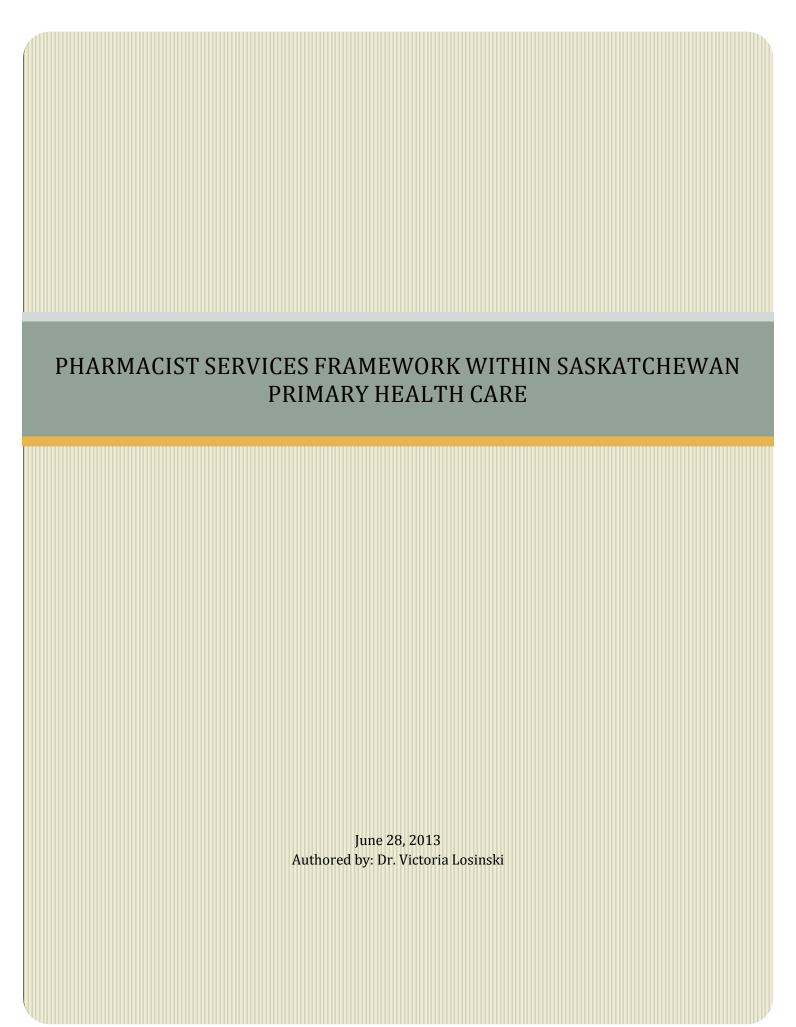## Pharmacist Services Framework Within Saskatchewan Primary Health Care

The following report was written by Dr. Victoria Losinski and sponsored by the Pharmacists' Association of Saskatchewan (now the Pharmacy Association of Saskatchewan) and the Saskatchewan College of Pharmacists (now the Saskatchewan College of Pharmacy Professionals). The final report was submitted on June 28, 2013.

This project set forth to define the role of the pharmacist as part of a primary health care team and the tools and resources that would facilitate this role.

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PHARMACIST SERVICES FRAMEWORK WITHIN SASKATCHEWAN PRIMARY HEALTH CARE

June 28, 2013
Authored by: Dr. Victoria Losinski

SPONSORED BY THE PHARMACISTS' ASSOCIATION OF
SASKATCHEWAN AND THE SASKATCHEWAN COLLEGE OF
PHARMACISTS

FINAL REPORT JUNE 28 2013

Dr. Victoria Losinski - Biography

Dr. Losinski is a pharmacist, educator and researcher. Dr. Losinski has been working to implement medication management practices for almost a decade. She graduated from the University of Minnesota with her Doctor of Pharmacy degree in 2006 and her Ph.D. in Social and Administrative Pharmacy in 2011 from the same institution. Dr. Losinski has conducted original research to determine the skills, knowledge, and ethics required to provide pharmaceutical care and to prepare pharmacists to deliver medication management services. She has taught pharmaceutical care practice in the University of Minnesota's College of Pharmacy Doctor of Pharmacy and continuing education programs for over 5 years. In her work at the University of Minnesota she has acted in pharmaceutical care practices as a practitioner, researcher, and preceptor. Currently, Dr. Losinski is employed by Target Corporation and is responsible for the clinical strategy and integrity of Target Pharmacy services. In addition, Dr. Losinski has become an expert in Medicare Part D Medication Therapy Management delivery and reporting as well as healthcare connectivity.

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EXECUTIVE SUMMARY

Pharmacists have long taken care of patients' medication needs; however, they have not often been identified as patient care providers. As primary health care has evolved and been reformed throughout Saskatchewan a great focus has been placed on which members of the health care team should be utilized and when. As part of this evaluation, it has become apparent that Saskatchewan residents, like patients around the world, have significant drug related needs and can benefit from having a pharmacist as a member of their health care teams. Although the value of the pharmacist has been demonstrated, the lack of a service model by which a pharmacist provides care and the infrastructure to support direct patient care has disrupted pharmacists from widely participating on health care teams. As primary health care reform is occurring through Saskatchewan, the profession of pharmacy has the opportunity to address and remove these barriers. Successful integration of pharmacists on the primary health care team can be defined by the following observable or measurable items:

1) All pharmacists participating in primary health care providing the same patient care standards, but in a means and mode that meets the needs of their community.

2) The majority of Saskatchewan residents can access a pharmacist for medication consultation (beyond access to dispense a prescription) on their primary health care team.

3) Pharmacists are compensated at a sustainable rate that provides reasonable remuneration for the pharmacist's time providing care.

4) The pharmacists are active participants on the primary health care team and both refer and receive referrals from other members of the care team.

5) Collectively, there is a sharing of pharmacist generated data demonstrating an improved quality of patient health care.

6) Throughout the province, there is a culture of practice amongst the pharmacists that focuses on provision of the highest quality patient care, improvement of health outcomes, and collaboration.

