# Pharmacy Coalition on Primary Care

*Canadian Society of Hospital Pharmacists (Saskatchewan Branch)*
*College of Pharmacy and Nutrition, University of Saskatchewan*
*Representative Board of Saskatchewan Pharmacists*
*Saskatchewan Pharmaceutical Association*

## Submission

## on the

# Role of the Pharmacist in Primary Health Care

**May 1, 2003**

# Preamble

Primary care refers to care provided to individuals to address a particular problem of basic everyday health need. It is the care provided at the first level of contact with the health system where all health services are mobilized and coordinated. It includes education and activities to maintain health, as well as care for common illness, minor injury and management of ongoing health problems.[1] It represents the broad range of people seeking health care for a particular issue, as well as those who seek care for prevention of disease.

Primary health care encompasses preventive, promotive, curative, supportive, and rehabilitative services, offered by a range of professionals.[1] It requires assessment and evaluation of the health needs of populations of people to be serviced by teams of professionals. Health promotion, public health education, disease screening, and intersectoral support strategies need to be in place in order to anticipate, prevent and manage health issues that arise in those who do not readily seek health care.

The average Canadian interacts with a pharmacist once every two weeks. [2]Pharmacists are often the first point of contact in the health care team since no appointment is needed and they are readily accessible to the public. Pharmacies which are open to the public 24 hours a day often provide after hours medication and health advice on a number of issues, as well as triage and referral to other health care professionals. Pharmacists are trained in the areas of health promotion, disease prevention, screening, treatment and management of disease, management of conditions amenable to self care, and patient education. The skill set of pharmacists, their location within communities and the frequency that they interact with patients, positions them to play important roles as primary care team members and as planners and promoters of primary health care strategies.

This document elaborates and expands upon the foregoing. It represents the position of the Pharmacy Coalition on Primary Care on the role of the pharmacist in primary health care. The Coalition developed this statement after extensive consultation with our members through surveys, interviews and a workshop at district meetings. It discusses how members see themselves as primary health care practitioners and members of primary care teams.

# Executive Summary

The Coalition submits the following recommendations:

## 1) Role of the Pharmacist in Primary Care

When pharmacists provide direct patient care, they do so using the pharmaceutical care model. Pharmaceutical care is that component of pharmacy practice which entails the direct interaction of the pharmacist with the patient for the purpose of caring for that patient's drug-related needs. Pharmaceutical care is defined as the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life such as i) cure of a disease, ii) eliminate or reduce symptomatology, iii) arrest or slow disease process, and/or iv) prevent a disease or symptomatology. Pharmaceutical care involves communication with patients, analysis of patient specific data and application of pharmacotherapeutic knowledge to recommend the most appropriate therapy for patients, and then monitoring of that therapy for its desired outcome.

Numerous direct patient care and team support based activities may be performed by pharmacists, depending upon the needs of the patients serviced by the particular health care team. In other countries, and in limited locations throughout Canada, pharmacists in primary care practices and/or internal medicine ambulatory clinics have provided patient care services including: drug therapy monitoring, therapeutic and pharmacokinetic consultations, telephone triage, home visits, medication assessments, and patient education. Services to the health care professionals within these practices include: education (informal and presentations), pharmaceutical industry counter-detailing, product recommendation and drug information provision. Just as institutionally based pharmacists have assisted institutions with evaluation of current practice compared to established standards (drug use evaluations, clinical practice guidelines), so too have family practice-based pharmacists been involved in research that aims to identify best practice. Finally, pharmacists are important community resources when planning and implementing integrated health promotion strategies within a community.

The specific mix of activities (direct and indirect patient care) in primary care sites will differ. These activities will be prioritized based upon the needs of the patient population served by the primary care site, other health care disciplines in the team, strengths of the other team members, cross-training needs, experience and interest areas of the pharmacist, and available time to commit to the primary care site.

## 2) Pharmacists' Functions on Teams

The Saskatchewan Action Plan for Primary Health Care calls for the development three types of teams; **program teams**, **central teams** and **satellite teams**. There is a team role for pharmacist(s) on each of these types of teams and also as virtual team members given improved communication/information links.

Examples of **program teams** that would benefit from pharmacist involvement include but are not limited to: addiction services (methadone programs), geriatric assessment programs (medication assessment), health promotion programs (link strategies into all RHA pharmacies – increased public awareness), chronic disease management teams (diabetic management, cardiovascular risk reduction), inappropriate Emergency Room utilization (education strategies, medication compliance clinics), and discharge planning teams (role of the pharmacist here would be to consistently complete and transmit seamless care documentation in anticipation of discharge).

The role of the pharmacist on **central teams** will encompass two forms; as co-located and virtual team members. Some pharmacists should function as a co-located team member on a part-time or full-time basis depending upon the catchment area, population served and needs of the patients and other team members. Direct patient care activities might include: group or individual patient education, pharmacotherapy assessments (polypharmacy, suspected adverse drug effects), therapeutic recommendations following diagnosis, and follow-up appointments for chronic disease monitoring. Activities to support the practice could include: responding to drug information requests from prescribers, conducting drug utilization evaluations and comparing practice to standards of practice to provide in-house information to prescribers, counter-detailing the pharmaceutical industry, and/or implementing health promotion strategies developed by program teams. There is also a significant role for pharmacists who are **not** co-located to these teams (virtual). While this model dictates a need for improved communication links, many teams are currently functioning effectively under this model. It should be understood that non-co-location would largely allow for only direct patient care activities. It is also important to remember that a single, co-located pharmacist cannot possibly provide pharmaceutical care to every patient within the practice.

**Satellite teams** are envisioned as a community where resident staff or visiting staff offers health promotion and prevention services, clinical services and access to emergency services. While "team staff" are viewed here as potentially travelling to these care centres within smaller communities, it should be noted that most of these communities have a pharmacy often with a resident pharmacist. In these communities the pharmacist typically functions as triage when the remainder of the team are outside the community.

As Directors of Primary Care begin to build teams, the current shortage of pharmacists will demand innovative approaches to involve pharmacists on all types of teams. Most RHAs employ one or more pharmacists within their institutions. Some, but not all of these pharmacists, have considered or are interested in primary care practice. Many pharmacy departments are experiencing an inability to fill all vacant positions currently in place to service in-patients. We anticipate that to meet the pharmaceutical demands of patients, pharmacists from the private sector (community practice) will also need to be considered for these teams. In view of the history of minimal involvement of pharmacists on these community-based teams, it would be useful to inquire about the potential role for pharmacists on specific teams.

## 3) How to Involve Pharmacists on Primary Health Care Teams

Consultation from members identified the following recurring themes:

- Information – the pharmacist needs access to increased amounts of patient information (i.e. diagnosis, test results) to enhance their ability to make decisions;
- Communication – systems need to be in place to facilitate effective communication amongst all members of the team;
- Education – other members of the team need to be educated on the role of the pharmacist and how the pharmacist can contribute to effective health care. The pharmacist also needs to be aware of the role of other team members to facilitate referral to them when needed. In addition, while some skill development may be needed for expanded areas of practice, pharmacists may also need education on skills to be an effective team member;
- Scopes of practice – while exclusive and overlapping scopes of practice need to be understood, an environment needs to exist where the skills of all members of the team are optimally used;
- Resources – adequate human, material, and financial resources must be available;
- Compensation – members of the team must be fairly rewarded for their involvement; and,
- Modeling – models are needed to demonstrate how pharmacists can become effective team members.

Therefore, the goal of strategies to enhance the role of the pharmacist on primary care teams should be to address these recurring themes.

The Coalition endorses the document attached as Appendix D and entitled "Canadian Society of Hospital Pharmacists (Saskatchewan Branch) - *An Information Paper on Pharmacist Responsibilities in Primary Health Care".* As such, the Coalition accepts the recommendations in this paper, and adapts them for submission as the following recommendations on how the pharmacist can be included on primary care teams:

### 3.1 Pharmacists in ambulatory care clinics

Working in collaborative, multidisciplinary clinics, usually located in hospitals, pharmacists have the opportunity to optimize drug therapy and patient outcomes by educating patients, optimizing medication use, and monitoring medication endpoints. *Examples: dedicated pharmacist who manages the pharmacotherapy needs of HIV infected patients (RQHR); interdisciplinary cardiac risk clinic (SHR); pharmacist-managed anticoagulation clinic (Five Hills RHA); RQHR Lipid clinic co-directed by a pharmacist.*

### 3.2 Medication assessment clinics

Drug misadventures are defined as the largely preventable, unintentional negative outcomes associated with drug therapy. The literature illustrates causality between drug misadventuring and patient morbidity, hospitalization and the length of hospital stay. Pharmacists in medication assessment clinics or programs ensure positive patient outcomes and more appropriate health care utilization. The assessment of ambulatory patients' medications by pharmacists with specialized skills, with communication of the treatment plan to the prescriber and the community pharmacist. *Example: a pharmacist who assesses the medication regimens of patients attending geriatric assessment day program; pre-admission medication assessment to long-term care facility.*

### 3.3 Pharmacists in physician offices

The ability to make the best possible choice of medication, and its appropriate dose, at the point of care commencement would streamline the system and avoid gaps. Pharmacists working in physician offices would be able to collaborate on medication management, and augment the decision process when medications are prescribed. *Examples: RxFiles (academic detailing); an academic pharmacist consultant in a private medical office in Saskatoon; five pharmacists (Wynyard, Fort Qu'Appelle, Regina) who joined medical practices to conduct medication assessments – pharmacists in primary care pilot.*

### 3.4 Pharmacists working with Advanced Clinical Nurses or Nurse Practitioners

There is an immense wealth of opportunity to enhance patient outcomes by working alongside nurse practitioners. *Example: unaware of a true collaborative practice in the province.*

### 3.5 Pharmacists on primary care teams

When pharmacists join multidisciplinary teams, the resulting improvements in process and decision making are immediate. Teams dealing with complicated medication therapies need pharmacist expertise. Pharmacists can also be effective multidisciplinary team leaders. *Examples: palliative care team in Nipawin, pharmacists in the chronic renal insufficiency program in the Regina-Qu'Apppelle Health Authority.*

### 3.6 Provisional Pharmacists on primary care teams

There will be many situations when community pharmacists are not permanent members of primary care teams. Under these circumstances, we foresee the patient playing an important role between the provisional pharmacist and the permanent members of the team. For example, other team members could ensure the patient has all the information that the provisional pharmacist needs. This includes relevant medical information such as diagnosis and test results and the role of the other team members. The patient would be expected to provide this information to the pharmacist. Upon providing service to the patient, the provisional pharmacist could either rely upon the patient to communicate back to the team, or the pharmacist could communicate with the appropriate member. This process could be facilitated by special forms developed for this purpose, or ultimately a health record, either in manual or electronic format. The new system being developed for the Drug Plan could be used for this purpose.

