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COMMUNICATION

The Voice of Pharmacists in Manitoba

PHARMACISTS MANITOBA

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TABLE OF CONTENTS

EXECUTIVE MESSAGE

We would like to use this opportunity to thank all of you who attended Pharmacists Manitoba's Conference and Annual General Meeting (AGM) in April. It was great to see our members come out to learn, connect with their colleagues and celebrate with our award winners.

This year the Hon. Cameron Friesen, Minister of Health, Seniors and Active Living attended our Awards Dinner and gave the opening remarks at the Exhibitor Reception and Fun Casino Night. We were pleased that the Minister took time to celebrate the contribution of our award winners and our members to health care in Manitoba.

Our relationship with the Manitoba Government is continuing to develop and Minister Friesen's attendance at our awards dinner is an indication that the government is interested in what pharmacists can offer to help improve the health of Manitobans.

In May, Pharmacists Manitoba President, Pawandeep Sidhu, Board Director, Abby Lau, Past Board Director, Sheril Cyriac and CEO, Brenna Shearer attended the PC Blue Sky Gala and interacted with Premier Brian Pallister and Ministers Fielding and Friesen.

Also in May, Pharmacists Manitoba President, Pawandeep Sidhu, Past President, Barret Procyshyn and CEO, Brenna Shearer met with Deputy Minister of Health, Karen Herd, to advance our discussions about pharmacist engagement in Manitoba's health care services.

On May 7th, the new slate of Board Directors, your representatives, met for their orientation and elections to various positions within the board. We are pleased to share with you the full list of 2019–2020 Board Directors, Liaisons, and their roles:

- Pawandeep Sidhu, President
- Doug Thidrickson, Vice President and CPhA Board Representative
- Barret Procyshyn, Past President
- Kyle Skayman, Treasurer and Internal Relations Chair
- Ashley Ewasiuk, Secretary and Good Governance Chair
- Jason Falk, External Relations Chair
- Abby Lau
- Dennis Wong
- Marian Attia
- Tim Smith

Board Liaisons

- Sharon Smith, CPBA Liaison
- Susan Lessard-Friesen, CPhM Liaison
- Sheila Ng, College of Pharmacy, Rady Faculty of Health Sciences, U of M Liaison
- Nicole Hager, CSHP-MB Liaison
- College of Pharmacy Student Liaison (to be determined)

We've all been hearing the buzz about an early election in Manitoba. In the event of an election we will develop tools to assist you in reaching out to your candidates to ensure they understand the important and underutilized role pharmacists can provide in improving health care and patient health outcomes in Manitoba.

In order to effect practice change and the reimbursement model in Manitoba the way it has changed in other provinces, we are going to need you to support Pharmacists Manitoba and our government relations and advocacy efforts. You can support our efforts by renewing your Pharmacists Manitoba membership today!

If you have any questions, feel free to contact us by email: info@pharmacistsmb.ca.

Sincerely,

Pawandeep Sidhu
President

Brenna Shearer
CEO

MEET THE 2019–2020 BOARD OF DIRECTORS

The 2019–2020 Pharmacists Manitoba Board of Directors met on May 7, 2019 to elect the executive positions and to appoint committee chairs.

The newly appointed Directors are already working with their committee members to carry out the mission and vision of Pharmacists Manitoba and continue the work of their predecessors.

Pawandeep Sidhu

President

Doug Thidrickson

Vice President and CPhA Board Representative

Kyle Skayman

Treasurer and Internal Relations Committee Chair

Ashley Ewasiuk

Secretary and Good Governance Committee Chair

Jason Falk

External Relations Committee Chair

Barret Procyshyn

Past President

Abby Lau

Dennis Wong

Marian Attia

Tim Smith

COMMITTEE STRUCTURE

During the 2018–2019 membership year, the Good Governance Committee completed a review of the Pharmacists Manitoba committee structure with the goal of streamlining processes and ensuring the best use of our most valuable resource – our member volunteers. The review resulted in a recommendation for a new committee structure that better represents the work of the organization, increases efficiency and allows for more flexibility in how committees operate. The recommendations were approved by the Board and new Committee Profiles were developed. The three new committees are:

GOOD GOVERNANCE COMMITTEE

This committee ensures that the governance of Pharmacists Manitoba is relevant, transparent, functional, and accountable to its membership. The Committee assists the Board in providing long term vision, and in protecting the reputation and values of the association.

INTERNAL RELATIONS COMMITTEE

This committee assists the Board of Directors fulfill its obligations in respect to internal and operational issues including finance, human capital, and facilities. The committee ensures that adequate financial resources are in place to sustain Pharmacists Manitoba operations in alignment with Board strategic goals.

EXTERNAL RELATIONS COMMITTEE

This committee supports Pharmacists Manitoba with external relations involving, but not limited to government relations, professional relations and public relations initiatives and member services.

These three committees all have the ability to create task specific working groups as required. Working groups will be created based on project work with an established start and end date. This will allow volunteers to commit to specific initiatives which are of interest to them.

Thank you to Good Governance Committee Chair, Pawandeep Sidhu and committee members Glenda Marsh, Bobby Currie, Sharon Smith, and Kimi Guilbert for your commitment to the review and development of the new committee structure.

To see more information on the new committee structure and review the three Committee Profiles visit: https://www.pharmacistsmb.ca/aboutus/commitees.html

2019 PHARMACISTS MANITOBA CONFERENCE

The 2019 Pharmacists Manitoba Conference took place at the RBC Winnipeg Convention Centre and the Delta Hotel from April 12 – 14, 2019. As we do every year, we collaborated with the College of Pharmacists of Manitoba, the College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba and the Canadian Society of Hospital Pharmacists – Manitoba Branch to identify relevant and important topics for pharmacists. This year's topics and speakers were well received by delegates, who provided plenty of positive feedback as well as information on what they would like to see at our conference in 2020.

Full attendees received 14 CEUs this year.

FRIDAY, APRIL 12

PHARMACISTS MANITOBA AWARDS DINNER

The conference started with an intimate invitation only dinner for our award recipients, their families, the Pharmacists Manitoba Board, staff, award sponsors, and dignitaries at the Delta Hotel. This year marked the first time that the Minister of Health, Cameron Friesen attended the Awards Dinner.

PHARMACISTS MANITOBA AWARD OF MERIT

Scott McFeetors was presented with the Pharmacists Manitoba Award of Merit, which is bestowed upon an active member of Pharmacists Manitoba in recognition for active participation and promotion contributing to the benefit of Pharmacists Manitoba and the Profession of Pharmacy.

In 2018, Scott passed the milestone of 30 years as a pharmacist during which he had the honour to work with many of the best minds in our profession. He started off his career as a hospital pharmacist in PICU at HSC in Winnipeg in 1988. Scott worked in Port Hope, Ontario for an independent community pharmacy for two years, returning to HSC in 1991, where he remained until 1998. He joined Loblaw Companies Limited in 1991, first as a part time pharmacist, then as a pharmacy manager, and ultimately moved into his current position as the Director of Pharmacy Operations for Manitoba and NW Ontario. Scott served on the Board of Pharmacists Manitoba and was President for one term. Scott says the most important part of his

From left to right: Pharmacists Manitoba President, Barret Procyshyn, Minister of Health, Cameron Friesen and Pharmacists Manitoba CEO, Dr. Brenna Shearer.

Recipient of the 2019 Pharmacists Manitoba Award of Merit, Scott McFeetors.

life is his wife Carol, son Jack and daughter Amber. Scott believes that our profession has a great future with an ever-expanding scope of practice and that we must seize every opportunity! We agree Scott!

THE BLANDO GROUP PATIENT CHOICE AWARD

Kristin Lane received the Blando Group Patient Choice Award, which is presented to a pharmacist who has been nominated by a patient or non-pharmacist colleague(s) for their outstanding commitment to delivering quality patient care and customer service, and for their lasting impact on patient outcomes or community health and wellness.

Kristin graduated with a B.ScPharm. from the University of Manitoba in 2007. She began her career at Birtle Pharmacy under the guidance of owner Alison Desjardins, having previously worked there as a summer student.

Kristin is authorized both to prescribe for self-limiting conditions and to administer a drug or vaccine by injection. She designed in-store prescribing algorithms for Birtle Pharmacy pharmacists to use for self-limiting conditions prescribing. Kristin also created and implemented

2019 Blando Group Patient Choice Award Recipient Kristin Lane.

a medication synchronization program for Birtle Pharmacy. She was the site leader for the recent SafetyIQ Pilot Project and gives monthly presentations on a variety of health-related topics at the local Drop-In Centre. In 2009 she was awarded a Young Leader Award at the Manitoba Society of Pharmacists (now Pharmacists Manitoba) Conference.

Kristin is an NFPA (National Fire Protection Association) Level 1 certified member of the volunteer Birtle Fire Department, as well as a member of the Search and Rescue Team.

Kristin and her husband Kurt live on a cattle and grain farm in the beautiful Birdtail Valley. They have 2 children, 3-year old daughter Natalie and newborn son Grayson. In her spare time, Kristin likes to be outside, garden, curl, and camp with her family.

RUBAN INSURANCE FRIEND OF PHARMACY AWARD

The Ruban Insurance Friend of Pharmacy Award was presented to Grant Stefanson. The award is presented annually to a non-pharmacist who has contributed significantly to the success of the profession of pharmacy.

Grant is a lawyer practicing in the areas of commercial litigation, business law, employment law and aboriginal law.

He joined MLT Aikins LLP on January 1, 2017 as a partner after practicing law for 24 years with D'Arcy & Deacon LLP.

Grant is a member of the Canadian and Manitoba Bar Associations. He has appeared in all levels of court in Manitoba, the Tax Court of Canada, the Federal Court of Canada as well as before numerous Boards and Tribunals, including the Manitoba Labour Board and all committees of the College of Pharmacists of Manitoba. Grant regularly provides business law advice to his corporate clientele and has extensive experience with acquisitions and divestitures of retail pharmacies.

He has lectured for the Community Legal Education Association in Winnipeg, for the Advocacy Program at the University of Manitoba Law School and for the Rady Faculty of Health Sciences, College of Pharmacy at the University of Manitoba.

Grant is married to Shannon Stefanson and they have three children; Jilian, Reyna and Natalie.

Recipient of the 2019 Ruban Insurance Friend of Pharmacy Award, Grant Stefanson.

THE OZTURK PHARMACY BUSINESS LEADERSHIP AWARD

The inaugural Ozturk Pharmacy Business Leadership Award was presented to Darwin Cheasley. The award is presented to a pharmacy owner or manager who demonstrates a commitment to the profession by supporting staff pharmacists to embrace expanded scope, providing outstanding and innovative pharmacy services to patients.

Darwin grew up on the family farm in Alexander, a small farming community just west of Brandon.

He attended Red River College where he attained his Chemical Technology Diploma in 1984. He continued his education at the University of Manitoba, graduating with a Bachelor of Science in Pharmacy, Class of 1988.

Darwin's pharmacy career has led him to many communities in Manitoba. He worked in Winkler and Morden after graduation. In 1989 he joined Super Thrifty working at Medical Centre Pharmacy in Brandon. In 1991 he moved north to Flin Flon where he managed the Super Thrifty Pharmacy in that location. He assumed his current role as pharmacist/manager/partner of Selkirk Super Thrifty Pharmacy in 2001.

Darwin holds his Opioid Dependence Treatment certification. He served on the Board of Directors of Pharmacists Manitoba from 2009 to 2011 and began his current role as director with Super Thrifty Drugs Canada Ltd. in 2012.

He and wife Heather have two university-aged children, Cailyn studying medicine at the University of Manitoba and Brennan studying science at the University of Winnipeg.

2019 The Ozturk Pharmacy Business Leadership Award Recipient Darwin Cheasley.

Within his own pharmacy, Darwin supports staff pharmacists to embrace education for expanded practice scope. He allows them time to get the training and covers the costs of their education.

He actively works with all staff to promote the services available to customers and patients. Ranging from shingles vaccines to minor ailments, diabetic training, smoking cessation, and blood pressure monitoring, Darwin ensures all staff promote services and has increased the public's use of Asking the Pharmacist First.

Darwin is supportive of all pharmacy managers in the Super Thrifty chain. He is a sounding board to help others implement pharmacy services within their unique communities, assists with understanding the implication of policy changes, and is always available to problem solve patient complex issues and identify solutions.

THE CANADIAN FOUNDATION FOR PHARMACY PAST PRESIDENT AWARD

Outgoing Pharmacists Manitoba President, Barret Procyshyn received the Canadian Foundation for Pharmacy Past President Award. The award recognizes the leadership and time commitment of the Presidents of pharmacy organizations as they step down from their term as President. As a volunteer organization, the Foundation understands and cherishes the contribution that these individuals make to their organizations and to the profession at large.

Barret graduated from the University of Manitoba, Faculty of Pharmacy and joined the Dauphin Clinic Pharmacy in 2009. He enjoys working in both Dauphin and Winnipegosis Clinic Pharmacies and has recently become a co-owner of both stores.

