INPHARMATION UPDATE

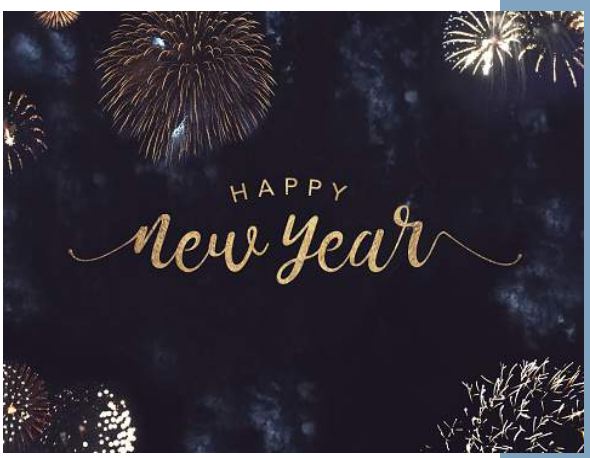
Canadian Society of Hospital Pharmacists
Alberta Branch

Société canadienne des pharmaciens d'hôpitaux

January 2022

Issue 53

Inside this issue:



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Together 2022 CSHP Conference

Building off the resounding success of last year's experience and the continued impact of COVID 19 and its variants, the 2022 Banff Seminar Planning Committee is once again part of Canada's Hospital Pharmacy Conference, Together 2022, taking place virtually from **January 29 – February 6, 2022**.

A staggering **25+ CEUs** of accredited learning will be offered this year. Returning to the program are:
- high quality keynote speakers, workshops, panel discussions & poster presentations
- live and pre-recorded events to fit into everyone's schedules and learning needs
- exhibit hall
- social events
- games and prizes
- networking opportunities
- PheedLoop platform

The Banff Seminar Planning Committee will be hosting the events on Saturday, February 5, offering programming based on the theme "Diversity, Bridging the Gap Together". Our keynote speaker, Dr. James Makokis, will share insights on Indigenous and Two-Spirit Health Inequities. A plenary session by Dr. Ubaka Ogbogu will discuss how to build anti-racist and equitable health systems through inclusive governance. Concurrent session speakers will present on topics ranging from COVID, clinical trials, technician experiential education, HIV and opioid use disorders. The day will conclude with a panel discussion on Inclusion in Medicine.

Exciting features this year will be increased live, interactive sessions and accredited CEU's available for on-demand, recorded sessions post conference for a limited time.

Don't miss out on THE pharmacy event of the year! Conference registration and details can be found here.

Looking forward to being Together again in 2022!

Alice Chan
Chair, 2022 CSHP Western Branches Banff Seminar

TOGETHER
BANFF • PPC • HARRISON
#CSHPTogether2022

CSHP-AB Student Column

After 18 months online, University of Alberta students were welcomed **back to campus** for the **fall 2021** semester. The Faculty of Pharmacy and Pharmaceutical Sciences coordinated a **hybrid approach** that allowed students to access lectures remotely, but mandated specific in-person activities to enhance the learning experience. Despite the uncertainties of the pandemic, the **CSHP-AB Student Committee** hosted two events and promoted several opportunities under the guidance of this year's Student Representative, Carolina Ghio.

The academic year began with the annual **"Student Symposium".** Participants got to hear from Carolina to learn more about CSHP, membership benefits, and upcoming events. Catherine Biggs, a Clinical Practice Leader with Alberta Health Services and President-Elect (Vision Portfolio), was also present to talk about hospital pharmacy practice and share her experiences with CSHP. In late November, we hosted the **"Day in the Life of a Hospital Pharmacist"** where attendees got to hear from four hospital pharmacists about their career journeys and daily routines, with an opportunity to ask questions and engage in conversation. We decided to keep the online format for this event to allow students to hear from pharmacists practicing across the province. Both of these events were open to all members of the Alberta Pharmacy Students' Association in order to promote becoming CSHP Student Supporters.

