A White Paper

Community Pharmacist Collaboration with Family Physicians in Primary Care Clinics

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Acknowledgements

Authors

Greg Wheeler BSc, BSc. Pharm, RPh. Pharmacist/Owner at City Centre Pharmacy, Oliver Pharmacy, and Rose Valley Pharmacy.

Tawnya Froese BSc. Pharm, RPh. Pharmacist at City Centre, Oliver Pharmacy.

Contributors

Brianna Benzer, BSc. Pharm, RPh. Pharmacy Manager at Oliver Pharmacy.

James Epp, BSc. Pharm, RPh. Pharmacy Manager Rose Valley Pharmacy.

Meghan Highley BSc. Pharm, RPh. Previous Pharmacy Manager at Skaha Pharmacy.

Jesse LaFountain BA, RSE. Editor

Chris Pasin, BSc. Pharm, RPh. Pharmacist/Owner at City Centre, Oliver Pharmacy, and Rose Valley.

Sarah Pelka BSc. Pharm, RPh. Previous Pharmacy Manager at Rose Valley Pharmacy.

Travis Petrisor BSc, BSc. Pharm, RPh. Pharmacist/Owner at City Centre Pharmacy and Rose Valley Pharmacy.

Davinder Purewal BSc. Pharm, RPh. Pharmacist/Owner Somerset Pharmacy.

Please direct any questions or correspondence to:

Greg Wheeler BSc, BSc. Pharm, RPh.

Email: gregwheeler@shaw.ca

Or

Tawnya Froese BSc. Pharm, RPh.

Email: pharmacist@citycentrerx.com

Executive Summary

Prescription medication costs recently became the second highest healthcare cost in Canada, taking up 15.3% of total healthcare spending in 2019, second only to hospital services[1]. As healthcare spending increases year over year, cost saving measures that do not compromise patient care are becoming more and more important[1]. Over 73% of Canadians over age 65 have at least one common chronic disease, and 8.1% of the general population is currently living with diabetes and 8.5% with heart disease [2,3,4]. Pharmacists on primary care teams have shown improvements in health outcomes, reductions in hospitalizations, implementation of deprescribing initiatives, and active support of prophylactic interventions; all of which can illustrate short and long term cost savings to public and private healthcare payors in addition to improving the lives of patients living with chronic disease [5,6,7,8,9].

Community pharmacists are optimally placed to be integrated into a more active role in a patient's care team as they already have professional relationships within their local healthcare community. With over 4,000 community pharmacists in BC alone, pharmacists are practicing in both urban and rural communities; including towns and villages that do not have access to complete health services such as hospitals[11]. By integrating these existing pharmacists into patient centered care teams, accessibility for patients is prioritized and those in rural areas are able to receive the benefits of multidisciplinary care.

At present, a major barrier to primary care pharmacy is systemic support [10]. Community pharmacists have the education and desire to implement clinical consultations and expand their cognitive services, however lack of adequate funding models and professional support make it difficult for these services to be financially feasible in community pharmacies[10].

In these pilot projects, community pharmacists were integrated into clinical care teams in multiple environments and the data that resulted illustrates the benefits to patients and the health care system alike. For example, of the 70 appointments that took place at one clinic between October 2018 and January 2020, 80 individual medication changes were implemented after pharmacist recommended intervention. These changes included, but were not limited to: deprescribing medications, dose adjustments, identifying and addressing medication adverse

events, and identification and removal of contraindicated medications. All functions that community pharmacists are trained to identify and address, and that play a critical role in the effective functioning of a patient-centered care team.

The purpose of this paper is to provide a roadmap for future wide-spread implementation of community pharmacists into interprofessional care teams and identify an adequate funding model that meets the needs of both the pharmacists and the health care system. As illustrated in the following pages, our community pharmacists excel at improving patient care, reducing costs to the health care system, and utilization of the pharmacist's role as a medication expert.

The Origins of Our Community Pharmacy Integration and Collaboration into Primary Care Clinics

Over the last 20 years, the vision for pharmacy practice has grown from the traditional dispensing role to a more clinical approach based on comprehensive pharmaceutical care. The ongoing challenge with this transition is that current funding for community pharmacy is structured to primarily compensate the dispensing role.

The first opportunity to initiate pharmacist collaboration into a primary care team occurred in Penticton B.C., when the Interior Health Authority (IHA) redistributed funding for an internal pharmacist from the out-patient chronic kidney disease (CKD) clinic to focus on in-patient services at Penticton Regional Hospital. Consequently, the physicians, clinic teams, and patients were left with no clinical pharmacy support. This also resulted in more frequent communication breakdowns between the community pharmacy and CKD clinic staff. Upon review, it was discovered that the main obstacle was the need to modify prescription orders post-clinic with the difficult task of locating and communicating with the nephrologist once the clinic was completed. These courses of events presented an opportunity for our pharmacists to provide clinical pharmacy services in a collaborative primary care practice to help improve patient outcomes and communication between their healthcare providers.