This communication process is especially important in self-care where the patient seeks advice from the pharmacist. The pharmacist will either refer the patient to another health care professional or recommend drug and/or non-drug remedies deemed appropriate to treat minor, self-limiting ailments, or both, when a potentially more serious ailment may exist.

Alternatively, permanent primary care team pharmacists could play a liaison and coordinating role between patients and itinerant pharmacists. In particular this includes the information sharing and communication role described earlier.

## 4) Management of Minor Illness

Of all health problems people are apt to acquire, minor illnesses and symptoms are by far the most common. More people suffer with colds, headaches, and heartburn than they do diabetes, hypertension, or angina. Yet, with minor illness so prevalent, they rarely come to mind when the formal healthcare system is discussed. The care of such symptoms is a crucial aspect of any healthcare system. When used appropriately, self-care practices are clinically effective and save countless resources. If even a small percentage of all minor illnesses were diverted to formal medical care, the system would literally grind to a halt.

Those who experience such symptoms can respond in several ways. Some might choose to ignore them, given their minor nature. Others will use a home remedy or perhaps a commercial product such as an over-the-counter (OTC) medicine. Still others opt for professional care. A good number even elect to take minor illnesses to already over-burdened emergency departments.

Of these pathways, a common approach is to seek relief through OTC product use. The self-care products industry in Canada generated approximately $2.9 billion in sales in 1999. While physicians and pharmacists both play a critical roll in the care of

minor illnesses, pharmacists continue to feel a strong sense of responsibility for the safe and rational use of OTC medicines. Appropriate self-medication has two facets – selection of the best product for a given condition (appropriate selection) and correctly using it once purchased (appropriate use). Hundreds of products are available to consumers; dozens are sometimes available for just one indication. From this maze of products, a person must choose the most appropriate. This can be a daunting task. It becomes more worrisome when one considers that only a third of Canadians compare medicinal ingredients for duplication at the time of purchase and that only one in five claims to read directions for usage.

In Canada, most OTC purchases take place in pharmacies. During such transactions (and when asked to do so), pharmacists have a responsibility to accurately interpret symptoms that are presented and offer safe treatment. This is a very common occurrence! If a product is deemed suitable, instructions to ensure proper use will often be needed (unless the patient is clear on this or will read product labeling). Pharmacy educators have long recognized this responsibility and provide courses in OTC drug therapy. Provincial pharmacy associations have mandated patient care involving non-prescription products into standards of practice. The value of this involvement was depicted in the Canadian Pharmacist Intervention Study. Accounting for under-reporting, then extending the figures to a national level, Canadian pharmacies would have made nearly 50,000 OTC-related interventions per day or over 15 million interventions during the year (1993). Using $44 to represent the cost savings per intervention, and assuming half of these individuals would have otherwise consulted a physician, an estimated $265.6 million would have been saved.

Since the early 1980's, a steady stream of medicines around the world have been deregulated from prescription to non-prescription status. One of the earlier agents was hydrocortisone 0.5% in topical from, soon to be followed by vaginal anti-fungals, nicotine replacement therapies, ibuprofen, H1 and H2 receptor antagonists, and so on. The trend toward deregulation is likely to continue as governments support such activity under the rubric of cost-cutting measures. Accordingly, the pharmacist role in this area will continue to grow in importance.

## 5) Facilitating pharmacist involvement

The Coalition will work with pharmacists, professional organizations and other stakeholders to identify strategies and promote opportunities for enhanced pharmacist involvement on primary health care teams. This will include:

- pursuing the aforementioned recommendations;
- meeting with RHAs Primary Care Directors to provide information on pharmacists in each RHA and to provide examples of how pharmacists will benefit them as teams are formed;
- educating other members of the team, including the patient, on the role of the pharmacist

- collaborating with interested parties on systems that enhance communication and the availability of patient information to the pharmacist;
- eliminating regulatory barriers and pursuing regulatory changes that support enhanced pharmacist involvement on teams through the Saskatchewan Pharmaceutical Association. For example, standards of practice, expanding the role of technicians and allowing the pharmacist to be absent from the pharmacy;
- collaborating with interested parties on compensation arrangements for pharmacists involved on primary care teams; and,
- through Continuing Professional Development for Pharmacists and competency assurance programs, ensure that pharmacists possess the training and skills needed for effective participation on primary care teams

# I. Background

In the Commission on Medicare Report[3], Commissioner Fyke recognized that pharmacists are underutilized as members of the health care team. He recommended that pharmacists become more involved in the prescription decision-making process. He further recommended that pharmacists become integral members of primary care teams described as providing "everyday services". The subsequent Government of Saskatchewan Action Plan for Health Care advised of plans to form primary care teams consisting of a broad range of providers, including pharmacists, and supported by primary care networks.[1] In the Action Plan, the government states, in part, *"*

*We will establish primary health care networks in all 12 regional health authorities, offering a full range of primary health care services……..*

*Each regional network will consist of one or more teams, with each team serving several communities. The team members would typically include a group of physicians, primary care nurses, pharmacists, social workers, and mental health workers……*

*Within four years, all Regional Health Authorities will have planned and begun implementation of their primary health care networks."*

In response, Saskatchewan Health developed specific plans for primary health care. Dr. Gill White, Acting Executive Director, Primary Health Services Branch, presented these plans to SPhA Council on February 27, 2002. Some of his key messages included:

*Primary health services are generally the first point of contact and provide the basis to address the main health needs of individuals and communities. They:*

- *encompass preventive, promotive, curative, supportive, rehabilitative, and palliative services;*
- *are delivered by a range of providers;*
- *serve to enhance people's physical, mental, emotional and spiritual well-being;*
- *address the factors which influence health (determinants of health); and,*
- *are designed & delivered in conjunction with the public and community service providers.*

*Primary care is provided at the first level of contact with the health system – where people first enter the health system and where all health services are mobilized and co-ordinated. It includes education and activities to maintain health, as well as care for common illness, minor injury, and management of ongoing problems.*
*The proposed model is about:*

- *organizing and enhancing the services we presently have;*
- *changing public and professional behavior;*
- *improving access to and co-ordination of care;*
- *changing practice patterns to increase effectiveness; and,*
- *maximizing the use of our limited human resources*

Dr. White concluded by asking Council to advise him on how we can engage the pharmacist as an effective member of primary care teams.

## II. History of Consultation Process

Council accepted this challenge and made developing the role of the pharmacist as a member of primary care teams a high priority. A process of consultation with Saskatchewan pharmacists was undertaken including a faxback survey to the membership in March 2002 (Appendix A), focus group interviews in July 2002 (Appendix B), and a workshop on pharmacists and primary care at each district meeting in fall 2002 (Appendix C).

In June 2002, a group of interested SPhA members met to discuss how the profession might contribute to the development of primary care. One of the outcomes was agreement to form the Pharmacy Coalition on Primary Care, consisting of representatives from the Canadian Society of Hospital Pharmacists (Saskatchewan Branch), College of Pharmacy and Nutrition, Representative Board of Saskatchewan Pharmacists, and the Saskatchewan Pharmaceutical Association. Since then, membership has been expanded to include a network of advisory members who have expressed an interest in being involved. The Coalition's self-described mandate is to assist Saskatchewan pharmacists in meeting the challenges of primary care practice. Its goals are to:

- Describe the role of the pharmacist in primary care;
- Explore educational options for the development and application of knowledge and skills of pharmacists in primary care;
- Explore practice models which would meet the pharmaceutical primary care needs of Saskatchewan residents;
- Interface with other stakeholders as pharmacists prepare to join primary care teams;
- Describe how the pharmacist can be effectively engaged as a member of the primary care team; and,
- Encourage pharmacists to participate in primary care teams.

# III. Linkage to the Primary Care Model

Primary Health Services' Model for primary care provision includes organizing and enhancing the services we presently have; changing public and professional behavior; improving access to and co-ordination of care; changing practice patterns to increase effectiveness; and, maximizing the use of our limited human resources. These themes are consistent with those identified by Saskatchewan pharmacists at our workshops and will be used to frame recommendations for the role of the pharmacist on teams, as well as ensuring that functional teams are formed.

## 1. Organization and Enhancement of Current Services

Pharmacists who provided feedback emphasized they are currently functioning as primary care providers, sometimes as independent providers, and at other times as a team member.

Pharmacists are often the first point of contact in the health care team as no appointment is needed as they are readily accessible to the public. Pharmacies which are open to the public 24 hours a day often provide after hours medication and health advice on a number of issues. Pharmacists provide medication education and information on a wide range of prescription drugs as well as care for common self-limiting illnesses which can be treated with over the counter drug products.

The use of various medical devices and individual disease state education in pharmacies has also strengthened the relationship between various health care providers. For example, physicians can refer clients to a pharmacy for regular blood pressure monitoring and diabetes educators can refer clients to pharmacists for assistance in education on the use of blood glucose monitors. Several pharmacists are now working with physicians and nurses on other disease specific activities, such as assessing risks for osteoporosis and cardiovascular disease (i.e. blood pressure, blood lipids and blood glucose).