For the **winter 2022 semester**, the Student Committee is excited to host a variety of CSHP member-exclusive events including the **"Summer Student Job Panel"** and the **"Hospital Pharmacy Career Night".** The Summer Student Job Panel is a way for students to learn more about the various hospital pharmacy jobs offered by **Alberta Health Services** and **Covenant Health**. The panel consists of students employed during the previous summer that will describe their day-to-day work activities and application tips. The Hospital Pharmacy Career Night will feature several hospital pharmacists that work in different clinical areas, giving students an opportunity to learn more about the wide range of career options within hospital practice!

Currently, the Student Committee has started advertising the **2022 Host Program**, which gives CSHP Student Supporters an opportunity to be mentored by hospital pharmacists from across Alberta. Students are matched with their host in February, and the program runs until the end of December. Due to the ever-changing COVID-19 situation, students will not be able to shadow their hosts, but are still strongly encouraged to participate as this is a wonderful opportunity to develop a meaningful mentorship relationship with a pharmacist. Both students and pharmacists involved in the program have consistently found it to be a rewarding experience, so we hope that as many pharmacists as possible sign up to be engaged with the future pharmacists of Alberta.

See the next page to apply as a HOST or STUDENT!

Stay tuned for more updates from the Student Committee!

Sera Sajeev
CSHP-AB Communications Committee Student Chair

Carolina Ghio
CSHP-AB Student Representative

Host Program

APPLICATION NOW OPEN FOR PHARMACISTS AND STUDENTS

Deadline: Friday, Feb. 4th 2022

Apply HERE

Canadian Society of Hospital Pharmacists | Société canadienne des pharmaciens d'hôpitaux

CSHP National Update

Greetings on behalf of CSHP National!

The past year has been a busy one for our organization's dedicated staff and volunteers, as we work to improve our sustainability while finding innovative ways to improve the value we provide to our members.

The 2020-2021 Annual Report is now available HERE.

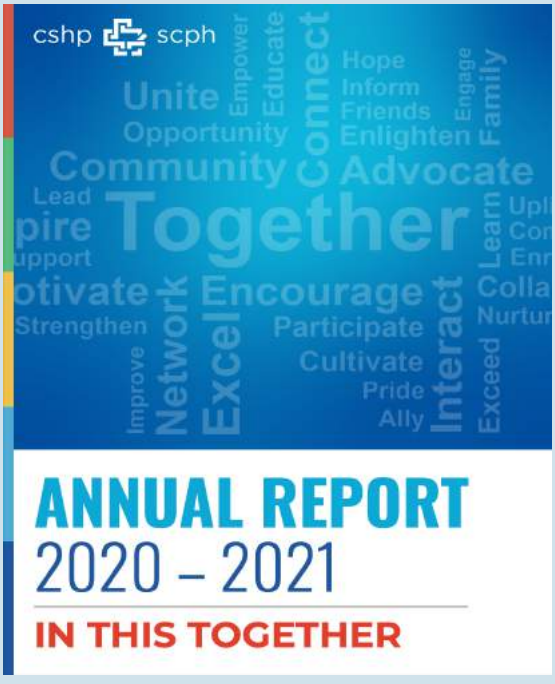
Some brief highlights include:

- Membership growth of approximately 7.5% (more than 230 new members nationally)
- More than 1800 views of CSHP's webinars (live and recorded)
- Officially welcoming pharmacy technicians as full members
- An overwhelmingly positive reception to Together, our first virtual conference

The upcoming year will see continued work on our Strategy Towards Sustainability, including the development of additional education opportunities and resources. We will also be completing an internal review of our national governance, to support the continued success and stability of the organization in the years to come.

Thank you all for your continued support of CSHP!