Through literature review and interviews with key stakeholders, three key tactics that are essential to achieving these characteristics of success were identified. First, the pharmacists of Saskatchewan must be empowered to provide patient care through the development of a common primary health care role that is widely disseminated and used to achieve a 'seat at the table' with other primary care providers. This will provide the framework for the common patient care standards, the basis for the compensation, and a common reason for participation on the primary health care team. Second, ongoing development of a practitioner culture must be undertaken to support competent and confident patient care practice. This includes training, mentoring, and facilitation to support the pharmacists in providing a standardized level of patient care, leadership, and ongoing professional development. Collectively, as individual pharmacists and pharmacy organizations, we must champion the role of the pharmacist and utilize the quality outcomes that result from pharmacist participation in primary health care and advocate for additional support and resources for ongoing and more widespread development. These tactics must be done in coordination with each other. If empowering pharmacists is addressed without a plan for ongoing development, pharmacists will be positioned to join teams, but left without a means of accessing the tools and training that will help them be successful. If pharmacists are empowered and given tools for development without efforts to champion their role and impact, they will likely be left without funding and may, in fact, see opportunities closed to them based on previous assumptions of the pharmacists' role. Finally, if the pharmacists' role is championed before they are empowered to act, the impact the pharmacist can have on patient care will be overpromised.

These three tactics are necessary if broader integration of the pharmacist into the primary health care team is desired. Currently, there are a very small number of pharmacists in Saskatchewan providing care as part of a primary health care team. These roles will continue to exist and will likely expand to more areas with continued financial support. However, the current structure is self-limiting in the fact that it does not address the pharmacist's role on the team leading to inconsistent provision of care which cannot demonstrate the sustainable value on patient care outcomes thereby threatening ongoing funding. Additionally, it does not address the dual role that pharmacists currently face of being a patient care provider and dispensing pharmacist.

INTRODUCTION

The role of the pharmacist has continually evolved throughout the last decades from a trusted advisor and source of drug product to acceptance as a medication management expert. However, the primary responsibilities, standards of practice, and compensation mechanisms have not been defined and adopted to support such changes. In contrast, societal need and acceptance of the pharmacist as a valuable contributor to patient care has been established and widely supported (Cipolle, Strand, & Morley, 2012) (Oliveira & Brummel, 2010). Pharmacists and pharmacy stakeholders around the world are continuing to work to clearly define and widely adopt a definition of how pharmacists can best contribute to the healthcare needs of a patient.

Across Canada, health care reform and, specifically, primary care reform has been actively pursued the implementation of real and ongoing changes to care models. The 2002, Royal Commission on the Future of Health Care in Canada (the Romanow Report) informed the vision for a redesigned Canadian health system. Of the 47 recommendations described in the report, recommendations 36-41 describe recommendations to change the medication

use system across Canada (Romanow, 2002). Specifically, recommendation 39 states that, "A new program on medication management should be established to assist Canadians with chronic and some life-threatening illnesses. The program should be integrated with primary health care approaches across the country." The Romanow report also positioned pharmacists to "…play an increasingly important role as part of the primary care team, working with patients to ensure they are using medications appropriately and providing information to both physicians and patients…"

The recommendations of the Romanow Report provided guidance for the Canadian Pharmacist Association's "2004 Pharmacists and Primary Health Care" which addressed several barriers to integration of pharmacists within the primary care team (including underutilization, lack of patient data access, and professional shortages). It did, however, outline several activities that pharmacists would be well suited to undertake in working with a primary health care team. However, it did not define the function and responsibilities of pharmacists on the team (Canadian Pharmacists Association, 2004).

As the call for primary care reform and respective pharmacist patient care role was being defined nationally, Saskatchewan was working to define what such changes meant for the province. Within Saskatchewan, the Report on Pharmacists and Primary Care in Saskatchewan and then the Pharmacy Coalition on Primary Care's Submission on the Role of the Pharmacist in Primary Health Care were released in 2002 and 2003, respectively (A Report on Pharmacists and Primary Care in Saskatchewan) (Pharmacy Coalition on Primary Care, 2003).   Both documents describe the intent to present the role of the pharmacist in primary care. However, neither describes the responsibilities of the pharmacist nor the practice requirements for what this role would entail. The Pharmacy Coalition on Primary Care describes the use of a pharmaceutical care model. Additionally, the Submission identifies the need for access to patient information, communication systems, education

(internal and external to the profession of pharmacy), and an expanded scope of practice, resources, compensation, and modeling effective teams. Key barriers were presented as lack of pharmacist money and time and the need for practice model definition. It is telling that within the conclusion of the Submission it is identified that a key weakness to the pharmacist's participation on the primary care team is the "limited experience with team establishment, [and] clear understanding of our role on teams (A Report on Pharmacists and Primary Care in Saskatchewan)."

For over ten years, both primary care and pharmacy reform have described the value of the pharmacist as a member of the patient care team. The perceived barriers to implementation have not varied dramatically between any of these documents. Perhaps not surprisingly, barriers (e.g. remuneration, lack of defined role, pharmacist time) have been removed in certain contexts and have facilitated integration of Saskatchewan pharmacists within primary health care teams in certain health regions. However, for sustained growth a framework for broader adoption and integration of pharmacists within primary care must be defined. In order to facilitate adoption by the pharmacist, the pharmacist's role must be clearly defined in a way that can be easily translated to measurable and observable actions in practice. Additionally, the definition of success in practice for pharmacists must be made explicit in order to know what must be achieved and therefore supported by the pharmacist's management. Finally, change facilitators such as payment, preparation, and mentorship must be addressed in a fashion that allows for directed action and implementation. All of these factors, when executed and coordinated, will facilitate a critical mass of pharmacists to contribute broadly and meaningfully to the quadruple aim of better health, better care, better value, and better teams for Saskatchewan residents.

PROJECT OBJECTIVES

This project set forth to define the role of the pharmacist as part of a primary health care team and the tools and resources that would facilitate this role. Five objectives were defined and are listed in Figure 1. The first two objectives aim to define the core function and value that the pharmacist's skills and knowledge could provide to the team. The third and fourth objectives are specific to the development of the pharmacist's capacity and confidence in working with the care team and patients in a manner which would lead to consistent expectations and results across the province. Finally, the fifth objective aims to identify a potential meant for service reimbursement.

FIGURE 1

Research Objectives	Define standards of practice for pharmacists working with the primary health care team in coordination with the objectives stated within the Saskatchewan Primary Care Framework.
	Define quality metrics for measuring the value of pharmacist provided services.
	Identify core competencies and credentials for pharmacist participation on primary care teams.
	Develop recommendations for review of quality of care and peer mentoring for pharmacist development.
	Define options and recommended options for pharmacist remuneration for primary care services.

METHODS

To understand the factors facilitating and inhibiting pharmacists providing care with the primary health care team, a qualitative, iterative process was conducted. This process consisted of scoping and framework development. For the scoping phase, literature regarding primary health care reform in Canada and the pharmacist's role in providing patient care was analyzed and used to create a proposed interview guide shown in Figure 2. Semi-structured interviews were then conducted with stakeholders selected agreed upon by the researcher and representatives from the Pharmacists' Association of Saskatchewan and the Saskatchewan College of Pharmacists. These included interviews with pharmacists practicing in primary health care, community pharmacists, and directors of primary health care, physicians, and representatives from the Ministry of Health. Data collected from the interviews was directly used to create recommendations for future work in developing the pharmacist's role on the primary health care team and key areas that would facilitate such a role.

