

INPHARMATION UPDATE

Canadian Society of
Hospital Pharmacists
Alberta Branch



Société canadienne des
pharmaciens d'hôpitaux



May 2022

Issue 55

Inside this issue:

- 2 News from CSHP National
- 3 Together: Canada's Hospital Pharmacy Conference 2022 Recap
- 5 Residency Project Presentation Teaser
- 7 CSHP-AB Research Committee: A Novel APPROACH to HIV Testing
- 10 CSHP Distinguished Service Award Winner
- 11 Call for CSHP-AB Branch Award Nominations
- 13 Why Renew Your CSHP Membership?
- 14 Call for Volunteers: 2022-2023 CSHP-AB Council and Committee Positions
- 15 CSHP-AB Student Column
- 16 Short & Snappy Clinical Overviews



Catch a sneak peek of
the Keynote Speaker
for Together 2023!

Follow us on Facebook, Twitter, and Instagram!



News from CSHP National

Mary Gunther, CSHP Alberta Branch Delegate

CSHP Executive for 2021-2022

As previously reported, until the Annual General Meeting in Fall 2022, the following individuals form the CSHP Executive for the 2021-2022 year:

- President-Elect – Sean Spina (BC)
- President – Zack Dumont (SK)
- Past-President – Tania Mysak (AB)
- Treasurer – Megan Riordon (BC)
- CEO – Jody Ciufo (ON)

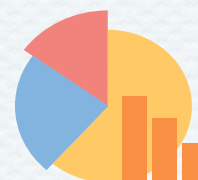


At the April 2022 Mid-Term Board meeting, interviews and voting were completed for the incoming President-Elect, to be sworn in at the CSHP Fall Board meeting in October 2022.

The Board also approved terms of reference for both the CSHP Board and the Executive to better delineate the role of each group in CSHP activities and governance, in relation to both one another and to the National staff and CEO.

CSHP Financial Position

Despite the challenges and changes COVID has created for the organization, CSHP's financial position is improving. Federal wage subsidies for non-profits, improved revenue from publications, and higher than anticipated revenue from the Together conference have resulted in a forecasted deficit of approximately \$31,000, which is much less than our projected deficit of greater than \$150,000 in this phase of our Strategy Towards Sustainability. We continue to move forward with initiatives to get CSHP back on to stable financial footing, and are confident we remain on the right path to attain this in the next few years.



Update from National Committees

CSHP's **Pharmacy Practice Vision Committee**, co-chaired by Alberta's own Jenny Shiu and former Albertan Arden Barry, is finalizing the development of a Discharge Medication Management Toolkit, which will be available to members to support them as they provide patient care.



The **National Education Development Committee** is planning on offering the Pharmacy Residency Application Roadmap Program again this year, as an optional paid program to support individuals preparing to go through the residency application process. The committee is also preparing to launch "Hospital Pharmacy 101," a series of modules that are intended to teach core concepts and skills to those new to hospital pharmacy practice. Planned modules include Hospital Pharmacy Administration and Management, Antimicrobials in Hospital Practice, Therapeutic Drug Monitoring, Nutrition Support, Interpreting and Managing Electrolytes, Intravenous Lines and Pumps, Basics of Aseptic Compounding, and Perioperative Management.

Together: Canada's Hospital Pharmacy Conference 2022 Recap

For the second time, over 900 attendees joined us for CSHP's second virtual conference, held over 2 weekends from Jan 29 - Feb 5, 2022. Once more, the Professional Practice Conference, Banff Seminar, and Harrison Pharmacy Management Seminar combined to provide what some have called the gold standard for virtual conferences.