Teams which include pharmacists were identified to exist in the following areas:

- Home care, (group case conferences, home visits, optimizing medication use and drug distribution through compliance packaging);
- Long term care (providing medication reviews and group case conferences for residents);
- Palliative care (group case conferences for clients, chronic pain management, bereavement referrals, home visits);
- Diabetes education (working with dieticians to educate clients on nutritional needs in diabetes clients, the use of blood glucose meters and proper foot care);

- Methadone maintenance clinics (daily counselling on various issues related to general health and well being to opiate dependent methadone maintenance clients);
- Wellness clinics (participating in wellness clinics by educating clients on medication use and safety);
- Ostomy care;
- Other disease specific education (i.e. asthma, cardiovascular disease);
- Men's/Women's health; and,
- Smoking cessation clinics and aids.

In the opinion of many, pharmacists are often underutilized within our current scope of practice. Others in the profession see a natural expansion of our scope of practice to meet the demands of health care and to improve the functionality of teams providing care. One participant stated, "We must change the perception of the pharmacist as a provider of medications to a provider of good pharmaceutical care, including the provision of disease state education, information regarding medications and good medication care plans."

## 2. Changing Public and Professional Behavior

Behavior change is a complex process involving education and understanding, motivation, support and reinforcement. Those of us who are familiar with assisting patients to accept responsibility for the self-management of a chronic disease or in breaking a health risk behavior such as smoking, understand how involved the process is.

The adoption of a new, interdisciplinary collaborative model will be welcomed and accepted by some, and resisted by others. The heterogeneity of the responses to this change in model will challenge the functionality of some teams. Essential to the functionality of team based practice will be the understanding and acceptance by the general public and by patients as they seek care.

The formation of functional teams will require collaboration among all of the individual professional groups and organizations and among the individual team members and the populations they intend to service. Clearly, support from multiple sources will be essential. The profession of pharmacy and the Coalition look to the academic institutions to lay the foundation of team practice for health professionals in training; to institutions within RHAs that have experience with existing institutional-based teams; to continuing professional education providers to develop team-based education; and to government and organizations such as the Quality Council, who have identified that team-based skills need to be taught.

## 3. Improving Access and Coordination of Care

To pharmacists, improved access and coordination of care would necessitate improved access to patient information. While the actual model of pharmacists joining teams is being explored, the majority of ambulatory pharmacists work physically separated from the rest of the primary care team. We rely upon our shared patients to carry and convey vital information about their health, and often have only a prescription from which to begin our dialogue with them.

"We need to know more about the patient and have open lines of communication with other providers." Many pharmacists cited access to information regarding the patient as essential for teamwork and continuity of care at every point in the delivery of primary care. Communication amongst team members and the sharing of information such as laboratory test results, diagnoses, medical histories, and previous hospital admissions, were all seen as necessary parts of the communication plan.

Many pharmacists identified the need for a comprehensive database of information, such as the original vision for the Saskatchewan Health Information Network, stating that; "patients' information should follow them wherever they go." Pharmacists use technology extensively to document and transmit patient information, and feel this is an important tool for effective teamwork. It is hoped that the introduction of technology such as SHIN will assist in communication.

Seamless care, as patients move between health care environments, has improved greatly between institutional and community pharmacists over the last five years. Members particularly acknowledged the work done on the access to information upon discharge of a patient from hospital, and urged completion of the SPhA's seamless care initiative to greatly improve the team's ability to provide good primary health care. The Coalition will aggressively promote the initiatives developed by the SPhA Seamless Care Task Force. This includes finalizing and promoting the use of a special form in paper and electronic format, that is designed to share patient information between hospital and community pharmacists.

## 4. Changing Practice Patterns to Increase Effectiveness

Pharmacists who are employed by RHAs as institutional pharmacists have extensive experience in assessing practice patterns via patient census and admission information and from utilization reviews. Methods to improve appropriateness of prescribing of particular medications have been the focus of many programs and projects within hospital pharmacy departments for the past twenty years. These pharmacists will be important resources as prescribing patterns are assessed in the ambulatory environment.

Medication misadventuring is a significant problem in the ambulatory environment, which leads to poor patient outcome, significant morbidity, and expensive health care utilization. As early as 1980, there was a call for a change in the practice model that would physically bring the prescriber and pharmacist together in the same practice environment. As well, the need for pharmacists in the ambulatory environment to systematically assess medication regimens, and a request for pharmacists working in hospitals and community pharmacies, to better communicate the therapeutic plan as patients moved between the environments, was made.

Saskatchewan pharmacists are very proud of their involvement in practice-based research projects conducted in the province to date. Collaborative projects between pharmacist and prescribers, such as the ABX Project on improving antibiotic prescribing to limit resistance and SCRIP, which demonstrated the significant benefit of pharmacists providing cholesterol education, have demonstrated the important role pharmacists play in optimizing care. The ongoing Pharmacists in Primary Care Pilot, which is comparing usual practice to pharmacists joining medical practices, will provide valuable information on the effect of the practice model on the study outcomes.

## 5. Maximizing Limited Human Resources

Pharmacists, not unlike most health care disciplines, are in short supply across our country and in North America. Recent elimination of barriers for portability has meant that Saskatchewan now competes with the continent for critical health care workers, including pharmacists. The key to success in our province will be utilizing the professionals we do have to their fullest capabilities, and in offering innovative practices that maximize professional satisfaction.

Pharmacists feel that we could do more, both within our current scope of practice, and perhaps, under an expanded scope. Many felt that pharmacists are an under-utilized resource. Several participants suggested increased education and accreditation programs, as ways to enhance our credibility to work on primary health care teams. Members also felt that pharmacists should have the ability to order or perform certain diagnostic and/or screening tests, such as current INR, to determine the correct dose of warfarin. It was suggested that pharmacists be part of the 24 hour advice line proposed by the province through existing resources, such as the Saskatchewan Drug Information Service (formerly “Dial Access”). Many participants wanted the ability to refer patients to other team members (ie. nutritionists) for advice, and also wanted more involvement in the choice of drugs prescribed by nurse practitioners and physicians.

Pharmacists felt that teams need to be defined for the process to continue. Discussion surrounding the structure of the team occurred at each meeting and resulted in various ideas:

- Incorporate the team into existing structures and utilize what already exists;
- Have virtual teams with flexible structures;
- Educate each member of the team as to what other members of the team can do;
- Each member of the team interacts but works within their scope of practice;
- While the prescription establishes the pharmacist a member of the team, the pharmacist can still be a member if no prescription is involved (i.e. the most significant drug related problem is needing pharmacotherapy and not receiving it);
- The team should respond to the needs of the client;
- Teams should have case managers and/or team leaders; and,
- Each member of the team has to be respectful of the strengths of other team members to eliminate "turf protection".

The Saskatchewan Action Plan for Primary Health Care calls for the development of a network within each RHA, consisting of all the teams that interact with each other. The teams will include **program teams**, **central teams**, and **satellite teams**. There is a team role for pharmacist(s) on each of these types of teams, and also as virtual team members given improved communication/information links.

Examples of **program teams** that would benefit from pharmacist involvement include but are not limited to: addiction services[4] (methadone programs), geriatric assessment programs[5] (medication assessment), health promotion programs (link strategies into all RHA pharmacies – increased public awareness), chronic disease management teams (diabetic management[6], cardiovascular risk reduction[7]), inappropriate Emergency Room utilization (education strategies, medication compliance clinics), and, discharge planning teams (role of the pharmacist here would be to consistently complete and transmit seamless care documentation in anticipation for discharge)[8]. In view of the history of minimal involvement of pharmacists on these community-based teams, it would be useful for all program teams to inquire about the potential role for pharmacists on their team.

**Central teams** are groups of prescribers (physicians and nurse practitioners) who practice together either in a rural or urban environment. The role of the pharmacist as a co-located team member could be on a part-time or full-time basis depending upon the catchment area, population served and needs of the patients and other team members. Direct patient care activities might include: group or individual patient education, pharmacotherapy assessments (polypharmacy, suspected adverse drug effects), therapeutic recommendations following diagnosis, and follow-up appointments for chronic disease monitoring.[9-21] Activities to support the practice could include: responding to drug information requests from prescribers, conducting drug utilization evaluations and comparing practice to standards of practice to provide in-house information to prescribers, counter-detailing the pharmaceutical industry, and/or implementing health promotion strategies developed by program teams. There

is also a role for pharmacists who are **not** co-located to these teams. While this model dictates a need for improved communication links, many teams are currently functioning effectively under this model. It is also important to remember that a single, co-located pharmacist cannot possibly provide pharmaceutical care to every patient within the practice.

**Satellite teams** are envisioned as a community where resident staff or visiting staff offers health promotion and prevention services, clinical services and access to emergency services. While "team staff", are viewed here as potentially travelling to these care centres within smaller communities, it should be noted that most of these communities have a pharmacy, often with a resident pharmacist. In these communities the pharmacist typically functions as triage when the remainder of the team are outside the community. It must also be noted that these pharmacies are often one-person operations. Under current provincial regulations, these pharmacists cannot leave their pharmacies in the hands of a technician or clerk to co-locate, even for a few hours with the other team members.

## IV. Issues and Barriers

To complete the analysis of the profession as it relates to primary care, barriers to be overcome were identified. Barriers to pharmacists on primary care teams included such issues as time, reimbursement and regulatory issues.

- The need for a change in the payment systems. Current processes, which tie a fee for service to the dispensing of a medication via prescription, were seen as a major barrier to primary health care;
- Volume driven health care does not facilitate a team approach;
- The challenges to establish teams in urban versus rural settings;
- The difficulty in moving forward when no cohesive plan or models have been defined;
- Lack of trust amongst various professionals;
- Turf protection amongst various professions; and,
- Lack of time.

# V. Recommendations

## 1.0 Role of the Pharmacist in Primary Care

The role of the pharmacist in primary care practice will encompass both direct patient care activities (pharmacotherapy assessment and recommendations, patient education), and activities which support the other members of the primary care team (health professional education, pharmacotherapeutic consultations, responding to drug information requests, health promotion strategies, drug use evaluations, practice-based research, etc).

