HOSPITAL PHARMACY IN ONTARIO

SPRING ISSUE 2016

PRESIDENTIAL ADDRESS

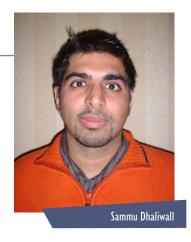
TO THE 67TH ANNUAL GENERAL MEETING OF THE ONTARIO BRANCH, CANADIAN SOCIETY OF HOSPITAL PHARMACISTS

ood afternoon Council, Colleagues,
Society Members. It's an honour
to address you as your incoming
President.

So I had the opportunity to represent the CSHP ON Branch at the White Coat Ceremony last year with the 2015 Incoming class at University of Waterloo. As I stood at the podium congratulating the class, I noticed the excitement in the eyes of future practitioners - many of whom will become future hospital pharmacist colleagues. These future pharmacist colleagues will be able to work in collaborative hospital environments fostering their clinical knowledge to enhance patient health outcomes. Now these collaborative hospital environments in which we practice in Ontario today, have not magically appeared. Instead, it is a culmination of the past presidents of the past 65 years and their Council who have volunteered countless years of their careers to advocate and allow hospital pharmacists today to practice as valuable clinicians within the health care team. I was humbled just over a year ago when I was encouraged to consider this position

by then President, Dawn Jennings. And Dawn was Dawn. She was honest and persuasive. Dawn didn't hide the fact that the position would be challenging but it would also be rewarding and provide an opportunity to make a difference. Dawn stressed how I would be able to help steer the profession when another significant change came forward. This significant change has come forward in the form of the Oversight of Hospital Pharmacies by the Ontario College of Pharmacists. Likely during the next year, the government will proclaim Bill 21. I personally look forward to this new age of hospital pharmacy practice as we have a much stronger ally in the OCP Hospital Standards to continue to advance pharmacy practice in both urban and rural communities and to enhance pharmacy models to help further improve patient safety.

Another significant change that has occurred is that CSHP National has approved their new strategic plan for 2015 – 2018. As the Vision Liaison presidential officer, I will engage and work with Council to develop our Branch strategic plan. We will align our strategic goals with National's and hopefully continue



with advocacy for Pharmacists' practice to support clinical pharmacists who work in other collaborative health care settings such as Family Health Teams and Long Term Health Care and continue to grow our member and supporter base. Without members and supporters there wouldn't be a thriving volunteer base to support and achieve the goals and objectives of the society. Your involvement at all levels of the society is needed and is priceless. I encourage each one of you to approach myself or any Council member to learn how you can be a part of the wave. So I look forward to the upcoming year working alongside an amazing Council and serving you and our profession.

Respectfully submitted,

Sammu DhaliwallCSHP Ontario Branch, President

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OUTGOING PRESIDENTIAL ADDRESS

TO THE 67TH ANNUAL GENERAL MEETING OF THE ONTARIO BRANCH, CANADIAN SOCIETY OF HOSPITAL PHARMACISTS



won't be simply listing the Ontario
Branch happenings of the last year
— many of you sit on Executive and
Council and have heard the reports.
Quick summary: I found myself reaching
bff status with Marshall Moleschi, Judy
Chong and the assessment team at OCP.
You know you're visiting Huron Street
too many times when your phone and
computer automatically connect to their
wireless network, and even more startling
is when you realize you're the one in the
group that knows how to use the coffee
maker in Council Chambers.

As well as working very closely with OCP, we continue active partnership with Ontario Pharmacists Association to bring a jointly presented, accredited course on aseptic technique to members and others across the province. This work will continue into this year at least, and I'm excited to see what the final product delivers.

The CSHP National Board has approved the new strategic plan - Branch will be working to align our own with

those overarching objectives. And we look forward to engaging in the CARE initiative – the successor to CSHP 2015.

I do want to thank all of the individuals – volunteers with real lives and real day jobs – for the extraordinary efforts to support all of the completed, ongoing and upcoming work of the Branch. I will not enumerate all of these items and individuals – in doing so, I would inevitably omit someone, throwing myself back into either 'cheat' or 'thief' category above. One line to summarize: without the efforts of all, we do not progress. Thank you.

Outgoing addresses will usually shift to nostalgic and whimsical at this point. I think that's likely because us old guys fear death and irrelevancy. I'm likely not going to do that. I am very proud of the last 12 months, but that's done now. We can look back and learn, honor and consider how we use that to shape the future. So, I guess I am quoting (or more correctly paraphrasing) my grandma again. She usually put it as "the past is

dead, Trent, move on". I hope I wasn't quite that harsh about it.

So the past is dead, the future is a prediction, and we are left with the now: Now is when we act, when we do. This is the time for taking our learnings, redoubling on our efforts, and acting so that we may achieve. My time is not done. I will continue to do, to mentor, to learn. I pass this gavel to Sammu and offer my service to him and the new executive. I do get the envied post of 'grumpy old man' for a year. I am really looking forward to that.

For a witty finish, I was either going to tell an inspiring story about waiting in traffic for the blade of a wind turbine loaded on a truck to pass, or draw a really funny graph to illustrate the analysis of pharmacists' ability vs their inherent instability, and I could do that for anyone with a non-disclosure agreement and IO minutes to spare, but perhaps I won't record it in the next HPO. I decided instead to expose my age and my geeky nature, and to



PRESIDENTIAL ADDRESS ... continued

borrow from the most widely read book in the galaxy: on its cover are two words, printed in large friendly letters: DON'T PANIC. Perhaps one of the most insightful phrases that I've ever run across, certainly one I personally use as a mantra on most days, and one that keeps us moving forward when we sometimes feel crushed between the weight of the past and the expanse of the future. For

those of you that missed the reference, The Hitchikers' Guide to the Galaxy is available in e-book format. Its likely old enough that someone's giving it away.

Thank you. It has truly been an honor serving the Branch in the role of president. Particular thanks to the education committee for production of

yet another excellent day, and thanks in advance to the Awards Committee for what will be an amazing program this evening.

Respectfully submitted, **Trent Fookes** CSHP Ontario Branch Past President



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COUNCIL: CSHP ONTARIO BRANCH, 2015-2016



Sammu Dhaliwall President



Trent Fookes Past President



Ryan Itterman* President-Elect



Christine Truong Treasurer



Christina Adams Delegate - Senior



Dawn Jennings** Delegate - Junior



Mayce Al-Sukhni Chapter Chair: Metro Toronto



Jonathan Chiu* Chapter Chair: Lake Ontario West



Vivian Lee Chapter Chair: Lake Ontario East



Rachel Fu Chapter Co-Chair: Southwestern



Tracy Gallina Chapter Chair: Golden Horseshoe



Amber-Lee Carriere* Chapter Chair: Georgian Bay Simcoe



Gavin Forsyth Chapter Co-Chair: Northern



Mathew DeMarco Chapter Co-Chair: Northern



Katie Hollis Chapter Co-Chair: Ottawa Valley



Jessica Robinson* Chapter Co-Chair: Ottawa Valley



Megan Riordon Chapter Chair: Quinte-St.Lawrence



Vacant Chapter Chair: Northwestern



Cathy Burger Chair: Awards Committee



Ming Lee Chair: Communication Committee

COUNCIL: CSHP ONTARIO BRANCH, 2015-2016



Olivia Ng Co-Chair: Education Committee



Vivian Law Co-Chair: Education Committee



Nancy Giovinazzo Chair: Membership Committee



Christine Ling* OPA Liaison



Ming Lee ISMP Advisory Board Liaison



Jam Bravo* **OPRA** Liaison



Hatf Sohail Student Liaison - University of Toronto



Michael Hum Student Liaison - University of Waterloo



Allan Mills Faculty Council Liaison - University of Toronto



Feng Chang Faculty Council Liaison - University of Waterloo

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- * Denotes new Council member.
- ** Denotes returning Council member.