Barret is a certified respiratory educator, injection certified and has extensive opioid training. He has travelled across the province to speak to youth, schools and communities on the dangers of prescription drug abuse.

Barret has been on the Pharmacists Manitoba Board of Directors for 6 years serving for a year as Public Relations Chair before stepping into the role of Vice President, a position he held for 3 years. During his time as Vice President, Barret served as the Pharmacists Manitoba appointed CPhA Board Director before being elected Pharmacists Manitoba President in 2017 and again in 2018.

He is currently Chair of the local Ducks Unlimited Canada Committee and has been a volunteer for almost 20 years including organizing a youth fishing derby. Barret also Chairs and organizes Mossey River Days, an annual summer festival in Winnipegosis. Barret has received the Bowl of Hygeia and was the winner of the Queen Elizabeth II Diamond Jubilee Award for community service.

Barret is married to Tatiana and has two young boys Anders and Erik. He enjoys the outdoors, fishing, travelling, attending community events, cooking and being involved with his profession.

Recipient of the 2019 Canadian Foundation for Pharmacy Past President Award, Barret Procyshyn.

EXHIBITOR WELCOME RECEPTION & FUN CASINO NIGHT

After dinner, conference delegates joined the award recipients and invited guests for a casino themed Welcome Reception at the Delta Hotel. Exhibitors were front and centre, inviting delegates to learn about their offerings and to receive casino chips. They were then able to take those chips and play black jack, roulette and other games to win additional chips, which they could trade for draw tickets to enter for a chance to win awesome prizes.

Pharmacists Manitoba President, Barret Procyshyn opened the reception with welcome remarks, followed by Minister of Health, Cameron Friesen. Minister Friesen also spent time talking with guests and those in attendance.

The Welcome Reception was a fun filled evening and an opportunity for pharmacists to network with colleagues, the Board and Health Minister, Cameron Friesen. Pharmacists Manitoba would like to thank all of our exhibitors for their support of this great event.

Minister of Health, Cameron Friesen delivers opening remarks.

Delegates enjoying the Exhibitor's Welcome Reception and Fun Casino Night

From left to right: Madhavan Ravivarma; Pharmacists Manitoba Professional Relations Chair, Sheril Cyriac and Pharmacists Manitoba Secretary & Government Relations Co-Chair, Abby Lau.

SATURDAY, APRIL 14

Saturday began with a continental breakfast buffet, followed by two keynote sessions, Truth and Reconciliation: Pharmacy Professionals Answering The Calls To Action given by Dr. Jaris P. Swidrovich, and Be the Medicine by Michael Redhead Champagne. The keynote sessions were followed by a panel on Travel Health given by Doug Thidrickson, Hans Epp, Britt Kural and Ryan Buffie. The final sessions before the luncheon and Annual General Meeting were given by Lori Berard who spoke about clinical inertia in the management of diabetes and Leah Pritchett who spoke about pediatric prescriptions.

During the Annual General Meeting and Lunch, Pharmacists Manitoba President, Barret Procyshyn provided an overview of the work that Pharmacists Manitoba has been doing on behalf of its members, including government relations. He also gave introductions to Greg Burch and Jeremy Sawatzky of Longview Communications, who we are continuing to work with in 2019.

The first two topics of the session after lunch focused on education with Dr. Lalitha Raman-Wilms speaking on Patient-Focused Pharmacy Practice Curriculum and Dr. Lavern Vercaigne speaking about PharmD Program Implementation in Manitoba. This was followed by Kathy Hunter speaking on NAPRA Guidelines for Compounding.

Pharmacists Manitoba Members vote during the Annual General Meeting.

The topics for the final session of the day included Social Determinants of Health and Medication Management in Low Income Patients given by Dr. Alan Katz, as well As 5 Minute Interventions to Change Your Practice: Key Clinical Trials of 2018 and Everything You Know Is Wrong: Modern Reversals of The Standard of Care, both given by Cody Magnusson.

After sessions wrapped up for the day delegates were invited to unwind at the Poster Presentation Reception which also featured WiiGolf and a photoshoot for those wanting to get a professional headshot. The poster presentations were judged, and Sai Gudi was awarded first place for his poster "An evaluation of prescribing practices related to intensity of glycemic control among the elderly population with type 2 diabetes across Canada". A draw was also held for a $250 Air Canada gift card which was won by Marilyn Sidhu.

Delegates take in an early morning session on Saturday April 13th.

SUNDAY, APRIL 15

Sunday started with a continental breakfast buffet and sessions on Optimizing Adult Immunizations: Integrating Adult Vaccines into Pharmacy Practice given by Michael Boivin and Bladder and Brain – The Anti-Cholinergic Burden by Dr. Peter J. Lin. After a short refreshment break Vycki Atallah gave attendees an introduction to trauma informed care and Nicola Little spoke about her experiences on the impact of amphetamine-type stimulants on emergency services.

During lunch attendees listened to a session given by Dr. Leslie Jocelyn titled ADHD Treatment Pharmacological Overview: How Do You Know What to Choose? After lunch the CPhA sessions How You Can Be an Opioid Steward: Implementing The 2017 Canadian Opioid Guideline into Your Practice and An Introduction to Medical Cannabis and The Role of The Pharmacist took place featuring Barry Power. The day wrapped up with the session Emerging Technologies in Glucose Self-Monitoring given by Amy Hui. A draw was also conducted for a $250 West Jet gift card, which was won by Joan Cummings.

We greatly appreciate the continued support of our sponsors and exhibitors who enable us to offer this informative educational weekend to Manitoba pharmacists every year – thank you!

Next years conference is scheduled for April 2020, with the exact date and venue still to be determined.

You can view the Extended Edition of the Conference Video Below.

Best Poster Winner, Sai Gudi.

PHARMACISTS MANITOBA CONFERENCE 2019

Video viewable in online flipbook

PUBLICATION OF ABSTRACTS
2019 PHARMACISTS MANITOBA CONFERENCE

The 2019 Pharmacists Manitoba Conference once again included poster presentations. The following eight abstracts which appear in no particular order were presented and submitted for publication in *Communication*.

Moving Towards Universal Coverage of Direct-Acting Antiviral Therapies for Hepatitis C Infection in Canada: An Environmental Scan of Canadian Provinces and International Jurisdictions

AUTHORS:

Samantha Myers[1], Donica Janzen[1] Gurleen Khosa[1], I fan Kuo[1], Donica Janzen, Silvia Alessi-Severini[1]

[1]*College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba*

BACKGROUND:

Direct-acting antivirals (DAAs) have become the standard treatment for patients with chronic hepatitis C infections because of their high cure rates and favourable side effect profiles; however, access to this new class of agents has been limited because of its high cost. While public payers across Canada have implemented strict criteria for drug coverage in order to contain expenditures, efforts have been made to provide treatment coverage as to improve access to medication for this high-burden condition. This environmental scan compares recent coverage criteria across national and international jurisdictions.

METHODS:

Coverage criteria for DaklinzaÐ, EpclusaÐ, SunvepraÐ, GalexosÐ, HarvoniÐ, SovaldiÐ, HolkiraÐ Pak, ZepatierÐ, MaviretÐ, TechnivieÐ, and VoseviÐ were reviewed by accessing Canadian provincial drug formularies. International coverage (e.g., Europe, Australia, United States, Egypt, India) was reviewed by searching available literature.

RESULTS:

Coverage criteria vary across Canada but all provincial payers (except PEI) provide coverage for DaklinzaÐ and ZepatierÐ. By April 2018, all Canadian jurisdictions, except Nova Scotia, New Brunswick, and Newfoundland & Labrador, had removed the stage 2 liver fibrosis requirement for patients to be eligible for coverage. Internationally, patients' access to DAAs differs significantly. Many jurisdictions restrict DAA prescribing authority to specialists and request documentation of chronic hepatitis C. In Australia all patients appear to have unrestricted access to DAAs. In the US, considerable gaps of coverage are identifiable and patients might face significant financial burden to receive treatment.

CONCLUSION:

DAAs appear to be generally accessible through public drug plans in Canada compared to other countries.

Evaluation of Benzodiazepine and Z-Drug Use Duration among Adults with Anxiety and Sleep Disorders in Primary Care

AUTHORS:

Jaden Brandt[1*], Silvia Alessi-Severini[1,2], Dan Chateau[2,4], Alex Singer[3], Christine Leong[1]

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[2]*Manitoba Centre for Health Policy, University of Manitoba, Winnipeg, MB, CAN*

[3]*Department of Family Medicine, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, MB, CAN*

[4]*Department of Community Health Sciences, Max Rady College of Medicine, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, MB, CAN*

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AIM:

i) To measure the incidence of 'long-term' benzodiazepines / Z-Drug (BZD) use among a cohort of Canadian adults with anxiety and/or sleep disorders. ii) To determine factors associated with progression to long-term BZD use.

METHODS:

Linked administrative data from 1996–2016 was used to conduct an incident user cohort study. Prescription records were used at the individual level to longitudinally track duration of use. Co-variates, measured at baseline, comprising demographic, socio-economic, provider and prescription level variables were analysed in a multiple variable logistic regression model. Sensitivity analysis was used to measure variance in the estimate of 'long-term' use given the range of definitions available.

RESULTS:

i) Of 206.933 individual patients meeting the cohort criteria, only 4.5–9.6% progressed to 'long-term' use within their first treatment episode. The proportion of 'long-term use' increased to 15.6%–35.1% after all subsequent episodes for each user were accounted for in an individualised 'duration of use' average. ii) Factors statistically associated with 'long-term' use in the first treatment episode include; being male, age ≥ 65, receipt of income assistance, previous psychotropic or opioid prescription use, high comorbidity score, high healthcare resource use score, first prescription from psychiatrist and having the first prescription later in the study period.

CONCLUSION:

Less than one in ten patients become 'long-term' BZD users in their first treatment episode. However, with repeated BZD treatment, between one in every 3 to 6 patients go on to become 'long-term' users in primary care. Clinicians should carefully consider baseline factors associated with progression to 'long-term' BZD use in individual patients' benefit-risk equation.

Prenatal Antibiotics Exposure and the Risk of Autism Spectrum Disorders: A Population-based Cohort Study

AUTHORS:

Amani F Hamad[1], Silvia Alessi-Severini[1,4], Salaheddin M Mahmud[1,2,3], Marni Brownell[2,4], I fan Kuo[1]

[1]*College of Pharmacy*

[2]*Department of Community Health Sciences, Max Ray College of Medicine*

[3]*Vaccine and Drug Evaluation Centre*

[4]*Manitoba Centre for Health Policy, University of Manitoba, Winnipeg, Canada*

BACKGROUND:

Prenatal antibiotic exposure induces changes in infants' gut microbiota composition and is suggested as a possible contributor in the development of autism spectrum disorders (ASD). In this study, we examined the association between prenatal antibiotic exposure and the risk of ASD.

METHODS:

This was a population-based cohort study utilizing the Manitoba Population Research Data Repository. The cohort included 214 834 children born in Manitoba, Canada between April 1, 1998 and March 31, 2016. Exposure was defined as having filled one or more antibiotic prescription during pregnancy. The outcome was autism spectrum disorder diagnosis.

Multivariable Cox proportional hazards regression was used to estimate the risk of developing ASD in the overall cohort and in a sibling cohort.

RESULTS:

Of all subjects, 80 750 (37.6%) were exposed to antibiotics prenatally. During follow-up, 2965 children received an ASD diagnosis. Compared to children who were not exposed to antibiotics prenatally, those who were exposed had a higher risk of ASD (HR 1.10, 95% CI 1.01–1.19, Absolute risk increase [ARI] 0.13%). The association was observed in those exposed to antibiotics in the second or third trimester (HR 1.11, 95% CI 1.01–1.23 and 1.17, 95% CI 1.06–1.30, respectively). In the siblings' cohort, ASD risk estimate remained unchanged (HR 1.08, 95% CI 0.90–1.30, ARI 0.11%) although it was not statistically significant. This risk increase accounts for 3 out of the 2965 subjects who received an ASD diagnosis during the study period.

CONCLUSION:

Prenatal antibiotic exposure is associated with a small increase in the risk of ASD. Given the potential of residual confounding, such a small risk increase in the population is not expected to be clinically significant.

Antipsychotics and Crime: Risk Factors for Justice System Involvement among People who use Antipsychotics

AUTHORS:

Donica Janzen[1], I fan Kuo[1], Christine Leong[1], James Bolton[2], Silvia Alessi-Severini[1]

[1]*College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Manitoba, Canada R3E 0T5*

[2]*Department of Psychiatry, Max Rady College of Medicine, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Manitoba, Canada R3E 3N4*

BACKGROUND:

Mental illness increases the risk of criminality and victimization. Antipsychotic medications reduce criminality, but less is known about the effect of antipsychotic use on victimization.

OBJECTIVES:

To describe characteristics of antipsychotic users who had justice system involvement and to identify risk factors for justice system involvement as accused or victim.