The Banff Seminar Planning Committee hosted the events on Saturday Feb 5th with a theme of "Diversity, Bridging the Gap Together", which included keynote speaker Dr. James Makokis who shared insights on inequities and how to become allies in providing care to First Nations patients. It also offered clinical presentations, personal and professional sessions on social determinants of health, lessons in providing care to HIV patients, opioid use disorder in acute care, inter-professional collaboration between technicians and nursing, a workshop on impact of inclusion on clinical trial results and a presentation on ethics, equity and anti-racism in health systems. As is tradition, the final session was a live panel on Inclusion in Medicine. Saturday ended with a trivia social night over Zoom for attendees to exercise their brains in a different way.

Through 47 educational sessions and 45 poster presentations, an unprecedented 24+ CEUs were available to this year's attendees! New to 2022, CEUs available for video on demand sessions contributed to

(Continued on the next page...)

Together: Canada's Hospital Pharmacy Conference 2022 Recap

significant increases to number of attendees at each session. Other noteworthy offerings included keynotes from Dr. Jen Gunter on the mis/dis-information crisis, Kristin Flanary on co-survivor advocacy, Dr. Julia Moore on the science of building trust and the memorable career defining experiences of this year's Distinguished Service Award winner Glen Pearson, an Alberta practitioner for the second year in a row.

Gamification, poster presentations, resident networking and exhibit halls were again great successes in enhancing participant engagement in a virtual platform. Indeed, survey responses to Together 2022 showed 91% of participants had either a very good or excellent conference experience!

Thank you to the planning committee, CSHP National staff, sponsors, speakers, and attendees for their part in making this year's conference a triumph! We cannot wait to see everyone in person in Banff from March 9-11, 2023 with an exciting physical-virtual hybrid format and keynote delivered by Dr. Will Flanary (AKA Dr. Glaucomflecken)!

Alice Chan

Chair, 2022 Banff Seminar
Planning Committee



Dr. Will Flanary
(Dr. Glaucomflecken)
- Keynote Speaker for Together 2023 -

Residency Project Presentation Teaser

Join us on Monday June 27, 2022

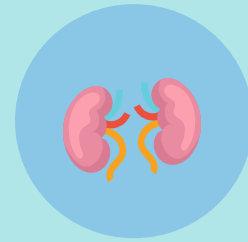
Watch your email for more details closer to date!

Infectious Disease

Pneumocystis Jirovecii Pneumonia Prophylaxis in Patients at the Alberta Kidney Care South Glomerulonephritis Clinic Receiving Rituximab (NEU-NEPH-TUX)

Japheth Bool

Preceptors: Carlee Thorsen, Jenny Wichart



Proportion of patients receiving ≤ 7 days versus > 7 days of effective antimicrobial therapy for gram-negative bacteremia at the University of Alberta Hospital

Sarah Drost

Preceptor: Cecilia Lau

Antifungal Prescribing in the ICU

Teagan Zeggil

Preceptors: Diana Callfas, Deana Sabuda



Pharmacy Practice

Pharmacist Prescribing at Inpatient Discharge in Alberta

Reem Almawed

Preceptors: Pawandeep Gill, Theresa Charrois



CAPLET - Calgary Acute Care Pharmacists: Changes in Prescribing and Lab Ordering Over Time

Elizer Erpilla

Preceptors: Cheryl Hill, Alexandra Charlton

Physicians' Perception of Pharmacists Prescribing Opioids and Controlled Substances

Heather Tieu

Preceptors: Heather Derrick, Michelle MacDonald



Residency Project Presentation Teaser

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Watch your email for more details closer to date!

Cardiology

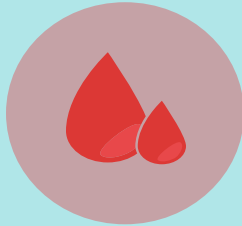
Pharmacist-Led Support for Rural Acute Coronary Syndrome Program The PLURAL-ACS Pilot Program

Hazal Babadagli
Preceptors: Sheri Koshman, Glen Pearson



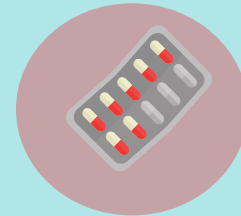
Platelet inhibition post-CABG: Is it time to aDAPT management?

