8</sup>

In the decade following the most recent of these 2 surveys, the role of pharmacists has expanded, concurrent with the development of physical assessment course content within Canadian faculties of pharmacy. Moreover, numerous automated point-of-care devices are available to help with physical assessment.<sup>9</sup> Indeed, if an automated blood pressure device can be used by specially trained peer health educators,<sup>10</sup> why shouldn't pharmacists use such devices to help with their physical assessments?

In summary, I don't think the question is "Should pharmacists perform physical assessment?" To various degrees, we all use observational skills and the physical techniques of inspection, palpation, percussion, and auscultation to help us assess the effectiveness and safety of drug therapy. Rather, the question is "How much physical assessment should we perform?"

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## THE "CON" SIDE

Over the past 40 years, the profession of pharmacy in general and hospital pharmacists in particular have worked hard to gain recognition as providers of direct patient care rather than simply purveyors of drugs from hospital basements. We have seen the evolution of the profession from the early days of what was then called clinical pharmacy to a more sophisticated practice, with hospital pharmacists working in multidisciplinary teams at the bedside. The success of these practitioners has been achieved through willingness to be members of the team and their role as drug information experts. I believe that it is not in our best interests to seek responsibility for physical assessment, because it does not fit with our overall goals as a profession.

Currently, there are a number of forces at work that will not only enhance the role of pharmacists as patient care providers but also give rise to greater numbers of pharmacists in these settings. The recent demand for safety in medication use and the long-standing need for drug efficacy have increased the profile of pharmacists as experts in this area. Continued growth of hospital pharmacy practice will result directly from hospital pharmacists' expertise in the use of drugs and, more importantly, their use of that expertise to reduce or eliminate the risks associated with inappropriate drug use. This will require pharmacists to become more knowledgeable and more sophisticated, and our focus should therefore be on this agenda.

The recently developed Blueprint for Pharmacy<sup>1</sup> outlines a number of medication-use challenges, the resolution of which will require pharmacist involvement. These challenges include the fact that 5% to 10% of hospital admissions and up to 28% of visits to the emergency department are related to patients' medications.<sup>1</sup> In addition, it has been reported that 185 000 adverse events occur each year, of which 70 000 could have been prevented—and the second most common source of adverse events is medication use.<sup>1</sup>

Practitioners within the profession of pharmacy and in hospital pharmacy in particular are working hard to gain official recognition as prescribers of medications. We are all aware that prescribing by pharmacists is a daily occurrence, although the recently released 2005/2006 hospital pharmacy survey<sup>2</sup> reported a minor decrease in prescribing by our profession. The important thing to recognize is that such prescribing is done in collaboration with medical staff, who have come to recognize pharmacists' expertise in this role.

It seems to me that this recognition and subsequent legislation to permit pharmacists to prescribe is the next big step for our profession. For example, pharmacists in Alberta have now obtained the right to prescribe and, in particular, to "initiate drug therapy where physical assessment was not required."<sup>3</sup> As other health care providers seek prescribing rights, we should be at the forefront in gaining this recognition for ourselves. We are seeking the right to prescribe because we feel that we have the knowledge and skills to do so; however, we should also remember that with those rights must come the willingness to accept responsibility for our decisions.

While we seek more responsibility from an altruistic perspective, we must also remember that there are political forces at work. Traditionally, pharmacy practitioners have "stuck to our knitting" and focused our energies on growing



in the areas for which we are trained and where we have demonstrated our expertise. Even there, we have met resistance from other health care providers, particularly physicians, who now see many different professions pushing into what has traditionally been their area of expertise and responsibility.

Why, then, do we want to venture into the area of physical assessment? Is it because we are “MD wannabees”, or do we genuinely feel that this is the next step for our profession? Do all pharmacists working in hospitals need to have physical assessment skills? Would such assessments prevent adverse events from occurring? Do hospital pharmacists have time to do physical assessments in addition to their other duties? The 2005/2006 hospital pharmacy survey<sup>2</sup> shows that hospital pharmacy is progressing in its level of service, but still has a long way to go to provide the clinical services needed to meet increasing demands for effective medication-use management. It is also important to acknowledge that members of the pharmacy profession become irritated with “pharmacist wannabees” from other health care professions.

At present, physicians are considered the diagnosticians in health care and have the best training for this task. Others, such as advanced practice nurses and a few pharmacists, also have training in this area, but in reality, diagnosis is the key function of physicians, both historically and in law.

If our intention is to fill a void created by a shortage of physicians, do we have the staff resources to do so? Given that hospital pharmacists are already unable to meet patient care demands, how can we take on more work, especially when there are others trained to do physical assessment?

Arguably, there may be situations or environments where a pharmacist trained in physical assessment could take on this role out of necessity. But generally speaking we would not meet with much success if we went forward with physical assessment as a component of our profession, since most pharmacists are not trained to do physical assessments, nor are there any long-term plans to include this subject in the undergraduate curriculum.

The current trend in the education of health care practitioners and in the provision of care is toward more interdisciplinary education and team work. Physicians rely on physiotherapists for treatment of musculoskeletal injuries and on us for drug therapy management; similarly, there are some aspects of patient care for which we should rely on physicians. Neither they nor we need to know it all when we are part of such a team. As a profession, pharmacy has long sought the opportunity to work in a team setting, and in hospitals, pharmacists have demonstrated our ability to function as

members of the team. The question is whether it is in our best interests to push forward an agenda of physical assessment when we are still becoming established as members of the team who collaborate in the delivery of care.

The complexity of health care today and the various treatment modalities available force pharmacists to continually upgrade our knowledge related to the use of medications. Others are relying on us more and more to provide information and intervene at the point of prescribing, a development that is in the best interests of the patient and the team as a whole.

As a profession, it is important that we stop every now and then to reflect on where we have come from and what has brought us to our current position. I think we will realize that our success is based on our determination to ensure recognition of our pharmacy skills and our ability to work in a collaborative environment.

Of course, it is understood that pharmacists must be familiar with physical assessment terminology so that we can make informed decisions about drug use in individual patients. It is also understood that pharmacists who are trained in physical assessment may well be involved in this activity, just as some nurses do physical assessments and prescribe medications and some physicians dispense medications out of necessity.

Some lines of responsibility are probably becoming blurred, but at the end of the day, let us as a profession focus our energies on our recognized area of expertise before venturing into a turf battle that we are unlikely to win. It is far better to focus on our existing skills, training, and work within the interdisciplinary team, a strategy that might ultimately lead to other roles for pharmacists.

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