METHODS:

We used administrative databases at the Manitoba Centre for Health Policy (MCHP) to create a cohort of incident antipsychotic users in Manitoba from 2002–2015. We linked prescription records to population registry, hospital abstracts and medical services databases to obtain descriptive statistics. We used justice databases to identify antipsychotic users with justice system involvement after incident antipsychotic use, categorized as accused or victim. We used multivariable logistic regression to identify predictors of justice system involvement, adjusting for age, sex, socioeconomic status, incident antipsychotic and baseline diagnoses. Analyses were conducted with SAS® software.

RESULTS:

There were 70,271 incident antipsychotic users from 2002 to 2015; 5.7% were subsequently accused of a crime and 3.8% were victims. Only 40.2% of accused and 33.7% of victims filled an antipsychotic prescription in the 6 months prior to a justice incident. Common baseline diagnoses were mood/anxiety disorder (64.8%), dementia (21.7%), substance use disorder (16.9%), psychotic disorder (15.8%), ADHD (12.1%) and personality disorder (5.7%). Females were 46% less likely to be accused of a crime (adjusted OR 0.54, 95%CI 0.50, 0.58) but 58% more likely to be the victim (aOR 1.58, 95%CI 1.42, 1.78) versus males. Predictors of being accused included having a baseline diagnosis of ADHD (aOR 1.4, 95%CI 1.2, 1.6) mood/anxiety disorder (aOR 1.2, 95%CI 1.1, 1.3), personality disorder (aOR 1.5, 95%CI 1.3, 1.8), substance use disorder (aOR 1.3, 95%CI 1.1, 1.4), or suicide attempt (1.3, 95%CI 1.1, 1.7). ADHD, schizophrenia and personality disorder were associated with being a victim of crime (aOR 1.5 [95%CI 1.3, 1.7], 1.5 [95%CI 1.1, 2.0], and 1.6 [95%CI 1.4, 1.9], respectively).

CONCLUSION:

Our preliminary results suggest people with a mood or anxiety disorder, personality disorder, substance use disorder, psychotic disorder, ADHD or history of suicide attempt remain at elevated risk of criminality, while those with schizophrenia, personality disorder or ADHD were more likely to be a victim of crime. These outcomes were seen despite initiation of treatment with an antipsychotic. Further research is warranted to evaluate the impact of adherence and persistence to prescribed antipsychotics in these high-risk populations.

DISCLAIMER:

Results and conclusions are those of the authors; no official endorsement by Manitoba Health, Seniors and Healthy Living or MCHP is intended or should be inferred. This project was supported by the Evelyn Shapiro Award for Health Services Research to DJ, the Leslie F. Buggey Professorship in Pharmacy to SAS, and the University of Manitoba.

Insights in the Use of Sedative-Hypnotic/Anxiolytics in Primary Care: A Retrospective Study Interim Report

AUTHORS:

Joyce Leung[1], Kiana Gozda[2], Lindsay Baum[2], Alexander Singer[3,4], Gerald Konrad[3,4], Diana McMillan[5], Leanne Kosowan[3,4], Lisa Labine[3,4], Christine Leong[2,4]

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BACKGROUND:

Despite the known safety risks of long-term use, there has been limited guidance for the safe and effective discontinuation of chronic sedative-hypnotic/anxiolytics in a primary care clinic setting. Understanding the characteristics of patients who receive sedative-hypnotic/anxiolytics and the clinical documentation process in primary care is the first step towards understanding the state of the problem and to help inform future strategies for clinical research and practice.

OBJECTIVES:

(1) To characterize patients who received a sedative-hypnotic/anxiolytic prescription in primary care, and (2) To gain an understanding of the clinical documentation of sedative-hypnotic/anxiolytic indication and monitoring in electronic medical records (EMR).

METHODS:

Patients who received a prescription for a benzodiazepine or Z-drug hypnotic between January 2014 and August 2016 from four primary care clinics in Winnipeg were included. Data was collected retrospectively using the EMR (Accuro®). Patient variables recorded included sex, age, comorbidities, medications, smoking status, and alcohol status. Treatment variables included drug type, indication, pattern of use, dose, adverse events, psychosocial intervention, tapering attempts, social support, life stressor, and monitoring parameters for sedative-hypnotic use. Demographic and clinical characteristics were described using descriptive statistics.

RESULTS:

In this interim sample of 200 patients, the average age was 55.8 years old and 61.0% were female. Long-term chronic use (≥1 year) of a sedative-hypnotic/anxiolytic agent was observed in 29.5% of the population. Zopiclone (30.7%) was the most common agent use followed by lorazepam (28.7%). Only 9.5% of patients had documentation of a past tapering attempt of their sedative-hypnotic/anxiolytic. The most common indications for sedative-hypnotic/anxiolytic use recorded were anxiety (33.0%) and sleep (18.0%), but indication was undetermined for 57.0% of patients. Depression (33.5%) and falls (18.5%) were experienced by patients after the initiation of these agents.

CONCLUSION:

A higher proportion of females and users 65 years and older received a prescription for a sedative-hypnotic/anxiolytic, which is consistent with previous studies on sedative-hypnotic use. We found inconsistencies in the documentation surrounding sedative-hypnotic/anxiolytic use. The indication for their use was unclear in a large number of patients, and often no follow-up documentation for efficacy or safety specific to therapy was recorded.

An Evaluation of Prescribing Practices Related to Intensity of Glycemic Control among the Elderly Population with Type 2 Diabetes across Canada

AUTHORS:

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[2]*School of Pharmacy, Memorial University of Newfoundland, St. John's, NL, Canada*

BACKGROUND:

Diabetes is highly prevalent among older adults. Overall evidence suggests a less intensive approach with heightened attention to safety is recommended in this population. Significant concerns have been raised about potential over-treatment in older adults.

OBJECTIVE:

To assess potential over-treatment related to intensity of glycemic control in an elderly primary care population with diabetes across Canada.

METHODS:

A retrospective population-based cohort study was conducted from 2010–2017, utilizing prescriptions generated within the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) database. Patients aged ≥ 65 years with diabetes defined by the CPCSSN validated case definition with at least one HbA1c measurement were included. Intensity of glycemic control was assessed in two cross-sectional years (2012, 2016). Over-treatment was defined as an index HbA1c (the first recorded HbA1c of the year) of <7% and prescription of any anti-diabetic medication other than metformin within 9 months before and 3 months after the index HbA1c. Secondary outcomes included over-treatment rates among age categories (65–74, 75–84, ≥ 85 years) and number of medications per patient within HbA1c subcategories.

RESULTS:

A cohort of 33,864 patients (51.6% male, mean age = 76.3 years) was identified. The rate of potential over-treatment was 7.0% in 2012 and 6.9% in 2016 (p-value = 0.64 (CI -0.32 to 0.52)). High-risk hypoglycemic agents accounted for 84.4% and 68% of over-treatment medications in 2012 and 2016, respectively. Metformin-only users made up 19.1% (2012) and 21.5% (2016) of the cohorts. More than one-third of patients with HbA1c ≥9% were prescribed no medications (42% (2012), 35.8% (2016)). A modest rise in potential over-treatment was observed between the youngest and the older cohorts in 2012 (6.3%, 7.8%, 7.5%) with an apparent drop as age increased in 2016 (7.3%, 6.8%. 6.2%)

CONCLUSION:

Although potential over-treatment exists in this broad Canadian primary care population, the rate was low with no evidence that it increased over time. Of concern, however, is that over 1/3 of patients with poorly controlled diabetes received no medications. Clearly, there is a need for more personalized diabetes management among older adults in Canada. Pharmacists can and should play a significant role in this individualized approach to care.

A Purposeful Pause: Creating a Culture of Change to Promote Indigenous Knowledge, Education, and Scholarship Achievement at the College of Pharmacy

AUTHORS:

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INTRODUCTION:

Health disparities between Indigenous and non-Indigenous populations in Canada continue to be profound and pervasive. To acknowledge this overwhelming gap we must address the issues at the root of inequity and challenge how we educate future health care providers. This project was designed to evaluate and address student & faculty awareness of Indigenous cultures, governance, geographies, histories, and current events. Knowledge acquired will inform curricular and co-curricular development and interventions to enhance the preparedness of pharmacy students in the provision of culturally safe and informed Indigenous patient care. Our poster will describe in detail the methodological processes for the development and implementation of this comprehensive evaluative project.

METHODOLOGY:

This project involves several different components designed to evaluate multiple areas of the pharmacy curriculum. We began with the development of an Indigenous Knowledge assessment survey entitled "Assessing Pharmacy Student Awareness of First Nations, Metis, and Inuit People in Canada". This survey explores pharmacy students' current knowledge, beliefs, and perceptions of Indigenous peoples in Canada as it reflects the current gap in awareness and understanding of Indigenous populations. A second survey was developed for faculty and staff, similar to the Student Assessment survey, to investigate their knowledge and perceptions, identify the preparedness of academics in delivering Indigenous content, and inform the necessary resources to improve the quality of education in providing Indigenous health content. This project also focused on a comprehensive survey regarding faculty evaluation and assessment. To explore the current Indigenous content within the health science curriculum, an online survey was developed for the five Colleges within the Rady Faculty of Health Sciences: Dentistry, Medicine, Nursing, Pharmacy, and Rehabilitation Sciences.

CONCLUSION:

The history of colonialism and the social, economic, and political oppression of Indigenous peoples has led to a decline in the health status of Indigenous communities across Canada. The College of Pharmacy seeks to implement conscientious and informed changes throughout the pharmacy curriculum. As we move towards the development of an equitable PharmD (September 2019), it is vital to address the lack of emphasis on Indigenous health and advocate for the prioritization of Indigenous awareness, accountability, and meaningful engagement. Results from this comprehensive project will provide necessary insight that will allow us to make meaningful and informed changes to the curriculum in order to increase the cultural competency of our pharmacy students and graduates.

Meaningful Mentorships: A Collection of Lessons Crucial to Building a Student-Pharmacist Mentorship Program in Manitoba

AUTHORS:

Marianna Pozdirca[1], Christine Vaccaro[1], Heather Smeltzer[1], Sabina Ozog[1]

[1]*College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba*

SUMMARY STATEMENT:

Mentorship has been shown to have positive effects for all participants. Many professional schools, including pharmacy colleges, have well-established mentorship programs connecting students with practicing professionals. Given this, an environmental scan was conducted to identify best practices and pitfalls in mentorship programs for Pharmacists Manitoba and the College of Pharmacy, University of Manitoba.

BACKGROUND:

Mentorship has been shown to yield positive outcomes for all participants. Many professional schools, including pharmacy colleges, have well-established mentorship programs connecting students with practicing professionals. Given this, an environmental scan was conducted to identify the best practices and pitfalls in mentorship programs. Population: Canadian, American and Australian schools with student-pharmacist mentorship programs as well as all University of Manitoba faculties with mentorship programs (not exclusive to pharmacy).

METHODOLOGY:

Following a literature review, a survey was developed using Google Forums and sent to twenty-three mentorship programs. Follow up calls based on specific participant responses were made after the survey to further understand successes, weaknesses, and clarify or elaborate upon any compelling responses. Upon completion, both qualitative analysis of follow up phone calls and quantitative analysis of survey responses was conducted between February 19th, 2019 and March 12th, 2019.

RESULTS:

The results indicate common challenges, such as finding the time for mentors and mentees to interact with each other, as well as current practices in mentor/mentee matching and training. Conclusions: Overall, it is evident that a student-pharmacist mentorship program in Manitoba will act as an invaluable resource for both personal and professional growth. The next steps for both Pharmacists Manitoba and the College of Pharmacy include: developing a code of conduct and implementing a pilot project.

STROKE

Meera B. Thadani, M.Sc.(Pharm.)

WHAT IS A STROKE?

A stroke is defined as the sudden death of brain cells due to lack of oxygen, caused by

1. blockage of blood flow (ischemic stroke)
2. rupture of an artery to the brain (hemorrhagic stroke)

Both of these can cause parts of the brain to malfunction. Signs and symptoms include:

- sudden loss of speech
- weakness, or paralysis of one side of the body
- problems in understanding and speaking
- dizziness
- loss of vision on one side

If symptoms last less than one or two hours, this is called a transient ischemic attack or TIA or mini stroke. A hemorrhagic stroke can be associated with a headache, nausea and loss of consciousness. (Figure 1)

The Heart and Stroke Foundation (heartandstroke.ca)[1] has educational resources to promote awareness of possible signs of stroke. The abbreviation FAST (face, arms, speech, time) draw attention to the symptoms that include:

- face drooping
- can both arms be raised
- is the speech slurred
- time to call 911 immediately

WHAT ARE THE RISK FACTORS FOR STROKE?

The main risk factor for stroke is high blood pressure. Other risk factors include:

- smoking
- obesity
- high blood cholesterol
- diabetes
- previous transient ischemic attack
- atrial fibrillation

HOW IS A STROKE DIAGNOSED?

A medical examination and history (time of onset, progression of symptoms)

- previous trauma or illness or other neurovascular events
- risk factors
- any other conditions that may predispose the patient to bleeds (gastric ulcer)
- cognitive function prior to the stroke
- medications (especially any anticoagulant medications)

Imaging with ultrasound (carotid arteries), CT and MRI scans or arteriography will provide the nature and extent of the stroke. As well, the National Institute of Health Stroke Scale is a tool used to objectively quantify the impairment caused by a stroke.[2] The level of consciousness, visual, facial, motor, sensory, language, speech and attention are assessed during a physical examination.