Kristen Blundell
Preceptors: Mohamed Omar, Cheryl Harten



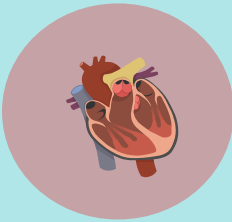
Retrospective Review of Anticoagulant Prescribing Patterns in Postoperative Atrial Fibrillation

Kaitlyn Krahn
Preceptors: Emily Cowley, Sheri Koshman



Direct Oral Anticoagulants in Early Post-Operative Non-Mechanical Heart Valve Surgery Patients with Atrial Fibrillation

Nils Moser
Preceptors: Cheryl Harten, Mohamed Omar



and Other Exciting Topics!

DECODE IRON: DEscribing and COmparing Patient Factors Associated with Parenteral Iron Use Before and After the Implementation of an OrDER Set for Parenteral IRON

Cameron Black
Preceptors: Thomas Brownlee, Darren Pasay



Corticosteroid Prophylaxis in Rituximab Treated Post-Transplant Lymphoproliferative Disorder Patients

Lisa Zhang
Preceptors: Nikki Blosser, Kyla Bailey



Oral Magnesium Replacement Protocol for Platinum Induced Hypomagnesemia in Gynecological Cancer

Melissa Chan
Preceptors: Frances Folkman, Jolene Guenter



CSHP-AB Research Committee presents...

A Novel APPROACH to HIV Testing

(and Q&A with Dr. Christine Hughes)

CSHP Alberta Branch members are involved with a wide range of innovative research, including pharmacy program initiatives, within their own clinical practice and at a systems-based level. We are happy to showcase the research of CSHP member, Dr. Christine Hughes, the Alberta lead for the APPROACH and APPROACH 2.0 project. This work features pharmacist-led screening interventions for sexually transmitted and blood-borne infections (STBBI), and is being carried out by a multidisciplinary team of collaborators from across the country.

The original APPROACH pilot study in 2017 was a 6-month pharmacist-led HIV point-of-care testing (POCT) project implemented in Alberta and Newfoundland. Among the study's key evaluation measures included patient-specific outcomes, administered through satisfaction questionnaires. The vast majority of patients who participated were not only satisfied with the testing program but believed that pharmacists should be routinely offering accessible testing. Pharmacists who participated in the study also had a favourable evaluation of the service.

A scaled-up version of the pilot study, dubbed APPROACH 2.0, has been in the planning phase for the past year. This follow-up study is set to launch across three provinces (Newfoundland, Nova Scotia and Alberta) later this fall, with the goal of providing pharmacy-based POCT testing and Dried Blood Spot (DBS) testing for HIV, hepatitis C and syphilis.

Learn more about the APPROACH 2.0 study and the study teams' work below.



A Novel APPROACH to HIV Testing

Q&A with Dr. Christine Hughes



Dr. Christine Hughes is a Professor and Interim Dean of the Faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta.

1. What are some of the major gaps in care that you've noticed regarding HIV, HCV and STI testing and prevention?

For HIV and HCV, there is a significant percentage of people living with HIV or HCV who do not know it (13% for HIV and up to ~ 40% for HCV are undiagnosed). Similarly, rates of STI in Canada, particularly syphilis, have significantly increased in recent years in most provinces. In order to reverse these trends, improved access to testing, prevention, and treatment is needed especially for populations that may be disproportionately impacted and who do not have equitable access to care. Knowledge of one's status with respect to HIV and HCV enables people to reduce risky behaviours. We also know that treatment of HIV, HCV, and syphilis (or other STI) plays a significant role in preventing transmission to others, as do testing programs.

2. What is the current role of the pharmacist in screening patients and how does Approach 2.0 seek to build upon this role?

