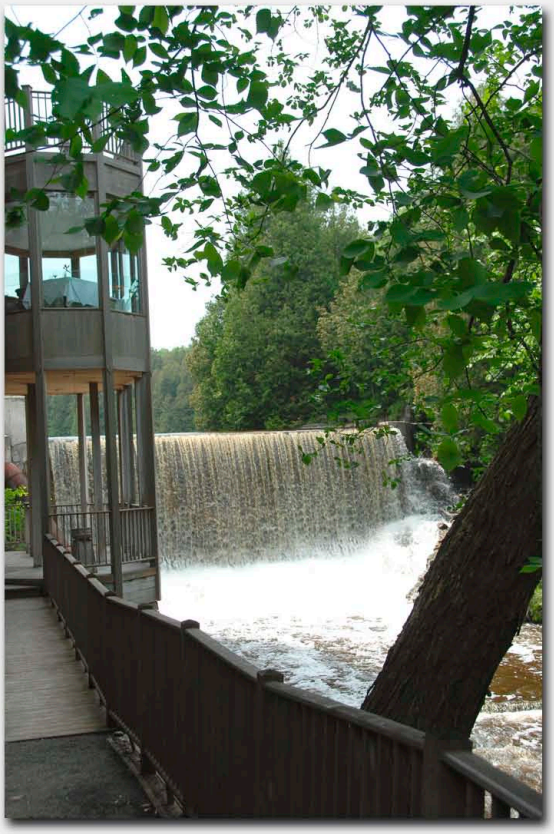

Millcroft Hospital Pharmacy Leadership Conference

Hospital Pharmacy in Canada

Millcroft Inn
Alton, ON

June 1 - 3, 2007

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Theme:
Leading When the Future is Unknown

Introductions

Neil Johnson
Executive Editor
Hospital Pharmacy in Canada Report
London, ON

Conference chair Neil Johnson extended a welcome on behalf of colleagues at the *Hospital Pharmacy in Canada Report* Editorial Advisory Board. He encouraged participants to bring questions and comments about the survey and the conference to Board members and managing editors. He noted the attendance of Board Members Jean-François Bussières, Nancy Roberts, Patricia Lefebvre, Patricia Macgregor, Janet Harding and Michele Babich, as well as Managing Editors Chuck Wilgosh and Kevin Hall.

The conference agenda was designed to address emerging hospital pharmacy leadership issues, Johnson explained. The conference will provide insights into current practice, and takeaway messages participants can use locally, provincially, and nationally to move pharmacy practice forward.

Leading When the Future is Unknown

David Ricks
President & CEO
Eli Lilly Canada Inc.

David Ricks introduced himself as a student of leadership in a world where leadership is more of a journey than a destination. "Leadership is identifying the need for change and then driving change against adversity," he said, quoting former US President Harry S. Truman.

"Identifying change is not about vision," he continued. "Vision is more about courage and personal discipline."

Leaders must have the courage to "buck the pundits" when necessary and reject advice that arises from popular assumptions, Ricks said. He provided a recent example. Pundits who were considered "consultants in the know" predicted a dramatic change in the pharmaceutical industry and recommended Eli Lilly acquire significant distribution networks. Eli Lilly followed this advice and spent $5 billion to acquire distribution networks, only to have to sell the networks three years later at a loss of $3 billion.

Leaders must also have the personal discipline to see a plan through. "As leaders we need to think about opportunistic changes as well as visionary changes," Ricks said. An even

greater challenge is to get people to take up the agenda for change. “People are creatures of habit; getting them to do things they don’t want to do is the crux of leadership.”

Eli Lilly’s leadership model was developed in conjunction with Brigham Young University, whose research revealed three principal reasons for failed change efforts. Change fails because people do not see it, do not understand the reasons behind it, or do not follow through.

The failure to identify change has the biggest impact, Ricks said. Part of a leader’s role is to alter the frame through which people examine changing practices and evolving environments. If people do not understand the context for change, they do not recognize why change is important. Reaching agreement about the need for change is not the end of the effort; there can still be fractious debate about what change is needed.

Communicating the chosen path is critical to successful change management, Ricks said. So too is the need to compromise. “Quite often commitment to the cause is more important than the fine details. It’s important to build broad coalitions and to be open to compromise.”

Failure to finish is often a fatal flaw in driving change, Ricks observed. “Smart people like change, and sometimes the temptation is to see the change, make it, then move on to the next change. It’s tempting to move on to the next shiny object.”

Ensuring that change is well embedded within a system or organizational culture is crucial, he said. All the hard work and concerted effort involved in identifying, contextualizing, and moving change is for naught if the change does not “stick.”

The last piece in the process is dealing with adversity. The most difficult component of leading change is coping with the necessary tradeoffs. The challenge is to maintain balance, such as the balance between short- and long-term wins, between what is right for the individual and what is right for the organization, and between listening to team members and knowing when to act.

Ricks said the Millcroft Hospital Pharmacy Leadership Conference was an exciting opportunity. Canadians should be proud of their health care system, while being cognizant of changing demographics. When the system was built, there were seven workers for every citizen over the age of 65. Today, there are four-and-a-half, and by 2025, there will be only two.

The needed changes are profound and fundamental, Ricks concluded.

- The payer model must be changed.
- The ratio of physicians to the population must improve.
- Information and therapeutic technology must be seamlessly integrated into the health system.
- The approach to chronic disease must change.

Most important, all of these changes must be viewed as investments in the future, rather than as expenditures. “Our role as leaders is to identify the issues, not to be afraid of change, and to be ready to face the adversity that may come in the face of it,” Ricks said.

Theme:
Scope of Pharmacy Practice–What Will the Future Look Like?

Neil Johnson invited participants to take a forward-looking view of the scope of practice, thinking far into the future as well as one or two years out. The day's presentations and discussions were structured to present an overview of trends in health care and its various professions. When a nucleus of pharmacy leaders develops a view of the future, it will be possible to begin to develop a plan on how to get there.