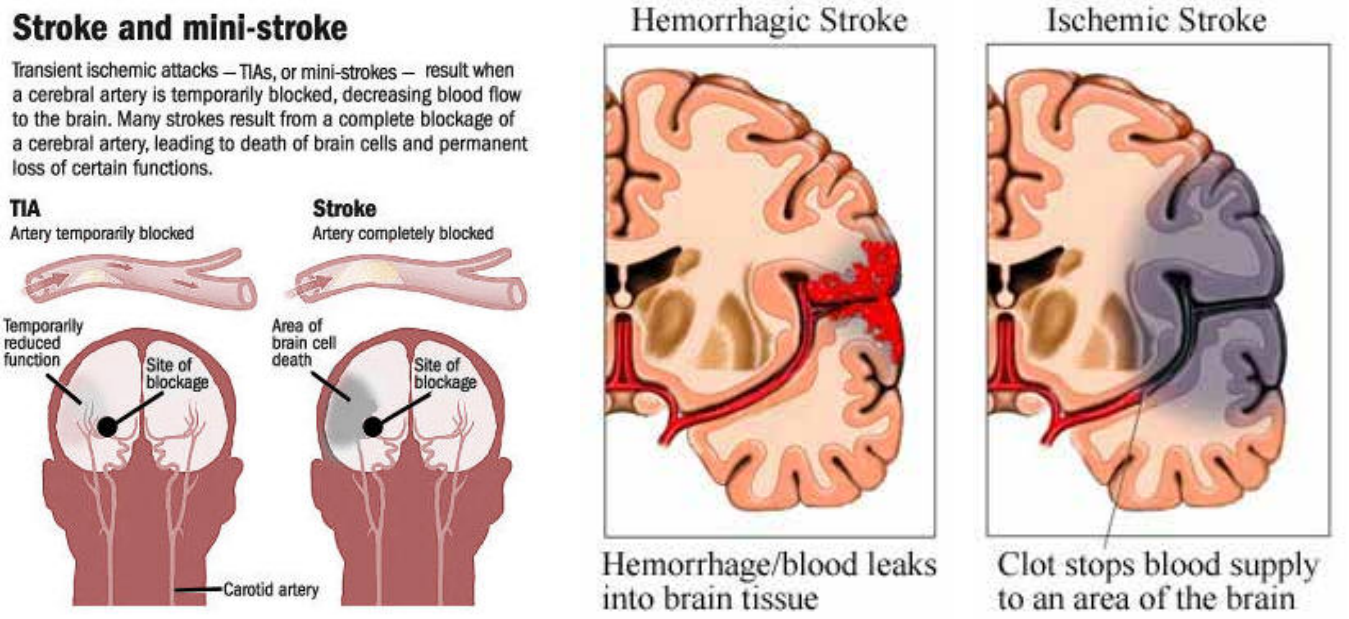

Figure 1 The differences between a stroke, mini stroke and hemorrhagic stroke

TREATMENT OF STROKE

Ideally, patients are treated in hospital by a stroke unit that includes, neurologists, nurses, physiotherapists, speech therapists, dieticians and pharmacists who specialize in stroke treatment. Outcomes depend on rehabilitation as soon as the patient is medically stable. Family support and mobilization are of primary importance.

NUTRITION AND ABILITY TO SWALLOW

Some patients are malnourished before admission. This may be due to advanced age, previous silent TIAs or other complicating co-morbidities that affect swallowing. Nothing is given by mouth if there is a decreased level of consciousness, cough or the presence of a wet voice.

In conscious patients who are able to communicate, a water swallowing test is administered to see if the patient can swallow. It is used to determine the risk of aspiration and prevent pneumonia. The presence of wetness in the voice (gurgling, coughing) indicates saliva may be pooling in the larynx.

Inability to swallow may improve over time, however, a nasogastric tube may have to be inserted to provide adequate nutrition directly into the stomach. In some patients a percutaneous endoscopic gastrostomy (PEG) is required to place a tube into the stomach through the abdominal wall. This provides nutrition directly to the stomach, utilizes normal digestion, and bypasses the mouth avoiding the risk of aspiration (Figure 2). A PEG tube is preferred to parenteral nutrition which is used if the gastrointestinal tract is to be avoided.

For patients with a lower risk of aspiration, pureed food is suggested. For hydration, iv fluids may be required until they are able to swallow efficiently to allow enough nutrition to support physiological recovery and physiotherapy.

Sometimes bowel and bladder function are affected and early training programs can be started. There are many factors that determine whether the patient can go home, to rehabilitation or to long term care.

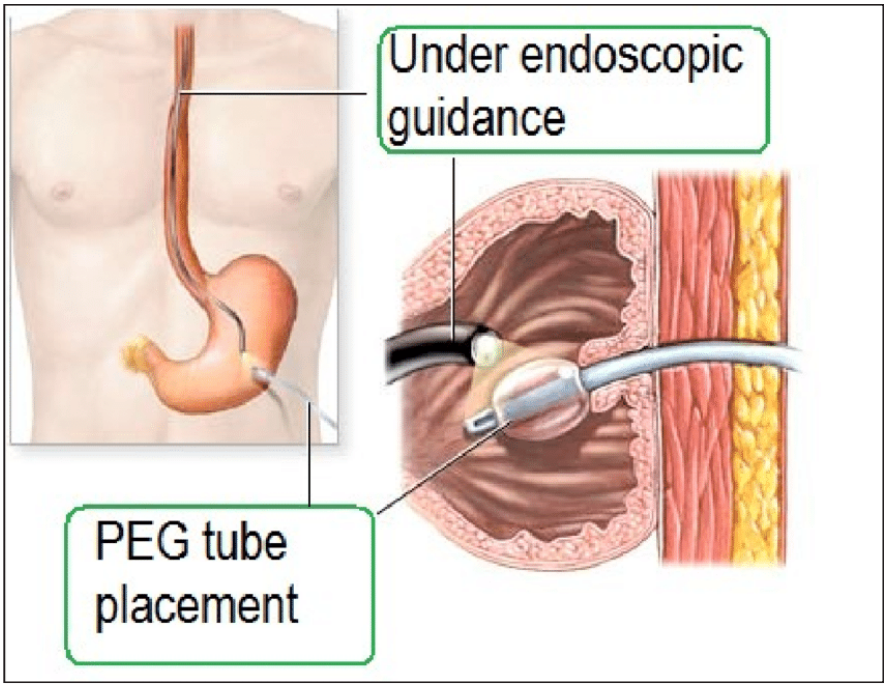

Figure 2 PEG tube placement

PHARMACOLOGIC TREATMENT

Medications are individualized depending on the nature and extent of recovery. The 2018 American Heart Association provide the guidelines for early management of stroke (Figure 3)[3,4]

Alteplase – fibrinolytic, intravenous, at onset of ischemic stroke (> 1 hour and ≤ 4.5 hours) as assessed by the stroke treatment team. Rapid triage is essential given the narrow window of opportunity for efficacy.

Antiplatelet therapy – aspirin, clopidogrel, or aspririn/dipyridamole

Anticoagulant therapy – apixaban, dabigatran, rivroxaban or warfarin to keep INR in the range of 2–3.

Blood pressure lowering – medications must be tailored during recovery to keep blood pressure at normal levels.

Blood glucose lowering – medications depend upon whether the patient is insulin dependent.

GOAL OF TREATMENT

- Minimize damage to the brain
- Prevent complications
- Reduce risk of another stroke
- Rehabilitate patient

The Canadian Heart and Stroke Foundation provides a comprehensive book "Your Stroke Journey – A Guide for People Living with Stroke" that can be provided to patients and their families.[5] There are many useful suggestions that focus on lifestyle and quality of life. Good health depends on healthy eating and exercise. Changes in diet can add up to many health benefits. Balanced meals and healthy snacks help to:

- increase awareness of food choices
- aid in weight management
- decrease cholesterol levels
- decrease blood sugar levels

An exercise program at a wellness centre, community centre or with a personal trainer will increase mobility, strength, muscle mass, balance and decrease the risk of falls. In older patients who may be osteoporotic, falls can result in fractures and hospitalization.

A stroke is a life changing event. It can affect mobility as well as emotion, cognition, perception and energy. Recovery can be challenging. The simplest of tasks can be daunting. If there are hobbies or activities (music) that were an enjoyable pastime, they should be encouraged when the patient is able to do so. A positive mood has been shown to play a role in stroke recovery.[6]

Treatment for stroke recovery is complex. It depends upon the location, extent of damage and resulting physical, cognitive and emotional changes. The resources required for rehabilitation can be extensive. Outcomes are variable and family support becomes very important. The Heart and Stroke Foundation offers a free book "Your Stroke Journey" that addresses recovery from the stroke to prevention and return to work. This can be downloaded or ordered at no cost. The link to the order for is provided.[7]

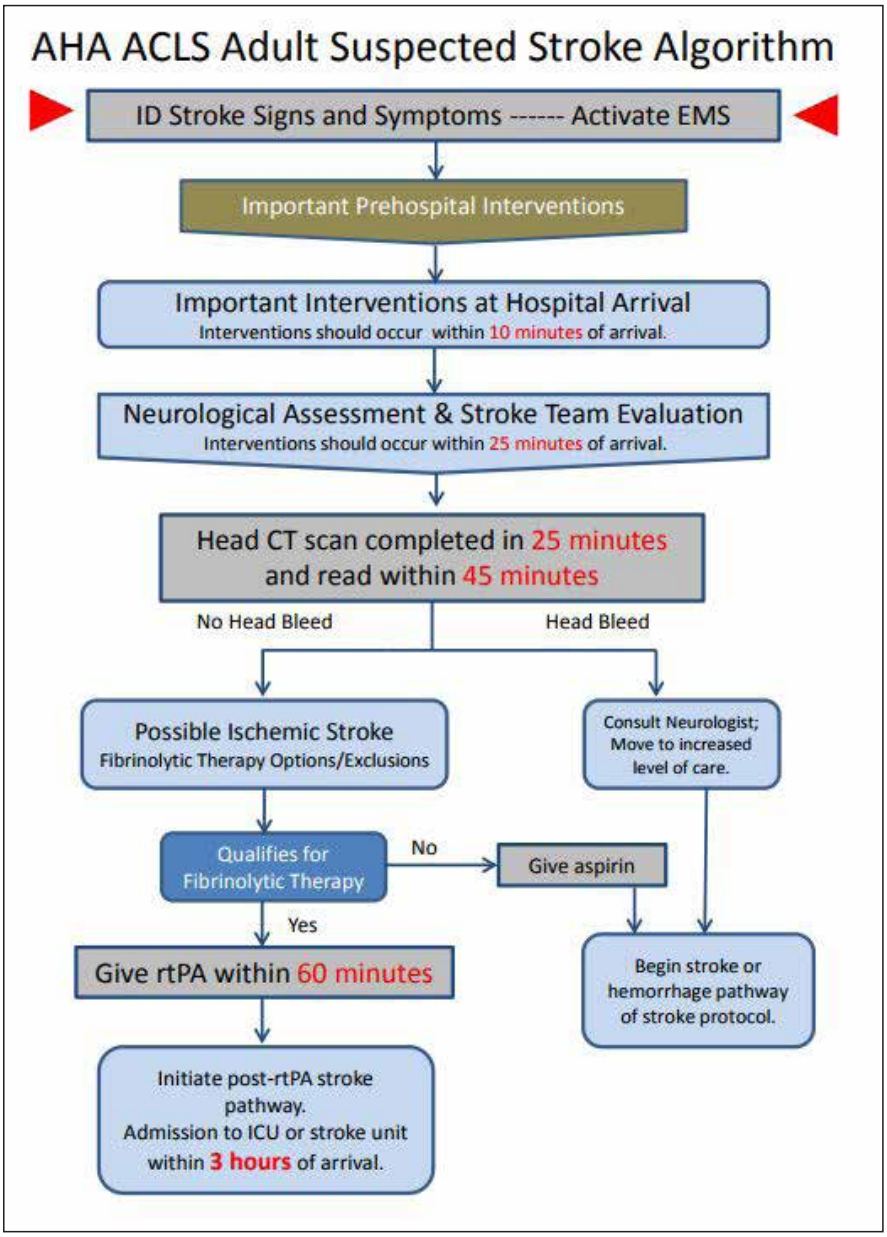

Figure 3 American Heart Association Advanced Cardiac Life Support Suspected Stroke Algorithm
rtPA – recombinant tissue plasminogen activator

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GRADUATE AND BOARD RECEPTION

On May 31st, 2019 Pharmacists Manitoba held a reception at The Fort Garry Hotel for the graduating class of the College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba and Pharmacists Manitoba Board Members. The purpose of the evening was to give graduates a chance to interact with our board to learn more about the importance of joining Pharmacists Manitoba as new graduate members.