FIGURE 2

Interview Guide	Discuss your role in Primary Care and Primary Care reform
	What gaps, if any, exist in the current medication use system?
	What do our communities need to achieve better medication outcomes?
	What are the most important qualities or characteristics of an effective health care team?
	How should we measure individual practitioner outcomes when providing team based care?
	Who/where is primary care well integrated with pharmacy? What is the pharmacist's role in these areas?
	What has been discussed, piloted, implemented regarding pharmacists in primary care? What worked and what didn't?

FINDINGS

Throughout the literature review and data collection, several themes were identified and

are presented in Figure 3. These themes were identified either in multiple documents or

interviewees.

FIGURE 3

Research Themes	**Need to define role of the pharmacist in primary care**
	Create time and expectations for team development
	Current pharmacy practice models don't facilitate participation in primary care
	Lack of confidence in skills and capabilities to contribute to patient care

DEFINING THE ROLE

> The role of the community pharmacists doesn't equal the role on the
> primary health care team. Different roles that can't always be done
> simultaneously. Interview Notes 2/22/13

The most common theme was the need to define the role of the pharmacist. Although

multiple policy and guidance documents provide guidance on what this role should be, they

do not provide an explanation of the assessment and decision making processes that a

pharmacist would use in a patient care practice. The importance of this is perhaps best

reflected in what happens when it does not exist.   Two interview participants described

accounts in which they experienced pharmacists who had the opportunity and resources to

participate as part of a primary health care team, but struggled because they were unsure of

what they should be doing. One participant described the pharmacist as waiting for the

team to direct them on what they needed, but the team was too busy to give the pharmacist

any direction and therefore the pharmacist did not end up caring for any patients. Another participant identified that pharmacists need to be empowered to accept defined responsibilities and not wait to be told what to do.   Without the empowerment of role definition, even pharmacists with the essential tools and resources were unable to be successful.

At first glance, this theme would seem to be a contradiction to the Primary Care Framework. **Patient Centered, Community Designed, Team Delivered: A framework for achieving a high performing primary health care system in Saskatchewan** states that the future of primary health care should create primary health care teams, be rooted in the community and reflect community needs, and be flexible in their delivery amongst other qualities (The Saskatchewan Ministry of Health) (National Association of Pharmacy Regulatory Authorities, 2009). The concept of meeting community needs and being flexible as to how to meet those needs was discussed by many interview participants, specifically those participants from the Ministry of Health and Directors in the Primary Health Regions who frequently stated that the team needed to define the pharmacist's role. For most professions, the patient care service that is delivered is implicit within the profession and, therefore, the service delivery can be understood in relation to the How these professionals work to prioritize community needs or patient issues becomes a means in which patient care is provided. For example, a physician practicing in primary care, at a hospital, or in a patient's home doesn't change what they do, but may change their way of approaching the patient's primary concern. For pharmacy, the services have been defined many times, but have not been embedded within training and practice. As pharmacists transition between dispensing and primary health care, it will be extremely important to provide very clear standards of practice for the service delivery. This will not preclude the pharmacist from

being able to be a flexible member of the care team in meeting the community's needs.

Rather it should be looked at as an enabler for broader active patient care by pharmacists.

JOINING THE TEAM

> "I'd estimate over 50% of the pharmacists are underutilized."
> Pharmacists time is misappropriated. The teams didn't give them
> direction. They were too busy and the pharmacists got left behind.
> Interview Notes 2/21/13

The second most common theme was the need for team development within the primary care team and with the pharmacist. Although this is something recognized within the primary health care teams now, there are several concepts that came out of the interviews. First, there was acknowledgement of the gray areas between health care practitioners as to their function and capabilities as a team member. Several team members may be able to perform similar functions on the team. However, the levels of trust, credibility, and awareness may dictate how care providers coordinate the care of a patient. As with the previous theme, the interviewees stated that for the pharmacist and other team members there needed to be clarity on the primary function of the pharmacist to help facilitate the maximum success of the team. For example, pharmacists that are members of the primary care team may have misappropriate (not top of license or duplicative) activities on the care team because they are activities that needed to be done that the pharmacist is capable of doing. Pharmacists must be prepared to negotiate such gray areas. This is not to say that the pharmacists should be rigid in what they should and should not do within a team. However, the primary function of the pharmacist on the team must be articulated as well as their capabilities.

The primary health care model in Saskatchewan presents a unique opportunity for pharmacists to share their capabilities as a patient care provider as the total health care team works to define itself. Additionally, the focus on team development, problem solving,

and facilitation of discussion is rare amongst health professionals today. As part of the

primary health care team development, the importance of *literally* being at the table during

the monthly team meetings was emphasized by directors of primary health care,

pharmacists, and physicians alike. It was recommended that pharmacists be physically

present whenever possible, able to articulate their role and capabilities in patient care, and

active participants in team building. Those team members at the table during such

meetings appear to be much more accepted and integrated into the team regardless if they

are core or itinerant team members.

SUPPORTIVE PHARMACY MODELS

> Need deep relationship with teams. Need to be at the table during
> team development, but can't because need to cover pharmacy
> responsibilities and don't have funding to take the time.
> Interview Notes 2/19/13

Each of the pharmacists interviewed described the challenge of providing services to the

primary health care team while maintaining their community pharmacy responsibilities.

This seems to be driven by both challenges with remuneration and pharmacy staffing.

Pharmacists participating on the primary health care team are contracted for certain days

of primary health care work and, in many instances, were required to identify a relief

pharmacist to manage the dispensing pharmacy work during this time. Although this model

addresses the need to bring the pharmacist and team together to provide care it highlights

challenges within the current dispensing pharmacy model. In rural areas, the need to

identify a relief pharmacist can be a significant barrier to participation on the care team.

Additionally, current payment models only account for indirect payment of pharmacist

services by compensating for the pharmacist's time with the primary health care team. This

inadvertently limits patient care by limiting the pharmacist's ability to provide valuable

services anywhere but on the contracted day within the primary care center.

A parallel can be drawn with the current Saskatchewan physician payment models. To facilitate team based care and access, some physicians have entered into alternative payment on a contracted rate. In this model, the physician is paid for their time, accounting for both direct patient care and team building efforts instead of a Fee-for-Service (FFS) model. Other physicians are still providing care under FFS in which they are only compensated for the direct patient care provided. A subset of physicians is paid by both mechanisms. The physician receives payment for the time spent working with the primary health care team, but also receives payment on other days by billing for the patient care provided on his or her own.