Currently most people are screened for STBBI by their family doctor, at a sexual health clinic or in acute settings. However, not everyone has a family doctor and some people do not feel comfortable discussing their lifestyle with their physician. With recent availability of technology that enables POCT for HIV and HCV, pharmacists are able to offer screening in the community. In Alberta, some pharmacists have started screening people for HCV with POCT (and prescribing HCV treatment). Pharmacists are also screening for HIV through POCT in some provinces. For the original APPROACH study, we found that testing in pharmacies was feasible and highly acceptable to individuals who were tested. We also found that we were able to reach individuals who were at a higher risk for HIV. For APPROACH 2.0, we are expanding the number of locations and provinces offering testing. We will also be expanding POCT for HCV and syphilis (in addition to HIV) because of overlapping routes of transmission with HIV but also because of trends we are seeing across Canada.

3. How will you be addressing social determinants of health and equitable access to this testing service?

Social determinants of health have a significant impact on equitable access to testing, treatment, as well as access to education and tools for prevention. To help address some of these challenges, we will be recruiting pharmacy sites that have limited access to testing as well as pharmacies that work closely with higher risk populations (e.g. individuals that have experience with injection drug use). We have included peer research partners on our research team to help inform the development of an inclusive testing program as well as ways to promote the availability of this service. We will also be working closely with community-based organizations that provide support for people that may be disproportionately affected by STBBI. Because stigma can be a barrier to accessing care, we will be including training for pharmacists on providing more inclusive care for STBBI.

*A Novel APPROACH to HIV
Testing*

Q&A with
**Dr. Christine
Hughes**

(continued)



Dr. Christine Hughes is a Professor and Interim Dean of the Faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta.

4. What do you hope pharmacists will get out of this study and how might pharmacists integrate testing into their practice in the future?

Our goal for the APPROACH 2.0 is to inform scale-up and sustainability efforts for pharmacy-based testing for HIV, HCV, and other STBBI. For the pharmacists involved in this study, we hope the training opportunities provided and partnerships with the research team will build confidence and capacity to offer testing after the study ends. We hope this study will provide evidence of the impact pharmacists can have in terms of expanding public health services in the community and providing equitable and cost-effective access to STBBI testing services.

5. How might this study affect hospital pharmacists providing collaborative care between hospital and community settings?

In many cases, hospitalization or emergency room visits provide opportunities for STBBI testing. However, individuals at higher risk of STBBI should be tested more frequently. These individuals should also receive counselling to support making informed choices and referrals for linkage to care. Awareness of testing options and services in the community and referral to community pharmacies (or other sites) providing these services are ways hospital pharmacists can provide collaborative care.

6. What role can hospital pharmacists play in screening for higher risk patients and supporting individuals who may have questions about their risks?

As described above, hospital pharmacists can proactively identify people that may be at a higher risk of STBBI, especially those that have not been recently tested. It is important for all health care professionals to know how these infections are transmitted, treatments available as well as be comfortable talking about STBBI in a non-judgmental way in order to reduce stigma.

7. What advice would you have for pharmacists wanting to create their own large-scale research project?

Depending on the area and how much evidence is available, it is often helpful to start with smaller-scale projects to test feasibility and acceptability. This may also lead to a greater likelihood of getting research funding. The best advice I have is to create partnerships with others when doing large-scale research. The best research teams have a diversity of expertise, experiences, and perspectives. It is so gratifying to work and learn from others when doing research. It is particularly gratifying working with peer research partners.

C E L E B R A T I N G

CSHP Distinguished Service Award



Glen Pearson

BSc, BScPhm, PharmD,
FCSHP, FCCS
Edmonton, Alberta

*Award sponsored by
Pharmascience Inc.*

Dr. Glen Pearson is a trailblazing educator, researcher, and clinician. In addition to establishing clinical and research fellowship training programs in ambulatory cardiovascular practice and multi-organ transplant at the University of Alberta, Glen developed the first Canadian advanced specialty PGY2-residency program in Cardiology. Presently, he is a tenured Professor of Medicine in the Department of Medicine, Division of Cardiology at the University of Alberta.