Mary Gunther
Branch Delegate



Pharmacist Spotlight:
ALEXANDER LEE BSc.Pharm., PharmD
Practitioner Award

Introducing: Pharmacist, Pharmacy Technician, and Pharmacy Assistant Spotlight.
As part of our initiative to highlight the hard work and dediction of individuals, as well as the many innovative practices within pharmacy, we are publishing interviews of pharmacists, technicians, and assistants working in Alberta. Our first interviews are with pharmacists who have recently won CSHP awards. If you would like to nominate an interviewee, please submit your request to babadagl@ualberta.ca & aleong@ualberta.ca

PROFILE

POSITION
Critical Care Pharmacist

LOCATION
Royal Alexandra Hospital
Edmonton, Alberta

EXPERTISE

CARING PHARMACIST ●●●●●
RESEARCH ●●●●●
PATIENT CARE ●●●●●

> Be kind, be strong, but **most importantly**, be true to your **purpose**.

Quality Improvement Spotlight: Vancomycin loading doses in ICU (n=96)

Purpose: *describe practice & provide ICU dosing recommendations*

RECOMMEND

1) Low threshold to start vancomycin empirically in ICU patients in septic shock, suspected of having severe infection.
2) Loading dose: 20-30 mg/kg TBW (max 3 g) will work for most with severe infections.
3) Loading dose for temporary dialysis (non-ESRD, IHD and CRRT): 20-25 mg/kg TBW .

Amanda (interviewer): Congratulations on winning the Practitioner Award with CSHP Alberta. Tell us your story about how you came to be the pharmacist you are today.

Alexander: There are the ideals that we envision about the role models we aspire to be, and there is the grounded reality that we seek to uncover. All I hope to do today is to provide a simple truth of who I am as a person. Pharmacy school was difficult for me. I worked as a pharmacy student in a community pharmacy at Zellers, and whenever I counselled a customer or made a drug therapy change, I felt like I was a making a difference in someone's life.

I think the definitive point for me that drove my career towards hospital pharmacy occurred during my fourth-year rotation working on the stroke team at the Royal Alexandra Hospital with my preceptor Daniel Cyr. He was one of my first role models who taught me how our actions have a ripple effect on consequences for our patients. I accepted a job at the Northern Lights Regional Health Centre. In a rural pharmacy, you must become a good generalist. I practiced in medicine, ICU, pediatrics, and long-term care.

After 2 years of working at Northern Lights, I was accepted into the PharmD program at the University of Alberta. It was an astronomical and life altering experience. Led by Jill Hall and Rene Breault, it [...] advanced therapeutics, but also [led to] a paradigm shift in thinking.

After graduating from the PharmD program, I took on a position as an ICU pharmacist at the Royal Alexandra Hospital. It's amazing what you can accomplish and learn as a clinician when working in a general systems ICU. General systems ICU is a fancy term for an ICU that accepts any type of critical care case – we get traumas, traumatic brain injuries, severe sepsis cases, renal failure patients, etc. – you name it. As one of my ICU colleagues coined, we really put a lot of "sweat and blood" into our profession. I won't lie, it is not an easy job and it can be stressful at times. I'm humbled yet proud to play my part as an ICU pharmacist during the pandemic and hope to remain here for many years to come!

Amanda: What is a project you have completed, or in the process of completing, that you are most proud of and why?

Alexander: A project that I am very proud of initiating is the Royal Alexandra Hospital (RAH) COVID Folder Google Drive. When COVID first hit, many of us were left stunned and shocked. There was a torrential flood of inpatients and mass casualties . Because we knew very little about the disease state initially, there was a massive influx of data trickling in from all angles. It was extremely difficult for pharmacists to keep up.

I determined that there was a need to compile all this information. The method that I chose needed to be organized, convenient for people to access, and it needed a system where the information was vetted and reputable. The birth of the RAH COVID Folder came after a busy shift in the ICU and I remember spending the entire night compiling all we had learned about COVID into a Google Drive. I shared this Drive with all our pharmacists at the RAH. The RAH COVID Folder Google Drive turned out to be an incredible success. The information in the Google Drive comes from non-restricted sources that are available to the public. Susan Fryters became a huge proponent of the Drive and we have collaborated since to disseminate information she receives from the AHS COVID Therapeutics Group and hot-off-the-press literature. Susan and I are now the main curators of the Drive.