LIFELONG LEARNING – HOW DO WE ALL KEEP UP?

ONLINE AND TELECONFERENCED CONTINUING EDUCATION RESOURCES AVAILABLE AT YOUR FINGERTIPS*

he Summer 2014 issue of HPO published an excellent article on self-care and wellness for pharmacists. As the authors describe, a pharmacist's typical day can be quickly filled up with various clinical activities, projects and meetings. How do we all keep up with our own continuing education that is integral to providing up-to-date drug information and sharing evidence-based practices with our colleagues, which in turn, would facilitate the best possible care for our patients? This article will highlight a number of online and teleconferenced continuing education (CE) resources that you can conveniently access and schedule into your day.

I. Ontario College of Pharmacists



Available on the OCP website is a catalogue of CE courses and activities grouped by disease category. While by no means exhaustive, this list is a great starting point to browse a range of clinical topics that you may be interested in learning about or reviewing, as well as exploring the programs and institutions that offer them. Activity types include Live Events & Conferences, Specialty &

Certificate Courses, and Online Learning offered by the Ontario Pharmacists' Association (OPA), Centre for Addiction and Mental Health (CAMH), University of Toronto (U of T), Ministry of Health and Long-Term Care (MoHLTC), Canadian Pharmacists Association (CPhA), rxBriefCase, Canadian Healthcare Network and several others. Please note that OCP does not necessarily endorse the activities on this list and not all are CCCEP-accredited; please refer to individual courses for more information.

Website: www.ocpinfo.com/practice-education/continuing-education/listings/pharmacists/

2. Ontario Telemedicine Network (OTN)



The Ontario Telemedicine Network is one of the largest telemedicine networks in the world that facilitates access to medical care and distance education for patients and health care providers alike. The OTN Learning Centre maintains a repository of past, current and future telemedicine events accessible to the public, covering a wide range of clinical areas relevant to both acute and ambulatory practices. Please visit the websites below which

allow you to browse the listing or specify your search. Consult the telemedicine coordinator at your institution to register for the event and arrange for viewing.

The Lake Ontario East Chapter also organizes live webcasts on the OTN centered on a specific theme each year. This year's focus is on palliative care. Thanks to pharmacist Carolee Awde from Peterborough Regional Health Centre who had recently delivered our first talk on medication use principles in palliative care and symptom management. Please stay tuned for several more in the coming months!

Websites: https://learning.otn.ca/
(general browsing of events)
https://learning.otn.ca/web/guest/
home?p_p_id=lceventlist_WAR_lceventl
istportlet&action=SEARCH_ADVANCED
(allows for Advanced Search options)

3. iMedicus



iMedicus is an online platform for both live and archived medical education that is accessible free of charge to the public. Relevant audiences include physicians, nurses and pharmacists. Each event typically lasts one hour, featuring a











LIFELONG LEARNING — HOW DO WE ALL KEEP UP? ... continued

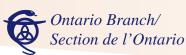
ONLINE AND TELECONFERENCED CONTINUING EDUCATION RESOURCES AVAILABLE AT YOUR FINGERTIPS*

panel of physicians and other health care providers as applicable, that discusses the latest evidence, clinical guidelines and expert opinion on a focused, practice-based topic from the perspective of Canadian practice. iMedicus is currently featuring 3 categories of medical education: Primary Care, Cardiology and Diabetes.

These sessions do not have any registration or login requirements. Simply visit the websites below and they can be viewed on your own computer or set up in a room for group viewing.

Websites: www.imedicus.ca/en/index. html (upcoming events) www.imedicus.ca/en/library.html (archived events)

4. Ontario Branch – Lake Ontario East Chapter Journal Club



Participating in journal clubs is an effective way to stay informed of some of the latest published literature that have implications on front-line practice, medication safety and hospital formulary systems. Lake Ontario East is pleased to launch a new journal club initiative early this year. On a monthly basis,

pharmacists dial into a teleconference line and participate in a 30-minute facilitated discussion on a chosen article distributed about 2 weeks in advance. The first journal club discussed a 2015 meta-analysis published on the new concentrated insulin glargine Toujeo® vs. the more familiar insulin glargine Lantus® and their implications on dosing, glycemic control and weight gain. If you are a Lake Ontario East member, you will have received emails regarding the next session on Subsequent Entry Biologics (SEBs), also known as biosimilars, scheduled for Thursday March 31, 2016.

If you are a CSHP member outside of this chapter interested in participating in journal club, please email Vivian Lee, Chapter Chair at vivian.kt.lee@gmail.com for details.

Remember that you can always apply for reimbursement for any professional development programs you have completed, through the Allied Health Professional Development Fund at www. ahpdf.ca. If you come across any other avenues for online learning, or have other tips and strategies for keeping up with continuing education, we highly encourage you to share them with your colleagues and write about them in our next HPO issue.





Regards,

Vivian Lee

Chair, CSHP Lake Ontario East Chapter Pharmacist, Peterborough Regional Health Centre

lessica Lam

Former Co-Chair, CSHP Lake Ontario East Chapter

Pharmacist, Taddle Creek Family Health Team

* Ontario Branch is not endorsing the list of online resources, this is a compilation that the authors find useful.

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OPEN'S PROJECTS

RESEARCH THAT OPENS THE DOOR TO A BETTER UNDERSTANDING OF ONTARIO PHARMACIST-LED MEDICATION MANAGEMENT SERVICES

significant changes to Ontario's healthcare system over the past decade have led to new responsibilities for community pharmacists that have expanded the critical role they play in interprofessional patient care.

It began in 2007 when the Ministry of Health and Long-Term Care launched the MedsCheck program, a professional service community pharmacists provide to Ontario Drug Benefit patients so they better understand their prescription and over-the-counter medications and how to take them for best therapeutic effect. The Ministry later expanded MedsCheck to all Ontarians, then added MedsCheck for Diabetes, a similar service for diabetes patients, MedsCheck at Home for those who cannot leave their residences easily, and MedsCheck for Long-Term Care Home residents.