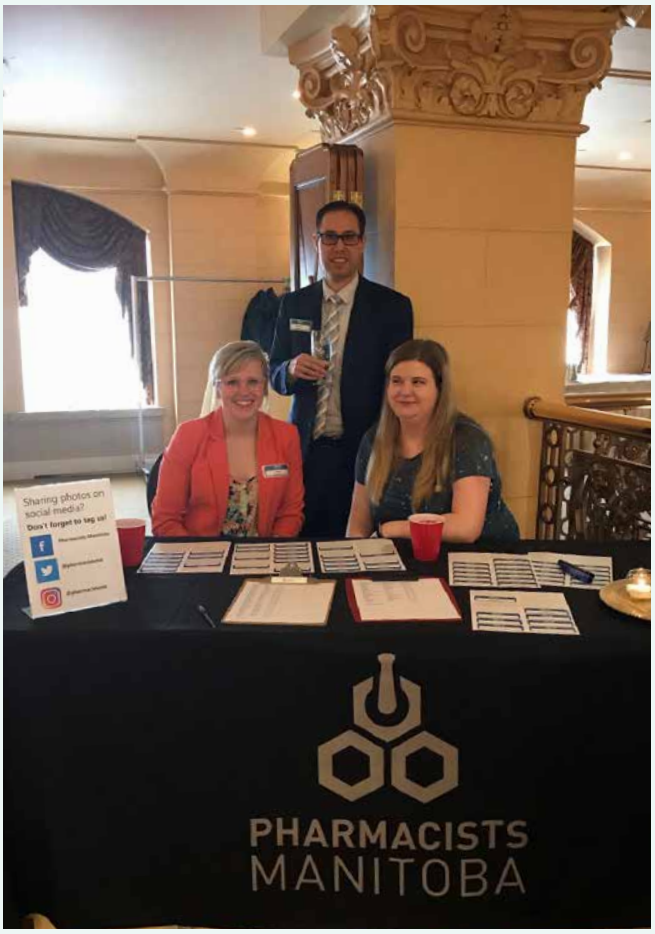
Graduates and Board Members enjoyed delicious food from the hotel including pizza, pita bread and toast with a variety of Middle Eastern dips and an array of desserts. During the reception, guests were given the opportunity to go on a ghost tour of the hotel which was hosted by Square Peg Tours.

Near the end of the evening we did a draw for prizes including bottles of wine, a night's stay for two at the Fort Gary Hotel and a Winnipeg Jets jersey signed by Mark Schiefele. As they left, graduates were given a special gift, a Pharmacists Manitoba tumbler as a thank you for attending the event.

We would like to thank Ozturk Financial for sponsoring the evening and MLT Aikins for providing the autographed Winnipeg Jets jersey.

It was great meeting so many enthusiastic young people dedicated to the future of pharmacy practice and patient care. We wish you the best and hope to see on the board at some point in the future.

Congratulations Class of 2019!



From left to right: Ashley Ewasiuk, Secretary and Good Governance Chair, Oguzhan Ozturk of Ozturk Financial, event sponsor; and Lauren Darroch, Communications Coordinator.

Graduates pose with board member Dennis Wong (far right)

From left to right: Victoria Ayo, Winnie Li and Karyn Wiebe.

Graduates and the board mingle during the reception.

From left to right: students Stephanie Leong and Kelly Yeo with Board member, Marian Attia and President, Pawandeep Sidhu

STEPHANIE LEONG

RECIPIENT OF THE 2018/2019 A. LANGLEY JONES AWARD

The A. Langley Jones Leadership Award was presented at the Welcome to the Profession 2019 Graduation Ceremony on May 23rd at Calvary Temple in Winnipeg.

The award is presented annually to a graduating student who exemplifies leadership qualities, has obtained a sufficiently high academic standard and who has an aptitude for Community Pharmacy as assessed through such courses as Pharmacy Practice, and Consumer Health Care Products.

The award honours the memory of Mr. A. Langley Jones who served as the first Executive Director of Pharmacists Manitoba (formerly the Manitoba Society of Pharmacists). The recipient of the award is nominated by his/her peers and is recommended to the Selection Committee. The recipient is presented with a framed certificate and a cheque in the amount of $500.00.

This award has become a reliable forecaster of those who will go on to be leaders in the Pharmacy community. Over the last several years, the A. Langley Jones Leadership Award has been presented to a number of individuals who have served either on the College of Pharmacists of Manitoba Council or the Pharmacists Manitoba Board of Directors including Michelle Glass, Carey Lai, Leanne Simms, Geoff Namaka, Amy Oliver, Grace Badejo and most recently, Ashley Ewasiuk.

This year the A. Langley Jones Award was presented to Stephanie Leong by Pharmacists Manitoba Vice President and CPhA Board Representative Doug Thidrickson. Congratulations Stephanie and all the best for your future in the pharmacy profession!

Stephanie with Pharmacists Manitoba Vice President and CPhA Board Representative, Doug Thidrickson

SAMANTHA MYERS

RECIPIENT OF THE PHARMACISTS MANITOBA & CANADIAN PHARMACISTS BENEFITS ASSOCIATION STUDENT AWARD

The Pharmacists Manitoba & Canadian Pharmacists Benefits Association (CPBA) joint student award was established during the 2016–2017 calendar year to recognize graduating pharmacy students in the four provinces that make up the CPBA (Alberta, Manitoba, Prince Edward Island and Newfoundland and Labrador). CPBA is managed and operated for the sole benefit of pharmacists belonging to these provincial associations to provide practicing pharmacists with the best professional liability insurance coverage.

The award is provided to a graduating student who was enrolled full time in their fourth year of study in the College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba who has achieved a minimum grade point average of 3.0 and have demonstrated involvement with both Pharmacists Manitoba and the university community.

The recipient receives:

- A full New Graduate Membership with Pharmacists Manitoba for 2019–2020 membership year which includes membership with the Canadian Pharmacists Association
- A full year of professional liability insurance with CPBA for 2019–2020
- Full conference registration for the 2020 Pharmacists Manitoba Annual Provincial Conference in April

The award was presented at the Welcome to the Profession Graduation Ceremony that took place on May 23rd, 2019 at Calvary Temple in Winnipeg. This year the award was presented to Samantha Myers. Congratulations Samantha and all the best as you start your pharmacy career!

Samantha with Pharmacists Manitoba CEO Dr. Brenna Shearer

Congratulations of the Graduating Class of 2019!

With more than 1,500 pharmacists and over 400 pharmacies across Manitoba, we are the most accessible part of the public health care system and, in some rural and remote communities, the only part remaining. Pharmacists are dedicated to patient-centered care and committed to making a difference in our patients' lives.

A survey conducted by Abacus Data in March 2019 found a majority of Manitobans were in favor of pharmacists prescribing immunizations (93%), birth control (84%), and for urinary tract infections (83%). A majority also feel that the provincial government should pay pharmacists to assess and prescribe for these services (83-92%). Pharmacists are authorized to prescribe for birth control, urinary tract infections and immunizations in other provinces; this should be happening in Manitoba, too.

We want to work with the provincial government to achieve greater transparency, better value for money and improved sustainability. In order for that to happen, decision makers at the Manitoba Legislature need to update their perspective, build new relationships, and let pharmacists fulfill their potential.

The Minister of Health, Cameron Friesen, stated in his opening remarks at the Pharmacists Manitoba Conference on April 12th, 2019: "For far too long, the relationship between the Manitoba government and pharmacists has revolved around the provincial drug plan and nothing else. This is an outdated approach that, much like the health-care system itself, needs to be transformed and modernized."

The progress Pharmacists Manitoba has made in building a relationship with Manitoba government officials would not be possible without the work conducted on our behalf by Longview Communications and Public Affairs. For the past 2 years, we have contracted Longview to aid and advance our discussions with the provincial government ensuring that elected officials ***ReThink Pharmacists***. As you can see from the Minister's quote, our message has been received and we are optimistic that change will come.

Membership Matters!

If we are going to effect practice change and the reimbursement model in Manitoba the way it has changed in other provinces, we are going to need the profession to stand behind Pharmacists Manitoba and support our efforts. Join or renew your Pharmacists Manitoba membership today.

You can help
Shape Your Future!

RENEW OR JOIN!

- VISIT PHARMACISTSMB.CA/MEMBERSHIP/ONLINEAPPLICATION
- LOG IN OR REGISTER
- SELECT INDIVIDUAL MEMBERSHIP AND FILL IN PROFILE INFORMATION
- SELECT THE LEVEL OF PROFESSIONAL LIABILITY INSURANCE

PHARMACISTS MANITOBA

CONSIDER TOPPING UP YOUR MEMBERSHIP WITH A DONATION TO OUR PUBLIC RELATIONS FUND.

DONATIONS CAN BE MADE WHEN YOU BECOME A MEMBER OR RENEW YOUR MEMBERSHIP

PHARMACISTS MANITOBA

Top 10 reasons to become a Pharmacists Manitoba member

Video viewable in online flipbook

PHARMACISTS MANITOBA STRUCTURED PRACTICAL EXPERIENTIAL PROGRAM

(SPEP) 1 PROJECT

Pharmacists Manitoba once again served as a site for the Structured Practical Experiential Program (SPEP)1 requirement in 2019. This year we had the opportunity to host 4 first year pharmacy students who will be amongst the first to graduate from the PharmD program in 2023.

The students, Marianna Pozdirca, Christine Vaccaro, Heather Smeltzer, and Sabina Ozog elected to conduct research on existing mentorship programs to determine best practices and pitfalls that should be considered in the event that a mentorship program be implemented in Manitoba.

The students prepared a detailed report on their findings and also submitted a poster to the Pharmacists Manitoba Conference that took place in April. To read the full report click here.

SPEP 1 Poster presentation at the Annual Pharmacists Manitoba Conference

CHANGES TO CANADA'S POST-GRADUATION WORK PERMIT PROGRAM

INFORMATION FOR INTERNATIONAL STUDENTS AND EMPLOYERS OF INTERNATIONAL STUDENTS

By Maria Penner and Reis Pagtakhan

Earlier this year, Immigration, Refugees and Citizenship Canada (IRCC) updated the processing instructions for its post-graduation work permit program (PGWPP), which allows international students to work in Canada after they graduate. This update has implications for international pharmacy students studying in Manitoba – as well as for pharmacists who employ or are looking to hire international students.

The updates contain two significant changes: international students are no longer required to hold a valid study permit when applying for a post-graduation work permit, and the deadline to apply for a work permit has been extended from 90 days after graduation to 180 days. There are also several other changes and additions to the processing instructions, which we describe below.

The new IRCC guidelines apply to all post-graduation work permit applications received on or after February 14, 2019. The previous guidelines apply to all applications submitted on or before February 13, 2019. Reminder: an international student can receive only one post-graduation work permit in his or her lifetime.

WORK PERMIT ELIGIBILITY

To be eligible for a post-graduation work permit, an international student must have studied at a Canadian designated learning institution (DLI). A complete list of DLIs can be found at http://bit.ly/DLIsList.

WORK PERMIT ISSUANCE AND VALIDITY

Post-graduation work permits may be issued for a minimum of eight months to a maximum of three years. IRCC officers will consider the length of the international student's program of study when determining the validity period of a work permit.

If an international student has completed his or her studies in less time than the normal length of the program, the duration of the work permit should be assessed on the normal length of the program.

If an international student's school has been impacted by a strike during the time of study, he or she is still considered a full-time student throughout the duration of the strike and the time away from class will not impact work permit eligibility.

International students who complete their programs of study exclusively by distance learning – whether it be from outside or within Canada – are ineligible for post-graduation work permits. If more than 50% of a program consists of distance learning, it is considered a distance-learning program and the student is ineligible for a work permit. If less than 50% of a program consists of distance learning, a work permit may be issued based on the length of the program.

Students who complete a program of study in Canada that has an overseas component are eligible for post-graduation work permits, although the length of the permit will be based on the length of time they studied in Canada, not abroad.

APPLYING FOR A WORK PERMIT – AS AN INTERNATIONAL STUDENT – WHAT INTERNATIONAL STUDENTS NEED TO KNOW

International students must apply for a post-graduation work permit within 180 days of graduating. This period commences the day a student receives his or her final marks or the day he or she receives written confirmation of completing the program—whichever comes first.

If an international student's study permit is still valid, he or she may apply for a work permit from within Canada. If the student wishes to remain in Canada but the study permit is no longer valid, he or she must apply for visitor status prior to the expiration of the study permit.

If an international student, while waiting for notice of graduation, changes his or her status to visitor status before the study permit expires, he or she may apply for a work permit from within Canada.

If the international student's study permit becomes invalid or expires, he or she must either leave Canada or submit an application to change his or her status in Canada before applying for a work permit.

LEAVES FROM STUDIES

If a student took leave from his or her studies during the program, an IRCC officer will determine if the student complied with the conditions of the study permit by being enrolled at a DLI, remaining enrolled and actively pursuing coursework.

If the officer determines the international student actively pursued studies during his or her leave, the student may still be eligible for a work permit. If the student has not met the conditions of the study permit, he or she may be banned from applying for a work permit for a period of six months from the date he or she stopped unauthorized study or work.