I further evolved my initiative by providing email updates, which help to package new COVID literature in a digestible article. These articles are not just reviews of COVID. I have also taken creative license to infuse some of my writing passion into them. I have been told by many pharmacists that my writing pieces are witty, humorous, inspirational, and infuse a warmth many missed dearly during the pandemic.

I think I am most proud of this achievement because it was the first instance where I came up with a project that had the sole purpose of benefitting my peers and myself. There was no hidden incentive and I truly wanted to have an outlet to help make things a little more bearable for my pharmacy peers. After all, we are all in this together.

I truly wanted to have an outlet to help make things a little more bearable for my pharmacy peers.

Amanda: When you think of yourself or your colleagues - what do you think makes someone an effective pharmacist who also has positive impact on their clinical environment?

Alexander: I think this is a question that I can answer very simply because in my mind, the answer is not complicated.

When we talk about great pharmacist clinicians, we often think about experience, a strong background in drug therapeutics, and social skills necessary to converse with patients. These are all skills, in my mind, that can be gained with time. Pharmacists at any learning level can gain these patient-centric skills with effort and time.

To truly make a positive impact on the clinical environment, however, does not rely on skill alone. I believe that all the skills in the world would amount to nothing if one doesn't have the will or heart to do what is necessary. So, this is my only advice for my fellow clinicians out there: be kind, be strong, but most importantly, be true to your purpose. Be there for your patients and pay it forward in kind. If you set your mind to being the best you can be for your patients and colleagues, there is nothing you cannot accomplish. With time and patience, any pharmacist can become a great practitioner.

Pharmacy Appreciation Month

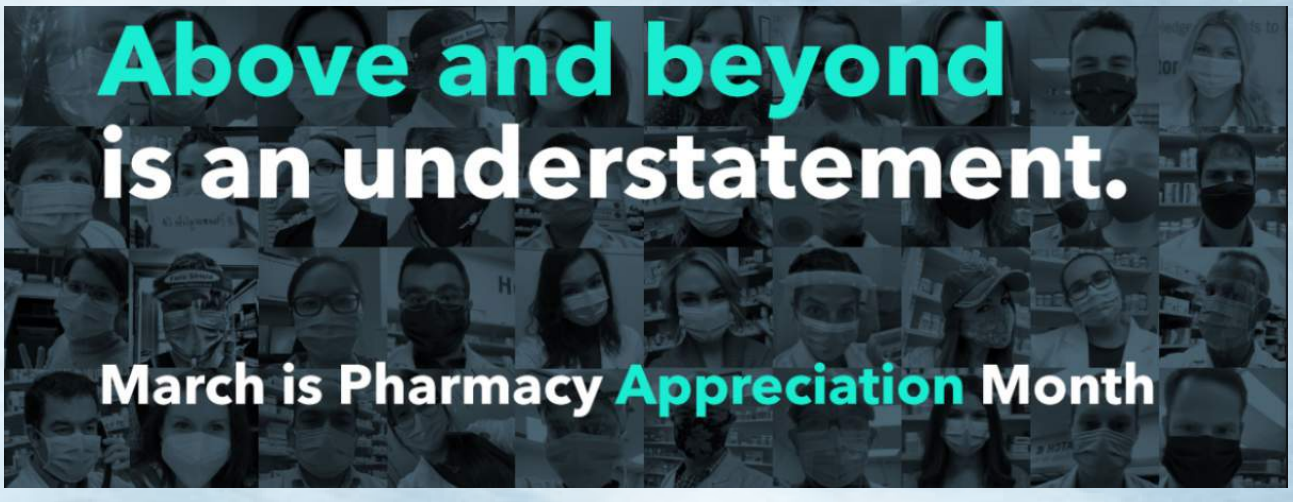
CALL FOR VIDEO SUBMISSIONS!