Pharmacist scope of practice expanded again in 2011 when the Ministry launched the Pharmaceutical Opinion program, a consultation service provided by community pharmacists to prescribers in which they review patient medications, identify drug-related problems and, if appropriate, recommend changes in medications. Most recently, provincial legislation was passed in fall 2012 to allow community pharmacists to help

patients stop smoking, to administer flu shots and to have prescriber authority by allowing them to renew and adapt medications.

With the expansion of these pharmacist-led medication management services has come the need to better understand their quality, outcomes and value. It is primarily for these reasons that OPEN—the Ontario Pharmacy Research Collaboration—came into existence through the support of the Government of Ontario's Health System Research Fund.

Launched in May 2013 and co-led by
Lisa Dolovich at McMaster University's
Department of Family Medicine and
Nancy Waite at the University of
Waterloo's School of Pharmacy, OPEN
is a research program that examines
the quality, outcomes and value of
medication management services provided
by pharmacists and other healthcare
professionals.

OPEN is driven by and is responsive to its knowledge users — organizations that apply OPEN's findings to improve healthcare practice, the cost-effectiveness of services, and the quality of healthcare for patients. The program's interdisciplinary research on current and emerging medication management services provides insight into how the

roles and responsibilities of pharmacists can be expanded and integrated within the broader healthcare community and how healthcare teams can better work together to improve medication management.

OPEN brings together more than 35 researchers. 25 staff and to date 80 students from the University of Waterloo, McMaster University, University of Toronto, Western University and the Bruyère Research Institute, a partnership of Bruyère Continuing Care and the University of Ottawa. The largest pharmacy practice research program in Canada, OPEN is comprised of a series of research projects that are examining both current medication management services that pharmacists and other healthcare professionals provide, as well as piloting and evaluating new medication management services.

Research projects funded by the Government of Ontario are in the process of completing analyses and publication of results that will inform pharmacists, health professionals, patients and policy makers on the status of pharmacist services and the improvements for enhancing medication management services within interprofessional care settings.





OPEN'S PROJECTS ... continued

OPEN's projects

Linda MacKeigan at the University of Toronto and Lisa Dolovich are leading the evaluation of the MedsCheck (Annual and Diabetes) and Pharmaceutical Opinion Programs. Using both quantitative and qualitative methods to understand the perspectives of multiple stakeholders, the primary aim of the project is to determine the impact of these programs on medication appropriateness and adherence, physician and emergency room visits, and participant satisfaction. The project is also determining if these services are being used by patients most likely to benefit from them, elucidating what helps and hinders service uptake, and examining if these programs are improving patient health and lowering health system costs.

Nancy Waite and Sherilyn Houle at the University of Waterloo are leading the investigation on the role of pharmacists as immunizers, by assessing the impact of community pharmacist administration of influenza immunizations on immunization rates in Ontario. This project is also exploring the demographic and clinical characteristics of patients who receive influenza immunizations from community pharmacists and the feasibility of expanding pharmacist immunization authority, including that of student pharmacists, to administer vaccines for the flu and other infectious diseases.

Lisa McCarthy at the University of Toronto is leading OPEN's pharmacist prescribing project, which is examining both pharmacist renewal and adaptation of prescriptions as well as pharmacists prescribing for minor ailments.

The pharmacist renewal and adaptation of prescriptions component is assessing the uptake and impact of prescription renewal and adaptation on pharmacists and the pharmacies where they practice. The project is also shedding light on how many pharmacists are taking advantage of their authority to address the unique needs of patients as well as enabling medication continuity for patients with chronic conditions. Understanding provision of this service is providing important insight into this recently expanded scope of practice.

The pharmacists prescribing for minor ailments component is exploring the perceptions of various Ontario stakeholders on the authority of pharmacists to prescribe. A stakeholder dialogue and citizen panel were held in partnership with the McMaster Health Forum to inform policy and regulatory discussions, thereby providing insight into future expansions of this scope of practice.

Led by Feng Chang and Tejal Patel at the University of Waterloo and Beth Sproule at the University of Toronto, OPEN's chronic pain project is examining the attitudes, perceptions and knowledge of pharmacists about headache disorders, low back pain and painful diabetic neuropathy. By evaluating how core chronic pain clinical competencies can be integrated into a specialized training program for pharmacists, this project seeks to better manage the chronic pain of patients in community pharmacies and in family health team settings.

Another OPEN research project, led by Barbara Farrell at the Bruyère Research Institute and James Conklin also at Bruyère and at Concordia University, is developing deprescribing guidelines to support interdisciplinary teams of healthcare professionals in tapering or stopping medications in elderly patients while monitoring for adverse drug withdrawal reactions. This work has contributed to the burgeoning research and implementation work on deprescribing in Canada and has led to the formation of the Canadian Deprescribing Network.

Using evidence-based practice guidelines for clinicians who are part of family health teams and those that practice at long-term care facilities, the team has implemented its deprescribing algorithms and guidelines for proton-pump inhibitors, benzodiazepine receptor antagonists and antipsychotics.

Providing a foundational anchor for service evaluation is the study led by Lisa Dolovich. Known as the pharmacist services evaluation framework project, this study is capturing a broad range of perspectives on the structure, indicators and processes of a framework that will be created to evaluate services that pharmacists provide to their patients, with an aim to better understand what helps and hinders both developing and adopting such a framework.

Project researchers are gathering perspectives from a diverse group of



OPEN'S PROJECTS ... continued

stakeholders, providing the groundwork that needs to be in place before developing the framework. By encouraging consensus and consolidating priorities, the target is to develop an evaluation framework shaped by evidence that's valued by researchers, healthcare providers and patients alike.

To strengthen program collaboration, inclusiveness and adoption of findings, OPEN's research projects are supported by three cross-cutting themes, each with their own teams.

OPEN's capacity-building team, led by Nancy Waite and Beth Sproule, is enhancing training in pharmacy practice and health services research by making educational webinars available to a broad audience. The team is also giving undergraduate and graduate students along with pharmacy residents and PharmD research rotation students the opportunity to be part of OPEN's research projects.

Led by Martin Cooke and Nancy Waite, OPEN's gender and vulnerable populations team supports all projects by helping their members incorporate gender and dimensions of vulnerability, including race and ethnicity, geography, disability and Aboriginality, into project design, analyses and interpretation.

The knowledge translation and exchange team, led by James Conklin and Kelly Grindrod at the University of Waterloo, supports OPEN investigators in disseminating their research findings as well as examines the facilitators and barriers to knowledge translation and exchange by using the OPEN research program as a natural laboratory.

OPEN's commitment to a strong evidence-based foundation for medication management that influences practice and policy is also achieved through regular meetings with its advisory committee. Comprised of leaders from academia, policy and practice, these individuals have been recruited to help ensure that knowledge users inform research activities and that program findings are translated from the ivory tower to the pharmacist's counter.

To find out more about OPEN and its research projects and cross-cutting themes, please visit www.open-pharmacy-research.ca.

If you would like to subscribe to OPEN Up, the program's periodic e-newsletter, please visit www.open-pharmacy-research.ca/about/subscribe-open-enewsletter. Subscribing is free and a subscription takes only a moment to complete. Please also check the newsletter archive for previous issues.