Many of the pharmacists interviewed expressed the desire to receive payment for the services they provide while working within their pharmacies. One pharmacist expressed that much of the work that she completes with the primary health care team during her contracted days spills over into follow up activities during her time in the pharmacy. Additionally, patients who interact with the pharmacist in both settings may expect the ability to follow up and receive recommendations within the pharmacy.

In order to facilitate broader pharmacist participation the model of care and payment in both the primary health care and pharmacy settings would need to evolve to support broader provision of care as well as participation with the care team. A mixed payment and care approach was suggested by many as a possible solution to broaden patient access to pharmacist services and prevent further division between the two roles (dispensing and direct patient care).

PHARMACIST CONFIDENCE

> Not a tough sell to get pharmacist funding but need to demonstrate
> unique value. Can't default to answering drug information questions
> as that service already exists.
> Interview Notes 2/21/13

The non-pharmacists interviewed for this project were very vocal advocates for the pharmacist's role and need to be on the primary health care team. The overwhelming majority of them stated additional pharmacist funding was not a significant barrier. The non-pharmacists often describe pharmacists' lack of confidence to work as a member of team as the primary barrier to success. Additionally, many described that the pharmacist must become more aware of how to demonstrate their credibility and skill set in order for the team to develop trust in their work.

The pharmacists participating within the primary health care teams described that they had strong relationships within the teams. It was not clear if these relationships came before or after the pharmacist's participation on the team, however. Additionally, these pharmacists were able to clearly state their contribution to patient care. Two pharmacists described that they first approached the team by providing several ideas of what they could do and then asked what the team most needed. Their current role was defined over the course of some experimentation on how best to deliver care within the team and how and when they should be engaged. Interviewees also described pharmacists who were less successful often waited to be told what to do or defaulted to being the drug information resource. Although this may serve a need of the team, it does not facilitate the pharmacist's contribution as a direct patient care provider nor does it wisely use limited health care dollars as the service currently exists.

This theme was very closely related to the need to define a clear role for the pharmacist on the primary health care team. However, it does also call out the need to develop pharmacists who are able to act on that role and describe its importance to patient care. A successful pharmacist providing direct patient care must be able to not only provide quality patient care, but also be able to act as their own spokesperson as to what they can uniquely contribute to the team and how they add value to what the team is aiming to accomplish.

To make real change that will facilitate greater patient access to pharmacist services, a three pronged approach is recommended. This approach prioritizes empowering pharmacists, developing pharmacists, and championing the value of the pharmacist. To empower the pharmacists, the role on the primary health care team and supporting standards of practice must be adopted and used to develop confidence of pharmacists wishing to participate. To develop practitioners, emphasis must be placed on both training and ongoing professional development as patient care providers. Finally, both pharmacists and pharmacy organizations must champion and advocate for the value of the pharmacist on the care team. This will facilitate ongoing remuneration and support that is essential for long term success.

EMPOWER

Defining the Pharmacist's Role and Standards of Practice

The ability to define the role of the pharmacist in the provision of direct patient care has often been complicated by the desire to integrate the dispensing process into the role. This is true of the NAPRA standards of practice, as well. They provide guidance on acceptable performance, but do not clearly define the care model, level at which care should be provided, and behaviors that should be completed as part of the delivery of care (National Association of Pharmacy Regulatory Authorities, 2009). As demonstrated by the current primary health care delivery model, the pharmacist's contribution to the patient care team has occurred completely outside of the role provided during the dispensing of medications. The need to define this role clearly and in a manner in which is directs consistent delivery of care is essential to demonstrating the value of the pharmacist and measuring impact across the province.

During many interviews, pharmacists described the Minor Ailments program or collaborative practice as additional demonstration of cognitive services. In both of these

programs, pharmacists perform very specific functions for selected patients under prescribed conditions. There is no doubt that these programs add value to the care of Saskatchewan residents. However, these programs do not define the role and function that the pharmacist can provide to patient care. These programs provide payment for very specific activities that can be conducted in isolation or within a primary health care practice and do not offer a sustainable framework for widespread growth. The manner in which the professional decision making occurs for each program is cannot be translated to broad patient care. For example, the decision making for which the pharmacist is paid in the minor ailments program does not explicitly translate to the decision making in the collaborative practice agreements. As other programs are added, they may continue to add to the fragmentation of pharmacy practice if an overarching role and supporting practice standards are not articulated. One of the most significant challenges with the current approach is that it does not support a seat at the table for patient care. The programs define activities that can be done, but not the function that the pharmacist can serve on the team.

The Primary Role of the Pharmacist

To begin to define the pharmacist's role and responsibilities, it is useful to consider the outcomes that the pharmacist has the expertise to achieve. In considering the role of the pharmacist as the medication expert, the health outcomes that pharmacists can most meaningfully impact are to evaluate and resolve problems around the patient's medications to ensure the best medication therapies that will be taken consistently and to help the patient to be more engaged, empowered, and involved in his or her health care (Cipolle, Strand, & Morley, 2012).   This aligns closely with how the pharmacist's role in the medical home has been defined by The Patient-Centered Primary Care Collaborative Medication Management Task Force as well as the pharmaceutical care practice model (The Patient-Centered Primary Care Collaborative, 2012). The medical home concept was originally

defined in pediatric health care and has since been adopted widely as part of health care reform in the United States. The medical home is defined as "…team based health care delivery model led that provides comprehensive and continuous medical care to patients with the goal of obtaining maximized health outcomes (Backer, 2007)." This closely aligns with the Saskatchewan Ministry of Health's primary health care system framework. The pharmacist's capabilities regarding medication use and the primary health care team and patient's need to achieve "maximized health outcomes" leads to the recommendation that the pharmacist's role on the primary health care team be defined as: Ensuring the patient's medications are the best therapies for him or her and to identify, resolve, and prevent drug therapy problems that stand in the way of achieving that goal.