WORK AUTHORIZATION AFTER APPLYING FOR A WORK PERMIT – WHAT EMPLOYERS NEED TO KNOW

If international students apply for work permits before their study permit expires, they are eligible to work full-time without a permit while awaiting a decision on their post-graduation work permit if:

- they had a valid study permit at the time of their post-graduation work permit application;
- they have completed their studies;
- they were a full-time student enrolled at a DLI for the minimum time requirement and obtained a degree, diploma or certificate; and
- they did not exceed the allowable hours of work during their period of study.

If a student's application for a work permit is refused, he or she must stop working as soon as he or she is notified by IRCC.

Note: This article is of a general nature only and is not exhaustive of all possible legal rights or remedies. In addition, laws may change over time and should be interpreted only in the context of particular circumstances such that these materials are not intended to be relied upon or taken as legal advice or opinion. Readers should consult a legal professional for specific advice in any particular situation.

Pay tax-free dividends from the Capital Dividend Account (CDA)

Jennifer Poon, CA, CPA, CFP, Director, Wealth Management Taxation, Scotia Capital Inc.

March 2019
This article is intended as a general source of information only and should not be considered or relied upon as personal and/or specific financial, tax, pension, legal, or investment advice.

The Income Tax Act (Canada) ("ITA") allows Canadian-Controlled Private Corporations ("CCPC") to track various tax-free surpluses in the CDA; these amounts can be distributed to Canadian shareholders as tax-free dividends.

What is the CDA?

CDA is a notional tax account with no cash and not reported on financial statements. A CCPC can request for its CDA balance from Canada Revenue Agency ("CRA") by requesting a T2SCH89 once every three years and the balance will be available on My Business Account. Positive CDA can be paid out as tax-free dividends provided proper tax elections are made.

What goes into the CDA?

1. Death benefits, less the adjusted cost basis of a life insurance policy, where the corporation is named the beneficiary
2. The non-taxable portion of capital gains, but is also reduced by the non-deductible portion of capital losses
3. Capital (tax-free) dividends from other corporations

Why is the CDA in the Income Tax Act?

The CDA was put in place for a concept called tax integration and aims to avoid double taxation. Under this concept, income earned by a corporation and later distributed to the individual would be subject to similar tax amount otherwise earned directly by the shareholder. To that end, both the death benefits from life insurance and the non-taxable portion of capital gains would not have been taxable to the taxpayer individually, and thus should not be subject to dividend tax when paid out from his/her corporation.

Types of dividends	National average of top marginal tax rates[1]
Non-eligible dividends	43.88%
Eligible dividends	34.78%
Capital dividends	0%

Speak with your own tax advisors about your own tax situation when evaluating and before implementing any tax planning strategies.

Robert Blando, B. Comm. (Hons.), PFP
Wealth Advisor

If you have any questions or are interested in learning more, please contact us at 204.946.9223 or robert.blando@scotiawealth.com

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1 Election T2054 – election for a capital dividend under ITA ss 83(2)

PHARMACIST AWARENESS MONTH 2019

The theme for Pharmacist Awareness Month (PAM) 2019 was *ReThink* Pharmacists, which was developed in partnership with CPhA and the provincial associations. Part of our work with CPhA also included a public perception survey, which is conducted annually.

This year we held two social media contests, one for the public and another for pharmacists. We also used social media posts to help encourage the public to Rethink the role pharmacists play in healthcare.

Health Minister Cameron Friesen officially declared March 2019 to be Pharmacist Awareness Month. Additionally, we sent posters to MLAs encouraging them to *ReThink* the role that pharmacists play in Manitoba's health care system.

The Canadian Association of Pharmacy Students and Interns (CAPSI) and some of our members also celebrated with their own activities.

PHARMACIST AWARENESS MONTH ABACUS DATA SURVEY

During our meetings with CPhA and other provincial organizations, it was decided that the past questions on the survey should be added to as the data had been consistent in showing a positive perception of pharmacists over the past several years. Therefore, we decided to also ask questions about how the public felt about the possibility of expanding pharmacy practice in certain areas and about government funding for these services.

The survey found an overwhelming majority of Manitobans were in favour of pharmacists prescribing immunizations (93%), birth control (84%), and urinary tract infections (83%). A strong majority also felt that the provincial government should pay pharmacists to assess and prescribe for these health services (83–92%). Moreover, pharmacists in general continue to be viewed positively by Manitobans (93%) and 84% are in favour of finding ways to reduce visits to emergency rooms and the overall stress on the primary health system.

To read the full survey, click here.

PUBLIC CONTEST

In order to enter the public contest, participants had to share our post on Facebook, retweet it on Twitter or comment and tag two friends on Instagram. The prize was an electronics gift basket containing Apple Airpods, an Amazon Echo, and a Ring Doorbell with adjustable angle mount. Congratulations to the winner of our public contest for 2019, Ashley Olsen.

Winner of Pharmacists Manitoba's 2019 Public Contest for Pharmacists Awareness Month, Ashley Olsen with her prize.

PHARMACIST CONTEST

To enter the contest for pharmacists, pharmacists had to download and print one of our posters or bag stuffers and share a photo of the item on Facebook, Twitter or Instagram with the promotional item using the hashtags #ReThinkPharmacists and #pharmacistsmb.

Pharmacists were encouraged to put the posters up at their pharmacies, seniors' homes, wellness clinics, community centres, local schools and public offices. Congratulations to Jenna Badger, who won our first ever pharmacists contest and received a free registration for the 2019 Pharmacists Manitoba Conference.

Winner of Pharmacists Manitoba's 2019 Pharmacists Contest for Pharmacists Awareness Month, Jenna Badger with Pharmacists Manitoba COO, Jill Ell.

PAM PROCLAMATION & MLA POSTER CAMPAIGN

In late April, we received the proclamation from the Health Minister's office declaring that March 2019 was Pharmacist Awareness Month. In March Pharmacists Manitoba CEO, Brenna Shearer was invited to the Minister's office for a photo with the proclamation, which we shared on our social media accounts.

To reach MLA's we sent them one of two posters stating that "Healthcare in Manitoba needs to see a pharmacist. Convenient, accessible and close to home. The best kept secret in health care." Along with the poster we sent a cover letter to provide more context.

Pharmacists Manitoba CEO, Dr. Brenna Shearer and Health Minister Cameron Friesen pose with the PAM proclamation for 2019.

CAPSI

Students from the Manitoba Chapter of CAPSI, along with Pharmacists Manitoba CEO, Dr. Brenna Shearer, set up a table at the St. Vital Mall to encourage the public to Rethink Pharmacists. The students also promoted our public social media contest and helped people interested in participating enter to win.

Students from the Manitoba Chapter of CAPSI at St. Vital Mall in Winnipeg, MB. From right to left: Megha Kaushal, Jessie McTaggart, Jessica Shields and Laura Spado.

MEMBER ACTIVITIES

We put out a call in the Weekly Script asking our members how they celebrated PAM this year and received responses from Jennifer Ludwig from Super Thrifty in Brandon and Pharmacy Student Andrew Samuel.

Jennifer held a "Mini" Pharmacist Day, which offered kids a chance to experience what pharmacists do daily. One little guy was so excited that he showed up dressed for the role – only needing the pharmacy to supply the hair net to complete his look. They participated in simulated compounding and medication sorting using sugar and candies as a substitute for compounding agents and pills. She said the event was very successful and that parents whose children missed the opportunity asked if the pharmacy would be offering this again in the future.

Andrew Samuel shared photos from an event for Congestive Heart Failure that the Canadian Society of Hospital Pharmacists held at the Canadian Museum of Human Rights. He and his fellow pharmacy students took the opportunity to use photo props to celebrate PAM.

Thank you to Jennifer and Andrew for sharing. We hope to see lots of awesome submissions from our members next year.

Enthusiastic participants of Mini Pharmacist's Day with Jennifer Ludwig, Pharmacist at Super Thrifty in Brandon, MB.

University of Manitoba Pharmacy Student, Andrew Samuel celebrating PAM with class mates.

Children participate in Mini Pharmacist's Day with Jennifer Ludwig.
Jennifer Ludwig teaches Mini Pharmacists about compounding using sugar as a substitute.

WOMEN IN LEADERSHIP

TARA MALTMAN-JUST

The annual BMO Celebrating Women event took place in Winnipeg on the evening of Tuesday, May 14th, honouring female leaders for their remarkable contributions to business and the community.

The program honours female leaders in local communities recognizing contributions in one of three categories: Trailblazers & Innovators; Community & Charitable Giving; and Expansion & Growth in Business.

This year, Pharmacists Manitoba member Tara Maltman-Just was honoured in the category of **Trailblazers & Innovators**. Tara is the award-winning founder and executive clinician of Vitality Integrative Medicine, which got its start in 2013. Tara's practice combines her training as a pharmacist with integrative medicine and therapeutic planning to deliver in-depth health consultations.

Congratulations Tara!

CPhA WOMEN IN LEADERSHIP SUMMIT

Pharmacists Manitoba President, Ms. Pawandeep Sidhu and CEO, Dr. Brenna Shearer attended the inaugural CPhA Women in Leadership Summit on June 2, 2019 in Toronto, Ontario. While women comprise 60–70% of staff pharmacy positions, just a third of all pharmacy owners are women. CPhA has reported that women are greatly underrepresented in senior positions and on pharmacy governing bodies.

More than 150 pharmacists attended the session which included presentations from Marci Ien, The Social Co-Host and former Co-Host and news anchor Canada AM. In addition, a panel of high powered women discussed their experiences in leadership roles and included Jen Baker (Whole Health Pharmacy Partners), Lesia Babiak (Johnson & Johnson), Emily Musing (University Health Network), and Carlene Oleksyn (Pharmacy Owner/Pharmacist Consultant). As women in leadership roles, President Pawandeep Sidhu and CEO Dr. Brenna Shearer were proud to represent Manitoba at the Women in Pharmacy Leadership Summit.

The purpose of the summit was to gain better insights about barriers women face and to identify potential solutions to lead to better representation of women in leadership positions. This summit was a great success and will continue to be a valuable section of future CPhA conferences as it evolves and grows based on feedback from members and pharmacists at large.

CADTH Evidence Driven.

Biosimilar Drugs

As more biosimilar drugs come to the Canadian market, decision-makers need information to help guide prescribing and policy development. Are biosimilars the same as their reference drugs? Can they improve access for patients? What's the difference between interchangeability and switching? Read on for more information, or get our patient handout.

What are biologic drugs?

Biologic drugs, commonly known as biologics, are a class of drugs derived through the metabolism of living organisms, rather than being synthesized by chemical reactions.[1] Biologics include insulin analogues, interferons, erythropoietin, and monoclonal antibodies such as infliximab or adalimumab.

What is a biosimilar drug?

A biosimilar is a new, highly similar version of a biologic drug that comes to the Canadian market after the patent for the original product has expired. Biosimilars were previously called subsequent entry biologics (SEBs) in Canada.

Are biosimilars safe and effective?

Yes. Health Canada must review and approve all drug products before they can be sold in Canada. Biosimilars are treated as new drug products and require a full submission, including clinical trial data. All manufacturers must meet the same federal standards for good manufacturing practices. Authorization of a biosimilar by Health Canada means that the biosimilar and the reference biologic drug are highly similar and that there are no clinically meaningful differences in safety and efficacy between them.

What is a reference biologic drug?

A reference biologic drug (RBD) is the product to which a biosimilar is compared. Generally it is the first version of the drug that was approved for sale in Canada, and there is a body of evidence regarding its safety and efficacy.[2] An RBD may also be called an innovator biologic, innovator drug, or originator drug.

Is a biosimilar identical to its RBD?

No. Biologics are large molecules with complex manufacturing procedures. While the protein sequence is known, the manufacturing process is proprietary. So it is impossible to exactly duplicate all of its characteristics.[3] In fact, there is even variation between batches of the same RBD.[4] This is different from traditional generic drugs, which are small molecules that can be precisely replicated and deemed bioequivalent to the innovator drug. For more information on bioequivalence or generic drugs, please visit: **cadth.ca/generics**.

Is a biosimilar comparable to its RBD?

Yes. To be authorized for sale in Canada as a biosimilar, a drug must meet a detailed set of criteria from Health Canada (for example, similar biochemical structure; similar pharmacokinetic and pharmacodynamic characteristics) and must demonstrate safety and efficacy for each indication; in certain situations, it is possible to extrapolate therapeutic similarity from one indication to another indication. Because of the rigorous demonstration of similarity between the biosimilar and the RBD, Health Canada may authorize a biosimilar for use in more than one indication even if clinical studies were not conducted in each indication.[2,3]

Is a biosimilar interchangeable with its RBD?

Interchangeability is not the same thing as bioequivalence or similarity to a reference product. Interchangeability allows one product to be substituted for another product at time of dispensing, and these decisions are made by each province and territory according to its own regulations.

CADTH

What is the difference between interchangeability, substitution, and switching?