TEACHING STRATEGIES: ASSESSING INDIVIDUAL LEARNING STYLES

JACQUELINE DIEBOLD BMSC BSCPHM; JASKIRAN OTAL BSCH BSCPHM; JONATHAN WONG HBSC BSCPHM PHARMACY RESIDENTS, HAMILTON HEALTH SCIENCES

hen planning an optimal learning environment for a learner, identification and understanding of the student's learning style is paramount. Research shows that students vary significantly in their learning styles, and may differ in how they process new information, what types of information they focus on, and the rate at which they achieve understanding [1]. For example, a visual learner may retain more from visible imagery (i.e. diagrams, schematics or demonstrations from a preceptor) compared to verbal material (i.e. written passages and spoken words), and a preceptor can facilitate more effective learning by taking this into account in their approach to teaching. It is also important to recognize that individuals usually possess a combination of learning styles.

Compatibility between teaching strategies and learning styles is associated with positive outcomes for the learner. When teaching is catered to their learning style, students tend to have a more positive attitude towards the learning process, often retaining information longer and

applying it more effectively as a result [1]. Unfortunately, it is not uncommon for preceptors to inherently favour their own learning style or instinctively teach the way they were taught [1]. Although the intent may be to help the learner based on the teacher's familiarity, it actually may be counterproductive, as traditional, unmodified teaching styles favour only a small percentage of learners.

Learning styles are highly individualized. Having a conversation to address this topic at the beginning of a clinical rotation is conducive to creating a learning environment that is optimized for each student. There are a number of tools available for preceptors and students to use to assess one's learning style or preferences. We will outline three commonly used questionnaires that can be easily implemented into

practice: 1) the PILS Inventory; 2) the VARK Questionnaire; and, 3) the Felder & Soloman Index of Learning Styles. assessing patient medication needs. Our pharmacists also work within a team of healthcare professionals. This requires them to be confident and assertive in their own skills and knowledge while showing respect for the insights of others on the team. They need to build good communication skills and be able to advocate for the best care for the patient.

1) PILS Inventory

Perhaps one of the more recognized tools for identifying learning styles in pharmacy practice, the Pharmacist's Inventory of Learning Styles (PILS) developed by Zubin Austin has been used in numerous pharmacy learning environments. The premise of the PILS Questionnaire is to identify learners' dominant and secondary learning styles [2,3]. Learners are given

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TEACHING PEARLS ... continued

a series of seventeen statements and are prompted to assign a frequency of which they identify with each sentence. These statements represent different learning preferences such as abstract conceptualization, concrete experiences, active experimentation, and reflective observation [4]. Based on the results, learners are categorized as Accommodators, Convergers, Assimilators, or Divergers.

Accommodators

Accommodators are generally classified as being hands-on learners, acting on their intuitions and gut feelings. They also prefer concrete experiential learning as opposed to abstract thought and theories. Preceptors may help to facilitate learning in Accommodators by ensuring they understand the underlying meaning that supports teaching points, while also providing resources to the learner to promote their active learning style [5]. Attention should be given to ensuring that learners are attaining the proper thought process before acting on daily tasks and issues.

Convergers

Convergers are labeled as practical problem-solvers that are action-oriented networkers and leaders. They prefer to be quick and decisive, which may result in less than perfect results. Preceptors can support Convergers by providing them with opportunities to work collaboratively in group settings, while also ensuring they understand the importance of certain details in their work [5].

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Assimilators

Assimilators are seen as organized, detailoriented learners that enjoy theories and concepts. These learners tend to do well with structured reading material and prefer learning first by reflective observation. To encourage learning in a safe environment, preceptors may choose to discuss with their students whether they prefer observing the preceptor interact with health care team members and patients first before engaging in these interactions on their own. These learners may also benefit from clear direction on tasks and structured discussions [5].

Divergers

Divergers value out-of-the-box thinking and brainstorming, while preferring to analyze problems from multiple perspectives before acting. Divergers are often appreciated in group settings for respecting other members' roles and viewpoints, while being contemplative and providing thoughtful solutions. Preceptors should acknowledge their learner's consideration to various perspectives, while ensuring their learners also focus on the practical, day-to-day issues [5].

(2) VARK Questionnaire

Another helpful tool in assessing a student's learning preference is the VARK questionnaire. Developed by Neil Fleming in 1987, The VARK model acknowledges that individual students process information differently and that a person's preferred learning style can be categorized in one of four ways: Visual, Aural, Reading/Writing, and Kinesthetic. The questionnaire is comprised of 16 questions that can be administered free of cost in both electronic and paper formats [6]. Upon completion, users are provided with a profile of four scores – one for each modality. VARK is not intended to be a diagnostic measure, but rather a tool to generate discussion between teachers and learners. By understanding what kind of learner your student is, appropriate teaching strategies can be implemented accordingly.

Visual Learners

A student with a strong visual preference for learning uses symbolism as well as formats, fonts, and colors to emphasize important points. Teaching strategies should incorporate charts, labeled diagrams and hierarchies to categorize information. It is important to note that this preference does not refer to the use of photographs, videos, or PowerPoint presentations but rather the use of patterns, shapes, and whitespace to convey relevant information [7].

BACK

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TEACHING PEARLS ... continued

Aural Learners

Those who prefer information that is heard or spoken are categorized as aural learners. These students are drawn to lectures or group discussions and prefer to talk things through, sometimes to oneself. Encourage aural learners to share their thought process with you and set aside time to formally review topics of interest together [7].

Read/Write

Reading and writing learners prefer information displayed in words and gravitate towards text-based materials such as manuals, reports, essays, and assignments. Teaching strategies should incorporate textbook or journal readings, providing sufficient time for the learner to take notes, and providing handouts where possible [7].

Kinesthetic

Students with a strong kinesthetic preference learn best through hands-on experience and practice, both simulated and real. They solidify concepts by actively participating, rather than discussing. These learners excel when teaching strategies such as demonstrations, case studies, and practicals are implemented [7].

In addition to the questionnaire itself, the VARK creators have provided strategies for learning and improving communication between teachers and learners based on the sensory preferences identified. The questionnaire and help sheets can be accessed at http://vark-learn.com/home/.

(3) Felder & Soloman Index of Learning Styles

The Felder & Soloman Index of Learning Skills (ILS) is an online, 44-item survey instrument used in science education to assess preferences on the four dimensions of the Felder-Silverman learning style model [8]. Each learning style dimension has two opposite preferences: Sensing or Intuitive; Visual or Verbal; Active or Reflective: Sequential or Global. Each dimension is evaluated through 11 questions, with one answer corresponding to each of the preference categories. The four dimensions are seen as continua, not either/or categories. Everyone may use all preferences at different times, but not with equal levels of confidence; rather than guaranteed predictors of behaviour, the profiles elicited from this tool are suggestions of behavioural tendencies.