Glen is a committed and prolific researcher whose interests lie in practice-based research. Over the course of his long career, he has published over 100 peer-reviewed manuscripts, over 30 review papers, over 80 abstracts, and over 25 books chapters. Glen is passionate about advancing research on a broad scale, leading him to spend 8 years as the Associate Chair of the Health Research Ethics Board. He currently serves as Chair of the Trainee Research Access Committee in the Faculty of Medicine and Dentistry.

Never wavering in his commitment to exceptional patient care, Glen serves as the Medical Co-Director of the Cardiac Transplant Clinic at the Mazankowski Alberta Heart Institute. He has been a member of the Canadian CCS Dyslipidemia Guidelines primary panel since 2009, having served as both Vice-Chair and Co-Chair.

Glen is an avid proponent of the role of advanced practice pharmacists in improving the delivery of collaborative health services and improving patient outcomes. He has been recognized for his contributions to achieving these goals through numerous awards, including the M.J. Houston Pharmacist of the Year Award and the Alberta Pharmacy Centennial Award of Distinction. Glen received a special recognition for becoming one of the first 15 pharmacists in Canada to be granted additional prescribing authorization. He has been conferred recognition with Fellowship status in both the Canadian Cardiovascular Society and CSHP.

Congratulations Dr. Glen Pearson!

AWARDS, AWARDS, AWARDS!

Dear Alberta Branch CSHP Members,

On behalf of the Awards Committee, I would like to issue the call for nominations for the 2022 Alberta Branch Awards Program. This is an exciting time of year where we are able to recognize the excellence demonstrated by our membership through continued education, mentorship and outstanding patient care. This is an opportunity for you, our members, to recognize excellence in your colleagues. Please take a moment to review the awards offered, and consider nominating a colleague. **This year's deadline for submissions is July 22nd, 2022.**

One of the highest honours in a professional career is to have your efforts recognized by your peers. I invite you to consider nominating one of the many deserving Alberta Branch CSHP members for the 2022 Awards Program. For any questions, please feel free to contact Alexandra McGrath (alexandra.mcgrath@ahs.ca).

Sincerely,
Alexandra McGrath
CSHP AB Awards Committee Chair



Mentorship Award

Deadline: July 22, 2022

This award was developed to recognize those pharmacists who are a positive influence on students, residents and peers. Through teaching, creating learning or career opportunities for others, this is the person who is looked upon for support and guidance. We all had a person who welcomed us, inspired us and motivated us and who helped to shape the clinicians we are today. Nominate that person today! See the following link for full award criteria:

[Click HERE for full Award criteria](#)

AWARDS, AWARDS, AWARDS!

Practitioner Award

Deadline: July 22, 2022

This award is designed to recognize the significant contributions to pharmacy practice. Is there a pharmacist who goes above and beyond their required work to provide exceptional service to their patients or profession? Is there someone who is considered a leader amongst their peers and health care team? What about someone who is always engaged in the latest development in health care? This is your opportunity to give this person the recognition they deserve!

[Click HERE for full Award criteria](#)



Recognition Program

Deadline: July 22, 2022

The Recognition Program gives us an opportunity to formally celebrate the efforts and attributes of our fellow pharmacists and pharmacy technicians. The theme of the award changes each year to appreciate different qualities in our peers.

This year's theme is:

***Pandemic practice and beyond –
enhancing the lives & morale of peers &
patients***

We have all experienced challenges as frontline healthcare workers during the pandemic; please recognize the efforts of colleagues who have gone above and beyond to help raise spirits and boost workplace morale. Nominees will be recognized with a certificate at the Branch AGM and there is no limit to the number of recipients. Please note if a group of 10 or more pharmacists/pharmacy technicians is nominated for a single recognition, only a group certificate will be presented.