The Pharmacy Appreciation Month (PAM) committee is working on a video to raise awareness for hospital pharmacy and other healthcare professionals. This video will be promoted through social media platforms.

Please consider submitting a 5-8 second video to Pawan Gill at pgill3@ualberta.ca starting with one of the following:

- *I am a hospital/peds/anticoagulation pharmacist because...*
- *I am a pharmacy student because….*
- *I am a pharmacy technician because….*
- *I am a pharmacy assistant because....*

Submission deadline: January 31, 2022



short & snappy
-A CLINICAL OVERVIEW

Tranexamic Acid: A Useful Agent That Won't Bleed You Dry

Erica McGinn, PharmD
2020-2021 Pharmacy Resident

Clinical Question: In patients with epistaxis, is intranasal application of injectable tranexamic acid (TXA) more effective than intranasal epinephrine (EPI) & oxymetazoline in controlling epistaxis?

Background

- Epistaxis typically arises in the anterior nasal cavity.
- Majority of cases resolve with first aid (e.g tilting head forward & pinching the nose for ~10 minutes) & topical treatments (e.g oxymetazoline spray or cotton pledgets (CPs) soaked in EPI) followed by cauterization if needed. In refractory cases, anterior nasal pack (ANP) may be required; however, this is painful & requires an experienced practitioner to closely monitor patient response.
- TXA is an antifibrinolytic agent that may be more effective than intranasal EPI or oxymetazoline for epistaxis. This may reduce use of ANP, which can improve patient comfort & limit hospitalizations.

Study	*Population (P), Intervention (I), Comparison (C)*		*1° Outcome & Results*	*Critical Appraisal*	
Whitworth et al. 2020	**P**	Adults with new or acute anterior epistaxis	**1° Outcome:** Proportion of patients achieving hemostasis ≤ 30 minutes **Results:** 78% of 18 patients in TXA group (95% CI 52.4-93.6), vs. 35% of 20 patients in oxymetazoline group (95% CI 14.1-55.9%)	Unclear if adequately powered, small sample size, selection bias	**All Studies:** RCTs, unblinded, lack of safety outcomes, not adjusted for severity of bleed
	I	Injectable TXA: 300 mg via atomizer			
	C	Oxymetazoline 0.05%: 3 sprays			
Zahed et al. 2018	**P**	Patient on antiplatelet(s) with persistent anterior epistaxis	**1° Outcome:** Proportion of patients achieving hemostasis ≤ 10 minutes. **Results:** 73% of 62 patients in TXA group, vs. 29% of 62 patients in ANP group ($p < 0.001$).	Not stratified for antiplatelet(s), variability in TXA dose, more history of epistaxis in TXA group, adequately powered	
	I	Injectable TXA (500 mg/5 mL) via soaked CPs for 10 minutes			
	C	EPI (1:100000) plus lidocaine (2%) via soaked CPs for 10 minutes, then ANP			
Zahed et al. 2013	**P**	Patient with acute anterior epistaxis	**1° Outcome:** Same as above (Zahed et al. 2018) **Results:** 71% of 107 patients in TXA group, vs. 31% of 109 patients in ANP group ($p < 0.001$).	Variability in TXA dose, adequately powered	
	I/C	Same as above (Zahed et al. 2018)			

Bottom Line: Intranasal application of injectable TXA is likely useful for stopping epistaxis, but better quality RCTs are required to prove superiority with intranasal EPI & oxymetazoline spray.

Reference

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short & snappy
-A CLINICAL OVERVIEW

Magic of Magnesium: A guide on magnesium supplementation

Kosha Kantharia, PharmD
2020-2021 Pharmacy Resident

Clinical Question: In patients with hypomagnesemia, what magnesium supplementation strategies are most effective with minimal adverse effects?