Sensing vs. Intuitive

This scale describes how a learner prefers to take in information. Sensing learners prefer to take in information that is concrete, and enjoy details, facts, and figures. They like practical applications and solving problems using well-established procedures. Intuitive learners prefer abstract, original information in

concepts; they prefer to look at the big picture, identifying overall patterns to describe relationships, and enjoy working with ideas [8].

Visual vs. Verbal

The preference for how information is presented is often easily identified. As the dimension implies, visual learners prefer diagrams, charts, pictures and graphs as vehicles of information delivery; conversely, verbal learners prefer explanations with words, both written and spoken [8].

Active vs. Reflective

This scale assesses how a learner prefers to process information itself. Active learners will learn best by doing something with the information presented to them, whether by talking or trying it out; these learners work well in groups. Reflective learners think through the information and understanding it before acting on/with it; they may prefer to work alone or in pairs [8].

Sequential vs. Global

A preference for the organization of information is critical to the learning process. Sequential learners organize information in a linear, orderly fashion, and learn in logically sequenced steps;

TEACHING PEARLS ... continued

they prefer a systematic process. On the other hand, global learners prefer a holistic approach to organizing information through seemingly unconnected fragments; they achieve understanding in large leaps that may appear scattered to others but still successfully arrive at the intended end product/result [8].

The ILS Questionnaire is widely available for use at no cost, and can be accessed at http://www.engr.ncsu.edu/learningstyles/ilsweb.html.

Take Home Points

The tools summarized in this article are helpful guides in establishing a learning environment that considers a student's learning styles in order to foster and optimize the learning experience. Research has shown that the optimal teaching style is a balance between matching the student's preferences to create a comfortable environment to learn effectively and challenging the student with different learning strategies that may be outside of their comfort zone to help them grow [1]. As preceptors, it is important to acknowledge and understand individual learning style differences to establish the most appropriate teaching and learning strategies for each individual learner.

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PATIENT SAFETY REVIEW COMMITTEE 2013-2014 ANNUAL REPORT

ATTENTION CSHP ONTARIO BRANCH MEMBERS

he Patient Safety Review Committee (PSRC) was established in 2005 in order to address the need for specialized knowledge and expertise and to help expedite the review of coroners' cases with actual or perceived systemic patient safety implications, and where possible, to make recommendations to prevent similar deaths. The most recent

report published in November 2015 is reflective of cases that were reviewed in 2013 and 2014. The PSRC is advisory in nature and makes recommendations through the chairperson. While the committee's consensus report is limited by the data provided, efforts are made to obtain all available, relevant information.

It has come to the attention of Canadian Society of Hospital Pharmacists Ontario Branch Council, that the coroner is requesting our assistance in spreading awareness of key safety strategies to prevent harm. The following table outlines recommendations made to the CSHP Ontario Branch:

Recommendation to CSHP Ontario Branch	Theme
Use smart pumps with hard stops for the administration of infusions of high alert medications such as propofol. In the absence of smart pump technology, ensure that independent checks include verification of pump programming.	Policy & Procedures
Ensure that programming of smart pumps is consistent in all areas of the hospital and give priority for technology to support wireless updates so that all pumps can be updated simultaneously.	Policy & Procedures
Develop order sets to guide administration of high alert medications such as propofol.	Policy & Procedures
Where a continuous infusion rate has been ordered, include this information on pharmacy-generated Medication Administration Records (MARs) to support pump programming.	Communication & Documentation
When using a Patient Controlled Analgesia (PCA) flow sheet or equivalent document, include the medication order on the flow sheet (transcribed via a double check process) for reference.	Communication & Documentation
Institute independent double check practices for programming of infusion pumps for opioid infusions (and other high-alert medications).	Policy & Procedures
Create a process at shift change whereby infusion or fluid orders are reviewed and confirmed against the original order or independently checked MAR.	Communication & Documentation
Ensure that the 24 hour check process includes comparison of the original order to both handwritten and pharmacy-generated MARs, including drug, dose, concentration, rate, frequency, breakthrough parameters, etc.	Communication & Documentation
Require a clinical review of opioid infusion orders by a pharmacist that includes assessment of prior opioid use.	Communication & Documentation

As you know, pharmacists play a key role in ensuring a safe medication system for our patients.

Where applicable, please use the recommendations outlined above to review, assess and enhance the safety of medication

systems in your practice settings.

Click here to review a copy of the full report.

Once again the Awards Evening for Ontario Branch was a huge success. The opportunity to celebrate our members' excellence was enjoyed by all. We would like to offer a special thanks to our sponsors who made this event possible.

The Awards presented by the Ontario Branch, CSHP, are designed to show appreciation for deserving activities of members of the Branch. There are three types of awards; those that recognize exceptional individual contribution, outstanding projects or programs, and grants for research or pharmaceutical care development.

AWARDS FOR PROJECT OR ARTICLES

THE E. AMY ECK AWARD

Sponsored by the E. Amy Eck Fund

Presented to:

Certina Ho Roger Cheng



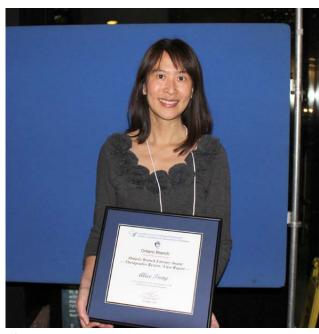
Lina Khairallah (left), U of T Awards Committee student rep Certina Ho (right)

Project Title: Safety Alerts as Drivers for the Pharmaceutical Opinion Program: A pilot study to reduce potential hospitalizations due to preventable drug-drug interactions

The award is presented to an active member of the Ontario Branch CSHP to recognize a humanitarian volunteer or innovative project in the health care community. The award consists of a framed certificate and a cheque for \$400.

THE ONTARIO BRANCH LITERARY AWARD - THERAPEUTIC REVIEW OR CASE REPORT

Presented to: Alice Tseng



Alice Tseng

Project Title: The evolution of three decades of antiretroviral therapy: challenges, triumphs and the promise of the future

This award was established to encourage pharmacists to share information and experience through publication. The article submitted should be pharmacy-related and must have been published or accepted for publication in a peer-reviewed journal in the year prior to the deadline date. The award is given for a therapeutic review or case report and consists of a framed certificate and a cheque for \$500.

CSHP ONTARIO BRANCH AWARDS PROGRAM 2016 ... continued

AWARDS FOR PROJECT OR ARTICLES ... continued

THE ONTARIO BRANCH LITERARY AWARD ORIGINAL RESEARCH OR PROGRAM ESTABLISHED

Presented to: Olavo Fernandes



Olavo Fernandes

Project Title: Development of Clinical Pharmacy Key Performance Indicators for Hospital Pharmacists Using a Modified Delphi Approach

This award was established to encourage pharmacists to share information and experience through publication. The article submitted should be pharmacy related and must have been published or accepted for publication in a peer-reviewed journal in the year prior to the deadline date. The award is given for original research and consists of a framed certificate and a cheque for \$500.