Johnson expressed his hope that the meeting would provide some "takeaway ideas" to implement in the shorter term as well as "broader strokes" for the future. "Moving the profession forward is about the leaders in this room and where we move together at the 50,000 foot level, but also from a basic tactical level."

He stressed the importance of ensuring that the vision is shared with staff and senior organizational leaders. It is crucial not to get "too far out in front of those we lead, in case we start to look like the enemy," he said. "Tools that keep us all together will be the most effective way of implementing the important changes that we see ahead."

Scope of Practice–Views of Other Professions

Dr. Andrew Gomori, BSc, MD, FAAN, FRCPC
Associate Professor, Section of Neurology, Department of Medicine
University of Manitoba
Winnipeg, MB

Dr. Andrew Gomori observed that medicine and pharmacy traditionally have been equally involved in managing patient health, but have had little direct interaction with each other. Physicians provide diagnosis and disease management, while pharmacists aid in optimizing drug therapy after diagnosis. Improving communication and strengthening the relationship between the two professions will ultimately lead to improved patient care and outcomes.

Health care is in an era of rapid progress and evolution, Dr. Gomori said. Changes to the pharmacist role parallel changes in the broader health care system and are vitally important. Noting that the role of pharmacy is frequently misunderstood by the public, he presented some historical background. Clinical pharmacy was introduced as far back as the 1960s. Today's pharmacists, particularly hospital pharmacists, are drug experts who work in collaboration with patients, physicians, and other health care providers to optimize medical management and care.

Today, the scope of practice for pharmacists varies across the country, Dr. Gomori said.

- In Alberta, pharmacists who have completed a continuing education and orientation program are permitted to prescribe Schedule 1 drugs and administer intra-muscular and subcutaneous injections.
- In British Columbia, pharmacists may prescribe Schedule 4 medications within approved guidelines.
- In Quebec, pharmacists with required certification may initiate or adjust medication

and provide emergency contraceptives.

- In Manitoba, Continued Care prescriptions allow pharmacists to renew or refill prescriptions without contacting a physician, and dispense emergency contraceptives.

Those who oppose an expanded role for pharmacists are primarily concerned with a potential conflict of interest, Dr. Gomori noted. It is important to ensure that pharmacists do not receive any financial benefit from the drugs they prescribe.

A 2006 report on consumer perceptions, published in the *Canadian Journal of Pharmacy Students and Interns*, found that 96% of consumers consider a knowledgeable pharmacist the most important factor in choosing a pharmacy. That is good news for the profession, Dr. Gomori said. However, a more negative aspect is noted in other documents, such as the Romanow Report and *The Canadian Medical Association Journal*, which essentially claim, "Pharmacists are filling prescriptions, but not their potential."

The Romanow Report placed strong emphasis on patient-focused teams, which include pharmacists, Dr. Gomori explained. Patient-oriented health care has the capacity to break down traditional barriers and establish pharmacists as integral members of inter-professional practice sites.

Dr. Gomori presented an overview of the inter-professional team at the Multiple Sclerosis Clinic at the Winnipeg Health Sciences Centre. The team is composed of a variety of health disciplines, including dietetics, medicine, nursing, occupational therapy, pharmacy, physiotherapy, psychotherapy, and social services. Manitoba's College of Physicians and Surgeons Registry recognizes a new professional designation: Multiple Sclerosis Medical Clinical Assistant. The role is analogous to that of a medical resident and requires a broader knowledge of diagnostic testing and the ability to conduct basic physical examinations. The clinical assistant has the authority to order blood work and other tests and write prescriptions. All of this takes place under the auspices of the supervising clinician.

"The whole idea is to work as a team and not in isolation," Dr. Gomori said. "Every member of the team knows and respects the work of the other members. This way, the pharmacist is not under-utilized." As part of an inter-professional team, the practice of pharmacy is focused on the patient rather than on the drug. Specific educational guidelines have been developed for pharmacists who work as part of the inter-professional practice team.

Not all patients require inter-professional practice teams, Dr. Gomori said. However, complex diseases and chronic conditions with multiple problems, such as Parkinson's disease, multiple sclerosis, HIV/AIDS, chronic pain, Alzheimer's, and palliative care, greatly benefit from inter-professional approaches that include enhanced pharmacy practice.

It is unlikely that all or even most pharmacists are ready for these advanced responsibilities, Dr. Gomori said. Some will want to continue in the traditional role of community pharmacist in the drugstore setting. The complex highly involved hospital role is not for everyone.

Physicians may present another barrier to acceptance of an enhanced role for pharmacists. Some physicians may be reluctant to have their judgment questioned by pharmacists, and may resist sharing patient load or responsibility for care.

Dr. Gomori identified other sensitive issues to work out, such as liability in the event of a team member making a medical mistake. He noted that the success of the Multiple Sclerosis Medical Clinical Assistant has made him confident that the benefits are worth the challenges. An expanded pharmacist role can lead to a reduction in wait times, more patient turnover, the optimization of the use of medications, fewer medication errors, and improved access for patients. Moreover, the model can be expanded to other medical disciplines.

"The future of health care lies in better and more extensive collaboration between all health professionals," Dr. Gomori concluded. "But this can only begin once a mutual understanding and respect for each care domain is realized."

Scope of Practice–Views of Other Professions (cont.)

Ann Syme, RN, MSN, PhD Candidate
Provincial Program & Network Director
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Vancouver, BC

Lessons from the expansion of the scope of practice of nursing and other professions can help pharmacy anticipate and face challenges and adversity more successfully, Ann Syme said. Increased clinical-setting interaction between pharmacists and nurses would benefit both professions as pharmacy's role expands.

Nursing is often referred to as the "glue" that holds health care together, she said. In the recent evolution of nursing roles, the challenge has been to bring in the concepts of caring and cultural competence. These roles are especially important when supporting patients who are transitioning back to their communities.

Syme presented an overview of various nursing roles and the education for each. A diploma is no longer sufficient. Registered Nurses (RNs) have Bachelor degrees; Advanced Practice Nurses (APNs) have Master's or PhD qualifications. Nurses who have obtained their PhD may also serve as formal nurse leaders or nurse scientists.