Community Pharmacist Integration and Collaboration into the Chronic Kidney Disease Clinic

Upon identification of this unmet need, the CKD clinic was contacted and the idea of integrating community pharmacists into the clinic with patients, nurses, dieticians, medical office assistants and nephrologists was broached. The concept was immediately embraced; however, a new challenge was presented in finding suitable financial support from Interior Health for this new model of practice. A year later, the Ministry of Health in B.C. announced the new Medication Review Funding Model to compensate community pharmacists for clinical services to enhance patient health and improve patient outcomes. This was an opportunity to help fund the CKD integration and collaboration model and the pharmacist integration proposal was resurrected. After a year of numerous committee meetings and a pilot project to analyze operations and data, we were approved as the BC Provincial Renal Agency (BCPRA) pharmacy to provide clinical pharmacy services to the Penticton CKD clinic.

Patients with chronic kidney disease are typically prescribed multiple medications, with many requiring frequent monitoring and dosage adjustments, increasing the risk for medication discrepancies and drug-related problems. A vast majority of patients seen by the community pharmacist at the clinic have at least one discrepancy or drug-related problem with their current medication list. The medication related issues identified by the community pharmacist are now addressed immediately at the clinic. When the pharmacist takes the patient to see the nephrologist after the medication review is complete, the pharmacist gives the nephrologist a summary of their conclusions with all their recommendations in addition to a complete and accurate medication list on the patient's medical chart.

The addition of a pharmacist to the CKD team allows for more thorough and complete patient care in one visit. Pharmacists are critical in analyzing appropriate dosing for both renal medications and non-renal medications that may need dose adjustments. Community pharmacists know the intricate regulations of billing processes, legal and audit requirements for writing prescriptions, why a patient may refuse to take a prescription, and questions to ask to determine if a patient is taking their medication as prescribed. Pharmacists have access to BC PharmaNet and can review all community pharmacy

prescriptions for a patient, whereas the CKD clinics use a different software system through the BCPRA. By interacting with these patients, their family physicians, and care teams on a regular basis, community pharmacists can bring their unique skills and expertise to improve the delivery of patient care services.

Our collaborative initiative highlighted the significant contributions that community pharmacists can bring to a primary care team. It positions community pharmacists as medication management experts which has been recognized by all team members including nurses, physicians, dieticians, and management within Interior Health. The pilot project independent evaluator highlighted the positive impact of community pharmacists in the delivery of patient care services in a variety of areas. Some of these included the reduction of medication discrepancies, the identification and resolution of medication management issues, improved communication between the community pharmacy staff and the CKD clinic staff, and reduction of phone calls and faxes to the CKD clinic from other community pharmacies.

Having the local community pharmacist in a primary care setting alongside nurses, dieticians, and nephrologists, highlights the professional role of pharmacists to patients. Instead of viewing their pharmacist solely as an independent healthcare worker, they now see community pharmacists as an integral part of a unified team committed to their care.

Please take a moment to view a short video of members of the CKD Clinic talking about the benefits of having a community pharmacist as part of the CKD health team: https://www.youtube.com/watch?v=_8XpmkTYUGg

Due to its success, the integration of a community pharmacist is now a permanent feature at the Penticton CKD clinic. This model of community pharmacist

integration was also used to expand the concept to other CKD clinics in Kamloops, Kelowna, and Trail B.C.
The value of the community pharmacist in a primary care role at the clinic is evidenced by the comments and actions of other health professionals. They have come to depend on the pharmacist for medication reviews, to help improve patient care, and as the medication experts on the team. By utilizing the expertise of every health professional on the team, complex issues can be resolved quicker and more effectively.