DOUGLAS J. STEWART AWARD

Sponsored by Teva

Presented to: Kori Leblanc



Kori LeBlanc (left), Ky To (right) Teva

Project Title: Atrial Fibrillation Quality Care Program

This award recognizes excellence in Hospital Pharmacy Administration. The award is available to an active member of the Ontario Branch, CSHP (for at least one year) who has demonstrated exemplary skills in implementation of a program new to the hospital. The program must already be implemented. The award consists of a framed certificate and a cheque for \$1000.

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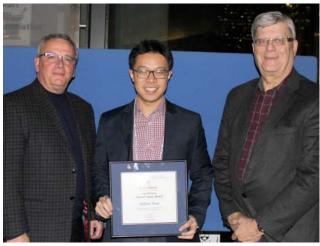
AWARDS FOR PROJECT OR ARTICLES ... continued

BILL WILSON PATIENT SAFETY AWARD

Sponsored by Omega Laboratories

Presented to:

Calvin Poon



Jim Lazenka (left) Omega, Calvin Poon (centre), Bill Wilson (right)

Project Title: Going Beyond the Numbers: Using Incident Reports to Assess Medication Safety Culture

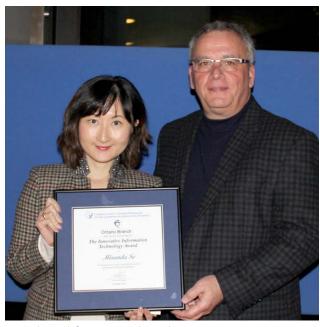
The award is presented to an active member of the Ontario Branch CSHP to recognize a humanitarian volunteer or innovative project in the health care community. The award consists of a framed certificate and a cheque for \$500.

INNOVATIVE INFORMATION TECHNOLOGY AWARD

Sponsored by Omega Laboratories

Presented to:

Miranda So



Miranda So (left), Jim Lazenka (right) Omega

Project Title: Development and implementation of two user-focussed, interactive febrile neutropenia guidelines incorporating antimicrobial stewardship principles and human factors engineering

This award is available to an active member of Ontario Branch, CSHP, and who has demonstrated exemplary skills in developing and implementing an innovative locally-derived information technology solution (e.g. application, electronic tool or program) to improve patient care or pharmacy practice at a hospital. The award consists of a framed certificate and a cheque for \$500.

... continued

PERSONAL RECOGNITION AWARDS

GORDON MURRAY ONTARIO BRANCH CONTRIBUTION AWARD

Sponsored by Apotex Inc.

Presented to:

Derek Leong

Derek Leong (left), Julie Berdusco (right) Apotex Inc.

This award is available to an active member of Ontario Branch, CSHP, and who has made long-term outstanding contributions to the Branch. The award consists of a large engraved mortar and pestle and a cheque for \$1000.

THE DAN DASKO PHARMACY ADMINISTRATOR AWARD

Sponsored by Sandoz Canada Inc.

Presented to:

Andrea Wist



Michael Hughes (left) Sandoz Canada Inc., Andrea Wist (right)

This award recognizes outstanding pharmacy administrators who are willing to give of themselves to develop the future of the profession and empower their staff to make a difference in hospital pharmacy practice. The award consists of a framed certificate and a cheque for \$750.

... continued

PERSONAL RECOGNITION AWARDS ... continued

THE WILLIAM MCLEAN CLINICAL PHARMACIST AWARD

Sponsored by Sandoz Canada Inc.

Presented to: Linda Dresser



On behalf of Linda Dresser on the left is Olavo Fernandes, Michael Hughes (right) Sandoz Canada Inc.

This award recognizes outstanding skills in clinical practice and education and is available to any pharmacist who has been an active member of the Ontario Branch, CSHP for at least a year. The award consists of a framed certificate and a cheque for \$750.

ONTARIO BRANCH MENTORSHIP AWARD

Sponsored by HealthPRO Procurement Services Inc.

Presented to: Heather Kertland



Heather Kertland (left), Nancy Giovinazzo (right) HealthPRO Procurement Services Inc.

This award recognizes Ontario Branch CSHP members who have made significant contributions to the profession of pharmacy through teaching or mentorship. The award consists of a framed certificate and a cheque for \$1000.

... continued

PERSONAL RECOGNITION AWARDS ... continued

NEW HOSPITAL PHARMACY PRACTITIONER AWARD

Sponsored by Teva

Presented to: Aleesa Carter



Aleesa Carter (left), Ky To (right) Teva

This award recognizes Ontario Branch CSHP new hospital pharmacy practitioners who have made an exceptional contribution to hospital pharmacy through patient care innovation, education, publications or participation in CSHP activities. The award consists of a framed certificate and a cheque for \$1000.

HOSPITAL PRACTICE IN A RURAL SETTING AWARD

Sponsored by Sterimax

Presented to: Raaeka Noorbhai



Lee Mangubat (left) Sterimax, Raaeka Noorbhai (centre), Samir Acharya (right) Sterimax

This award recognizes a CSHP Ontario Branch member who has made a demonstrated impact on the safety and quality of pharmacy services provided in a geographically isolated or rural practice setting. The award consists of a framed certificate and a cheque for \$1000.

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CSHP ONTARIO BRANCH AWARDS PROGRAM 2016

... continued

GRANTS AND OTHER AWARDS

SCOTT WALKER RESEARCH AWARD

Sponsored by AstraZeneca Canada Inc.

Presented to:

Karen Cameron



Karen Cameron (left), Scott Walker (right)

Project Title: Assessing the feasibility of Virtual Interactive Cases (VIC) software as a bridge from the classroom to the bedside for Year 4 Pharmacy Students

This award is given for projects deemed vital to the practice of pharmacy in Ontario health facilities. The research need not be highly complex, as emphasis will be placed on usefulness in general practice. The grant consists of a cheque for \$1000 to offset material costs of a research project.

ONTARIO BRANCH PATIENT CARE GRANT

Sponsored by Medbuy Corporation

Presented to:

Gayathri Radhakrishnan



Michael Blanchard (left) Medbuy Corporation, Gayathri Radhakrishnan (right)

This grant is being offered to support a pharmacist/group of pharmacists who wish to evaluate the impact of a patient care initiative or support the implementation of a new patient care initiative at their organization. The award consists of a framed certificate and a cheque for \$1250.