[Click HERE for full Award criteria](#)

Donna Pipa Meritorious Service Award

Deadline: July 22, 2022

This award is offered to a CSHP AB Branch Member to recognize their exceptional contributions to the CSHP Alberta Branch. Nominate the person you have looked up to, worked alongside with or whose hard work you benefit from! Winner receives \$1,000.00 award donated by Fresenius Kabi.

[Click HERE for full Award criteria](#)



Why Renew Your CSHP Membership?

It's time for [membership renewal](#)!

Continue to take advantage of the many benefits of being a CSHP member, including:



Networking

Access to local and provincial networking events and conferences, which have temporarily adapted to online formats to ensure accessibility while public health restrictions are in place



Education

Access to multiple online and webinar continuing education opportunities provided by AB branch and CSHP National



Grants

Access to tools to support development of your pharmacy practice research skills, as well as the Research Dissemination Grant to provide funding for poster presentations at conferences and publication of manuscripts



Awards

Eligibility for awards that recognize your contributions to hospital pharmacy practice



PSNs

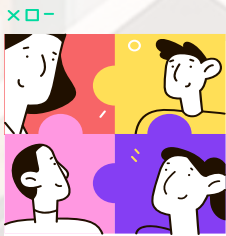
Access to Pharmacy Specialty Networks (PSNs), which connect pharmacists from across Canada to share expertise, ask questions, and enhance your patient-centred pharmacy practice



Insurance

Access to discounted Professional Liability Insurance

Call for Volunteers: 2022-2023 CSHP AB Council and Committee Positions



Want to give back to your profession?
 Interested in building on your skills and learning?
 Looking to create connections and work with a great group of people?
Consider volunteering for the CSHP Alberta Branch!
 Are you already volunteering with us and looking for the next step?
 Are you looking to develop your leadership skills?

Then consider taking on a council role position as a chairperson or executive member!

We are now accepting applications for volunteers on all of our various committees and on our Alberta Branch Council. The positions will start in October 2022. Each committee and council position offers something different, so take a look [here](#) for their descriptions!

Ready to submit your name?

For council member positions: [Click here to fill out the Council Volunteer Form](#)

For committee member positions: [Click here to fill out the Committee Volunteer Form](#)

Please submit your volunteer form by June 30, 2022.

If you would like to learn more about the committees and positions, or have questions about the nomination process, please feel free to contact me directly at

Lesley.beique@ahs.ca

Looking forward to seeing your names on that form!

Lesley Beique, Past-President, Internal Portfolio, CSHP Alberta Branch

Council Positions

AWARDS COMMITTEE VICE-CHAIR

COMMUNICATIONS COMMITTEE VICE-CHAIR

EDUCATION COMMITTEE VICE-CHAIR

MEMBERSHIP COMMITTEE VICE-CHAIR

PAM COMMITTEE VICE-CHAIR

RESEARCH COMMITTEE VICE-CHAIR

SECRETARY

TREASURER

Committee Member Positions

AWARDS COMMITTEE

COMMUNICATIONS COMMITTEE

EDUCATIONAL SERVICES COMMITTEE

MEMBERSHIP COMMITTEE

PHARMACY APPRECIATION MONTH COMMITTEE

RESEARCH COMMITTEE

CSHP AB Student Column

Despite the challenges brought on by the pandemic, the CSHP AB Student Committee is proud to successfully wrap up another academic year. We started the winter semester with the **Summer Student Job Panel**, where attendees got to hear from upper-year students about their experiences working for Alberta Health Services and Covenant Health. This year, students were presented with various opportunities to pursue summer employment in a hospital setting, with new positions available in Lloydminster, Red Deer, and Calgary.