Background:

- Magnesium (Mg) is one of the most abundant intracellular cations in the body[1-6]. As a cofactor in many biological reactions, Mg plays an integral role in various processes such as musculoskeletal health and neurotransmissions.
- Causes of hypomagnesemia: increased losses of Mg, decreased absorption of Mg, or redistribution of Mg in the body [1,2,5,6].
- Some signs and symptoms of low Mg: neuromuscular/neurological disturbances, cardiac abnormalities, and refractory hypocalcaemia or hypokalemia [1-6].
- Most patients with hypomagnesemia are asymptomatic, and signs and symptoms typically arise with significant hypomagnesemia, usually when Mg levels are <0.5 mmol/L [1-6].

Literature Review:

In patients with severe hypomagnesemia displaying neurological or cardiac manifestations, the widely accepted practice is to administer bolus IV Mg sulfate, followed by an infusion that lasts for 3 to 5 days to ensure intracellular Mg repletion[1-6]. In asymptomatic patients with mild to severe hypomagnesemia, oral (PO) supplementation is preferred provided that patients can tolerate it[1,5,6]. IV supplementation may be used as an alternative if patients have poor tolerance to PO Mg due to gastrointestinal (GI) symptoms such as diarrhea[3,6]. The recommended doses for PO Mg supplementation ranges from 240-1000 mg elemental Mg/day in divided doses until 1 to 2 days after the serum Mg returns to normal to ensure repletion of stores[6]. As all Mg salts have poor bioavailability, some practitioners prefer higher supplementation to avoid poor efficacy and ensure sufficient absorption. In contrast, sudden increases in serum Mg levels increases Mg excretion from the kidneys, which supports the approach of using lower doses of sustained release (SR) formulations. Considering the various approaches to dosing Mg, specific dosing information for each formulation can be found in the product monographs or Lexi-Comp[7,8].

Treatment Summary[1-8]:

Severity	Typical Levels	Treatment 1 mmol Mg= 2 mEq Mg = 24 mg of elemental Mg	Notes and Monitoring Parameters
Mild to Moderate and Asymptomatic	0.5-0.75 mmol/L	Increase nutritional intake **PO Supplementation:** 240-1000 mg elemental Mg a day for 1-2 days after Mg normalizes (lower end of dose range for SR formulations) **IV Supplementation:** Mg sulfate 1-2 g over 1-2 hours for 1-2 days after Mg normalizes	▯ Adverse effects to monitor: diarrhea, nausea/vomiting. ▯ PO magnesium has poorer tolerance ▯ Treat associated hypokalemia and hypocalcemia ▯ Maximum Mg sulfate IV infusion rate: 2 g/hr (faster supplementation causes increased renal Mg excretion) ▯ Rapid Mg sulfate infusions should have continuous cardiac monitoring ▯ For renal dysfunction, use 50% of the recommended doses ▯ Monitor Mg levels daily until hypomagnesemia resolves
Severe and Asymptomatic	<0.5 mmol/L	**PO Supplementation:** 240-1000 mg elemental Mg a day for 1-2 days after Mg normalizes **IV Supplementation:** Mg sulfate 4-8 g/day over 3-5 days	
Severe and Symptomatic	<0.5 mmol/L	**IV Supplementation** Hemodynamically unstable: Mg sulfate 1-2 g IV over 2 to 15 minutes. Hemodynamically stable: Mg sulfate 1-2 g over 5 minutes to an hour. Repletion: Magnesium sulfate 4-8 g IV over 24 hours for 3-5 days	

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Canadian Society of Hospital Pharmacists
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Advanced (Year 2) Residency in Cardiology

Contact:
Sheri Koshman (coordinator)
sheri.koshman@ualberta.ca
780-407-1888

Program aims:

- With a focus in cardiovascular care, to enable residents to practice to full scope, at an advanced level, in the province of Alberta
- Develop skills in teaching, leadership and research
- Skills and knowledge gained as part of this residency will be transferable to other practice environments.

Start date: July 4, 2022
Application deadline: January 31, 2022

For more detailed info:
https://www.cshp.ca/alberta-health-services-year-2-program-cardiology-accreditation-pending-status

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