Roles are further delineated within these broad categories, Syme said. Clinical Nurse Specialists are APNs who concentrate on a particular area of nursing practice, providing direct care, expert consultation to care providers, and leadership to implement systemic changes designed to improve health care. Nurse Practitioners are APNs who have advanced preparation in diagnostics, and prescriptive practices grounded in the discipline of nursing.

Jurisdictions have begun to develop the specific legislation required to licence Nurse Practitioners, with 900 licensed across the country. In British Columbia, attempts were made to integrate Nurse Practitioners at the community-based level. However, the ground was not well prepared, and many Nurse Practitioners have gravitated to the acute care

sector. “There is lots of room for expanded roles, but the structures do not yet exist across the whole spectrum of care to allow them to happen,” Syme cautioned.

Of all the various barriers and facilitators to expanded scope of practice, the most important is how people within the profession see themselves. The process of accreditation will be crucial, as will the smaller details such as job titles. She questioned the appropriateness of the term “assistant” in the title Multiple Sclerosis Medical Clinical Assistant. “Although it’s very political, language is important,” she said. “As soon as you say assistant, you are subordinating one discipline to another, which can have practical implications.”

Successful role enhancement also requires good policies, legislation, and practice models; strong, rational government funding support; education for all team members; and good evaluation and outcome measures. Equally important is the willingness of discipline leaders to identify opportunities for expanded scope, and press ahead where there is most openness to change. The uptake on the Nurse Practitioner role, for example, has been fuelled by the current reality of physician shortages. A similar opportunity has permitted the emergence of Nurse Anaesthetists and Nurse Endoscopists. US studies suggest that the cost of one Certified Registered Nurse Anaesthetist is one-tenth of a Medical Doctor, while clinical outcomes are equal. Such factors make the ground ripe for expansion of the nursing role.

Nurses and pharmacists bring complementary skills, Syme noted. She reviewed several examples of professional teams that integrate the pharmacist role. The cancer-care system has been strengthened by including Nurse Practitioners to help transition patients back into their community and offers a clear role for advance-prepared pharmacists. However, there persists a shortage of research to support these developments. “An exploration of these complementary roles has never been provided in academia,” she said. Education should be seen in conjunction with work force development and management, not just in terms of curriculum development.

Practitioners in inter-professional teams must also understand the limitations of advanced practice. “Not every patient needs every team member every time,” Syme said. “And not all team members can fill all roles all the time.” Relationships must be managed dynamically, due to the continual potential for conflict due to overlapping roles.

The advantages of expanded practice, however, far outweigh the challenges, she said. Expanded practice is more patient-centred and creates more access to patients. Care planning is more competent and comprehensive. Practitioners like pharmacists have more patient contact, which is empowering for both patient and professional. As pharmacokinetics becomes more complicated, advanced practice is needed to ensure that physicians are getting the technical support and knowledge they need about therapeutic medication.

“We must strive to find the places where we can share the important work that needs to be done, and celebrate how we work together and enhance and enrich each other’s work,” Syme concluded.

Scope of Practice—Views of Pharmacy

Sheri Koshman, BScPharm, PharmD, ACPR, Clinical Postdoctoral Fellow
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University of Alberta
Edmonton, AB

Sheri Koshman prefaced her remarks with the words of William Zelmer on the ethical life of the pharmacist:

> "This awareness creates in me a profound duty to do what I can to align my work, and the work of my profession, with the needs people have for help in making their use of medication as safe, effective, and affordable as possible. I can fulfill this professional duty through continuous self-development, through mindful attention to the people I serve, through the mentorship of students and new practitioners, and through my support of collective efforts to advance my profession."

According to Koshman, there have been five stages of major change in pharmacy practice since the time of ancient Babylonia in 2500 BCE:

- Until approximately 1860, the pharmacist was the manufacturer of drugs.
- With the advent of industry and technology, the role of pharmacy shifted to mostly compounding.
- The 20th century brought legislation restricting who could prescribe. Hospital pharmacists supported drug distribution within the institution, whereas community pharmacists focused only on dispensing.
- By the 1960s, the community pharmacist role had expanded to include drug consultation, while hospital pharmacists began to take on broader clinical roles with deeper involvement in patient care.
- Into the 1990s, clinical pharmacy continued to evolve into "pharmaceutical care," broadly defined as the "responsible provision of drug therapy for the purpose of achieving definite outcomes that improve the patient's quality of life."

The role of the pharmacist has evolved over time from a process-based to a product-centred approach, eventually leading to a scope that includes both, Koshman explained. The most contemporary model of practice, the Total Pharmacy Care Model, incorporates all five models of historical practice. The contemporary model is flexible enough to encompass the vastness of what pharmacists can do in both clinical and community settings, including offering support for self-care.

There is ample evidence of positive outcomes for the expanded scope of pharmacy practice, Koshman said. Recent systematic reviews of in-patient and ambulatory care have produced clear evidence of the benefits. A recent report by Bond *et al*. found beneficial outcomes from five core pharmacy clinical services, including improved hospital mortality, lower drug costs per occupied bed, and fewer medication errors.

Despite the evidence, barriers to clinical practice remain, Koshman said. These include attitudinal issues, such as lack of motivation and self-confidence, practice inertia,

unsupportive employers, and deficiencies in education and training. Other barriers are due to external factors, such as time management, access to medical records, and legislative resistance to change.

Nevertheless, changes are under way. Recent amendments to Alberta's Health Professionals Act removed the requirement that all health professionals be bound by exclusive scopes of practice. Instead, role expansion is allowed, based on abilities and the range of services that can be competently offered in a given environment. New pharmacy practices include prescribing Schedule 1 drugs and blood products and administering vaccines. Practitioners are able to renew prescriptions, alter dosage, therapeutically substitute, or prescribe in emergency situations. She noted that the legislation in no way obliges pharmacists who do not wish to expand their practice. And, in all cases, the Registrar must authorize Additional Prescribing Authority.