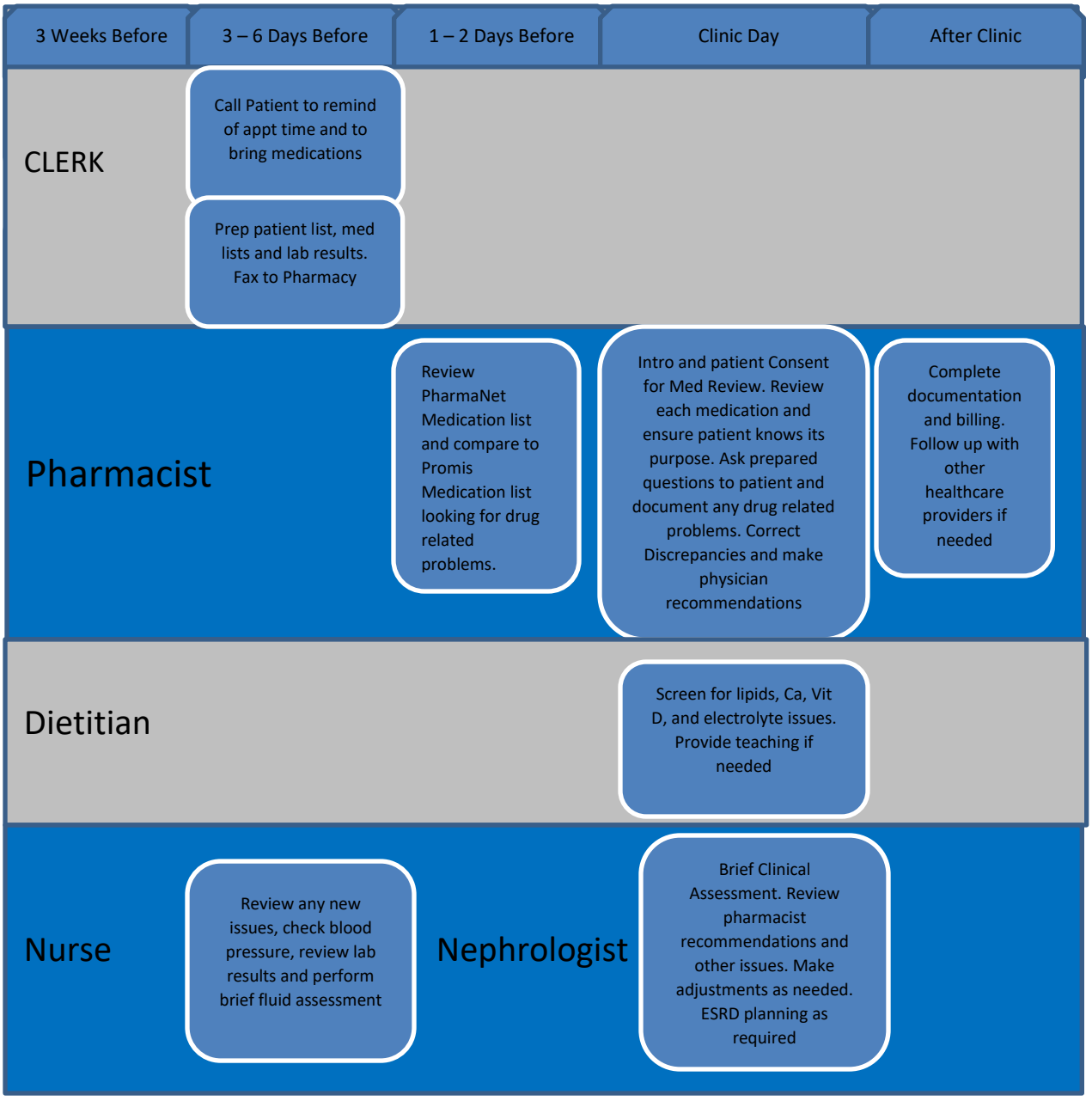
The effect of community pharmacist collaboration with the CKD clinic has resulted in reduced number of discrepancies and medication management issues for CKD patients. The perception of pharmacists as clinicians now extends outside the clinic boundaries and into the community. Our pharmacy has seen an increase in requests for consultations from other healthcare providers as well as direct patient referrals to solve complex medication management issues.

The CKD renal patients now benefit from the continuity of care they receive during their CKD clinic and community pharmacy visits. Having a community pharmacist presence in both locations has made it easier to address medication problems efficiently and effectively. In addition, it has allowed the pharmacy to communicate better with the patient, their family physician, and their entire CKD healthcare team to help prevent potential issues from developing into medication management problems.

The community pharmacists have benefited from this initiative by working in an integrated setting; this collaborative environment has expanded their professional scope and allowed them to further utilize their training and expertise in new and rewarding ways. The change in practice, enhanced professional relationships, and improvements they have made in patient care have led to increased satisfaction in their pharmacy careers.

Outlined in Figure 1 are the details of the workflow that occurred when preparing for an upcoming Clinic Day.

Figure 1: Workflow for a Clinic Day at the Chronic Kidney Disease clinic



Health Employers Association of BC Award for Skaha Pharmacy Collaborative Work at the Chronic Kidney Disease Clinic in Penticton B.C. 2013

Community Pharmacy Integration and Collaboration Model Expands to BC Transplant Outpatient Clinics

In addition to the CKD contract, our pharmacy also dispensed formulary medications to organ transplant recipients in the region. These patients had regular appointments at local outpatient clinics where they would see a nurse, nephrologist, and dietician. The data from the pilot project in the CKD clinic was presented at the annual BC Transplant face-to-face Regional Transplant Clinic meeting that year which resulted in an advisory role on a committee that started the first pilot project for the integration of a community pharmacist into an outpatient transplant clinic. The model was based on our initiative at the Penticton CKD clinic and was tested in one of the larger clinics in the Fraser Health Authority. In addition, as a representative for the provincial BC Transplant community pharmacy partners at the Regional Transplant Clinic meetings, we pursued a regional consulting role with the provincial BC Transplant organization with the hopes of expanding the original model of community pharmacy integration into Primary Care clinics throughout the province in both out-patient CKD and Transplant clinics.