Pharmacy Appreciation Month (PAM) welcomed an array of educational and networking events. On March 2nd, the Faculty hosted the first in-person event of 2022 to help kick off PAM! Stickers, pins, and other swag were distributed, while allowing students to mingle and take photos with the CSHP AB Student Committee photo booth. The fun continued with the **Hospital Pharmacy Career Night**, which provided an opportunity for career exploration and professional development by connecting students with practicing pharmacists from a variety of specialties. Once again, the CSHP AB Student Committee partnered up with the Canadian Association of Pharmacy Students and Interns (CAPSI) to host the **Evidence Based Medicine Competition**, a two-hour long contest that challenges students to put their critical appraisal skills to the test! Congratulations to Rami Jaber, John Choi, Nathan Brandwein, and Michelle Truong for their fantastic effort! PAM wrapped up with the second annual **Interdisciplinary Team Talk**, which showcased how Nyanza Austin-Bishop and her interdisciplinary team at the East Calgary Family Care Clinic achieve patient-centered care. Lastly, an online format allowed for the residency coordinators from all the Alberta Pharmacy Practice Residency Programs to attend the **Hospital Residency Information Session**. Additionally, the event invite was extended to all pharmacy schools so that students from across the country could be in attendance. At this session, students were provided with general information about residency, application tips, and a chance to ask the coordinators questions.

To continue engagement throughout the summer, we are planning to host a **Resident Night** in May, where current residents will share

their residency experiences with the student body. Looking ahead, the CSHP AB Student Committee is excited to welcome the new Student Representative, Karanvir Deol, who will be leading the new committee in the fall. We are confident that Karanvir will be an innovative leader to ensure the success of the CSHP AB Student Committee as the UofA transitions back to a fully in-person format.

The CSHP AB Student Committee would like to thank Cathy Biggs for her mentorship throughout this year. Her support was present from the very beginning when she participated as the guest speaker at the Student Symposium in the fall semester. Her ongoing guidance was showcased as she helped match students to mentors for the Host Program, and in finding guest speakers for various committee events. We would also like to thank all the pharmacists and additional speakers that participated in our events and helped make this year so memorable.

Lastly, congratulations to the Class of 2022! We wish you the best on the PEBCs and we can't wait to see what you accomplish as practicing pharmacists!



Have a great summer!

Sera Sajeev

CSHP AB Communications Committee
Student Chair

Carolina Ghio

CSHP AB Student Representative

short & snappy

-A CLINICAL OVERVIEW

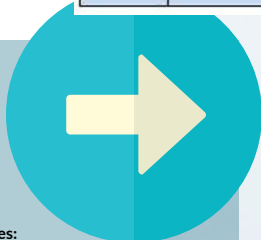
Pre-Treatment with DAPT in NSTEMI-ACS

Heather Tieu, PharmD
Pharmacy Resident, Calgary Zone

Pre-treatment defines a strategy according to which antiplatelet drugs, usually a P2Y12 inhibitor (clopidogrel, ticagrelor, prasugrel) are given before coronary angiography and when the coronary anatomy is unknown (1). Previous guidelines have strongly recommended pre-treatment with a P2Y12 inhibitor (2,3), however, recent clinical trial evidence directly examining this practice has raised doubts about its effectiveness, and the 2020 ESC guidelines reflect this shift in evidence.

Guidelines		
2020 ESC Guidelines for the management of NSTEMI-ACS (1)	Early invasive management	It is not recommended to administer routine pre-treatment with a P2Y12 inhibitor in NSTEMI-ACS (unknown coronary anatomy).
	Delayed invasive management	Pre-treatment with a P2Y12 inhibitor may be considered in selected cases and according to the bleeding risk of the patient.
2014 AHA/ACC Guidelines (7) and 2018 CCS Guidelines (8)		There is no clear recommendation for DAPT before knowing the coronary anatomy.