Interchangeability: Products that are so alike that the drug is expected to have the same clinical result as the reference drug in any given patient.[5] **Decisions about interchangeability are made by provinces and territories**. Drugs deemed interchangeable may be noted on the provincial Drug Benefit List.

Substitution: The act of dispensing one product in place of another. *Automatic* substitution can occur whenever products have been deemed interchangeable and a pharmacist may dispense any of the interchangeable products. Health Canada does not support the automatic substitution of a biosimilar for its RBD.

Therapeutic substitution means substitution with a different medication from the same class that is expected to have the same therapeutic effect. This is less common than automatic substitution and usually pursuant to a medical or provincial directive. **Decisions to make a therapeutic substitution are generally made by pharmacists** based on a medical directive from a Pharmacy and Therapeutics Committee of a hospital or from an individual physician.

Switching: A decision to change a specific patient's medication. Individual patients who are already established on an RBD may consider switching to a biosimilar with consideration to the patient's unique situation and preferences. **Decisions about switching are generally made by individual patients and their practitioners based on the available clinical evidence**.

What is the benefit of biosimilars?

Increased competition among manufacturers decreases costs and increases choice, thereby improving access for patients. Biosimilars create savings that can be redirected elsewhere.

Where can I find more information?

Health Canada provides detailed information on its **website**. A **guidance document** explains how biosimilars are approved and details the information that manufacturers must submit. A **fact sheet** provides further information on key issues.

Bottom Line:

- Biosimilars are highly similar to the reference product in safety and efficacy, but not identical.
- Biosimilars offer a choice for patients and may improve access.
- Biosimilars create savings that can be redirected elsewhere.

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To learn more about CADTH:

Visit **cadth.ca** or contact **Jill Sutherland**, the CADTH Liaison Officer for Manitoba, at **JillSu@cadth.ca**.

ABOUT CADTH

CADTH is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs and medical devices in our health care system.

CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

Ce document est également disponible en français.

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Therapeutic Options

FOCUS ON OPIOID SWITCHING IN THE CHRONIC PAIN PATIENT – PART 2

BUPRENORPHINE, FENTANYL, METHADONE, AND OPIOID TAPERING

By Christine Elliott, BScPhm, RPh

BACKGROUND

This two-part series provides an overview of opioid switching practices for patients with chronic pain. Part 1 included the general principles of switching between common oral and parenteral opioids using two different methods. Approximate equianalgesic doses of some opioids and a tool to assist in calculating morphine equivalence were included in the review. Buprenorphine, fentanyl, and methadone have unique pharmacodynamic characteristics that present additional challenges when rotating opioids. Switching to and from these three opioids will be reviewed in this article.

BUPRENORPHINE

Switching to Buprenorphine:

Buprenorphine, when administered using the buccal film or transdermal patch, is indicated for treatment of chronic pain.[1] The pharmacodynamics of buprenorphine are unique and special consideration is required when switching to or from another opioid. Buprenorphine is a partial mu-opioid receptor agonist, yet it has strong affinity for the receptor and can displace a full receptor agonist, precipitating withdrawal symptoms.[2] To prevent this situation, when switching to buprenorphine for the purpose of chronic pain treatment, it is recommended that the patient first tapers the current opioid to a dose of 30 mg morphine equivalent daily dose (MEDD), stabilize on that dose, then start on a buprenorphine dose that is equal to the MEDD dose of the original opioid dose taken prior to the taper.[3,4] Short-acting opioid medication may be required as needed during the taper and initiation of the dose.[4,5] Switching instructions may vary for transdermal buprenorphine; see Table 1 for details.

Dosing instructions are different when the switch to buprenorphine is for treatment of opioid use disorder (OUD). To avoid precipitated withdrawal, the opioid dose may first need to be tapered and the patient should have symptoms of mild withdrawal prior to buprenorphine induction. The buprenorphine should be initiated at least 6 to 12 hours after the last dose of a short-acting opioid and 24 to 72 hours after the last dose of a long acting opioid such as methadone.[2] Consult product monographs for detailed instructions.[6,7]

Switching from Buprenorphine:

Switching from buprenorphine to a full mu-opioid receptor agonist, such as methadone, does not cause the same withdrawal effects, and can generally be done without a time delay; however, there are no clearly established protocols when switching from buprenorphine to another opioid.[2,4,5,8] See Table 1 for switching strategies with buprenorphine.

FENTANYL

Fentanyl is a potent opioid that requires special consideration when rotating to or from another opioid.

SWITCHING TO TRANSDERMAL FENTANYL (TDF):

Fentanyl monographs have detailed recommendations on how to switch patients from selected oral and parenteral opioids to TDF; the information should not be applied to opioid-naïve patients, in whom fentanyl is not recommended. Consult the monograph for the appropriate conversion table. This conversion is unidirectional to fentanyl only and should not be applied when switching from fentanyl as this can lead to a potential overdose.[12,13] Other less conservative approaches have been noted in the literature. Reddy et al calculated the opioid rotation ratio of 0.01 when converting from a strong opioid to TDF (mg/day) in cancer patients, or 0.4 (which translates to a ratio of 2.5:1) from oral MEDD to TDF in µg/hr. In other words, 60 mg oral MEDD ≈ 0.6 mg fentanyl/day or 25 ug/hr TDF. The median ratio varied significantly and excluded any breakthrough pain medication.[14] Other experts use a conversion ratio of 2:1 from oral MEDD to ug/hr of TDF. This would suggest that 50 mg oral MEDD ≈ 25 ug/hr TDF. When converting from oral MEDD to TDF, it is recommended to use the more conservative of either the manufacturer-recommended dose conversions or of the aforementioned ratios. In any case, the incomplete cross-tolerance has been accounted for and the initial dose does not need to be reduced with an added safety factor that is sometimes recommended when switching between opioids.[15] Patients do need to be monitored closely during the transition. Individualized dosing, for example, a lower dose than calculated above, may be required in the elderly, debilitated patients or in those patients taking potent cytochrome P450 3A4 inhibitors.[13]

Table 1. Switching Strategies with buprenorphine utilizing MEDD[1,3,4,5]

Dosage Form	Switching Strategy
Buprenorphine transdermal patch[5] The information presented here applies to a unidirectional switch from an opioid to buprenorphine. There is no established equianalgesic dose between buprenorphine and morphine.[1]	When switching to buprenorphine transdermal[ψ+]: < 80 mg oral MEDD ≈ 5-10 µg/hr Alternate method (based on the US product monograph): First taper the existing opioid to 30 mg oral MEDD, then start the transdermal dose that coincides with the oral MEDD of the original opioid dose: ≤30 mg oral MEDD ≈ 5 µg/hr 30-80 mg oral MEDD ≈ 5-10 µg/hr >80 mg oral MEDD → consider an alternative to buprenorphine★
	When switching from buprenorphine transdermal: There are no published data upon which to base clear recommendations for converting from transdermal buprenorphine to other opioids. Studies in cancer and noncancer patients with chronic pain have proposed the following equipotency ratios to convert buprenorphine transdermal to oral morphine: 1:115, 1:110, 1:75 or 1:70.[8,9,10,11]
Buprenorphine buccal soluble film[4] The information presented here applies to a unidirectional switch from an opioid to buprenorphine. There is no established equianalgesic dose between buprenorphine and morphine.[1]	When switching to buprenorphine buccal, first taper the previous opioid to 30 mg oral MEDD. Then, choose a buccal buprenorphine dose based on the previous (pre-taper) oral MEDD[++ψ]: < 30 mg oral MEDD = 75 µg q 12 hr or once daily 30-89 mg oral MEDD = 150 µg q 12 hr 90-160 mg oral MEDD = 300 µg q 12 hr >160 mg oral MEDD = maximum dose 450 µg q 12 hr¶

≈ designates approximately equal to

ψ Information provided is for identifying initial dose of buprenorphine when switching to this specific formulation; it is not meant for identifying equianalgesic ratios.

✚ As buprenorphine is a partial agonist, patients switching to buprenorphine should first taper original opioid to 30 mg oral morphine equivalent daily dose (MEDD) to prevent opioid withdrawal, then dosing of buprenorphine is based on the previous oral MEDD dose taken. Initial dose of buprenorphine transdermal is 5 to 10 µg/hr in patients who were taking up to 80 mg oral MEDD.[5]

★ The maximum dose of buprenorphine transdermal is 20 µg/hr.

✚✚As buprenorphine is a partial agonist, patients switching to buprenorphine should first taper original opioid to 30 mg oral MEDD to prevent opioid withdrawal, then dosing of buprenorphine is based on the previous oral MEDD dose taken. Titration to 600, 750, or 900 ug may be performed from a lower dose of buprenorphine[1]

¶ For patients taking > 160 mg oral MEDD, buprenorphine may not provide adequate analgesia; consider recommending a different opioid.[4]

With TDF administration, serum concentrations increase gradually after the first dose application, and level off between 12 to 24 hours. Maximum analgesic effect should not be evaluated for at least 24 to 36 hours.[12,13] If the previous opioid was dosed every 12 hours, it is reasonable to apply the new fentanyl patch at the same time as the last dose of the oral opioid; the concentration of the first opioid will decline as the fentanyl concentration increases. If the previous opioid is short-acting, it may be continued for two to three doses after fentanyl initiation, to maintain adequate pain control. Dose titration upward may occur three days after the initial application and every six days thereafter.[13] A short-acting opioid should be available for breakthrough pain with the start of fentanyl.[16]

Switching from transdermal fentanyl (TDF):

There is a paucity of strong evidence to guide the process of converting patients from TDF to another opioid. A conservative approach suggests that 100 µg/hr TDF ≈ 200 mg oral MEDD.[15] A retrospective study in cancer patients found the median opioid rotation ratio (ORR) when switching from fentanyl (mg/day) to MEDD (mg/day) was 100, and from TDF (µg/hr) to MEDD (mg/day) was 2.4.[17] In other words, 100 µg/hr TDF ≈ 240 mg oral MEDD. This estimate is in line with other experts who suggest 25 µg/hr fentanyl ≈ 60 mg oral MEDD.[11,16] However, this study was relatively small and the ORR from fentanyl to MEDD varied significantly between patients (0.3-5.2) indicating caution should be exercised when using this information. It was also noted that the median ORR from transdermal fentanyl to oral MEDD decreased as the fentanyl dose increased, meaning the newly calculated oral MEDD should be lower with the higher fentanyl doses. The authors suggest reducing the initial oral MEDD by 30 to 50%, as a safety factor, particularly when converting from a high fentanyl dose.[17] A reasonable approach in switching from TDF 100 µg/hr is to change to approximately 200-240 mg oral MEDD; the initial dose should be reduced by a safety factor especially when using the higher dose in the range. For stepwise instructions on how to switch from transdermal fentanyl to a strong opioid see Box 1.

METHADONE

Converting between opioids and methadone is complex and challenging; consider consulting with a pain specialist if doing a rapid switch to or from methadone.

Switching to methadone:

Methadone has a complicated pharmacokinetic/pharmacodynamic profile. The elimination half-life is highly variable, with a mean of 20 to 35 hours (range of 5 to 130 hours), longer than the duration of analgesic action (approximately 8 to 12 hours).[15,18,19] This variability can lead to unpredictable drug accumulation early in treatment and potentially life threatening or fatal respiratory depression.[19] It is important to account for any concurrent medication the patient is taking that may decrease the metabolism of methadone; a 25% reduction in methadone dose is suggested in this case.[15] When switching to methadone, first calculate the oral MEDD of the current opioid regimen. The equivalent oral methadone dose can be determined using the corresponding ratio in Table 2. Note that the conversion factor appears to increase with higher doses of methadone. These ratios already account for incomplete cross-tolerance and are based on expert consensus.

BOX 1 – Proposed approach in switching from transdermal fentanyl to a strong opioid‡[15]

1. Calculate the new opioid regimen.
2. Remove the fentanyl patch.
3. For the first 12 hours after patch removal*, continue only the previously prescribed short-acting rescue opioid as needed for pain.
4. Twelve hours after patch removal*, start the new opioid at 50% of the calculated scheduled dose and continue to offer the short-acting opioid as needed.
5. Twenty-four hours after patch removal*, increase the new opioid dose to 100% of the calculated scheduled dose and continue to offer the short-acting opioid as needed.