When pharmacists provide direct patient care, they do so using the pharmaceutical care model. Pharmaceutical care is that component of pharmacy practice which entails the direct interaction of the pharmacist with the patient, for the purpose of caring for that patient's drug-related needs. Pharmaceutical care is defined as the responsible provision of drug therapy for the purpose of achieving definite outcomes, that improve a patient's quality of life, such as, i) cure of a disease, ii) eliminate or reduce symptomatology, iii) arrest or slow disease process, and/or iv) prevent a disease or symptomatology.[22] Pharmaceutical care involves communication with patients, analysis of patient specific data and application of pharmacotherapeutic knowledge to recommend the most appropriate therapy for patients, and then monitoring of that therapy for its desired outcome.

Numerous direct patient care and team support based activities may be performed by pharmacists, depending upon the needs of the patients serviced by the particular health care team. In other countries and in limited locations throughout Canada, pharmacists in primary care practices and/or internal medicine ambulatory clinics,[9-21] have provided patient care services including: drug therapy monitoring, therapeutic and pharmacokinetic consultations, telephone triage, home visits, medication assessments, and patient education. Services to the health care professionals within these practices include: education (informal and presentations), pharmaceutical industry counter-detailing, product recommendation, and drug information provision. Just as institutionally based pharmacists have assisted institutions with evaluation of current practice compared to established standards (drug use evaluations, clinical practice guidelines), so too have family practice-based pharmacists been involved in research that aims to identify best practice, as well as areas to focus attention on. Finally, pharmacists are important community resources when planning and implementing integrated health promotion strategies within a community.

The specific mix of activities (direct and indirect patient care) in primary care sites, will differ. The needs of the patient population served by the primary care site, other health care disciplines in the team, strengths of the other team members, cross-training needs, experience and interest areas of the pharmacist, and available time to commit to the primary care site will all dictate the prioritization of activities.

## 2.0 How to Involve Pharmacists on Primary Health Care Teams

Consultation from members identified the following recurring themes:

- Information – the pharmacist needs access to increased amounts of patient information (i.e. diagnosis, test results) to enhance their ability to make decisions;
- Communication – systems need to be in place to facilitate effective communication amongst all members of the team;
- Education – other members of the team need to be educated on the role of the pharmacist and how the pharmacist can contribute to effective health care. The pharmacist also needs to be aware of the role of other team members to facilitate referral to them when needed. In addition, while some skill development may be needed for expanded areas of practice, pharmacists may also need education on skills to be an effective team member;
- Scopes of practice – while exclusive and overlapping scopes of practice need to be understood, an environment needs to exist where the skills of all members of the team are optimally used;
- Resources – adequate human, material, and financial resources must be available;
- Compensation – members of the team must be fairly rewarded for their involvement; and,
- Modeling – models are needed to demonstrate how pharmacists can become effective team members.

Therefore, the goal of strategies to enhance the role of the pharmacist on primary care teams should be to address these recurring themes.

The Coalition endorses the document attached as Appendix D and entitled "Canadian Society of Hospital Pharmacists (Saskatchewan Branch) - *An Information Paper on Pharmacist Responsibilities in Primary Health Care".* As such, the Coalition accepts the recommendations in this paper, and adapts them for submission as the following recommendations on how the pharmacist can be included on primary care teams:

### 2.1 Pharmacists in ambulatory care clinics

Working in collaborative, multidisciplinary clinics, usually located in hospitals, pharmacists have the opportunity to optimize drug therapy and patient outcomes by educating patients, optimizing medication use, and monitoring medication endpoints. *Examples: dedicated pharmacist who manages the pharmacotherapy needs of HIV infected patients (RQHR); interdisciplinary cardiac risk clinic (SHR); pharmacist-managed anticoagulation clinic (Five Hill RHA); RQHR Lipid clinic co-directed by a pharmacist.*

**2.2 Medication assessment clinics**
Drug misadventures are defined as the largely preventable, unintentional negative outcomes associated with drug therapy.[23] The literature illustrates causality between drug misadventuring and patient morbidity, hospitalization and the length of hospital stay. Pharmacists in medication assessment clinics or programs ensure positive patient outcomes and more appropriate health care utilization.

The next opportunity is to have medications of ambulatory patients assessed by pharmacists with specialized skills, with communication of the treatment plan to the prescriber and the community pharmacist. *Example: a pharmacist who assesses the medication regimens of patients attending geriatric assessment day program; pre-admission medication assessment to long-term care facility.*

**2.3 Pharmacists in physician offices**
The ability to make the best possible choice of medication, and its appropriate dose, at the point of care commencement, would streamline the system and avoid gaps. Pharmacists working in physician offices would be able to collaborate on medication management, and augment the decision process when medications are prescribed. *Examples: RxFiles (academic detailing); an academic pharmacist consultant in a private medical office in Saskatoon; five pharmacists (Wynyard, Fort Qu'Appelle, Regina) who joined medical practices to conduct medication assessments – pharmacists in primary care pilot.*

The Coalition will work with the Saskatchewan Medical Association to promote this concept to independent medical practitioners. We will also work with the Regional Health Authorities and with the Saskatchewan Association of Health Organizations to promote this concept to those physicians who may be contracted or employed by the RHAs in primary health care clinics.

**2.4 Pharmacists working with Advanced Clinical Nurses or Nurse Practitioners**
There is an immense wealth of opportunity to enhance patient outcomes by working alongside nurse practitioners. *Example: unaware of a true collaborative practice in the province.*

**2.5 Pharmacists on primary care teams**
When pharmacists join multidisciplinary teams, the resulting improvements in process and decision making are immediate. Teams dealing with complicated medication therapies need pharmacist expertise. Pharmacists can also be effective multidisciplinary team leaders. *Examples: palliative care team in Nipawin, pharmacists in the chronic renal insufficiency program in the Regina-Qu'Apppelle Health Authority.*

### 2.6 Provisional Pharmacists on primary care teams

There will be many situations when community pharmacists are not permanent members of primary care teams. Under these circumstances, we foresee the patient playing an important role between the provisional pharmacist and the permanent members of the team. For example, other team members could ensure the patient has all the information that the provisional pharmacist needs. This includes relevant medical information such as diagnosis and test results, and the role of the other team members. The patient would be expected to provide this information to the pharmacist. Upon providing service to the patient, the provisional pharmacist could either rely upon the patient to communicate back to the team, or the pharmacist could communicate with the appropriate member. This process could be facilitated by special forms developed for this purpose, or ultimately a health record, either in manual or electronic format. The new system being developed for the Drug Plan could be used for this purpose.

This communication process is especially important in self-care where the patient seeks advice from the pharmacist. The pharmacist will either refer the patient to another health care professional, or recommend drug and/or non-drug remedies deemed appropriate to treat minor, self-limiting ailments, or both, when a potentially more serious ailment may exist.

Alternatively, permanent primary care team pharmacists could play a liaison and coordinating role between patients and itinerant pharmacists. In particular, this includes the information sharing and communication role described earlier.

SPhA will cooperate with the Western Health Information Collaborative Provider Registry project to ensure that all those involved in primary care, have access to the location of **pharmacists** and pharmacies in Saskatchewan. Until that Registry becomes active, SPhA will provide the information through the RHAs.

## 3.0 Management of Minor Illness

Of all health problems people are apt to acquire, minor illnesses and symptoms are by far the most common. More people suffer with colds, headaches, and heartburn than they do diabetes, hypertension, or angina. Yet, with minor illness so prevalent, they rarely come to mind when the formal healthcare system is discussed. The care of such symptoms is a crucial aspect of any healthcare system. When used appropriately, self-care practices are clinically effective and save countless resources. If even a small percentage of all minor illnesses were diverted to formal medical care, the system would literally grind to a halt.

Those who experience such symptoms can respond in several ways. Some might choose to ignore them, given their minor nature. Others will use a home remedy or perhaps a commercial product such as an over-the-counter (OTC) medicine. Still

others opt for professional care. A good number even elect to take minor illnesses to already over-burdened emergency departments.

Of these pathways, a common approach is to seek relief through OTC product use. The self-care products industry in Canada generated approximately $2.9 billion in sales in 1999. While physicians and pharmacists both play a critical roll in the care of minor illnesses, pharmacists continue to feel a strong sense of responsibility for the safe and rational use of OTC medicines. Appropriate self-medication has two facets – selection of the best product for a given condition (appropriate selection) and correctly using it once purchased (appropriate use). Hundreds of products are available to consumers; dozens are sometimes available for just one indication. From this maze of products, a person must choose the most appropriate. This can be a daunting task It becomes more worrisome when one considers that only a third of Canadians compare medicinal ingredients for duplication at the time of purchase and that only one in five claims to read directions for usage.

In Canada, most OTC purchases take place in pharmacies. During such transactions (and when asked to do so), pharmacists have a responsibility to accurately interpret symptoms that are presented and offer safe treatment. This is a very common occurrence! If a product is deemed suitable, instructions to ensure proper use will often be needed (unless the patient is clear on this or will read product labeling). Pharmacy educators have long recognized this responsibility and provide courses in OTC drug therapy. Provincial pharmacy associations have mandated patient care involving non-prescription products into standards of practice. The value of this involvement was depicted in the Canadian Pharmacist Intervention Study. Accounting for under-reporting, then extending the figures to a national level, Canadian pharmacies would have made nearly 50,000 OTC-related interventions per day or over 15 million interventions during the year (1993). Using $44 to represent the cost savings per intervention, and assuming half of these individuals would have otherwise consulted a physician, an estimated $265.6 million would have been saved.

Since the early 1980's, a steady stream of medicines around the world have been deregulated from prescription to non-prescription status. One of the earlier agents was hydrocortisone 0.5% in topical from, soon to be followed by vaginal anti-fungals, nicotine replacement therapies, ibuprofen, H1 and H2 receptor antagonists, and so on. The trend toward deregulation is likely to continue, as governments support such activity under the rubric of cost-cutting measures. Accordingly, the pharmacist role in this area will continue to grow in importance.