Please view another short video discussing the idea of integration into the clinics and its growth: https://www.youtube.com/watch?v=KclEJXkMHbc

Our Community Pharmacy Integration and Collaboration Model was eventually adopted in the BC Transplant clinics in Kelowna and Surrey, B.C. with pilot projects completed in each location. Included in Table 1 is a sample of the comparison data for all the CKD and Transplant pilot projects.

Table 1: Comparison Chart of Drug Related Problems in Chronic Kidney Disease and BC Transplant Community Pharmacy Integration and Collaboration in all Pilot Projects Conducted

	Fraser Health Transplant Clinic Sept 2015	Kelowna Transplant Clinic Dec 23, 2014	Kamloops CKD Clinic Feb 10, 2013	Penticton CKD Clinic April 15, 2012
Total Number of Patients Seen	251 (100%) All Patients Seen	118 (N/A) Not all Patients Seen	187/334 (56%) Not all Patients Seen	165 (100%) All Patients Seen
Average Number of Medications per Patient	10.7	12.2	12.4	12.5
Total Number of Discrepancies	409	690	320	659
Total Number of Drug-related Problems	257	228	74	105
Total Number of Adherence Issues	86	10	7	55

Definitions:

- A discrepancy is any mismatched information between the patient's official BC Transplant or BC Renal medication record stating what a patient is supposed to be taking compared to what they are actually taking of their medications.
- A Drug Related Problem (DRP) is any clinically significant issue arising from the medication the patient has been prescribed including the following categories: side effects, contraindications, duplications, interactions, dosage changes, ineffectiveness, unnecessary medications or untreated conditions.

Community Pharmacist Integration and Collaboration into BC Transplant Out-Patient Clinic in Fraser Health Authority

The pilot project in the BC Transplant out-patient clinic in Surrey B.C. (Fraser Health Authority) offered an opportunity to expand the data and to examine the amount of time it takes for the pharmacist to perform their duties. This data encompassed time spent in pre-clinic patient analysis, time at the clinic, individual patient interviews in the clinic, post-clinic documentation, physician follow-up,

and billing. The analysis of this data led to the development of a proposed sustainable financial model that could be expanded throughout the province at all the BC Transplant Out-patient Clinics. The focus at BC Transplant was to redistribute funding that was going to the Health Authorities; this did not materialize due to complex hurdles in their funding model. However, the standardized and sustainable model we created is based on solid data and is still viable today.

The payers' fees in Table 2 represent current fee-for-service models for providing a medication review. The results of the Fraser Health Post Transplant Clinic pilot project determined that any funding model for a pharmacist must consider time spent preparing for each patient prior to scheduled clinic hours, the total time spent in the clinic, and the time post clinic to follow up with each patient[16].

The funding model could be applied and correlated to any clinic based on how many patients seen per day and the allotted time per clinic day. The pilot project data illustrated that a per-patient fee correlates well with the per-hour calculation as seen in Table 3. As the number of patients booked increases so does the average total clinic time, pre-clinic time, and post-clinic time at a rate equivalent to one hour per patient.

Table 2: Comparative Models Used in Business Case Analysis During BC Transplant Pilot Project in Surrey B.C. (Fraser Health Authority)

Payers of Medication Reviews	Reimbursement for Pharmacist Medication History $/min	Reimbursement for Pharmacist Time $/hr
Green Shield Insurance **	$1.60/min	$96.00/hr
BC PharmaCare	$65/37 min*	$105.40/hr
Ontario OHIP MedsCheck	$60/30 min	$120.00/hr

*The average total time spent by the pharmacist for a medication review calculated in the BC Transplant pilot project

** Green Shield used a study by the Ontario Pharmacists Association to determine pharmacist reimbursement [19]

Table 3: Total Time Commitment of Pharmacist Calculated in BC Transplant Pilot Project in Surrey B.C. 2016 (Fraser Health Authority)

Time Commitment	Ave Total Min/Clinic	Ave Total Min/Booked Pt
Pre-Clinic	189.8	13.3
During Clinic*	269.0	18.9
Post-Clinic	83.0	5.8
Total	**541.8 (9.03hrs)**	**38**
***This is only the time spent with patient for interview. Does NOT include time between patients. The entire time at the clinic must be considered.**		

McKesson Canada Video

McKesson Canada created a video featuring our integrative and collaborative work with the BC Renal Agency and the BC Transplant Agency in these primary care clinics. Take a moment to watch: https://www.mckesson.ca/greg-s-story

Community Pharmacist Integration and Collaboration into Family Physician Clinics

Upon hearing of the success of the previous pilot projects, a family physician in Oliver B.C. contacted the pharmacy to initiate the integration of a community pharmacist into his office as he believed a multi-disciplined approach would

benefit his patient population. The pharmacist would work collaboratively with the physician a few days per month to help improve outcomes for complex care patients. As our community pharmacists have been doing this type of work in the CKD clinic for years, the workflow was adapted to accommodate the new challenges presented by a family physician clinic. This was the beginning of our community pharmacy and family physician collaboration. Over the course of the next three years, this service was expanded to five other family physician clinics in three separate communities involving six community pharmacists, fifteen family physicians and five medical office assistant managers. The program's success began to disseminate throughout the medical community subsequently leading to other physician groups reaching out to enquire about integrating pharmacists into their clinics. Figure 2 depicts the initial workflow template for use in a Family Physician Clinic.