Standards of Practice

When providing care in this role it will be essential to be able to produce reproducible outcomes and consistent care throughout the province. This should not be inferred as to dictate how care is provided, to which patients, or in what context. Rather, they should provide a common framework and minimum service expectations. The standards of practice provide an observable definition for the minimum required activities in practice. They are used throughout all health professions to state what steps must be taken in providing the assessment, care plan, and ongoing management that encompass the patient care practice. In evaluating pharmacy care standards of practice, there are three standards of practice models that could be considered for adoption in Saskatchewan: 1) NAPRA standards that relate to the provision of medication therapy management (National Association of Pharmacy Regulatory Authorities, 2009); Pharmaceutical Care Practice Standards (Cipolle, Strand, & Morley, 2012); or the Patient Centered Primary Care Collaborative (PCPCC) Guidelines for the Practice of Comprehensive Medication Management (Appendix A) (The Patient-Centered Primary Care Collaborative, 2012). The

PCPCC standards are based upon the pharmaceutical care model, but are less prescriptive in their actions. Both utilize an assessment, care planning/intervention, and follow up care model that can be integrated into primary health care or pharmacy. Additionally, the PCPCC standards are designed specifically to define the practice of pharmacists within primary care settings as "to provide care to patients that is structured, delivered, and coordinated around the specific needs of each patient. The care is based on an effective, sustained relationship between patients and their physicians and other health care practitioners (The Patient-Centered Primary Care Collaborative, 2012)." The standards described in Appendix A, "ensures each patient's medications (whether they are prescription, nonprescription, alternative, traditional, vitamins, or nutritional supplements) are individually assessed to determine that each medication is appropriate for the patient, effective for the medical condition, safe given the comorbidities and other medications being taken, and able to be taken by the patient as intended (The Patient-Centered Primary Care Collaborative, 2012)." The second recommendation is to adopt the PCPCC Guidelines for Practice due to their current use within primary health care teams and level of detail.

Function and Capabilities

There are numerous activities (for example, blood pressure assessment, cholesterol monitoring, diabetes nutrition counseling) that a pharmacist is capable of performing outside of any of the standards of practice listed in the previous section. These capabilities may or may not be valuable to the health care team and the pharmacist may or may not be the best provider on the given team to provide such activities.

In order to meet the needs of the team, pharmacists will need to be able to articulate their primary patient care function and, on a pharmacist by pharmacist basis, address other activities that they are confident and competent in performing. Changes to the pharmacist's

scope of practice may be required to facilitate both the primary function and capabilities over time.

DEVELOP
PHARMACIST DEVELOPMENT

To support the pharmacists providing direct patient care, intentional practitioner development opportunities need to be developed and relationships with other pharmacists providing or interested in providing this level of care need to be fostered. Bob Cipolle is quoted as saying it is impossible to be a great patient care provider on your own. Several of the pharmacists interviewed commented on the challenges in connecting with other pharmacists working in the primary health care setting. This will be especially true as additional pharmacists being to participate. The opportunity to share ideas, challenges, and discuss needs will help improve practices and pharmacist's confidence quickly as well as inform partners and advocates on barriers and facilitators.

Practitioner meetings in which a group of pharmacists providing patient care come together with the purpose of discussing clinical cases and practice issues has been used by many large primary care practice groups to facilitate team and pharmacist development. These practitioner meetings can be conducted face to face or virtually and typically occurred monthly to quarterly. The case presentations are an opportunity to share and discuss clinical decision making and treatment plans, but also offer practitioners the opportunity to share and discuss their patient care stories. These stories are often presented as clinical cases, but provide illustrations of clinical decisions and the core values of the pharmacists (Losinski, 2011). This is important to ongoing professional development, but also new practitioner onboarding. In many of these "war stories", the pharmacists share the consequence or challenge of making a clinic al decision or working with members of their care team. These stories go beyond just sharing and offer and opportunity to demonstrate

the core values that the pharmacist has now taken on in their patient care role. It is recommended that a forum for at least quarterly practitioner meetings be established for the purposes of providing all pharmacists the opportunity to learn from each other, internalize the core values, and as a forum for support and innovation across Saskatchewan's primary care teams. These meeting must be organized in such a way that the focus is on direct patient care rather than the myriad of topics that may be top of mind for the pharmacists.

In addition to practitioner meetings, directed peer mentoring is often useful for pharmacists in their first several months of practice. It may be useful to utilize the senior pharmacists to provide mentorship and guidance. This grassroots approach will foster collaboration and professional development. These mentoring programs can be virtual or face to face, but may benefit from brief topics and weekly touch points during the first months in practice. Suggested topics may include: communicating with your care team, describing your role, seeing your first patients, and building trust with your patients and care team.

CORE COMPETENCIES AND PHARMACIST TRAINING

The third recommendation is to identify existing training programs or create a program with the objective of providing training on how to perform the clinical skills of communication, assessment, care planning, evaluation, and the practice standards in a consistent manner. It would be highly recommended to consider this a standard requirement for all pharmacists, however, current educational practices and standards should be taken into account. This training will provide the framework for future evidence based care for various drugs and medical condition and assessment skills to be most efficiently utilized.

Many of the pharmacists interviewed referred to training programs that had helped them develop the skills to provide patient care as part of the primary health care team. These

programs ranged from leadership development, team building, and pharmacy practice. The variation in experience with primary health care and education creates dissonance between what one may wish to expect from a pharmacist and what they have been trained to do. Every pharmacist should be given the opportunity to provide this level of care, but they should also be able to demonstrate their competency in providing such care.

In patient care, there are three primary components of knowledge that must be integrated when providing patient care: clinical knowledge, clinical skills, and patient knowledge. These are framed the practice foundation of patient care ethics (what is right and good), the standards of practice (how we know care is provided), and how quality is evaluated (less visible and what the pharmacist will use to make clinical decisions. When providing patient care, competency can only be demonstrated via caring for patient and evaluation of the subsequent documentation. Many new pharmacists have described the concept of "relearning" their medication and disease state knowledge when they begin to provide patient care. In essence, the pharmacist almost always possess competence in the clinical knowledge, but the consistent manner in which that knowledge is used to make decisions is often what pharmacists struggle with when first providing patient care and can be a barrier to achieving positive outcomes.

The practice foundation is external to the service being provided and is what the pharmacist must be held accountable for delivering to each patient. The knowledge components are less visible and what the pharmacist will use to make clinical decisions. When providing patient care, competency can only be demonstrated via caring for patient and evaluation of the subsequent documentation.

FIGURE 4

PRACTICE COMPETENCY COMPONENTS (LOSINSKI, 2011)

Additionally, the pharmacists in this research described the benefit of leadership and team building training programs. These programs should be encouraged, but would not be recommended as essential prior to participation on the primary health care team. These could be considered ancillary programs that a pharmacist may wish to participate in to build confidence and comfort. However, it may be advantageous to advocate for this type of skill development to be embedded in the team building activities of the primary health care team at each site and could be led by the health region's facilitators.