... continued

STUDENT AWARDS

THE ONTARIO BRANCH STUDENT AWARD - UNIVERSITY OF TORONTO

Sponsored by Teva

Presented to: Michael De Marco



Received on behalf of Michael De Marco, Ky To (right) Teva, Lina Khairallah (left) U of T Awards Committee student rep

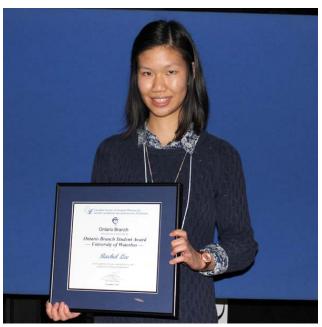
This award recognizes a deserving student based on academic standing who will be pursuing a hospital residency. The award consists of a framed certificate, a one-year membership in CSHP,

HOSPITAL PHARMACY IN ONTARIO

THE ONTARIO BRANCH STUDENT AWARD - UNIVERSITY OF WATERLOO

Sponsored by Fresenius Kabi

Presented to: Rachel Lee



Rachel Lee

This award recognizes a deserving student based on academic standing who will be pursuing a hospital residency. The award consists of a framed certificate, a one-year membership in CSHP,





... continued

STUDENT AWARDS ... continued

THE PHARM D AWARD

Sponsored by Apotex

Presented to:

Amy Dresser



Amy Dresser (left), Julie Berdusco (right) Apotex

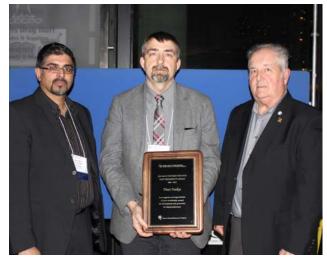
This award was established to recognize the achievements of a graduating Doctor of Pharmacy candidate from the Leslie Dan Faculty of Pharmacy, University of Toronto. The award is available to all graduating Doctor of Pharmacy candidates; no submission is required. The reward consists of a framed certificate and a cheque for \$500.

JIM MANN ONTARIO BRANCH PAST PRESIDENT'S AWARD

Sponsored by Fresenius Kabi

Presented to:

Trent Fookes



Sammu Dhaliwall (left), Trent Fookes (centre), Jim Mann (right)

A commemorative plaque is presented to the President of the Ontario Branch, CSHP upon completion of the term of office.





... continued

RESIDENCY AWARDS

PHARMACY PRACTICE RESIDENCY AWARD

Sponsored by Pfizer Canada Inc.

Presented to:

Brendan Yeats

Project Title: A retrospective analysis of the safety of rivaroxaban 15 mg once daily compared to enoxaparin once daily for the prevention of venous thromboembolism in a spinal cord injury population.



Karen Petryk (left) Pfizer Canada Inc., Brendan Yeats (right) University Health Network, Toronto

HOSPITAL PHARMACY IN ONTARIO

Presented to: Jacqui Herbert

Project Title: A Survey To Assess Adherence To Antibiotics Upon Hospital Discharge



Karen Petryk (left) Pfizer Canada Inc., Jacqui Herbert (right) University Health Network, Toronto

The award recognizes five hospital pharmacy residents whose major projects are judged to be the most deserving in terms of representing a significant innovation, practical application and/ or development in an institutional pharmacy practice setting. The award consists of a cheque for \$1000 for each of the winners.





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RESIDENCY AWARDS ... continued

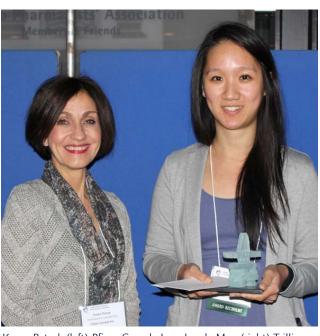
PHARMACY PRACTICE RESIDENCY AWARD

Sponsored by Pfizer Canada Inc.

Presented to:

Lynda Mao

Project Title: Implementation of a Pharmacist-Led Patient Monitoring Tool to Identify Critically III Patients at Increased Risk of QTc Interval Prolongation



Karen Petryk (left) Pfizer Canada Inc., Lynda Mao (right) Trillium Health Partners

Presented to: **Monique Potvin**

Project Title: Extended-Interval Dosing Recommendations For Gentamicin In Neonates



Karen Petryk (left) Pfizer Canada Inc., Monique Potvin (right) Sunnybrook Health Sciences Centre, Toronto

The award recognizes five hospital pharmacy residents whose major projects are judged to be the most deserving in terms of representing a significant innovation, practical application and/ or development in an institutional pharmacy practice setting. The award consists of a cheque for \$1000 for each of the winners.



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RESIDENCY AWARDS ... continued

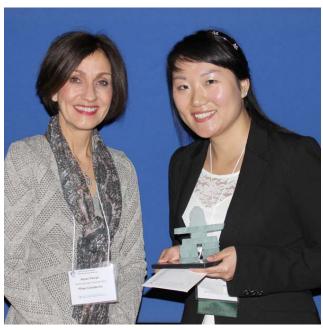
PHARMACY PRACTICE RESIDENCY AWARD

Sponsored by Pfizer Canada Inc.

Presented to:

Rose Liao

Project Title: Analysis of the Adherence to Seizure Prophylaxis Guidelines in Neurosurgery Patients.



Karen Petryk (left) Pfizer Canada Inc., Rose Liao (right) Trillium Health Partners

The award recognizes five hospital pharmacy residents whose major projects are judged to be the most deserving in terms of representing a significant innovation, practical application and/ or development in an institutional pharmacy practice setting. The award consists of a cheque for \$1000 for each of the winners.







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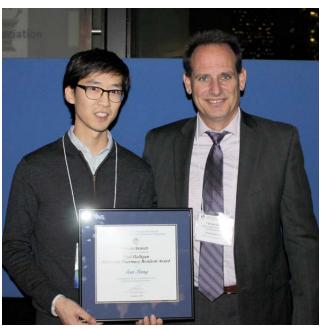
RESIDENCY AWARDS ... continued

THE PAUL HALLIGAN MEMORIAL PHARMACY RESIDENT AWARD

Sponsored by Sandoz Canada Inc.

Presented to:

Ian Pang



lan Pang (left), Michael Hughes (right) Sandoz Canada Inc.

This award was established to celebrate the life of this dedicated pharmacist. Paul Halligan was actively involved with numerous community initiatives and pharmacy groups. It is presented to a deserving resident who reflects the dedication, discipline, determination and enthusiasm that Mr. Halligan brought to our profession and all that he was involved with. The award consists of a certificate and cheque for \$750.

CHARLIE BAYLIFF RESIDENT PRECEPTOR OF THE YEAR AWARD

Sponsored by Fresenius Kabi

Presented to: John Baskette



John Baskette

This award has been established to recognize Ontario Branch CSHP members who demonstrate excellence as a mentor / preceptor for pharmacy residents. The award consists of a framed certificate and a cheque for \$750.



... continued

ONTARIO PHARMACY RESIDENTS' ASSOCIATION POSTER AWARDS

PHARMACY PRACTICE RESIDENCY AWARD

Sponsored by Teva

The following eight residents were selected to present their posters at the AGM.

Brendan Yeats

Project Title: A retrospective analysis of the safety of rivaroxaban 15 mg once daily compared to enoxaparin once daily for the prevention of venous thromboembolism in a spinal cord injury population.