Summary of RCTs of Pretreatment in Early Invasive Strategy with P2Y12 Inhibitors in NSTEMI-ACS						
Study	ARMYDA-5 (2010) (4)		ACCOAST (2013) (5)		DUBIUS (2020) (6)	
Trial Design	Randomized, open label		Randomized, double-blind, multicenter		Double randomized, open label, multicenter, superiority-terminated early (futility)	
N	409		4033		1432	
Comparison	Clopidogrel LD at PCI	Clopidogrel 4-8h before PCI	Prasugrel at PCI	Prasugrel before angio + at PCI	Ticagrelor or prasugrel at PCI	Ticagrelor before angio
Follow Up	30 days		7 days, 30 days		30 days	
Results	Adverse Cardiac Events		7d: 9.8% 30d: 10.8%		2.9%	
	P=0.72, NS OR 0.84 (95% CI: 0.44-1.62)		7d: P=0.81, NS HR 1.02 (95% CI: 0.84-1.25) 30d: P=0.98, NS HR 0.997 (95% CI 0.83-1.20)		P=NS ARR -0.46 (95% CI: -2.87-1.89)	
Results	Bleeding		7d: 1.4% 30d: 1.5%		1.6%	
	P=0.42, NS		7d: P=0.006, SS HR 1.90 (95% CI 1.19-3.02) 30d: P = 0.002, SS HR 1.97 (95% CI 1.26-3.08)		P=NS ARR -0.30 (95% CI: -2.24-1.57)	



BOTTOM LINE:

Observational data (N=64,857) on pre-treatment with ticagrelor, prasugrel, and clopidogrel reported that P2Y12 receptor inhibitor pre-treatment in NSTEMI-ACS patients was **not associated with improved ischaemic outcomes**, but instead, with a **significantly increased risk of bleeding events** (9).

References:

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short & snappy

-A CLINICAL OVERVIEW

Heart Failure Medications in the Management of Anthracycline-Induced Left Ventricular Dysfunction

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Background:

Anthracyclines, such as idarubicin, are used in cancer treatment and are associated with causing left ventricular (LV) dysfunction through many proposed mechanisms including: interaction with topoisomerase-II, DNA intercalation and reactive oxygen species formation. [1, 2] This is a cumulative exposure adverse drug reaction. [1, 2]

Clinical Question:

In adult patients with anthracycline-induced LV dysfunction, do medications used to treat heart failure with reduced ejection fraction (HFrEF) improve left ventricular ejection fraction?

Review of Relevant Literature:

Study Author (Study Type, Year)	Sample Size	Intervention	Mean follow-up	Primary Outcome Result
Cardinale et al. (Prospective non-randomized, non-placebo controlled trial, 2010) [3]	N = 201	Enalapril titrated to 20 mg/day or maximum tolerated dose with or without carvedilol.	36 months (12-96)	85 patients (42%) normalized their LVEF and were considered responders 26 patients (13%) were partial responders 90 patients (45%) were non-responders
Kamphuis et al. (Prospective, non-randomized, non-placebo controlled, 2020) [4]	N = 92	ACE/ARB or Beta blocker or MRA or Combination of any of above	25 months (9.6-37.2)	25 patients (37%) had normalized LVEF* 10 patients (15%) had partial LVEF recovery* 32 patients (48%) were non-responders

* Only 67 patients could be evaluated for reversibility of LV dysfunction with echocardiography.

Critical Appraisal:

Management of HFrEF usually requires multiple agents; however, in the study completed by Kamphuis et al., only eight patients received triple therapy. [4]

CASE:

66M with acute myeloid leukemia (AML) admitted for re-induction chemotherapy.

The patient's disease is high risk, which makes them a candidate for allogenic stem cell transplant once a response to induction chemotherapy is achieved.

This patient had previous induction therapy failure with '3+7', which includes cytarabine and idarubicin.

As part of the pre-transplant work up, an echocardiogram was completed which demonstrates an LVEF of 35-40% from a previous LVEF of 55-60% two months prior.

Bottom line:

In the absence of clinical practice guidelines, management of anthracycline-induced LV dysfunction is akin to the management of HF. Moreover, patients that are most likely to benefit from HFrEF medications are those that have been identified within one year of anthracycline exposure.

Case Resolution:

Patient initiated on valsartan and metoprolol with a plan to up-titrate and reassess LV function.

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