DEFINITIONS OF QUALITY CARE

Once patient care is delivered it is essential to continue to monitor the quality of the care being provided. Although it is often challenging to attribute patient outcomes to a single care provider, it is important to assess them as a basis for the quality of care provided. The pharmacist's role on the primary health care teams will be to ensure the use of the best medication therapies that will be taken consistently and to help the patient to be more engaged, empowered, and involved in his or her health care. If that is the role of the pharmacist then outcomes pertaining to appropriate medication use and adherence will be paramount to assessing the quality of the services provided. Often the assessment of quality is limited by the data that is accessible. It will be important to consider both short and long term quality metrics and the continuous assessment of potential metrics as data access evolves.

Process Measures

Perhaps some of the easiest metrics to gather information on are process measures that aim to evaluate the activity and frequency of the pharmacist's activities. Current research on pharmacist practice in Saskatchewan has reported on the number of patients cared for and number of drug therapy problems and distribution by category. These measures should continue to be central to understanding quality of pharmacist performance. Suggested process metrics are listed in Figure 5. In order to put these numbers in context, benchmarking of existing pharmacists should be completed. Ideally, these would be assessed at least semi-annually with benchmarking across the province and health region available to the pharmacist and their manager. In absence of benchmarking, data from other practices in the literature can be used to assess pharmacist performance and guide professional development. Figure 6 provides some benchmarking available based on current primary care pharmacist practices.

FIGURE 5

Process Quality Metrics	**Number of patients cared for**
	Number of visits completed
	Number of drug therapy problems identified and resolved
	Distribution of drug therapy problems by category
	Number of drug therapy problems by patient
	Number of referrals to the pharmacist

FIGURE 6

Process Metric Benchmarking	**Number of patient visits: >4 patients/day in an new practice; >8 patients/day in a mature practice**
	Number of drug therapy problems identified and resolved: Will vary based on patient population; average of 2 drug therapy problems per patient per year
	Distribution of drug therapy problems by category: Will vary based on patient population; Need additional therapy and dose too low are typically most common

Outcomes Measures

Patient care outcomes are typically harder to measure as they require greater access to

patient information as well as a longitudinal data set. However, this is not insurmountable

with the use of electronic health records or aggregated data sets. Analyzing the

pharmacist's primary function on the primary health care team, it is clear that the

pharmacist will be impact medication treatment outcomes. In examining the possible variables in producing positive health outcomes with medications, three become quickly apparent: right drug, effective therapeutic regimen, and safe therapeutic regimen. Additionally, there is the patient factor of adherence to the therapy. These four categories originate from the Strand and Cipolle categorization of drug therapy problems into major groups of indication, effectiveness, safety, and compliance (Cipolle, Strand, & Morley, 2012). They also align with the metrics described by the Canadian Institute for Health Information (CIHI). The Primary Health Care CIHI Indicators identified for Saskatchewan are broader, but also include appropriateness (indication), comprehensiveness (appropriateness), and effectiveness (Canadian Institute for Health Information, 2012).

Although these broad categories are directionally useful in assessing health outcomes, more specific measures like those defined by both the CIHI and Pharmacy Quality Alliance (PQA) may offer more guidance for long term quality assessment. Both offer specific metrics for particular disease states as well as offering consistent measurement techniques. In partnership with the PQA, the United States' Center for Medicare Services (CMS) has established quality thresholds for the elderly population called Stars Ratings (Pharmacy Quality Alliance, 2013). The Star Ratings measures have a significant number of ratings used to assessment medication use. These Star Ratings measures and other measures are presented in Figure 7.

FIGURE 7

Outcomes Quality Metrics	Decrease health care utilization (emergency rooms, office visits, hospitalizations)
	Improvement in disease specific lab values (e.g. Hba1C for diabetes, blood pressure, cholesterol panel)
	Decrease in use of high risk medications
	Appropriate dosing of disease specific medications
	Improvement in Proportion of Days Covered (PDC) or Medication Possession Ratio (MPR)
	Use of evidence based medications for key disease states
	Avoidance of certain drug classes in patients with key co-morbidities (e.g. avoidance of anti-psychotics in dementia)

Quality assessment must be embedded as a standard evaluation tool across the province. Due to variations in technology and data access it is likely that each health region may adopt different measures based on their ability to assess them. It is recommended that the categories of metrics listed in Figures 6 and 7 be advocated for as standards. Additionally, these metrics should be benchmarked as quickly as possible in order to help health regions and pharmacists assess performance and direct additional support or training. Finally, whichever metrics are used, they must be communicated to the pharmacists with an explanation of data sources and measurement criteria so that the pharmacist knows exactly what must be done to influence the measure. This will help avoid circumstances where the pharmacist is emphasizing different quality priorities or the metric missing data that was documented differently that was required for measurement.

Remuneration

Payment has often been listed as primary barrier to pharmacists providing patient care (A Report on Pharmacists and Primary Care in Saskatchewan) (Isetts, 2007). Throughout the interviews, the evolving payment mechanisms for physicians were often described when possible payment mechanisms for pharmacists were discussed. Currently, contracted rates for time seem to dominate the patient care payment for pharmacists. However, this will continue to limit the pharmacist's opportunity to provide patient care if it is for dedicated time only. Other payment models will need to be considered as pharmacists evolve from dispensing to patient care. An ideal remuneration system will account for:

- ♦ all of the work completed by the pharmacist in caring for the patient,

- ♦ be based on the complexity of the decisions made,

- ♦ reward efficiency,

- ♦ be consistent across practice settings,

- ♦ and be consistent with other health care providers (Cipolle, Strand, & Morley, 2012)

In addition to the remuneration model, an amount of remuneration must also be considered as suggested in the first bullet above. Throughout all of the models described in this section, a baseline payment amount must be determined that accounts for all of the work completed by the pharmacist. This includes not only adequate compensation for the amount of time spent with the patient, but also must account for and pre- and post-service time spent scheduling, preparing, and researching and documenting the care provided. The rough estimate for the total cost of care provided (including the pre- and post-service work) is approximately 2-3 USD per minute spent with the patient. The direct labor costs to account for this time are approximately 1-2 USD (The Lewin Group, 2005). This is based upon the

average pharmacist salary. This rate serves as a rough guide when looking at the various payment methods described below.

It is very uncommon to include remuneration for costs beyond the direct labor although there are many other costs associated with the provision of care. There are several cost of service calculations and tools available that may incorporate these costs and are aimed at helping pharmacy owners assess viability of proposed service remuneration. Such calculations take into account non-salary costs (e.g. education, training, resources, marketing), the cost of materials or supplies required, equipment costs, and overhead (Rupp, 2011).

In developing a successful patient care program, it will be essential to determine an appropriate payment amount that makes it desirable and sustainable for pharmacists to participate. A base rate of payment could be established by assuming a 30 minute patient care session plus an additional 15-30 minutes of pre and post service work. As an example, if the average pharmacist's hourly payment rate is $65 then a potential services base rate would be ($65/60 min) X (30 min + 15 min) = $48.75. This serves as a starting point for establishing payment and should not be considered a sufficient calculation for determining final payment. This dollar amount will be used for illustration purposes as various remuneration models are described below.