‡ Examples of strong opioids are: methadone, morphine, oxycodone or hydromorphone.[17]

* A lag time between stopping fentanyl and starting the new scheduled opioid is necessary because serum fentanyl concentration falls slowly after patch removal (17 hours or longer for the serum concentration to fall by 50%).[12,13,15]

Some experts advocate for reducing the calculated methadone dose further to account for incomplete cross-tolerance, especially with higher MEDDs.[19]

There are two methods for switching from oral MEDD to methadone. In the first method, rapid conversion, the previous opioid is discontinued and the methadone dose is started immediately on the first day. In the second method, the previous opioid is gradually discontinued, by a 30% reduction at a time, while methadone is started at 30% of the calculated dose and increased in increments of 30%. This gradual titration can occur over several days or weeks and requires close medical supervision.[15,19] The total daily oral methadone dose should be divided into 2 to 4 daily doses.[20] A short acting opioid should be provided for breakthrough pain during titration.[18]

Switching from Methadone:

Converting patients from methadone to another opioid may be more problematic than switching patients to methadone. Particular care should be taken as the conversion factor increases at higher doses.[21] Within the literature, conversion ratios for oral methadone to oral MEDD range from 1:3 to 1:6.[15,19] A conservative approach would be to multiply the current oral methadone dose by a factor of 3 to determine the oral MEDD. Twelve hours after methadone discontinuation, the calculated oral MEDD can be started in divided doses using a short-acting dose format (q4h) with additional breakthrough dosing available if needed. The patient can be switched to a long-acting formulation after several days once the dose is stabilized.[15] See Table 3 for another example of conversion factors from existing methadone doses to MEDD. It is important that the calculated MEDD dose from this table be substantially reduced by 25% to 50% to avoid accidental overdose due to incomplete cross-tolerance and inter-individual variability.[21,22]

OPIOID TAPERING

Practitioners have a heightened awareness of prescription opioid use and misuse, and are looking for ways to reduce the volume of opioid medication prescribed to patients when it is prudent to do so. One opportunity is to decrease medication use in the patient with chronic noncancer pain (CNCP) as there is inadequate evidence that long-term opioid use is beneficial for pain control, function, and quality of life in these patients.[23] Current Canadian guidelines recommend that patients taking ≥ 90 mg oral MEDD for CNCP should be considered for gradual opioid tapering. This recommendation is described as 'weak' in terms of achieving significant dose reduction or discontinuation of opioids, based on the low quality of evidence; however, it is acknowledged that the risk of opioid-related harms may be reduced for many, but not all, patients.[24,25]

BENEFITS AND RISKS OF OPIOID TAPER

Benefits of an opioid taper may include reduction of adverse effects associated with long-term use such as: sedation, cognitive impairment, mood changes, constipation, dry mouth, abdominal pain, nausea, sexual dysfunction, fractures, opioid hyperalgesia, OUD, and death.[25,26,27] Additional benefits may include improved quality of life, and improvement in pain control and function.[28,29]

Potential risks of a taper may include symptoms of withdrawal syndrome, and craving in patients with OUD.[26] Some patients may experience increased pain generally in the short-term; typically, patients report improvement or no worsening of pain in the long term.[25,26] Relapse to opioid use may occur, particularly in those with depression at the start of a taper, or with high pain scores.[26] As opioid tolerance decreases quickly with the taper, a return to using a pre-taper dose (e.g. for self-medication of withdrawal symptoms) may result in an overdose and even death.[23,30] Suicide and self-harm as a result of mood changes in patients with co-morbid psychiatric conditions is also a risk.[23] In pregnant females, severe withdrawal may result in premature labour, spontaneous abortion, and/or fetal distress.[23,25]

IMPLEMENTATION OF THE OPIOID TAPER

Goal

The goal of tapering is to reach the lowest effective opioid dose that also does not affect regular functioning. For some patients, this may mean opioid discontinuation. Regardless of the objective, it should be agreed upon by the patient and the health care practitioner prior to initiating the taper.[24]

Protocol

Pain management guidelines make specific recommendations for prescribing opioids in CNCP, including dosing, dose escalation, choice of medication and dose formulation (i.e., long-acting versus immediate release, oral versus parenteral). Within the literature, much of the information about opioid tapering is in the context of OUD, and not long-term opioid use in CNCP.[26] For CNCP there is no set protocol on how to taper; the drug selection, schedule and rate of taper should be individualized for the patient.[25,26]

Medication Selection

The Canadian Pain Management guidelines for CNCP recommend switching a patient from immediate-release to extended-release opioid(s) on a fixed dosing schedule prior to taper.[24,31] Patients who are taking multiple opioids or more than one dosage form of the same opioid, may consolidate all to one extended-release opioid to simplify the taper.[25] Switching to a different opioid may allow the patient to reduce the equianalgesic dose initially, by 25 to 50%, due to incomplete cross-tolerance, thus facilitating the taper, although the evidence to support such a switch has mostly been in cancer patients.[23,25] Choose an opioid that can be given once or twice daily, with a good selection of different dose strengths, for example, a morphine extended-release product. Short-acting opioids may be

TABLE 2: Dose Conversion Ratios for total 24-hour Oral Morphine to Oral Methadone‡[15,20]

Oral Morphine Equivalent (MEDD)	Dose conversion ratio*
< 60 mg	2-7.5 mg methadone per day
60-199 mg	10:1 if patient < 65 years** 20:1 if patient ≥ 65 years**
≥ 200 mg	20:1 **

‡ This is one of several conversion charts found in the literature. Morphine to methadone ratios range from 3:1 to 40:1[15]

* The information presented is unidirectional, and should be used only when converting from other opioids to methadone.

** Not to exceed 30-40 mg methadone per day, regardless of previous opioid dose[15]

TABLE 3: Morphine equivalent daily dose (MEDD) for methadone[21]

Methadone dose range	Conversion factor*
1-20 mg/day	4
21-40 mg/day	8
41-60 mg/day	10
≥61-80 mg/day	12

* Multiply by this conversion factor to determine the MEDD and then further reduce the starting dose to avoid accidental overdose

problematic during a taper as they can contribute to inter-dose fluctuations of effect and withdrawal symptoms, putting patients at higher risk of overdose. Pharmacists can assist the dose transition by monitoring the consumption of all doses, including as-needed doses, setting daily limits, and suggesting non-opioid alternatives for pain relief. Alternatively, if the patient preference is not to consolidate medications, select one opioid at a time to taper, starting with the medication that provides the least benefit.[25]

At the end of the taper, when an extended-release dose cannot be further reduced, it can be replaced by a short acting medication to allow for further dose reductions,[25] or the dose interval may be increased.[21]

Rate of Taper

Opioid tapering may be conducted slowly, over several weeks or months, or quickly, over a number of days. The former is more appropriate in those patients on long-term opioid use; the latter may be more suitable in an inpatient setting in specific situations, such as in the presence of severe adverse events, OUD, or in cases of coexisting medical conditions that warrant a fast taper.[21,26] While there are currently no studies comparing the two methods in CNCP patients, it is reasonable that a long taper would be most appropriate.[21]

There are no definitive studies to recommend a specific protocol for all patients; the strategy of taper should be individualized for each clinical situation.[23] In the absence of a standard protocol for opioid tapering, a number of empirical plans have been proposed, for example, reducing the original opioid dose by:

- 5 to 10% every two to four weeks,[24,32] completing the taper in one to six months with some patients benefiting from a slower taper over 18 to 24 months.[32]
- 10% every five to seven days; this may be lengthened to biweekly or monthly if the opioid treatment duration was > 2 years.[21,26]
- 5 to 20% every 4 weeks.[19]

The pace of taper may be slowed, paused or reassessed upon appearance of persistent withdrawal symptoms, loss of patient confidence, pain escalation, or during periods of stress.[26,27,32] Some references suggest slowing the taper further once 30% of the original dose is reached as withdrawal symptoms are more frequent during this period. Patients who take opioids only as needed, less than once daily, do not need to taper before discontinuing or reducing the dose.[32]

A worksheet to assist with implementing an opioid taper can be found here.

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AMAZON.COM MOVES INTO AMERICAN RETAIL PHARMACY – WILL CANADA BE NEXT?

By Andrew Allentuck

Amazon.com, the internet retail giant, is moving into pharmacy space through the purchase last year of PillPack, a New Hampshire based online pharmacy that ships to 49 U.S. States – all but Hawaii. Amazon's move is potentially a restructuring of the entire retail pharmacy industry. Amazon brings a massive and very efficient distribution system to pharmacy space, which has traditionally been bricks and mortar, and supplemental front store sales.

In the U.S., Amazon will surely take over some fraction of the retail pharmacy market. Whether Amazon brings drug dispensing to Canada is an open question. Canadian markets, spread over vast distances, raise the relative cost of express delivery which Amazon uses. PillPack cannot provide a vial of drugs to a needy patient in five minutes, but it can deliver maintenance drugs and fill scripts that can wait a day or sometimes less in some areas.

In mid-2018, Amazon announced it would buy PillPack. The company with about 1,000 employees when the sale was announced, may change the dispensing landscape even for mega-pharmacies like Walgreens Boots Alliance Inc. with 235,000 employees.

That Amazon is moving into retail pharmacy should be no surprise. It has a foothold in groceries via its takeover of Whole Foods in August, 2017. In the past, Amazon has partnered with investment bank JPMorgan Chase and mega-holding company Berkshire Hathaway Inc. to address employee healthcare costs. Amazon is efficient, fast, usually very precise with orders, and keen on synergies. What's more, the vast differences between the list price of U.S. prescription drugs at retail and what insurers and hospitals may haggle them down to create massive price arbitrage possibilities. Those possibilities mean potentially huge profits for a firm like Amazon that has the muscle to twist the arms of drug makers.

PillPack, which started in 2013, distributes pills and other drugs in easy to use packages for patients who may have difficulty coping with multiple prescriptions. They provide a packaging system – a little dispenser box. They are competent, friendly, and far away.

In operation, PillPack is convenience layered for the benefit of the patient. The company sets up a direct link to the prescriber, it gets renewals or first-time scripts by direct communication with prescribers, fills and ships at advantageous prices and undercuts many dispensing fees. "We pay the shipping by FedEx or other means. It costs something, but then we don't have to pay rent for retail pharmacies," explains a PillPack employee.

PillPack is, in a sense, a drug price and drug dispensing mechanism tailor made for the United States. The gainers are patients who want maintenance drugs at an advantageous price. The losers are patients who want face to face counselling by pharmacists, prescribers who want to work with pharmacists, and towns, especially small ones, where the bricks and mortar pharmacy is a mainstay of town or village life.

Will PillPack come to Canada? The company would have to get licenses for each province and territory. Then it would have to be able to generate profits in the narrower price variation space created by the Patented Medicines Prices Review Board. Canadian drug prices are high by global standards but much lower than those in the U.S.

Take Humira (Adalimumab), a costly drug used for Crohn's disease, ulcerative colitis, chronic psoriasis and other quite serious conditions. A Minneapolis pharmacy quoted this writer a price of US$6,266 for two 40 mg. injector pens. In Winnipeg, a pharmacy quoted price of C$1,631 for a similar kit. Adjusted for currency exchange, the American cost is five times higher.

Part of the American pricing, which sets some drugs at the highest levels in the world, is embedded in lack of price regulation in the U.S. By federal law, Medicare cannot negotiate prices with drug makers. Rafi Mohammed, a retail pricing strategist and critic of drug pricing, says, "most countries play hardball on drug prices while the U.S. pays retail."

The American list price is not what many patients pay. The producer's published price is a starting point for discounting by insurance companies, pharmacy benefit managers, hospitals and other entities. In the process, a massive drug purchaser or bill payer can work major discounts and pass some cost savings on to patients or to drug plans. The potential discounts are clear from the scale of operation.

U.S. prescription drug sales were reported to be U.S.$ 360.2 billion in 2018, an 11% increase over sales in 2015, according to Statista.com, a data service that focuses on the pharmaceutical industry. In comparison, Canadian prescription drug sales were C$33.4 billion in 2017, about 9% of American sales.

The United States, with retail drug sales fragmented into thousands of stand alone pharmacies, huge pharmacy corporations, pharmacies in grocery stores, in medical clinics – it is all open to rationalization and

consolidation. The Amazon move to fills and shipping from major regional centres makes financial sense.

That is the upside. The downside is what Amazon's efficiency and rational distribution combined with overnight shipping by couriers like FedEx may do to community pharmacy in America and, should Amazon bring its distribution smarts to Canada, to our widely distributed but not necessarily efficient way of delivering prescription drugs to patients.

Pharmacies outside of clinics and hospitals are combinations of science and corner store. Shoppers Drug Mart has expanded the concept to include grocery sales, of course. The direction of sales is toward enlargement and cross marketing. Amazon is all of that, but as a pharmacy, it has the capacity to beat community pharmacy on price.

Canadian prescription drug pricing tends to be a set price plus dispensing fee. That allows a few dollars advantage to any entity that wants to cut the dispensing fee and perhaps provide free delivery.

Should Amazon decide that relatively narrow Canadian prescription drug margins are worth chasing, it would have the power to shut down community pharmacies across the country. One or two fewer pharmacies in a Toronto neighbourhood might not matter. College Street or Bathurst, Spadina and Avenue Road would not change much. But in a small town, the loss of a pharmacy could be devastating to its commercial life and texture.

Moreover, the bridge between prescribers and dispensers, customary, familiar and sensitive to the doctor and the patient, would be broken. That bridge has been challenged by the concentration of pharmacies into larger retail operations, but though community pharmacies have moved into grocery stores and vice versa, they have remained in most towns. The Amazon move is massive and threatens communities themselves. Amazon would not have to take over 100% of the scripts in a town or village. Just taking a fourth or a half might make it unprofitable to keep the doors open.

Pricing the cost of losing a community into what a bottle of pills sells for is theoretical and not convincing for a lot of patients who figure that a buck saved is the end of the story. It isn't.

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