An Alberta pilot project is in development to review outcomes of Additional Prescribing Authority. The pilot will involve 10–20 pharmacists of diverse backgrounds, representing the whole broad scope of the profession, and then will open to all Alberta pharmacists by the fall of 2007.

Koshman spoke of her experience with the Cardiac EASE (Ensuring Access and Speedy Evaluation) Program at the University of Alberta Hospital, to illustrate the potential of expanded pharmacy practice. The model is not a thoroughly integrated interdisciplinary approach, since many of the services are provided in a parallel fashion, but nevertheless has resulted in one-stop shopping, shorter waiting times, better communication with patients, and more time per visit. The pharmacist role in this collaborative overlapping approach is expanded to include physical examination, medical history, and diagnostic test interpretation. The anticipated "pushback" from physicians has dissipated due to the positive outcomes. Physicians have gained increased time and capacity for new patients, more time to spend with existing patients, and more time to dictate cases, letters, and follow-up.

A good model for expanded practice should include clinical training, practice environment, motivation, infiltration, empowerment, and mentorship, Koshman said. Expanded clinical training for pharmacists is crucial. Pharmacists only receive as little as 22 weeks of clinical training, compared with physicians who take two years of clinical training followed by up to five years of residency. "The breadth and scope of extra training and exposure makes you a better pharmacist, with better clinical and research skills and with more confidence," she said.

Infiltration is also extremely important. Increased buy-in from other groups and professions leads to increased opportunity for practice and greater visibility.

An expanded scope of practice leads to many challenges as well as benefits, Koshman noted. She recommended smaller peer groups, better credentialing, and more interaction with other professions who have "already walked this path." She advised against attempts to move the whole group forward at the same time, and against efforts to simultaneously confront all aspects of resistance. Instead, those people who are willing and capable should be allowed to move more quickly and push the envelope for the rest.

The Canadian Society of Hospital Pharmacists (CSHP) has established a set of goals to achieve by 2015. "Now we just need to 'build it and they will come,'" Koshman said. "But we need to invest in infrastructure, to lead by example, to think of transitioning from in-patient to ambulatory care, and to jump on every opportunity to collaborate."

Point/Counterpoint: A Discussion of the Role of Pharmacy in the Health Care System of the Future

Moderator: Kevin Hall
Editorial Advisory Board
Hospital Pharmacy in Canada Report
Winnipeg, MB

In the course of discussion, participants returned repeatedly to one central challenge in achieving advanced pharmacy practice: designing a system that is flexible enough to accommodate all practitioners. Some spoke of the need to facilitate the work of "overachievers" in the profession, while also accommodating the traditional community pharmacist who may be content to stay behind the drugstore counter. Presenters and participants demonstrated broad agreement that success in doing so will require more consistent and coherent credentialing, national standards, and initiatives; more comprehensive education and practice philosophies; and extensive work across disciplines.

While credentialing was generally recognized as a necessary component in expanding scope of practice, there were different ideas for the appropriate structure of a credentialing system and for the educational and training components needed to support the structure.

Dr. Gomori stressed the importance of tailoring education and training closely to the particular practice area, to ensure that inter-professional teams blend well and function successfully.

Several participants noted that credentialing is only a first step in the process of advancing practice scope. A residency pharmacy graduate summarized this line of thinking: "A credential gets you in the door, but it's the relationships you form that move you and your professional practice forward." When professionals have the right skills, their background is respected, witnessed, and assessed by their peers—this can be "as important a measure as anything that can be accomplished in a formal training structure."

Koshman and Syme both stressed the need to increase residency training programs as an integral part of the education and credentialing system. Koshman referred to her own undergraduate experience to illustrate the importance of integrating longer and more residencies into basic pharmacy education to help guide students as they make decisions about their future practice. She called for strong formal relationships between hospital pharmacy and undergraduate programs, so that programs are less centred on traditional community practice.

Syme recommended that in light of contemporary issues, efforts to advance practice be strategic. Pharmacists should take advantage of current trends in health care to position themselves to take over roles for which they have the expertise in both hospital and community settings.

Syme underscored the comments of several others in noting that formal curriculum changes must be accompanied by practical "common sense" changes. For example, pharmacology is taught to nurses by nurses and to doctors by doctors. A good first step in building inter-professional cooperation, understanding, and respect would be for pharmacists to teach their discipline to other professionals. She recommended increasing inter-professional education opportunities overall, both in field placements and within the academic curriculum.

The need for flexibility again asserted itself. Dr. Gomori observed that not all pharmacists might be interested in residencies that prepare them for hospital or inter-professional practice. He suggested screening pharmacy students to help select those who might want or be suited to a residency program.

A mechanism for advanced training would allow the system to "grow" practitioners and offer them opportunities suited to their level of expertise, ability, and willingness, Koshman countered. The inability of everyone to do a particular thing should not hold back those who are willing and able.

Group members used the metaphor of "ceiling and floor" to further explore the tensions in creating a system that fits those who want to expand their scope of practice and those who do not. Some group members expressed concern that the "floor effect" is as problematic as the "ceiling effect," which is known to discourage advancement. A system of regulatory authority will not function if it is built for the "stars" of the profession; it must be built for the basic level. One participant called it the responsibility of hospital pharmacy leaders and administrators to create a system that recognizes and uses the talents of the "stars" while simultaneously moving forward the whole profession.

Others disagreed. Several participants said community pharmacists are "holding back" the advancement of practice. They argued that other disciplines view hospital pharmacists differently from their community colleagues. They recommended leveraging the reputation of hospital pharmacists, Doctors of Pharmacy, and hospital/community residency programs to expand opportunities for advanced practice. One participant stressed the need to proceed "without getting stuck in the mud waiting for our community colleagues to catch up." Another recommended acknowledging the important role of community pharmacists by enabling practice in that area to move forward differently.

Syme said a truly national representative organization to parallel the Canadian Nurses Association would be useful. The organization could take responsibility for aligning activities across provinces and for using best practice evidence-based models to help advance practice across the country. Participants said such a body does not exist for pharmacists. The Canadian Pharmacists Association (CPhA) is voluntary and the National Association of Pharmacy Regulatory Authorities (NAPRA) does not include Quebec and Ontario. A participant called for the creation of a leadership body to help bridge the gap for advancing inter-professional advanced pharmacy practice without alienating broader pharmacy associations or leaving anyone out of the process.