There are many examples of successful programs in which pharmacists are paid for their patient care work and almost as many remuneration models. The majority of these programs has paid pharmacists either fee for service (New York State Medicaid, Montana State Medicaid, Ontario MedsCheck, and OutcomesMTM) or based on a Resource Based Relative Value Scale (Minnesota Medicaid, Alberta PPMI, Health Partners, University of Minnesota UPlan). Both of these payment methodologies have been assessed for the return on the investment on the previously stated programs. They have demonstrated a positive

return for the payers, but not all have offered sustainable payment rates for the pharmacists.

Contracted Payment

Saskatchewan's current contracted payment supports the pharmacists need, but does not address workload or out of clinic activities. The contract rate also becomes a concern when it was estimated by multiple interviewees that up to 50% of pharmacists are not actively providing patient care during their contracted days. The other extreme was also mentioned in which several pharmacists stated that their patient care activities were often followed up on or completed in the pharmacy setting. Although this payment mechanism seems to be where health care payment in Saskatchewan is evolving to, this is not recommended to be the sole payment mechanism.

The payment amount in this model could simply be based off of the number of hours contracted to provide any patient services multiplied by the average pharmacist hourly wage. This poses challenges, however, in terms of rewarding efficiency and outcomes when providing patient care.

Fee for Service

The fee for service model seems to be diminishing within Saskatchewan as well as internationally. As we consider how quality performance is rewarded and how to facilitate team based care, fee for service does not reinforce either concept. However, it would allow for a flat fee to be paid for the provision of the standards of practice described previously within any practice setting. It would also reinforce efficiency as it's a transactional payment and not a time based guarantee.   It would also allow for care to be provided at the pharmacy and not allow for duplicate payment for services provided when contracted at the primary care site.

In this model, the $48.75 could be used as a base payment amount. This may drive

pharmacists to meet a certain patient per day goal in order to establish financial solvency.

However, there is a risk in driving the pharmacists to care for less complex patients as to

maximize their efficiency and payment for effort. For example, a flat fee for service model

may cover the direct costs of taking care of a fairly straightforward patient with

hypertension, but would not being to cover costs for more complex patients such as a newly

discharged diabetic with a foot ulcer and depression. The fee for service amount may need

to be adjusted upward to account for the complexities of the patients care for in a typical

chronic care practice.

Resource Based Relative Value (RBRVS)

This method of payment was first adopted by physicians to guide payment based on the

complexity of the care being provided to an individual payment. This method was

translated to pharmacy in 2006 when it was adopted as the payment mechanism for

pharmacists providing medication therapy management to low-income patients in

Minnesota. This payment mechanism is presented in Figure 8.

FIGURE 8

Level [b]	Number of Medical Indications	Number of Medications	Number of Drug Therapy Problems
Level 1	At least 1 indication	At least 1 medication	None observed
Level 2	At least 1 indication	At least 2 medications	1 drug therapy problem
Level 3	At least 2 indications	At least 3-5 medications	2 drug therapy problems
Level 4	At least 3 indications	At least 6-8 medications	3 drug therapy problems
Level 5	4 or more indications	9 or more medications	4 or more drug therapy prob.

[a] Summarized from the Minnesota DHS Web Site Program Guide for Delivery of MTMS
[b] The level of care reported is the lowest level of patient needs met by all criteria in each level

(Provider Update PRX-06-02R)

The categories of the level of payment are based upon three categories in pharmacy:

number of medications assessed, number of medical conditions evaluated, and number of

problems identified. This has been adopted by many payers in the United States. This method is more challenging to audit, but is a more sustainable model for payment for the work completed. However, it does not seem to align with current mechanisms for payment for health care providers in Saskatchewan.

The base rate was used to establish payment for Level 2 and was adjusted up and down to establish payment for all 5 levels as follows:

Level 1: 0.57 X base rate

Level 2: 1 X base rate

Level 3: 1.39 X base rate

Level 4: 2.18 X base rate

Level 5: 3.17 X base rate

(The Lewin Group, 2005).

In the previous example of $48.75, a level 4 encounter would then be paid $48.75 X 2.18 = $106.28. This payment mechanism provides more variability to the payer, but provides the most responsive remuneration for the complexity of the patient and the competence of the pharmacist (as the patients become more complex and the pharmacist becomes better and resolving issues, payment increases).

A full review of how this remuneration model supports the provision of care can be found in the final report done for the Minnesota Medicaid program (Isetts, 2007).

Capitation Method

Capitation is a method for payment in which a flat rate of payment is established for the management of a patient or population of patients for the course of a fixed time period. This is similar to the Accountable Care Organization model that is being tested throughout the United States in which a fixed pool of money is set aside to manage the health of a

population. If the providers successfully achieve positive health outcomes they will share in the cost savings with the payer.

Within an individual primary care practice for example, a pharmacist may receive $20 per patient per month per year to manage their drug related needs. This creates risk for both the pharmacist and the payer. The pharmacist may need to provide more care to the population than the fixed amount would cover. The payer may end up paying for more than the care provided to their patient population. However, this payment method meets all the requirements listed at the beginning of this section except to for alignment with payment to other health care providers. However, as pharmacists need a mechanism to provide care within the pharmacy the capitation method may facilitate the provision of care in the pharmacy without undermining the care provided during contracted days as the primary care site.

It is recommended that efforts be made for more funding for contracted pharmacist hours at the primary care site. A support payment base amount should be established quickly and used to establish suggested payment in either a fee for service or resource based relative value model for pharmacist provided care within the pharmacy. It will be important to demonstrate how the level of care will be consistent across settings, how duplicate payment will not happen, and how this payment mechanism would allow for increased accessibility for patients to a care provider.

CONCLUSION

Although it has taken many years to have pharmacists recognized for the value they can provide to patient care and health outcomes, it should not take nearly as long to establish and scale pharmacist's patient care practices. There are seven essential components that are being recommended to help establish pharmacist services in Saskatchewan's primary care practices. These components to do not need to be done in order or in sequence,

however, it may be most effective to enact them in phases. The Key Recommendations are as follows:

- Empower pharmacists by establishing the service

    o Adopting a common definition of the role of the pharmacist

    o Adopting the Patient Centered Primary Care Collaborative practice standards

- Develop the practitioner base by

    o Facilitating practitioner meetings and peer mentoring

    o Developing and offering training on pharmacy practice skills and core values

    o Advocating for pharmacy practice changes and advanced technician training

    o Adopt short term and long term quality metrics and encourage benchmarking across the province and within health regions

- Champion the practice by advocating for expanded payment opportunities for both contracted positions and fee for service models/resource based relative value scale.