## 3.0 Facilitating pharmacist involvement

The Coalition will work with pharmacists, professional organizations and other stakeholders to identify strategies and promote opportunities for enhanced pharmacist involvement on primary health care teams. This will include:

- pursuing the aforementioned recommendations;
- meeting with RHAs Primary Care Directors to provide information on pharmacists in each RHA and to provide examples of how pharmacists will benefit them as teams are formed;
- educating other members of the team, including the patient, on the role of the pharmacist;
- collaborating with interested parties on systems that enhance communication and the availability of patient information to the pharmacist;
- eliminating regulatory barriers and pursuing regulatory changes that support enhanced pharmacist involvement on teams through the Saskatchewan Pharmaceutical Association. For example, standards of practice, expanding the role of technicians and allowing the pharmacist to be absent from the pharmacy;
- collaborating with interested parties on compensation arrangements for pharmacists involved on primary care teams; and,
- through Continuing Professional Development for Pharmacists and competency assurance programs, ensure that pharmacists possess the training and skills needed for effective participation on primary care teams

# VI. Conclusion

The consultation process was valuable in that our strengths (knowledge and skills to provide enhanced care, accessibility in the community) and weaknesses (limited experience with team establishment, clear understanding of our role on teams) as a profession, were identified. As well, environmental opportunities (chance to utilize our skills, opportunity to collaborate more with other team members) and challenges (communication challenges, turf protection), were also identified. This information will be used by the Coalition to assist pharmacists in taking the necessary steps toward joining and functioning well within teams.

Pharmacists make significant contributions to patient care, while positively impacting health care costs. This has been demonstrated both in the ambulatory environment with access to comprehensive patient information, and in hospitals by existing multidisciplinary teams. Within the multidisciplinary team approach, the pharmacist can prove to be an integral member. Health care professional collaboration is needed throughout the entire system, from primary to tertiary health care. Pharmacists also continue to play an important role in primary health care, and have also demonstrated excellent examples of collaborative arrangements. We need to build upon these successes by introducing them throughout the entire health care system.

Respectfully submitted,
Pharmacy Coalition on Primary Care
Canadian Society of Hospital Pharmacists (Saskatchewan Branch)
College of Pharmacy and Nutrition, University of Saskatchewan
Representative Board of Saskatchewan Pharmacists
Saskatchewan Pharmaceutical Association

May 1, 2003

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**Appendix A**

# FAXBACK SURVEY

A Fax Back member survey was conducted in March 2002. While the low response was disappointing, the results provided important information, summarized as follows:

*Responses were received from practitioners in both hospital and community settings, as well as pharmacists employed in independent community pharmacy and chain pharmacies. While many of the respondents reported having worked collaboratively with other health care professionals in some areas, there was no standard view of the primary care team.*

*Some respondents provided examples of their team involvement, such as, educational (cardiovascular, diabetic, chemotherapy outreach, in-service training for home care nurses), attendance at family care conferences, home visits, and weekly medication reviews.*

*The most frequently named barriers to pharmacists participating in primary care teams were human resource issues and compensation. Other barriers were unwillingness of other health care providers to participate on a team and reluctance to recognize the role of the pharmacist on the team. Many members cited the inability to access the patient information needed to make informed drug therapy recommendations.*

*Respondents were asked to share their ideas on how pharmacists can become an effective member of the primary care team. Key strategies included education for pharmacists and other health professionals on the role of pharmacists. Also, providing the pharmacist with more patient information would enable the pharmacist to actively participate as a drug consultant within the team, even if they physically are not in the same geographic location as other members of the team. The need for better communication between members of the primary care team was stated throughout the survey.*

The complete survey results are attached as Appendix A, and provide specific examples of the types of teams cited by members.

# "FaxBack!" #13

**March 2002**
**PRIMARY CARE TEAMS**

**Results**: [16 respondents (a) to (q)]

1. Are you involved in an interdisciplinary team or collaborative practice with other health professionals providing primary care? If so, please describe:
    a) team in an acute care setting
    b) hospital – palliative care, ambulatory care, cardiovascular education
    c) individual patient (complicate drug therapy) assessment in community through physician with home visits
    d) no
    e) hospital - palliative care, chemotherapy outreach and diabetes education
    f) hospital – daily ICU rounds, transplant team
    g) work with RNs in long term care facility – med reviews prior to family care conferences
    h) in service training for home care nurses
    i) team in long term care – meet every 3 months with MDs and RNs to review care of patients
    j) No response
    k) Long term care as a consultant
    l) No
    m) Weekly med reviews on long term care residents using principles of pharmaceutical care
    n) Hospital – many situations involved in prescription decision process (aminoglycoside dosing/monitoring, consultations, therapeutic interchange, Renal dosing, integrated clinical pathways like CHF, rounds, pediatric asthma
    o) Not yet
    p) No, but work closely with local physicians and home care nurses
    q) Team with dietician to care for newly diagnosed diabetics. Past member of multidisciplinary teams in Regional Psychiatric Centre.

2. What do you see as the barriers and/or opportunities to pharmacists participating in primary care teams?
    a) Communication and more human resources needed
    b) Funding, structure, shortage of pharmacists/structure and funding
    c) Access to patient information, access to references / need exists but little is provided and physicians do not have the time
    d) Others feel we are not needed or an asset
    e) MDs have power, communication / pharmacists see patients more
    f) Shortage of pharmacists
    g) MDs have the authority, but do not participate in teams because not paid, and no desire to share authority
    h) Accessing information / impacting prescribing decisions at the source
    i) Lack of MD recognition of pharmacists skills, need successful models

j) Questionable feasibility in solo pharmacy practice – lack of time. Unstable medical practice in small communities. Proper payment is needed
k) Time lag between when med review is conducted and MS sees it – need to be part of the prescribing team
l) Acceptance by MDs and competing priorities with running a business
m) Pharmacists access to patient chart, influence writing of orders or have the ability to order lab tests. Physicians are the biggest barrier.
n) Communication, compensation / opportunities for collaborative prescribing and promoting profession
o) High retail wages, more education needed, nurse shortages and physician reluctance to recognize role of pharmacists. Opportunity for all to serve patient based on the same information
p) Barriers due to business. Opportunities to expand role in long term and home care
q) Access to lab and diagnostic tests, lack of time and knowledge.

3. What are your ideas on how pharmacists can become effective members of primary care teams?
    a) involve pharmacists in clinics and use pharmacist skills in drug information, selection and collaborative prescribing
    b) promote through education and outcomes
    c) payment for assessments, promote service to patients and physicians, pharmacist in physicians clinics on a regular basis
    d) include in home care services
    e) collaborative prescribing, training as a team, team functions together
    f) consistently present to provide care, marketing and promotion to be on teams from the start
    g) legislative changes to allow sharing of authority,
    h) more involved in diabetes education, lobby for cognitive service payment on DURs which result in positive outcomes, smoking cessation programs
    i) currently play role in disease management especially diabetes, patient education, hospital discharge education and seamless care in rural areas
    j) proper payment and adequate time. Improved communications
    k) set up MD/pharmacist medicenter to reduce load on emergency departments. Set up teams in other locations in communities (pharmacist and dietician in gyms for weight loss control) and allow testing in pharmacies. Med reviews on seniors with more than 3 prescriptions.
    l) Include pharmacists in the prescription decision, more information (diagnosis), regular drug reviews on all patients, access to information from other pharmacies, diabetes or asthma control and compliance education
    m) All other providers should form the team with the physician as a consultant. After diagnosis by physician, the team should be responsible for managing the patient and consult with the physician as needed. Currently works with a primary care nurse. Pursue diabetes education program.
    n) Greater opportunities for community pharmacists in rural areas, community based primary clinics where pharmacist is involved with the physician in drug therapy decisions 9collaborative prescribing)
    o) Pharmacists should have more input into the decision making process
    p) No response

q) Be forceful rather than being reticent. Expand role of technicians and need better training.

4. Are you interested in participating in experiments, pilot projects, demonstration models or any other types of initiatives involving the pharmacist on a primary care team? If so, please identify yourself and any ideas you might have.
    a) Monica Lawrence and Bill Semchuk, Regina General Hospital
    b) Barry Lyons, Nipawin
    c) Linda Klassen, Saskatoon
    d) No – insufficient time
    e) Karen McDiarmid, Moosomin
    f) Carolyn Anderson, St. Paul's Saskatoon
    g) Not until new physician in community – Garth McCutcheon, Foam Lake
    h) Shoppers Drug Mart, Prince Albert
    i) Yvonne Linnen, Wadena
    j) No – time constraints – Greg Wismer, Macklin
    k) Christine Hrudka, Shoppers Drug Mart, Saskatoon
    l) Jeff Hilderman, Kamsack
    m) Rick Gaertner, Nipawin
    n) Melanie McLeod, Pasqua Hospital
    o) Sandra Dufour, Spiritwood
    p) Debbie McCulloch, Rosetown
    q) Audrey McLelland, Safeway Pharmacy, Saskatoon

**Appendix B**

# TELEPHONE INTERVIEWS

As a first step on behalf of the Coalition, SPhA's summer student, Erin Reid, conducted an interview of a representative sample of members to gather ideas on how to integrate the pharmacist as a member of the primary care team. The survey inquired about members' level of understanding of the concept, how members foresee or visualize their role and how they see the pharmacist functioning as a member of primary care teams.

- All 16 pharmacists interviewed completely supported primary care teams and believed that pharmacists have a vital role in team-based practice;
- 88% were of the opinion that direct (patient counselling, education on disease state management) and non-direct (providing drug information to other health care providers) patient care, are equally important and the focus was dependent on the circumstances;
- Many felt that this kind of service should be a benefit under the Drug Plan like prescriptions are, with a portion funded by the government and the rest covered by either the patient or a third party. Others felt that this type of service should be the sole responsibility of either the government or the patient;
- 10 believed that a fee for service payment structure was the best option for this kind of team based care;
- The choice of the pharmacist on the team could be made by a number of different people in a variety of combinations ranging from the payer to the other members of the team. The patient should also be considered to be a part of the team and therefore must feel comfortable with who is providing them with their care;
- Before team-based primary care can be achieved a practice model needs to be developed;
- The amount of time available to a primary care practice varied a great deal from up to four hours per day while others envisioned the team meeting once every month or two;
- Accomplishments of the team seemed to focus around education, both for the patient and the other health care professionals;
- A large majority of the pharmacists interviewed identified the lack of both money and time as the two largest obstacles;
- Others identified lack of information (i.e. diagnosis, lab values, other disease states) and communication between health care professionals as challenges;
- Many were concerned with the designation of roles and responsibilities. All members of the team must trust one another's skills;
- All identified educational strategies for this type of practice. Interdisciplinary education on communications skills was identified as the major need; and,
- Many had innovative and interesting ideas on team-based primary care. Some have started the thinking process while others have already initiated some kind of team-based primary care practice and are involved with it on an on-going basis.