During the initial phases of this project, we worked with the local South Okanagan Similkameen Division of Family Practice who helped coordinate workflow development and meetings required for communication and implementation.

As we continued to discuss the initial family physician project, we reviewed data from our previous pilot projects in the CKD and Transplant clinics. Statistics from this new project were collected from the inception in the hopes of illustrating the benefits of working in a collaborative relationship with local community pharmacists. This data collection was designed around the same model as the CKD and Transplant clinics, however more data points were included for discontinued medications and deprescribing. The annual cost savings from the deprescribing activities of the pharmacist can now be tabulated and compared against the total cost of the program as shown in Chart #4.

We have also retained more of the pharmacist's notes relating to any drug related problems and actions regarding specific medications. These actions can all be referred to a complete medication list and used to extrapolate patient outcomes based on current disease management protocols.

The data collected over the last three years from our integration into these family physician clinics supports the continuation of having community pharmacists working collaboratively with their local family physician groups (Tables 4,5,6). Of the 3451 medications assessed, the pharmacists identified 504 drug related

problems and recommended 466 interventions (Table 4). The average number of interventions per patient was 1.48, a statistic that highlights the value in pharmacist involvement. In addition, drug related adverse events are a common reason for hospitalization, and by increasing the pharmacist involvement these 504 DRPs are significantly less likely to result in major negative outcomes such as hospitalization or mortality. Of those 504 DRPs, the majority were unnecessary drug therapy (20.8%) and patient adherence issues (18.8%), both of which community pharmacists are optimally placed to enact solutions and monitor the results regularly. In addition, a significant number of medications were discontinued after the referral to a community pharmacist; of those, 30 were proton pump inhibitors (PPIs), a class of medication that when taken chronically can increase the patient's risk of enteric infections, fractures, and nutritional deficiencies[20]. The annual cost savings of discontinuing these unnecessary medications totaled $4,799.92; a savings of approximately $160 per person. In 2018, there were 2,391,000 prescriptions for PPIs and if only 1% of those are no longer necessary, that is 23,910 prescriptions and $956,400 annually in drug costs (not including any additional health services required to treat resultant adverse events)[21]. In addition to facilitating deprescribing and reducing patient pill burden, it also presents a significant opportunity for cost savings to patients and the healthcare system. Through medication review billing the cost of the pharmacist services across all clinics was $18,630.00, whereas the total annual cost of the discontinued medications was $22,018.44 (based on 2020 medication costs and 3-month fills); resulting in a savings of $3,000.00 in medication costs alone. By including a community pharmacist in the direct care of the patient, these medications were able to be discontinued on the same day with no delay due to indirect or incomplete communication with the dispensary.

The idea of limiting these comprehensive medication management services to a limited group of pharmacists in our communities is not supported by the data. The value of encouraging all community pharmacists to interact with as many complex care patients as possible alongside their local physicians cannot be disputed.

Table 4: Total Number of Medications and Interventions in Family Physicians' Clinics

Location	Clinic A (n=116)	Clinic B (n=72)	Clinic C (n=104)	Clinic D (n=21)	Clinic E (n=2)	Total (n=315)
Total number of medications reviewed	1145	854	1153	277	22	3451
Interventions recommended by pharmacist	113	92	241	20	0	466
Interventions implemented by physician	79	80	209	15	0	383