The first step that should be undertaken, however, is to establish a common service definition. This should be the basis for all advocacy and programs going forward. Within existing practices in Saskatchewan it seems as if there is already an agreed upon service understanding. However, to create clarity for payers, patients, prescribers and pharmacists a service definition should be adopted and standards of practice established. This will be essential to advocating for payment as well as establishing any training programs.

The current and future practitioner base will be essential to success. It will be important to utilize the existing engaged pharmacists to create culture and be mentors for new participating pharmacists. It will be critical that they are used to engage pharmacists who are interested in taking on this role and helping establish the measures of success in performance. It will also be important to establish estimated numbers of pharmacists and

practice hours as a measure of success. This could be based on a number per health region, a number of available pharmacist hours per health region, or how quickly a resident can get access to a pharmacist. This should not serve as a maximum number of pharmacists, but rather a guide in order to assess success and to estimate required funding and other resources. Finally, as more and more pharmacists are committed to providing patient care in this new setting, it will be imperative to address the need for continued personnel support for drug dispensing. This will likely be addressed in a multitude of grass roots efforts, but could benefit from evaluation of the pharmacy technician's capabilities and scope of practice. As pharmacists move towards more patient care in the primary health care setting, are there activities that pharmacy technicians could manage with additional training?

As previously described, a remuneration model and base payment amount will need to be established. This will likely take the most effort and time to accomplish and would benefit from undertaking early in the process. It will also benefit from having adopted standards of practice to demonstrate what will be paid for and its value and a practitioner base and training program that will establish credentials and consistency of the service delivery. Although remuneration is a commonly stated barrier to practice, it is really a symptom of lack of a practice definition, value proposition, and significant base of pharmacists.

Finally, all of these components will be essential for success, but the transformation of pharmacist's role in primary health care will likely take 3-5 years to complete.   Throughout this time, achievement of each recommendation will serve as a milestone in advancing patient care and improving the health of Saskatchewan's residents through better care, better value, and better teams.

APPENDIX A: PCPCC GUIDELINES FOR THE PRACTICE OF MEDICATION MANAGEMENT (THE PATIENT-CENTERED PRIMARY CARE COLLABORATIVE, 2012)

The standards presented below were created to define the pharmacist's role in the patient centered primary care medical home. They are based upon five key premises. First, that the care provided will be delivered directly to an individual patient. Second, that the service will include an assessment of the individual's medication related needs. Third, that such an assessment will encompass a review of all drug therapies. Fourth, that the work will be coordinated between the pharmacist and rest of the care team. And fifth, that the service is expected to provide unique value to the patient's health.

1. An assessment of the patient's medication-related needs
2. All medications are reviewed and documented with the patient including prescription/OTC's/herbals/etc.
3. The medication experience of the patient is discussed and recorded. (The patient's attitudes, beliefs, and preferences about drug therapy, which are shaped by experiences, culture, traditions, religious beliefs, etc., apply here).
4. The patient's medication history, including allergies/reactions is taken (include what medications have been taken for which medical conditions in the past, which have worked and not worked, which have caused the patient concerns or problems and should be avoided).
5. All current medications, their doses (the way they are actually being taken by the patient) are reviewed with the patient and documented.
6. Each medication is assessed for the medical condition or indication for which it is taken. (To produce clinically useful data, the indication for the medication must be electronically linked with the product being used, dose, duration, manner in which the medication is being taken, therapy goals, clinical parameters that will determine progress toward these goals, and actual outcomes.)
7. The clinical status of the patient is assessed/determined for each drug/condition treated/ prevented (e.g., current BP level and cholesterol levels for hypertensive and hyperlipidemic patients, respectively). Without a determination of the current clinical status of a patient, the indication, appropriateness, and effectiveness of most medications cannot be determined.

8. The clinical goals of therapy for each medication—national guidelines, prescriber goals, and whenever applicable, patient goals are ascertained and documented.
9. Identification of the patient's medication-related problems
    a. All drug therapy problems (DTPs) related to indication, effectiveness, safety, and adherence are determined and documented for each medical condition or preventive therapy, based on the accepted clinical pharmaceutical taxonomy of drug therapy problems. The following questions serve to determine if any of the seven major categories of drug therapy problems are identified:
        i. Appropriateness of the medication
            1. Is the medication appropriate for the medical condition being treated?
            2. Does the patient have an indication for a medication that is not being treated or prevented?
        ii. Effectiveness of the medication
            1. Is the most effective drug product being used for the medical condition?
            2. Is the dose appropriate and able to achieve the intended goals of therapy?
        iii. Safety of the medication
            1. Is the patient experiencing an adverse event from the medication?
            2. Is the dose so high it could cause toxicity in the patient?
        iv. Adherence to the medication
10. Is the patient able and willing to take the medication as intended?
    a. Develop a Care Plan with individualized therapy goals and personalized interventions
    b. The medication care plan is developed by the pharmaceutical care practitioner directly with the patient and in collaboration with the PCMH team or the patient's other health care providers. The care plan allows a provider to do the following:
        i. Intervene to solve the patient's medication-related problems (interventions include initiating needed drug therapy, changing drug products or doses, discontinuing medications, and educating the patient).
        ii. Establish individualized therapy goals for each medical condition. Although national guidelines dictate population-level goals, each therapy goal must be individualized for each

patient based on risk, co-morbidities, other drug therapies, patient preferences, and physician/PCMH team intentions.

 iii. Design personalized education and interventions that will optimize each patient's medication experience.

 iv. Establish measurable outcome parameters that can be monitored and evaluated at follow-up to determine the impact of the therapies and the service.

 v. Determine appropriate follow-up time frames to ensure the interventions were effective and determine if any safety issues have developed since the last evaluation.

11. Follow-up evaluation to determine actual patient outcomes

 a. The follow-up evaluations allow the pharmaceutical care practitioner in collaboration with the PCMH team to determine the actual outcomes resulting from the recommended interventions. The outcome parameters are evaluated against the intended outcomes (individualized therapy goals) and the patient is reassessed to determine if any new medication-related problems have developed that might interfere with the safe and effective use of the medications. These follow-up evaluations occur in a time frame that is clinically appropriate for the specific patient, the medical conditions being monitored, and the drug therapy being taken. They may well vary with each patient, but should be coordinated with the PCMH team to minimize interference with other care activities, and are particularly important when major care transitions (such as hospitalization admission/discharge) occur.

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