# A Report on Pharmacists

# And

# Primary Care in Saskatchewan

**August 2002**

## OBJECTIVE:

To determine how Saskatchewan Pharmacists understand team-based primary care as it is practiced now, and how it will be practiced in the future.

## BACKGROUND:

In February 2002, Dr. Gill White presented to the Council members of the Saskatchewan Pharmaceutical Association. His presentation defined primary care as the care provided at the first level of contact with the health system - where people first enter the health system and where all the health services are mobilized and co-ordinated. This includes education and activities to maintain health, as well as care for common illness, minor injury, and management of ongoing problems. He explained that it encompasses many levels of health care including preventative, promotive, curative, supportive, rehabilitative, and palliative services.

The types of services that are offered through primary care should not be limited to the physical health state of an individual, but should also include the mental, emotional and spiritual well-being of the individual. The individual should be looked at as a whole, rather than sections, and a wide range of health care professionals should be included in the assessment of the individual to ensure optimal patient care. Included in this group of health care providers, must be the pharmacist.

Pharmacists offer unique and innovative services to the health care team ranging from direct patient care, such as patient counseling and education, to an extensive knowledge of drug therapy that can be utilized by other health care professionals. As the practice model begins to slowly evolve to encompass Primary Care in our province, initiatives of pharmacists are becoming more evident. Other health care professionals in both hospital and community practices, are beginning to understand the knowledge that the pharmacist can offer to patient care. More community pharmacists are beginning to offer clinics and consultations, often resulting in referrals to other health care professionals. These consultations and referrals allow patients the opportunity to learn more about how they can manage their disease, with both therapeutic and non-therapeutic means. These types of practices illustrate the value of primary care teams, and the importance of involving the pharmacist in this kind of patient care.

Although the thoughts and ideas of these innovative practitioners are voiced, they are often left unheard. Thirty seven practicing pharmacists in Saskatchewan were contacted to participate in a telephone interview with a total of eighteen responding. Of the eighteen that responded, sixteen were available when contacted to conduct the interview. The participants were asked their opinion on certain aspects of primary care in the province. The topics included the role of the pharmacist, remuneration, practice model, and preparation and training (See Appendix 1). The interviews ranged in length from fifteen minutes to fifty minutes, and the average interview lasted approximately twenty-five minutes. Of the sixteen participants, three currently practice in a hospital setting, and thirteen practice in a community setting, including nine pharmacy managers and four staff pharmacists. Ten of the sixteen interviewees practice in an urban based setting, while the other six currently practice in a rural setting. All the participants received a Bachelor of Science in Pharmacy from the University of Saskatchewan between the years of 1958 and 1995.

## RESPONSES:

*Role of the Pharmacist:*

All of the sixteen pharmacists interviewed were in complete support of primary care teams, and believed that pharmacists have a vital role in team-based practice. Interviewee #15 explained that a patient can "walk up to the counter and ask to speak to a pharmacist, and because of this, pharmacists are the most accessible to the patient. With this type of availability, the pharmacist could begin the process of team-based primary care by gathering information about the patient's health, and assessing their health state. This assessment could lead to a referral to the appropriate health care professional, ensuring that the patient receives complete care. These assessments could be done in the form of interviews, where patient medical histories are gathered, or in the form of screening tests (bone density, blood pressure readings, blood glucose monitoring). The pharmacist could also play an important role after diagnosis, especially in disease state management (asthma, high blood pressure, diabetes). Through educating both the patients and other health care professionals involved in the team, treatment will become more effective, both in terms of cost-benefit analysis and therapeutic outcome. By involving the pharmacist at the on-set of a treatment program, prescribing recommendations can be given preventing drug related problems before they even start. The pharmacist can become involved in reviewing the patient's medications (both prescription and over the counter) continually, ensuring optimal therapy right from the beginning.

Of the sixteen pharmacists interviewed, 88% were in the opinion that direct (patient counselling, education on disease state management) and non-direct (providing drug information to other health care providers) patient care, are equally important, and the focus was dependent on the circumstances they were dealing with. Interviewee #7 spoke of how a pharmacist "being part of a team, is just as advantageous to the patient as receiving direct patient care". The importance of working together to solve a problem is evident, as each health care professional has their own expertise which they can offer to the team. Interviewee #13 identified non-direct patient care is needed, because "you cannot do everything on your own". Interviewee #8 explained that by combining direct patient care with non-direct patient care, pharmacists can help the patient, while providing other health care professionals with the information that they need. By interviewing the patient and obtaining information that will assist in making a therapy decision, recommendations can be made to other health care professionals in the form of a letter, of pharmaceutical opinion. The collaboration of these two kinds of patient care will allow patient-pharmacist relationships to build, as well as ensuring that the proper health care professional will have all the pertinent information to continue the patient care process.

*Remuneration:*

When considering a practice like this, it is important to be concerned about where the funding is going to come from. Many of the respondents felt that this kind of service should be a benefit under the drug plan, much the same as prescriptions are, with a portion funded by the government, and the rest covered by either the patient, or a third party payor (ie the patient's insurance). Interviewee #8 explained that "with the money that is saved from emergency room visits, funding is freed up to help pay for this". He/She also believed that the patient should also have some financial input, allowing the individual to see the value attached to this service, further emphasizing the importance of the information that they have received. Interviewee #7 expressed that they felt a pharmacist can no longer be tied to a product when being paid, but rather to the cognitive services that they provide. Right now, these types of consultation services are provided at no charge, as Interviewee #15 mentioned, and the value of services like this need to be proved in order for funding to be granted.

On the other hand, some of the respondents felt that this type of service should be the sole responsibility of either the government, or the patient. “A patient should not be responsible because only those with money will be the ones receiving this type of care, and there won’t be equal health care for everyone”, explained Interviewee #10. However, Interviewee #12 felt that some patients are willing to pay for services like these, in order to receive proper education.

Of the sixteen pharmacists interviewed, ten believed that a fee for service payment structure was the best option for this kind of team based care. “Patients are different in their level of difficulty”, explained Interviewee #2, meaning that each patient is different in the complexity of the state of their health. Due to the differing complexities, the amount of time required to work through the patient’s profile is different. By receiving fee for service, the value of that particular service is established and the pharmacist is paid according to what they did. Interviewee #8 explained, an idea regarding a listing of fees for the service provided outlining the cost depending on the service, whether it is a letter of pharmaceutical opinion to the physician, or a consultation with the patient on proper medication use. Interviewee #10 felt it was important that “those that do this should be reimbursed”, and that there should be a reward for those that want to be active and “go above and beyond”.

The choice of the pharmacist involved with this kind of team could be made by a number of different people in a variety of combinations. Interviewee #4 felt that both the payor and the other members of the team should play an active part in defining what the participating pharmacist needs with regards to job credentials. On the other hand, Interviewee #9 expressed that the team should pick the pharmacist as they are “the people in the know”. Personalities must also be considered when assigning members to the team, as they play a very important role in the success of the team, as Interviewee #10 pointed out. The team must share a common goal in the overall outcome of the patient’s therapy. The patient should also be considered to be a part of the team, and therefore, must feel comfortable with who is providing them with their care, in order to have effective therapy. The patient could choose their health care provider on their own, or on the advice of another health care professional. For example, a physician could recommend a list of pharmacists who are certified diabetes educators to a newly diagnosed diabetic patient, as Interviewee #8 explained. This way, the patient has taken an active role in their health care, further increasing the likelihood of optimal therapy.

*Practice Model:*

Before team-based primary care can be achieved, a practice model needs to be put in place. This practice model must be structured to assist health care professionals in moving towards primary care like this, but flexible enough to allow the team to shape the model into what will work for them as a group. Several things need to be considered, including who will be a part of this group, where and when they will carry out these team duties, what their duties will be, and how they will accomplish these activities.

Who will be involved in this kind of primary care encompasses a broad range of health care professionals. This group could include a physician, nurse, physical therapist, occupational therapist, dietician, social worker, and, of course, the pharmacist. By including all these members, an extensive range of knowledge is accessible. With this accessibility of health care providers, the structure of who is involved with the team could change, depending on what the patient needs at any particular point in the health care process.

The amount of time dedicated to a primary care practice varied a great deal throughout the pharmacists interviewed. While some interviewees expressed that they would like to dedicate up to four hours per day, others explained that they could envision the team meeting once every month to once every two months. Interviewee #16 explained that he/she felt that each health care professional could monitor the patient weekly, and then meet monthly to discuss the patient as a whole, ensuring that the same ultimate goal for the patient is being met from each aspect of the individual's health care. Although some of the interviewees felt that it would be beneficial to work in a medical clinic where all health care professionals would be accessible, others felt that as long as there is proper communication, the geographical location was not the most important aspect of the practice model.

What the pharmacists felt the team could accomplish appeared to focus around education, both for the patient and the other health care professionals. By educating patients on how to manage their disease state, patients begin to take an active role in the management of their health. Interviewee #10 expressed that patients want to be involved with their health care and that they may be more receptive if they are allowed to be involved, rather than telling them this is what is going to be done.

As well, other health care professionals could be educated through consultation. Consultation would provide them with the opportunity to ask the pharmacist specific questions about drug therapy. For example, if physicians were to consult the pharmacist before prescribing a medication, then optimal drug therapy could be achieved in the first steps of treatment. It would be through this kind of consultation that all information would be available to determine the most appropriate route of therapy for the patient.