The issue of job title was revisited. Dr. Gomori echoed the sentiments of participants when he noted that "words are important and small details like titles matter." He expressed his support for changing the name of advanced practice pharmacists at his Winnipeg clinic to reflect the actual scope of their contributions.

Finally, participants expressed agreement on the importance of clearly defining the roles for advanced practice across disciplines to ensure that overlapping roles are understood and do not become a source of contention. They called for the establishment of appropriate structures to ensure that expertise is used efficiently and effectively in as broad a range of settings as possible.

What Could the Future Look Like?

Neil Johnson
Executive Editor
Hospital Pharmacy in Canada Report
London, ON

Johnson set the tone for the next part of the discussion by identifying some of the broader issues in the evolving role of hospital pharmacy. He recommended group members consider "value propositions," which he defined as "the unique added value an organization offers customers through their operations; what differentiates you and your services from others."

According to Johnson, pharmacy's unique value propositions include: drug information; excellence in drug distribution and compounding; patient counselling; improved patient safety; identifying and resolving drug-related problems; and evaluating drug use. He asked participants for assistance in narrowing down this list. "We have no difficulty identifying many priorities, just prioritizing them," he said.

Johnson provided instructions for the next part of the conference process. Participants would break into small facilitated groups to think tactically about how to address some of the important identified issues. Before doing so, he asked them to consider several broad "realities":

- The politics of health care:
  - Health care doesn't win elections, but it does lose them.
  - Governments tend to implement structural changes before systemic changes.
  - Is the physician payer model sustainable?
  - Accountability should be considered.
  - The impact of the Supreme Court decision regarding two-tiered health care should be considered.
  - The impact of legislation and accreditation, and agencies such as the Joint Commission on Accreditation of Health Organizations (JCAHO) and the Canadian Council on Health Services Accreditation (CCHSA) should be considered.
- Economic issues:

    - The growth in health care funding is not sustainable, particularly if there is an economic turndown.
    - Pressures from increased health human resources and drug-related costs should be taken into account.
- Social changes:
    - An aging population will have an impact.
    - Expectations in younger consumers are changing, based on technology and electronic "connectivity."
    - There is a growing sense of health care entitlement.
    - The gap between "haves" and "have-nots" is evolving.
- Technological advances:
    - Automated industrial technology has led to changes.
    - Information technology advances have led to changes in point-of-care decision-making.
    - The role of pharmacists is shifting with the advent of cutting-edge scientific advances, such as biotechnology and the human genome.

Johnson asked delegates to consider in their deliberations what he called the "hedgehog principle." The hedgehog is a simple creature that does one thing extremely well: curling up into a defensive position, staving off threats with its quills, and not emerging until the danger has passed. While this model is disconcerting in some ways, it is an approach that characterizes many successful businesses. The challenge for hospital pharmacy might be to decide what core things it does well, and how to leverage those for future success.

Group Reports: Determining Our Preferred Vision

As groups reported back on results of their facilitated discussions, a cohesive vision of opportunities, challenges, and appropriate avenues for action began to emerge. As one representative noted, "We all agree it's time for change. Now it's time to move from reactive to proactive models to move forward."

Speakers characterized moving forward as defining core services, using an evidence-based approach to isolate specific high-impact services, and then leveraging the results. Speakers identified several key directions:

- Expansion of inter-professional collaboration across jurisdictions and sectors
- Removal or delegation of drug distribution responsibilities
- Alignment with other professions and with patient/client needs
- Enhancement and standardization of education and training
- Collaboration among hospital pharmacy leaders and existing organizations, with clear evidence-based leadership

Group members spoke of ways to meet the goal of "getting hospital pharmacists out of the dispensary so they can fulfil their professional potential." Clear minimum standards

for the management of drug distribution must be set and clearly communicated. Comprehensive change management plans must be developed that are flexible enough to be adopted by both small and larger hospitals. Pharmacists themselves have to be more willing to delegate distribution responsibilities, either to technology or to other technicians. Better education and certification for pharmacy technicians will help increase pharmacist willingness to delegate. As one participant pointed out, “No one expects a dietician to work in the kitchen, so it shouldn’t be such a leap to accept that a pharmacist’s role unfolds outside the dispensary.”

Each group stressed the importance of expanding collaborative practice and broadening collaboration in general. Hospital pharmacy leaders were directed to identify and facilitate high-value pharmacy services and then collaborate with other health care professionals, regulatory agencies, public organizations, and educators. The collaboration should aim to create innovative and responsive models for advanced pharmacy practice, develop appropriate inter-professional education opportunities, and promote the acceptance of the advanced roles. Participants placed particular value on working more closely with nursing professionals. Noting the lack of a single clear leadership body for pharmacy, participants recommended developing a marketing plan for pharmacy services with roles for all partners, and suggested regulatory bodies should take the lead in developing consistent messages.

Frontline pharmacists must become engaged in this endeavour. One participant identified a message that needs to be communicated to colleagues in the profession: “We aren’t telling people what to do, but helping to lead in the direction that health care evolution and evidence-based practice is taking the profession.”

Alignment was a consistent theme across all the groups. Pharmacy service provision should be aligned with patient need. The locating of pharmacy services should allow for greatest impact. Impact should be the criteria for deciding when pharmacy services should be located in hospital emergency wards or special-care clinics, within which geographical setting, and where across the continuum of services the role should be advanced and where it should be kept traditional.

Pharmacy practice structures must be aligned with those of other professionals to ensure that inter-professional teams thrive and provide the highest possible level of care. This alignment must be based on clear evidence. Coherent efforts should be undertaken to gather all existing evidence about advanced pharmacy practice, identify evidentiary gaps, and facilitate needed additional research. Among other things, a minimum acceptable pharmacist-to-patient ratio should be established. “It’s not necessary to reinvent the wheel, but it would be nice to know how many tires we have, how many we need, and which might be a little flat,” a participant said.