Table 5: Type and Quantity of Drug-Related Problem Identified

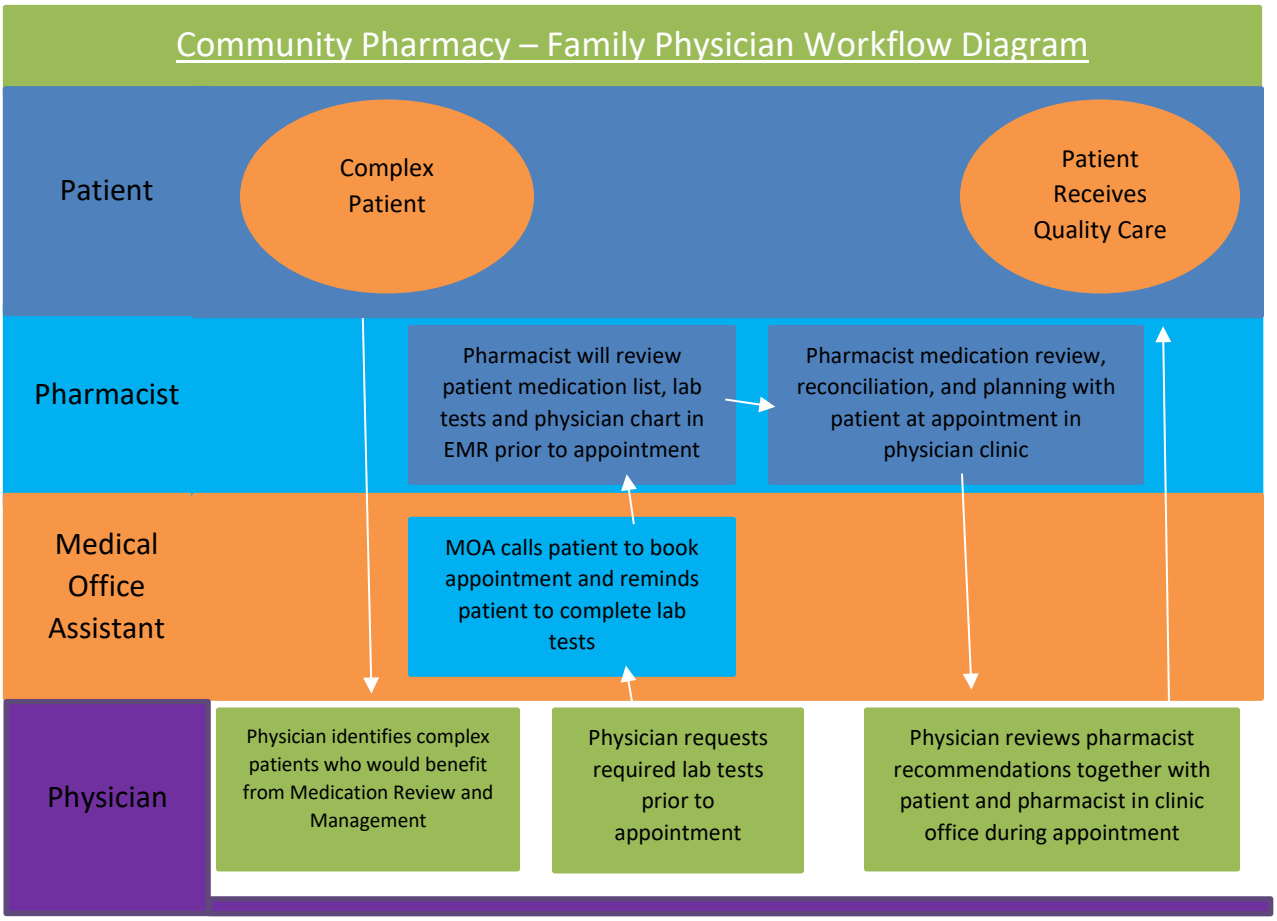
	Clinic A (n=116)	Clinic B (n=72)	Clinic C (n=104)	Clinic D (n=21)	Clinic E (n=2)	Total (n=315)
Unnecessary medication	23	21	55	6	0	105
Contraindicated medication	0	1	4	0	0	5
Duplication of therapy	0	2	4	0	0	6
Ineffective drug therapy	4	7	15	0	0	26
Needs additional drug therapy	21	27	35	4	0	87
Dosage adjustment required	21	27	38	7	0	93
Medication induced adverse event	33	6	31	3	0	73
Drug interaction	1	0	12	1	0	14
Patient adherence issue	24	19	50	2	0	95

Table 6: Deprescribing Savings vs Medication Review Billing for Study Period of Collaborative Work in Family Physician Clinics

	Total Number	Total Cost/Savings
Deprescribed Medications	151	$22018.44
Medication Review Billing	294	$16560.00

(Note: These numbers are based on 2020 medication costs and 3-month prescription fills)

Figure 2. Community Pharmacist - Family Physician Collaboration Workflow



- Accurate and clear EMR patient data
- Pharmacist needs access to Family Physician EMR. This allows the Pharmacist to review lab work and patient profile and to add notes in patients EMR chart
- Pharmacist requires private space in physician office to conduct patient interviews and medication reviews
- Patients are required to do all lab work prior to appointment and bring all medications and supplements to the appointment for pharmacist to review
- Pharmacist must receive a full list of patients booked at the clinic at least a couple days prior to appointment so they can prepare for the appointment by reviewing lab results, PharmaNet profile, and EMR patient charts.
- Physician and Pharmacist must sit together with patient to discuss recommendations and planning regarding their medication.

Funding Model Discrepancies

One reason that more community pharmacists are not doing this work in all local clinics is related to the unsustainable financial models that are currently in place for Medication Review services across the country. It is impossible to cover the full operational costs that include paying both a pharmacist to manage the community pharmacy and another pharmacist to work at the clinic in addition to the required pre- and post-clinic time for preparation and documentation. The BC

Medication Review funding model was never structured for the integration of community pharmacists into physician clinics performing medication management clinical services. However, we believe it is possible to modify the current funding model so that highly skilled clinical community pharmacists can have the opportunity to work at the top of their scope of practice in primary care clinics. There are substantive studies that highlight the positive impact this integrated approach has on complex patient outcomes and how it contributes to the highest level of comprehensive and collaborative patient care[5,6,7,9].