*Challenges:*

There are many challenges when developing a model for team based primary care. A large majority of the pharmacists interviewed felt that the lack of both money and time, were the two largest obstacles that were facing this kind of practice. Interviewee #6 explained that "pharmacists have the knowledge of pharmaceutical care, but don't have the encouragement, initiative, or time to provide this kind of care". Interviewee #9 also acknowledged that, perhaps, there are too many pharmacies, which may be leading to the shortage of pharmacists and time that the pharmacist can dedicate to team-based care. However, time could become available by utilizing technicians more, by allowing them to carry out more administrative duties, thereby freeing up the pharmacist's time. Furthermore, by proving the usefulness of this kind of team based practice through clinical trials, there is an increased chance that the funding will become available and be dedicated to a project like this.

Another problem that was identified was the lack of communication between health care professionals at the present time. As Interviewee #6 explained, health care professionals are isolated from one another, and, therefore, cannot re-enforce what has already been told to the patient. With this breakdown in communication, the overall goal for the patient is not being met. A duplication of services can result due to lack of communication, as Interviewee #11 explained, which can also lead to steps in the patient's care being missed, because it is thought that another health care professional is taking care of it.

Along with the lack of communication, a lack of information can lead to improper therapy. Without the proper tools to make therapy decisions, problems can result. By having access to this information, many of these problems can be prevented. Many of the pharmacists interviewed felt that by obtaining a patient's complete medical history (diagnosis, lab values, other disease states) from the beginning, it could be determined which health care professional needed to be consulted and the direction that the patient's care should be taking.

The designation of roles and responsibilities was also a concern of many of the pharmacists interviewed. Interviewee #1 spoke of how "legislation has to change" regarding the distribution of responsibilities of health care professionals before team-based primary care can evolve. All health care professionals "need to show trust in other health care professionals' education", explained Interviewee #9. By establishing that trust in each other, all aspects of the patient's health is accounted for because each team member knows their role and will fulfill their duty.

*Preparation and Training:*

Becoming prepared for a practice like this can be extensive and there are various routes that pharmacists can use to gather this knowledge. While some of the interviewees felt that home-based learning exercises would be sufficient in becoming trained, many spoke of the benefit of practical training. Interactive case based learning could teach the pathophysiology and therapeutic knowledge that is essential in providing proper patient care, along with how to apply this knowledge. Other aspects of knowledge such as how to perform chart reviews and research skills can be taught through this kind of practical training.

Other interviewees expressed how they felt that a mentoring program would be beneficial, not only to learn from in the beginning, but also in the future. This kind of support would be important when problems arise and ideas from their peers would be beneficial to overcome the barrier. By having a mentor, there would be opportunity to contact someone if advice was needed from someone outside the primary care team.

Communication skills are essential in a team based practice. Written and oral communication skills are needed to ensure that all members of the team receive the same message and have the same therapy goal in mind. As each primary care team member needs to have communication skills, many of the pharmacists interviewed expressed how they felt that interaction workshops involving all health care professionals would be beneficial. Here all the members of the team could be brought together in order to learn how to communicate effectively to provide complete patient care.

Other forms of educational tools are hospital residency after graduation or certification programs. With certification programs, a pharmacist could become educated in-depth on certain disease states, allowing them to become a certified educator on that particular state. For example, if a pharmacist were to obtain certified diabetes educator status, then a newly diagnosed diabetic patient could be consulted by that pharmacist on how to optimally manage their drug therapy and other aspects of their therapy.

## POINTS TO PONDER:

Many pharmacists that were interviewed had many innovative and interesting ideas on team-based primary care. Some have started the thinking process considering the challenges and the solutions to providing primary care. Others have already initiated some kind of team-based primary care practice and are involved with it on an on-going basis. The following points are some of the innovative ideas that pharmacists in the province have come up with.

Interviewee #8 offers consultations to female patients on hormone replacement therapy. As part of this consultation, they are offered the opportunity to have a saliva test done in order to determine the levels of progesterone in the body. This test is then sent away to a lab to be analyzed and sent back to the patient. The patient then has the opportunity to come back for another consultation with the pharmacist where the results can be explained to them. Following this consultation the patient has the option to have a letter of pharmaceutical opinion written by the pharmacist. The patient can then take this letter to their physician to further discuss the option of hormone replacement therapy. The patient is responsible for the cost of the consultations with the pharmacist, the analysis of the test and the letter of pharmaceutical opinion. Through this initiative, the pharmacist and the physician work together in order to provide the patient with the most optimal therapy to manage their condition involving the patient throughout the care process.

By using technology Interviewee #10 explained how pharmacists could help manage diabetic patient's therapy, by using blood glucose monitors that allow the patient's blood glucose levels to be downloaded from the machine to the computer. Using this information, the pharmacist could continually monitor the patient's therapy. Recommendations could then be given to the physician about optimal drug therapy and the patient could be further educated in how to properly manage their disease if problems are recognized.

Interviewee #11 expressed an idea involving seniors and compliance issues. He/She explained that if a senior patient was properly consulted right after diagnosis that, perhaps, there would be less likelihood of non-compliance issues. By educating the patient on the role of their medication, as well as the importance of proper use, problems could be prevented in the future. The fee for this consultation could come from part of the physician's fee. Although the physician would lose part of their fee initially, the time that is freed up from the physicians visit would enable the physician to see more patients. The patient would also receive the proper information from the proper health care professional, allowing them to begin to improve their health.

Interviewee #14 explained an idea that involved how the education of the pharmacist could change to allow for primary care initiatives to be explored. He/She explained how there could be two different levels of a pharmacy degree, one for dispensing and one for clinical therapy. For every three to five dispensing pharmacists, there would be one clinical pharmacist available to provide patient education, as well as consultations to other health care providers. The length to obtain the dispensing degree would be shorter then the clinical degree, alleviating the problem of the pharmacist shortage. By alleviating this shortage, it would allow for primary care initiatives and allow more time to provide the patient care that this kind of practice would require.

## CONCLUSIONS:

It is obvious that the idea of team-based primary care has sparked the interest of some, but the number of people that it could reach is unlimited. By slowly starting with a handful of keen individuals, this kind of concept will begin to blossom as more health care professionals become aware of it. The ideas are beginning to surface but there is no limit to where this kind of health care could go. As health care professionals work together on a regular basis, relationships will begin to grow and more ideas will be realized. Team-based primary care will become the patient care of the future, and all though the ideas are there, health care providers in the province must begin the implementation steps to provide this type of patient care. However, in order to ensure that all areas of health care are accounted for, the pharmacist must be involved every step of the way.

Respectfully Submitted,
Erin Reid
SPhA Summer Student August 1, 2002

# APPENDIX

## Role of the Pharmacist:

1) If you were to provide team-based primary care in your community, what kinds of activities do you think you would be involved with?
2) For you personally, would it be more important to focus on direct patient care or supporting the other health care team members' patient care activities?

## Remuneration:

3) Who specifically should remunerate the pharmacist?
4) If the remuneration were to come from outside the individual primary care team practice should those that pay select the pharmacist to be involved in the team or should the team select the pharmacist?
5) Regarding question #4 do you think that this could lead to the success or failure of the team?
6) Should the pharmacist be remunerated through a salary or fee for service?

## Practice Model:

7) Each community is unique with respect to the health care professionals that work there. In your personal situation how do you think the health care professional would come together to provide patient care?
8) What innovative ways could be considered to overcome the challenges of practicing in a primary care team situation?

## Preparation and Training:

9) If you were to begin working as part of a primary care team what 2-3 things would you need to do to prepare?
10) What kind of training would be most beneficial to you?
11) How long do you think you would need to prepare?
12) What kind of support would you need to assist you in your preparation?
13) Who would you like to see provide this support?
14) What year did you graduate from pharmacy school?
15) From which university did you receive your pharmacy degree?
16) Would you describe your community as a town, smaller city or a large city?

**Appendix C**

# SPhA District Meetings on Primary Care

The Coalition's next step was a workshop conducted during the fall 2002 SPhA district meetings. Nine facilitated sessions were conducted during these meetings held across the province. Background information on primary care was provided and then participants were given a framed 'purpose' question "To define the role of the pharmacist in primary health care and describe how pharmacists can become effective members of the primary health care team".

Participants were given a 'To Do list' to help frame their statements:

- identify primary care activities
- identify involvement in teams
- identify where teams work effectively
- identify possibilities for enhanced teamwork.

Many themes were repeated at meetings and a lot of good examples of primary care teams were described. Barriers to team work were also discussed. We heard loudly and clearly "We are already doing this!" and were able to gather many examples. The following summarizes the feedback.

## Where Teams Exists

"We are already doing this!"

Teams which included pharmacists were identified to exist. Examples included home care, long term care, palliative care, diabetes education, methadone maintenance clinics, wellness clinics, ostomy care and asthma education.

Pharmacists are involved in

- providing medication reviews for long term care residents;
- compliance packaging for home care clients;
- group case conferences for long term care and palliative care clients;
- working with dieticians to educate clients on nutritional needs in diabetes clients, the use of blood glucose meters and proper foot care;
- Participating in wellness clinics by educating clients on medication use and safety;
- and daily counselling on various issues related to general health and well being to opiate dependent methadone maintenance clients.

Pharmacists are often the first point of contact in the health care team, as no appointment is needed and they are readily accessible to the public. Pharmacies which are open to the public 24 hours a day, often provide after hours medication and health advice on a number of issues.

Pharmacists provide medication education and information on a wide range of prescription drugs, as well as care for common self limiting illnesses which can be treated with over the counter drug products.

The use of various medical devices and individual disease, state counseling in pharmacies has also strengthened the relationship between various health care providers, in that physicians can refer clients to a pharmacy for regular blood pressure monitoring and diabetes educators can refer clients to the pharmacist for assistance in education on the use of blood glucose monitors. Several pharmacists are now working with doctors and nurses on other disease specific screening clinics, such as osteoporosis and cholesterol.

## Technology

"The patient's information should follow the patient wherever they go."

The use of facsimile machines and computers for the electronic transmission of information was discussed. Pharmacists are very much involved in using technology in the documenting and transmitting required patient information, and feel this is an important tool for team work. The need for a comprehensive database of information, such as SHIN (Saskatchewan Health Information Network), was identified.