Groups also recommended that hospital pharmacy leaders optimize current resource allocation to ensure staffing in key priority areas. Tools like the Hospital Pharmacy in Canada Report can be used to identify gaps where allocation does not match the resources. Participants spoke against a leadership style that works in isolation and “silos.” Instead, leaders should promote hospital pharmacy and negotiate services and resources to support its expanded utilization. The key to advancing patient-focused clinical practice is to align payment models so that pharmacists are paid for more than dispensing.

Appropriate evidence-based resource allocations should also be represented in CCHSA standards.

One group recommended that pharmacists be assigned to the principal points of entry in the health care system to act as "knowledge brokers." They defined knowledge brokers as key individuals who know key evidence and help translate it into clinical practice, using evidence-based decisions to form care plans. Pharmacists are ideally positioned to fill this role because of their long history of using evidence to determine appropriate drug use.

Each group called for improved education and training and for the adoption of consistent credentials, accreditation, and standards of practice. Training opportunities for graduates, undergraduates, and post-graduate specializations should be increased and enhanced. A comprehensive audit of available opportunities would be a good first step in determining effective educational models and remaining gaps. Both educators and students must be engaged in this process.

Participants underscored the importance of increasing opportunities for clinical training and strengthening requirements for clinical practice prior to certification. They directed CCHSA, NAPRA, and the Colleges to create accountability mechanisms to ensure that performance standards are being met. One group called for consideration of an apprenticeship approach, perhaps based on the model used by professional engineers.

Syme spoke of the Canadian Hospice Palliative Care Society's Square of Care model. The patient is positioned at the centre of the model and is the reference point for decision-making, such as defining core services and identifying educational and training strategies.

Participants expressed agreement for establishing a national standard for pharmacy tiers and titles across the country. Some proposed starting with standards that already exist, such as those developed by CSHP and the Institute for Health and Social Policy, and then working with NAPRA and other Colleges to derive a national standard. One group delineated a process to ensure that standards continue to evolve with accreditation: build on the *Blueprint for Pharmacy* and create a biannual review to identify gaps or mismatches between priorities and standards and to help under-resourced organizations meet existing standards.

Groups stressed the importance of providing inter-professional education experiences, both inside the classroom and in clinical residencies. Two universities were specifically mentioned as models of successful inter-professional training—McGill University, even though it lacks a pharmacy program, and Memorial University.

Group members asserted that progress would only be made on all fronts by identifying the existing base of evidence and the gaps that still need to be filled. They called for a common toolkit to be made available to everyone across the country. The toolkit must be built upon the strong base of existing evidence and experience, while incorporating innovation and evolutionary development. Group members noted that the push to drive hospital pharmacy into more active interdisciplinary clinical practice started more than 40 years ago. The challenge for today's leaders is to take advantage of a confluence of internal and external factors and leverage the unique benefits pharmacy has to offer. It is time for the profession to take its rightful place as part of an integrated, inter-professional approach to health care.

Theme:
Hospital Pharmacy Practice Today–Just How Good are We?

Pharmacy Practice:
Results from the *Hospital Pharmacy in Canada Report*

Jean-François Bussières
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Hospital Pharmacy in Canada Report
Montréal, QC

Jean-François Bussières presented an overview of the data from the latest *Hospital Pharmacy in Canada Report*. He contextualized his remarks in terms of "what we know, what we ignore, and what we should do."

The survey's overall response rate was 74%, he said. With 26% from teaching institutions, the survey is now capturing more high tertiary institutions. He reviewed some of the basic findings:

- The average number of beds per respondent was 320.
- The average length of hospital stay was seven days.
- The average annual admission rate was 14,740.

Bussières cautioned that these figures do not reflect the large variations across the country, but are useful for country-to-country comparison.

The survey indicated that the two different models of care are both largely implemented, with traditional clinical services at 89% and pharmaceutical care at 82%. However, 80% of institutions continue to have some beds without pharmacy coverage. There were increases to both the number of beds covered by pharmaceutical care and those not covered; however, as a proportion, the number of uncovered beds has decreased. Numbers for traditional clinical services, on the other hand, have remained static.

The survey avoided value judgements about whether one model is superior to the other and does not examine criteria used to determine which model should be implemented in any given circumstance, Bussières said. Each pharmacy department, therefore, should have a reproducible framework for clinical services. He also recommended better alignment between academia, hospital, and community practice, and called for the identification and publication of successful practices.

Survey findings revealed that the number of Full Time Equivalencies (FTEs) per 100 occupied beds is increasing but that staffing proportions are remaining roughly the same. Therefore, nothing is really changing, Bussières explained. There are many questions the survey did not consider, such as optimal FTE staffing levels and the impact of non-pharmacists serving as department heads, and pharmacy technicians providing non-dispensing activities. Bussières recommended tracking indicators to help determine optimal staff ratios and key ratios for benchmarking, at least regionally. Indicators need to be developed for ambulatory/outpatient care activities.

The average proportion of a pharmacist's time devoted to clinical care remained unchanged, at 41%. Bussières called for the development of a target for proportion of time devoted to clinical care, even if the target had to be "intelligently guessed" in the absence of empirical evidence. He suggested a target of between 70–80%. A simple system to document and evaluate the optimal mix of pharmacist activities would enhance the productivity, retention, and impact of pharmacists.

Survey results showed differences in the relative importance of pharmacy and the use of pharmacy for in-patient versus outpatient services. There remains a lack of good evidence to support positive impacts of pharmacy in particular areas such as ICU or critical care. Published evidence tends to be single-site focused with small sample sizes. Furthermore, evidence is often collected by the practitioner providing the services, which may call into question the objectivity of the research. Good clinical practice research is needed to demonstrate the benefits of pharmacy in particular sectors, to help prioritize practice areas, and to build the business case for expanding the scope of hospital pharmacy practice, Bussières said.

The survey identified that admission and discharge interviews continued to increase, but did not assess the quality of those interviews or the definitions used for what constituted an interview. Rounds and consultations with nurses increased, as did pharmacokinetic dosage information. The survey also ranked and compared service levels and relative priorities. However, the need to prioritize clinical services, share tasks and collaborate with other professionals, and evaluate practice is evident, Bussières said.