Integrating Comprehensive Medication Management into Community Pharmacies

As further illustrated by the COVID-19 pandemic, community pharmacists are the most accessible healthcare providers[18]. Pharmacists in the community have the skills required to perform comprehensive medication management which has been outlined as a goal by the National Association of Pharmacy Regulatory Authorities (NAPRA)[12]. With this as the goal for all Canadian pharmacists, the focus should be on adapting current policies and programs to create standardized and sustainable systems that encourage more comprehensive medication management in all community pharmacies.

We provide a standardized model in our pharmacies with defined criteria that must be met to be viable, while still having the flexibility to address the diverse needs and workflow issues of family physician clinics. Over the years, there has been significant criticism of the B.C. medication review funding model from government decision makers and other healthcare critics; however there have been few attempts at identifying and rectifying the real problem at the source[17]. Our model is shown to be sustainable with some modifications to the current medication review funding in B.C. and we believe there is an opportunity to adjust the current B.C. medication review funding model to support clinical practice leading to positive patient outcomes and concurrently reduce the potential for recurrence of past criticisms.

At present, the medication review funding model in BC is fundamentally flawed and is negatively impacting the statistical view of pharmacist clinical services through discouraging accurate service billings. The combination of the structurally flawed model, the inexorable audit practices of PharmaCare and the

absence of virtual medication reviews have negatively skewed the billing practices of community pharmacists by providing little incentive and large risk.

The medication review requirements of three pages of extra information to bill PharmaCare for a pharmacist consult instead of a standard medication review to receive an extra $10 is not proportional to the time or effort involved. In addition, the extra three pages of documentation exposes the pharmacy to increased opportunities for the PharmaCare auditors to find a trivial technical error and recall the entire $70 with no opportunity for recourse, resulting in no payment for services rendered. Consequently, most community pharmacists will only bill PharmaCare for a $60 standard medication review despite possibly finding at least one drug related problem, due to this risk. The pharmacist will complete all the required clinical work with the patient, but they will not bill PharmaCare for the extra $10 and they will not complete the extra three pages of documentation.

A similar scenario exists for billing PharmaCare for follow-up medication reviews. Pharmacists do this work daily with patients and their physicians. To bill PharmaCare for the $15 fee, the requirements are significant: a copy of the original medication review must be obtained, all the medications must be reviewed again, and all the documentation of a standard medication review must be fulfilled a second time, in addition to completing the paperwork detailing how the drug related problem has been resolved. Clearly the time required is significant, but moreover the audit requirements are substantive and restrictive, resulting in pharmacists refusing to bill PharmaCare for these follow-up medication reviews. In addition, most follow-up work is completed by phone or fax after the initial medication review appointment, and it is exceedingly difficult to get patients to book another in-person appointment to obtain the required consent signature for PharmaCare billing purposes.

Another example of the detrimental effect of not permitting virtual medication reviews, without discussing the effect of COVID-19 and the reduction of already limited access to patients and clinics over 2020, are the numerous occasions when patients are discharged from hospital. This is an exceptional opportunity to perform a medication review to reduce medication errors and ensure continuity of care, as has been demonstrated by many studies in recent history. The problem arises when these patients are still not feeling 100% and they need to go directly

home for rest and care. A family member or a caregiver then comes to the pharmacy, and the pharmacist goes through all the medications with them to ensure they pass the information along to the patient, often providing written documents and adherence aids. Essentially, a full medication review is performed to assess and correct any potential medication issues, but it cannot be billed to PharmaCare for these services as the patient is not present and cannot sign the required consent form. Consequently, these statistics are not captured in the PharmaCare data and skews any analysis of that data. In a worse scenario, a medication review is not performed at all, and any potential drug related problem is not discovered until it is too late.

One real life example of a medication review that prevented a potentially serious medication error occurred when a patient was discharged from the local hospital after a five day stay due to bleeding issues related to his warfarin therapy. Upon release from the hospital, the patient was too tired to come to the pharmacy, so his wife presented to pick up his discharge medications. His wife was responsible for putting out her husband's medications each morning and had a good understanding of each medication and what it was treating. The physician at the hospital sent a prescription to the pharmacy with a new dose of Warfarin 3mg daily and told the couple to continue all other medications at home as before. What he did not tell them specifically was that this new warfarin dose was to replace the warfarin medication he had at home. The couple were convinced that they were supposed to take the new warfarin tablets in addition to the warfarin at home because the physician did not tell them to stop anything. The pharmacist asked the wife not to give her husband any warfarin until they could confirm with the physician as the pharmacist was afraid that the combination of the two warfarin doses would exacerbate her husband's bleeding and send him back to the hospital. The pharmacist followed up with the discharging physician and phoned the wife at home to confirm that she was supposed to stop all previous warfarin doses and only use the newly prescribed warfarin 3mg tablets. She was very thankful for the clinical work that prevented a potential serious medication incident. She had no idea that the pharmacy could not bill PharmaCare for this service as her husband was not present in person to sign the consent form for a $70 pharmacist consult medication review. And the pharmacy had no intention of asking him to come to the pharmacy in his condition. So, this clinical pharmacy

intervention will never show up on any PharmaCare data analysis even though it is a primary example of what should be expected for the value of the medication review funding model.