## Information and Communication

Access to information regarding the client at every point in the delivery system of primary health care was cited as essential for team work. Communication amongst team members for various pieces of information such as lab test results, medication histories, previous hospital admissions, and diagnoses, were all seen as necessary parts of the communication plan. It was hoped that the introduction of technology, such as SHIN (Saskatchewan Health Information Network), would be of assistance in communication. It was emphasized that access to information upon discharge of a patient was an area in which some work has been done previously (Seamless Care Initiative), but where more work could greatly improve the team's ability to provide good primary health care.

## Models

"What will the team look like?"

There was a stated need to define the team before we continue with the process.

Discussion surrounding the structure of the team occurred at each meeting and resulted in various ideas:

- Incorporate the team into existing structures and utilize what already exists
- Have virtual teams with flexible structures
- Educate each member of the team as to what other members of the team can do
- Each member of the team interacts but works within their scope of practice
- The prescription makes the pharmacist a member of the team
- The team should respond to the needs of the client
- Teams should have case managers and/or team leaders
- Each member of the team has to be respectful of the strengths of other team members to eliminate "turf protection"

## Enhanced Teamwork Possibilities

"We could do more"

Many of the pharmacists who participated in the discussions felt that we are an under utilized resource. Several participants suggested increased education and accreditation processes, as one way to enhance our credibility to work on primary health care teams. Many members felt that pharmacists should have the ability to order or perform diagnostic and or screening tests, such as current INRs, to determine the correct dose of warfarin. It was suggested that pharmacists be part of the 24 hours advice line purposed by the province through existing resources such as "Dial Access". Many participants wanted the ability to refer to other team members (ie. nutritionists) for consultative advice and more involvement in the choice of drugs prescribed by nurse practitioners and physicians.

## Other issues and Barriers

"Where will the required resources come from?"

Barriers to primary care teams were discussed and included such issues as time, reimbursement and regulatory barriers. Other examples of barriers discussed were:

- The need for a change in the payment systems was identified as a barrier to the primary health care team. Current reimbursement processes, which tie a fee for service to the dispensing of a medication via prescription, were seen as a major barrier to primary health care.

- The fact that health care is volume driven currently does not facilitate a team approach.
- The increased challenge to provide teams in urban versus rural settings.
- The difficulties in moving forward when no cohesive plan or models have been defined.
- Lack of trust amongst various professionals
- Turf protection amongst various professions
- Lack of time
- Intimidation by members of the team can decrease feedback

"We must change the perception of the pharmacist as a provider of medications to a provider of good pharmaceutical care, including the provision of disease state education and information regarding medications and good medication care plans."

**Appendix D**

**Canadian Society of Hospital Pharmacists**
Saskatchewan Branch

***An Information Paper on Pharmacist Responsibilities in Primary Health Care***

June, 2002

**Background**
The Canadian Society of Hospital Pharmacists (CSHP), is the national voluntary organization of pharmacists who share an interest in pharmacy practice in hospitals and related health care settings. Since its inception in 1947, and currently with over 2000 members nationally, CSHP has a long-standing reputation for innovative leadership in advancing pharmacy practice, and in working collaboratively to improve patient drug therapy, patient outcomes and ensure cost effective use of pharmaceuticals. Through the development of practice standards and guidelines, provision of educational opportunities for improving clinical practice, and facilitating the sharing of new findings and best practices across its membership, CSHP continues to provide its members with the framework and skills to improve patient outcomes and manage drug costs.

**The need for pharmacist skills in primary care**

## Improving patient outcomes

Working alongside physicians, nurses and other health care professionals, hospital pharmacists have demonstrated the significant contributions they can make to patient care, and progressively proven the value of their unique expertise. Involvement of the pharmacist in direct patient care programs has been shown to improve patient knowledge of their disease, improve compliance, decrease duplicate therapies, and result in a decreased incidence, and better management, of side effects and adverse events. These contributions result in better disease management for the patient, decreased drug-related problems, and a decreased need for health services. [1-8]

### Decreasing the costs of inappropriate medication use

Medications can be cost-effective therapy for many diseases. However, inappropriate use can add significant monetary and resource utilization expenditures. It has been estimated that each year, inappropriate use of medications is the cause of 10% of all hospital admissions, up to 25% of hospital admissions for the elderly, and over 20% of all nursing home admissions.[9-13] In addition, studies have shown that 50% of Canadians do not take their prescription medications exactly as prescribed.[12] The consequences of this non-compliance, include delayed recovery and increased severity of illness, the need for additional treatments and diagnostic tests, additional visits to the physician and the emergency room, and an increased rate of hospital admissions. A conservative estimate of the costs of non-compliance to the Canadian health care system is in the range of $7 - $9 billion per year.[12]

**Skills of the hospital pharmacist**

## Collaboration with other health care providers

Allied members of the health care team have increasingly recognized and utilized the knowledge and skills of hospital pharmacists. The progressive evolution towards a 'collaborative culture' in many hospital environments has facilitated the development of multidisciplinary teams to provide the most appropriate patient care. Pharmacists play an integral role in these multidisciplinary teams. The hospital pharmacist's ability to access a shared medical record, and document activities in that record, facilitate this collaboration.

## Improving the utilization of 'best practice' treatment

Hospital pharmacists have been directly involved in developing Clinical Practice Guidelines, at the institutional, provincial and national levels. When physicians and other health care professionals use these plans to guide decisions related to patient care, they can enhance effectiveness of patient care, as well as address cost and drug utilization issues.

## Managing financial resources

Fiscal constraints have faced hospitals for many years. The need to manage rising costs has led to ongoing pressures to make treatment of patients in the hospital more economical, while retaining a high quality of care. Increased reliance on the pharmacist's expertise has been a natural consequence of rapidly escalating drug costs, and the costs associated with drug-related morbidity and mortality. Analyses from studies assessing the cost-effectiveness of pharmacist services in health care facilities have shown cost-benefit ratios from 1:6 to 1:25, suggesting that for every $1 spent on a pharmacist's services, between $6 - $25 in hospital costs were saved or avoided. [5-8,14,15]

## Managing change

Hospital pharmacists are no strangers to working within a constantly changing environment. Over the years, the fiscal restraints of the hospital sector have resulted in numerous changes in personnel, processes, and organizational structures. Despite this unstable environment, hospital pharmacists have continued to make significant strides in improving patient care and managing drug costs.

## Measuring impact and outcomes

Exposure to hospital-wide quality assurance and continuous quality improvement programs enable hospital pharmacists to be leaders in not only evidence-based medicine, but in measuring changes to quality of life and the impact of programs on financial resources. Drug utilization evaluation and pharmacoeconomic analysis enable decisions to be made in the best interest of the patient and to ensure value from our finite resources.

### Challenges

## Pharmacist manpower

The availability of qualified health care professionals is a major concern for hospitals and the health care system. Issues related to recruitment and retention of pharmacy personnel are as significant as those reported by other health disciplines. The success of hospital pharmacists over the last twenty years to focus on activities related to direct patient care, has been due in part to delegation of drug distribution duties to pharmacy technicians. Expansion of the role of technicians, as advocated by CSHP,[16] will further allow pharmacists, within their current scope of practise, to participate more appropriately in primary care.

## Measurement of pharmacist impact on primary health care

The value of inputting resources to improve primary health status for our population must be measured objectively. While many feel that this is difficult, hospital pharmacists have skill in this area. CSHP is committed to sharing expertise in making research projects worthwhile and practical for pharmacists across the province. Indeed, pharmacists from Saskatchewan and across the country have published extensively on the impact of their services.[17]

**Recommendation**

Optimize the role of pharmacists by extending the tertiary practice model to the primary care setting

The benefits of involving pharmacists in a greater capacity in direct patient care have been demonstrated in hospital and clinic settings.[1-8,14,15] However, this needs to occur on a much broader scale throughout all health facilities and community practices, in order to see additional improvements for the entire population and health system. In our province, and across Canada, some examples of health-system pharmacists involved with primary care include:

**Pharmacists in ambulatory care clinics** Working in collaborative, multidisciplinary clinics, pharmacists have the opportunity to optimize drug therapy and patient outcomes by educating patients, optimizing medication use, and monitoring medication endpoints. *Examples: HIV clinic in Regina, risk clinic in Saskatoon.*

**Medication assessment clinics** Seamless care has improved greatly between institutional and community pharmacists over the last five years. The next opportunity is to have medications of ambulatory patients assessed by a pharmacist with specialized skills, and communicating with the community pharmacist a treatment plan. *Example: anticoagulation monitoring program in Moose Jaw.*

**Pharmacists in physician offices** The ability to make the best possible choice of medication, and its appropriate dose, at the point of commencement would streamline the system and avoid gaps. Pharmacists working in physician offices would be able to collaborate on medication management, and augment the decision process when medications are prescribed. *Examples: RxFiles (academic detailing); an independent pharmacist consultant in Saskatoon.*

**Pharmacists working with advanced clinical nurses** The possibilities are as attractive, or more, to enhance patient outcomes working alongside advanced clinical nurses. *Example: unaware of a true collaborative practice in the province.*

**Pharmacists on primary care teams** When pharmacists join multidisciplinary teams, the resulting improvements in process and decision making are immediate. Teams dealing with complicated medication therapies need pharmacist expertise. Pharmacists can also be effective multidisciplinary team leaders. *Examples: palliative care team in Nipawin.*

**Conclusion**

Within the hospital environment, pharmacists have established excellent collaborative relationships with physicians, nurses, dietitians, physiotherapists and other health-care providers, who respect and trust their knowledge and abilities. Working as part of the multidisciplinary team, hospital pharmacists have shown that they can make significant contributions to patient care, while positively impacting health care costs. This multidisciplinary team approach, with the pharmacist as an integral member, is needed throughout the system, from primary to tertiary care. Indeed, many hospital pharmacists are adapting a primary care role by ensuring that the care plan developed/identified in the hospital can be carried out in the community. The current scope of practice for hospital pharmacists, which includes activities such as collaborative prescribing,[18] critical evaluation skills, and multidisciplinary responsibilities, made possible in part by enhanced technician responsibilities, can also assure that role optimization by pharmacists practising in the primary care setting is attainable.

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