For the future, it will be important to continue to assemble, understand, and use strong evidence to advance practice, he concluded. As benchmarks are developed for specialties that help create a hierarchy of activities, models must be updated and evaluated. Work must continue toward building consensus around the role of the pharmacist, founded on an evidence-based practice model. Better mechanisms for knowledge transfer inside and outside the profession must be developed.

CCHSA Accreditation: New Standards for Managing Medications

Jessica Peters, MPA
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Canadian Council on Health Services Accreditation
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Jessica Peters prefaced her remarks with an overview of CCHSA and its history. The role of accreditation is to promote quality improvement at the organizational and systems level, she said. The key elements in the program are the sets of standards. The current program sets out leadership and practice standards. The new program, which comes into effect in 2008, will see standards on governance, leadership, and clinical practice. These are high-level standards of excellence, not minimum standards, and are based on expert advice.

The new accreditation program is based on standards that:

- Capture the most recent governance and clinical best practices

- Reflect emerging trends in disease and wellness
- Are more specific than current standards
- Are easier to integrate into daily practice

The process has been streamlined and is more flexible so that it should be more adaptable for organizations of various sizes and complexities, Peters explained. There is also a greater focus on safety.

The standards also have a new structure. Four main standards areas have been envisioned:

- Responsible and sustainable governance
- Proactive and supportive organization
- Service excellence (which includes population and sector-based standards, as well as specific standards for some areas, such as infection prevention, medication management, and diagnostic imaging)
- Positive client experience

The importance of appropriate and evaluated medication processes is obvious in the current context, she said. After receiving extensive feedback from surveyors and client organizations, an expert working group with representatives of client organizations and the Institute for Safe Medication Practices Canada began developing the standards in 2004. In 2005, they were circulated for consultation to 15 key groups. Most of the content has remained the same, although there have been some subtle changes.

The introduction of Required Organizational Practices (ROPs) in 2005 was a new focus for CCHSA, Peters said. Experience has suggested that the standards are sometimes "pitted against" the ROPs, so the new ROPs are embedded within the standards. Some of the ROPs, like medication reconciliation, are beyond current common practice in the field, but they are important targets that raise the bar for continual improvement of patient care and safety.

The new standards for managing medication target institutional settings and focus on the safe use of medications, from selection and procurement through administration, Peters explained. A number of key themes are addressed:

- Working together to promote medication safety
- Carefully selecting and procuring medications
- Properly labelling and storing medications
- Appropriately ordering and transcribing medication
- Accurately preparing and dispensing medications
- Safely administering medications to clients
- Monitoring quality and achieving positive outcomes

Importantly, the new standards recognize that pharmacists and pharmacy staff are integral members of the interdisciplinary team and should be actively involved in designing the organization's medication use and medication management process, she said.

Peters reviewed the status of the process, timelines, and the role of pharmacy leaders in its development. The new standards and process are currently being piloted at 13 sites. A national consultation on the standards opened on May 14 and will be active until mid-June. She encouraged participants to "tell CCHSA what you think, because we rely exclusively on your feedback."

Organizations involved in the 2008 process are being helped with customized transition plans into the new program, she said. Information sessions are being offered across the country to support the transition, and information is continually available on the CCHSA website.

Another important piece in the process is the ongoing and increased use of performance measures and indicators. Organizations have expressed confusion about which performance measures they should use, Peters said. In response, four performance indicators regarding patient safety have been developed. She cited this as a concrete example of how all organizations participate in the accreditation process. "As we move forward, the goal is to identify specific indicators in each process area, by involving as many organizations as possible in this ongoing broad consultative process," she concluded.

Patient Safety–Results from the *Hospital Pharmacy in Canada Report*

Patricia Lefebvre
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Patricia Lefebvre presented results from the 2005/2006 *Hospital Pharmacy in Canada Report* that relate to the state of patient safety from the pharmacy perspective. She drew attention to a disturbing trend: In almost every area where safety outcomes or measures had improved, they had done so in response to a change in regulation or legislation. This data indicates an apparent failure of the profession to be proactive rather than reactive.

She outlined the in-patient medical management process and the place of pharmacy within it. Pharmacists play a key role in the monitoring and surveillance of ordering, pharmacy inventory and management, and administration.

Various data sources examined together reveal that most medication errors occur during prescribing, Lefebvre said. Comprehensive chart reviews to determine the initiation point of the error find that only 4% of medication errors take place during dispensing, while 56% occur in ordering. Moreover, Medmarx reports that a handful of drugs are responsible for most errors. Targeting these high-alert drugs would address 80% of medication errors. However, the report's survey reveals a lack of significant improvement in standardizing and limiting the available doses of many high-alert medications.

The survey found that 80% of hospitals had a policy on disclosure of incidents to patients and their families, compared to 63% in the last survey. The frequency of recording the

disclosure in patient health records increased from 81 to 91%. Almost all respondents had a medication incident reporting system, but only 12% allowed the use of medication incidents for performance reviews. This distinction is important because it indicates a decrease in blaming of individual practitioners, Lefebvre noted. While all these changes seem positive, it is important to note that they happened in response to changes in legislative requirements.

Similarly, usage of medication safety self-assessment increased to 71% but the improvement was mostly a response to its inclusion in the ROPs. Again, movement in the right direction only seems to occur with outside prodding, she said.

The survey also asked respondents to identify significant barriers to medication history-taking and medication reconciliation when a patient is transferred between levels of care or discharged. The results were as follows:

- The facility has examined the desirability and feasibility but additional resources would be required: 34%
- The facility has not yet examined the desirability and feasibility: 22%
- The facility has examined the desirability and feasibility but there are not enough other supports: 13%

Significantly, only 20% take medication histories for all patients, while 78% take them for targeted patients, Lefebvre noted.