To fix these issues, improvements need to be made to the existing medication review funding model. We need to approve virtual medication reviews and accept consent signatures from family members and caregivers with verbal consent from the patient. We need to advocate for fair PharmaCare audits that are not punitive for technicalities when there is no malicious intent and patient care was at the core of the activity in question. We also need to add an option to perform clinical medication management with collaboration between patients, physicians, and other healthcare professionals.

The improvement of the medication review funding model must be comprehensive as there has not been any review for over a decade. As the healthcare landscape changes (for example pharmacists' scope of practice increasing across the country and technology providing dramatic improvements to telemedicine) the framework of the funding models also must adapt. The medication review funding model must include both the funding for each clinical activity and the documentation requirements as well. Ideally, this review should be performed by industry leaders and representatives from community pharmacy (Community pharmacy owners and representatives, the BCPHA, the BC College of Pharmacists, the BC Ministry of Health etc.) in a collaborative forum.

The process needs to evaluate the average time to perform a standard medication review at the pharmacy (medication reconciliation plus a review with no issues discovered performed at the pharmacy is approximately 20 minutes on average). There is definitive value in this process to inform patients what each medication is treating, to discuss why it is important to be compliant with their medications, and to have an opportunity to inform them on how to use a medication properly to optimize their results. The group at the forum can then discuss if this activity is still worth $60 or is it worth $35 or $40 (Approx. 20 minutes on average or equivalent to $105 or $120/hr) What does the required documentation look like for this activity? Should a copy be faxed to the family physician for their records and to enhance interprofessional communication?

How many of these medication reviews can a patient have per year and how many medications do they have to be taking to qualify?

The same analysis must occur for the Pharmacist Consult and Follow-up medication reviews. Is the Pharmacist Consult medication review necessary? Can we pay all medication reviews completed at the community pharmacy and initiated by a pharmacist $40 whether an actual or potential drug related problem is discovered or not? Consequently, can we increase the fee to $20 for a follow-up of a medication review performed at the pharmacy based on the original patient consent signature and the documented issue that was discovered and communicated to the physician? Can this be summarized in one simple form that can be attached to the original medication review? The total remuneration for this medication review and follow-up would be $60 to the pharmacy.

In addition, we would propose to the medication review forum that the savings from the reduction of a standard medication review from $60 to $40 should be used to fund a new category called clinical medication management (CMM). This category may require a “minimum” qualification component (e.g., CE’s, required courses, mentoring requirements, etc.); a collaborative in-person or virtual working relationship with both a non-pharmacist health care provider and a patient at some point in each service; and a comprehensive documentation procedure (paper or digital, pharmacy software, EMR software etc.) These patient interactions must be initiated by the non-pharmacist (physician, nurse practitioner, etc.) with a documented reason and will not be restricted by minimum medications or an eligible number per year. The calculated time for this type of interaction is approximately 1 hour and should be compensated fairly between $100 to $120 accordingly. There is good data from multiple pilot projects to support the average time component, the reimbursement, and the improved patient outcomes of this type of collaborative patient care. In addition, there is also good data to support increased savings to the Ministry from deprescribing that these types of patient interactions facilitate, in addition to the reduced pill burden experienced by the patient.

The mobilization of clinical community pharmacists to collaborate with physicians and other extended health care providers would maximize the ability to assess and provide care for the most complex patients. The more interaction with these

patients, the greater the potential to exponentially increase the value the Ministry realizes through optimization of treatments and health outcomes with clinical medication management. Community pharmacists are optimally placed, trained, and educated to do this type of work; with a little support, community pharmacists can make a big difference.

Overview

The goal of this paper is to present collected data and a documented model to contribute to the current discussion about clinical community pharmacy integration and collaboration within the primary care setting. Our model was created and evolved within our pharmacies, family physician offices, chronic kidney disease clinics and transplant clinics. The data generated helps shed light on the value of supporting clinical community pharmacist integration into collaborative primary care settings. As interest and data grows from other projects and studies, we expect to see it further substantiate the benefits laid out herein.

Our purpose is to present the viewpoint that this program should be developed together with all community pharmacists, who are both willing and able to perform these clinical services.

The goal of a Ministry of Health supported program should be to create a model that will further the NAPRA goal for community pharmacists to provide comprehensive medication management to all complex care patients in communities across the province and country, and to allow community pharmacists to better help Canadians.

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