A review of data about the saturation of Computerized Physician Order Entry (CPOE) systems shows that CPOE is not an effective safety tool without clinical decision support. Yet only six sites reported having clinical decision support, and even in those cases, there was no interface with pharmacy. The data clearly shows that these small process points are likely to have the highest impact on safety, rather than CPOE and automation, Lefebvre said. Verbal and telephone orders are limited to emergency situations when the physician is physically unable to write a medication order in only 42% of responding institutions. Only 58% have a list of dangerous abbreviations that are not accepted. Pre-printed medication orders are being reviewed 87% of the time when they are in manual form but not nearly as often when CPOE and automated systems are in use.

There was improvement in the removal of both concentrated electrolytes and concentrated narcotics. These changes were in response to ROPs or health ministry directives, she said.

Lefebvre presented a summary on the proportion of time spent by pharmacists in each activity. Time spent on drug distribution had fallen slightly from 48% to 43%, while time spent on clinical services increased slightly from 38% to 41%. Unless more time is spent on clinical services, pharmacists will not have an impact on clinical safety, she stressed.

She recommended that participants review the Quality Chasm Report Series on preventing medication errors. It found that at least 25% of medication-related injuries are preventable. There is strong evidence for the effectiveness of CPOE with decision support and pharmacist participation in hospital rounds, she concluded. However, there is not yet evidence to support bar-coding or smart pump technology, even though there is a general belief that they will positively impact safety.

Group Reports: Preparing For Our Future

In their final set of small group discussions, participants zeroed in on a definition of the services that hospital pharmacy should provide, identified barriers and implementation strategies to enhancing or introducing these services, and suggested some ways in which the Hospital Pharmacy in Canada Report could measure progress. Participants expressed agreement on the importance of assessing the current environment, defining clear directions for change or improvement, and providing strong leadership in those directions. They recommended an abundance of concrete actions that could advance hospital pharmacy practice from the systems/vision level right down to daily practice in their organizations.

Most recommended starting by comprehensively comparing current and proposed practice against the evidence. Specific research goals were to: assess the current state of pharmacy practice, conduct a gap analysis, produce an environmental scan of standards used by compatible stakeholders, and provide an honest assessment of the competencies that currently exist.

A consistent message concerned the need to base decisions about how to lead evolving pharmacy practice on strong, clear evidence. Organizational and leadership priorities must be system-wide and must bridge the disconnection between common practice and what the evidence supports. Evidence-based practice must be more than a philosophical commitment, participants said. Evidence-based practice must be embedded in CSHP's *Vision 2015*, CPhA's *Blueprint for Pharmacy*, CCHSA and Canadian Hospital Pharmacy Residency Board (CHPRB) standards, and CSHP standards and guidelines. The Hospital Pharmacy in Canada Report should be used to map actual practices against standards and to evaluate standards and ROPs against what the evidence supports.

Participants spoke of the importance of identifying priorities by service or specialty and of defining both discipline-exclusive and shared scope of practice for interdisciplinary teams. Roles in the team must be clearly defined and must be based on grassroots realities and needs, rather than from a top-down directive. Successful collaboration will be the key to advancing practice. Opportunities must be seized to communicate across disciplines, geographic boundaries, administrative structures, professional bodies, and with patients and the public. One group identified the Hospital Pharmacy in Canada Report as a practical mechanism to provide explicit examples of linkages between standards and outcomes.

Group members recommended ongoing evaluation to ensure efforts to expand scope of practice and stay on course. Concrete measures are needed to determine the extent of clinical pharmacist involvement, such as comparing the number of rounds regularly attended by pharmacists against the total number of rounds or the percentage of high-risk, high-alert medications for which specific protocols exist. Internal leaders were advised to ask themselves the following questions:

- Do you have a strategic plan for advance practice?
- Is it evidence-based?
- Is it being followed?

Several participants questioned whether evidence really exists to show that pharmacy directors have an impact on care. Citing the current Hospital Pharmacy in Canada Report results, they noted that change was limited, except where it was mandated by regulation or legislation. They challenged pharmacy leaders to adopt a coordinated approach, choose some concrete actions, implement them, and then assess the results. They recommended prioritizing opportunities that add the most value and that are within pharmacy's sphere of influence. Pharmacy leaders can be held accountable for the actions they can control. Basing activities on the Chartered Quality Institute will ensure continuous improvement.

The groups identified several specific actions that could be taken immediately:

- Standardize and limit the number of drug concentrations available.
- Segregate/ differentiate various heparin products.
- Implement a formally approved list of unacceptable dangerous abbreviations and audit the number of times dangerous abbreviations are used.
- Clearly define medication reconciliation within particular institutions.
- Create opportunities for staff to share evidence/experience about role development.
- Integrate the correction of safety gaps into clinical practice and service planning.
- Ensure that every patient has a medication history that features a face-to-face meeting with a pharmacist.

To move practice forward, pharmacy leaders need to invest in and drive practice-based research and research collaboration, participants said. Pharmacy leaders need to work within their agencies and together to market pharmacy services through consistent messages about the roles of individual pharmacists and professional bodies. Mechanisms must be identified to help pharmacy leaders engage with educators, as individuals and as a group, to influence curriculum and training approaches. Equally important is to build consensus about core pharmacy services across a continuum of care.

One group reminded participants of the many individuals at the conference who are already doing a very good job in advancing practice. They recommended identifying these "stars" and inviting them to serve as facilitators at a meeting using a "Hilton Head" consensus approach. Based on the ICU collaborative model, the meeting would identify high-priority services, develop a plan for implementation, and create external validation processes. Consensus for next steps would be reached because everyone would be addressing the same priorities. The results could be taken to CCHSA, ISMP, and other bodies, to be used as part of the validation process.

Several participants expressed enthusiasm for maintaining momentum and holding another meeting designed to distil the directions, actions, and ideas that had been explored at this conference. A group member suggested holding such a meeting in conjunction with the CSHP Annual General Meeting. The group mandated several key players to explore how best to organize a follow-up meeting. Echoing the need for momentum, one participant observed: "We achieve sustainability, and keep our vision forever green, as we continue to discover new best practices and work together to form a tsunami of effort that is tightly directed."