Ian Pang

Project Title: Evaluating prescribing practice of pneumocystis jirovecii pneumonia prophylaxis in allogeneic bone marrow transplant recipients

Julia Denomme

Project Title: Vancomycin Assessment of Nonlinear Kinetics in Pediatrics (VANKo-P)

Marie-France Gauthier

Project Title: Clinicians' Perspectives of the Enablers of and Barriers to Antibiotic De-escalation

HOSPITAL PHARMACY IN ONTARIO

Lynda Mao

Project Title: Implementation of a Pharmacist-Led Patient Monitoring Tool to Identify Critically III Patients at Increased Risk of QTc Interval Prolongation

Rose Liao

Project Title: Analysis of the Adherence to Seizure Prophylaxis Guidelines in Neurosurgery Patients

Souzi Badr

Project Title: VISTA: Vitamin K supplementation to improve INR stability in patients on hemodialysis taking warfarin for atrial fibrillation

Triyu Vather

Project Title: An analysis of candidemia in critically ill patients at London Health Sciences Centre

Presented to a resident for excellence in a poster presented at the Ontario Branch, CSHP Annual General Meeting. The Award was presented to Julie Denomme and consists of a cheque for \$500.





SAVE THE DATE!

FOR THE CSHP ONTARIO BRANCH ANNUAL CONFERENCE

(FORMERLY THE AGM/EDUCATION SESSIONS)

Please note that the 2016 CSHP Ontario Branch Annual Conference will take place this fall on Saturday, November 19, followed by our Awards Night.

The Annual Conference will be held at the Leslie Dan Faculty of Pharmacy at the University of Toronto.

Once again the Education Committee members are striving to bring you exciting educational sessions and valuable workshops. Please save the date and be on the lookout for our brochure which will be coming out soon.

Olivia Ng and Vivian Law Co Chairs, Education Committee Ontario Branch CSHP

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The HPO Newsletter is supported by TEVA and published on behalf of the Ontario Branch, Canadian Society of Hospital Pharmacists. All published articles including editorials and letters reflect the opinions of its contributors and not necessarily representative of TEVA, the editor, nor CSHP.



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BACK HOME

HOSPITAL PHARMACY IN ONTARIO

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Patient Safety Review Committee 2013-2014 Annual Report

Office of the Chief Coroner Province of Ontario

November 2015



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Message from the Chair



This Patient Safety Review Committee Report of the Office of the Chief Coroner for Ontario is reflective of cases that were reviewed in 2013 and 2014.

Over the past two years, the committee completed 13 death reviews, nine in 2013 and four in 2014, in which systemic issues related to medical care were identified. From the cases reviewed, the committee made a total of 68 recommendations, 48 in 2013 and 20 in 2014, aimed at preventing deaths in similar circumstances. Two cases from 2014 were deferred for review and completion in 2015 and will be included in the next annual report.

The recommendations were categorized into seven issue/theme groups, of which the most common in 2013 and 2014 were: communication/documentation; education/training and research; and policy/procedures. Some cases and recommendations involved more than one theme; hence the total number of themes identified is greater than the number of cases and greater than the total number of recommendations.

The primary themes/issues identified in the cases that were reviewed in 2013 included: communication and documentation; education, training and research; and policy and procedures. In 2014 the most common themes/issues identified were: communication and documentation; policy and procedures; and resources.

Special recognition must be made to Dr. Dan Cass, who chaired the committee for several years. His guidance and leadership was valued by all members of the committee. His tenure as Chair came to an end in October 2014. Dr. Craig Muir was Chair of the committee for the remainder of 2014. Both were dedicated and committed to the principles of patient safety and their guidance was appreciated by all who worked with them. All the committee members, past and current, must also be thanked for their hours of dedicated and caring guidance with the goal of increasing patient safety throughout the Province.

On behalf of the committee, thank you for your interest in patient safety, and in the work of the Patient Safety Review Committee.

Reuven Jhirad MD MPH CCFP FCFP, for Dr. Cass & Dr. Muir Deputy Chief Coroner Chair, Patient Safety Review Committee

Committee Membership

Dr. Dan Cass

Committee Chair 2013-Oct. 2014
Deputy Chief Coroner - Investigations

Dr. Craig Muir

Committee Chair Oct. – Dec. 2014 Regional Supervising Coroner, Kingston

Dr. Glenn Brown

Family Physician and Head Department of Family Medicine Queen's University

Ms. Patti Cochrane

Vice-President, Patient Services, Quality and Practice and Chief Nursing Executive Trillium Health Partners, Mississauga

Dr. Kris Cunningham

Forensic Pathologist
Provincial Forensic Pathology Unit, Toronto
(Formerly Medical Director, Kingston
Regional Forensic Pathology Unit)
Ontario Forensic Pathology Service

Dr. Jonathan Dreyer

Emergency Physician and Research Director Division of Emergency Medicine University of Western Ontario

Ms. Julie Greenall

Interim Operations Leader Institute for Safe Medication Practices (ISMP) Canada

Dr. Ian Herrick

Anesthesiologist
Director, Quality Assurance and Continuing
Professional Development
Department of Anesthesia and
Perioperative Medicine
Western University
London Health Sciences Centre and St.
Joseph's Health Care London

Dr. Madelyn Law

Assistant Professor Dept. of Community Health Sciences Brock University

Dr. Ann Matlow

Vice-President, Education
Women's College Hospital
Associate Director, Centre for Patient Safety
University of Toronto

Dr. David Musson

Academic Leader Centre for Simulation-Based Learning McMaster University

Dr. Michael Szul

Medical Advisor, Associate Registrar College of Physicians and Surgeons of Ontario (Ex-Officio)

Mr. David U

President and CEO Institute for Safe Medication Practices (ISMP) Canada

Ms. Kathy Kerr (2013)
Ms. Tara McCord (2014)
Executive Lead
Office of the Chief Coroner

History

Historically, issues or concerns relating to patient safety that were identified during a coroner's investigation may have led to individual recommendations being generated by the investigating coroner, or to a public review of the circumstances surrounding the death through a coroner's inquest. The complexity of cases involving patient safety issues, however, often requires specialized knowledge and expertise in order to fully understand the intricacies of the circumstances of the death. Inquests may take place several years after a death and it may be challenging for a jury comprised of members of the public to fully grasp the complex medical details in order to make practical recommendations aimed at preventing similar deaths.

The Patient Safety Review Committee (PSRC) was established in 2005 in order to address the need for specialized knowledge and expertise and to help expedite the review of coroners' cases with actual or perceived systemic patient safety implications, and where possible, to make recommendations to prevent similar deaths.

Purpose

The purpose of the PSRC is to assist the Office of the Chief Coroner in the investigation and review of healthcare-related deaths where system-based errors or issues appear to be a major factor. The PSRC develops recommendations aimed at preventing similar deaths, which are sent to relevant agencies and organizations by the Chief Coroner for Ontario. The patient and public safety mandate of the Office of the Chief Coroner is derived from the *Coroners Act*:

Chief Coroner and duties

- 4. (1) The Lieutenant Governor in Council may appoint a coroner to be Chief Coroner for Ontario who shall,
 - (d) Bring the findings and recommendations of coroners' investigations and coroners' juries to the attention of appropriate persons, agencies and ministries of government;

Disclosure to the public

18. (3) The Chief Coroner shall bring the findings and recommendations of a coroner's investigation, which may include personal information as defined in the *Freedom of Information and Protection of Privacy Act*, to the attention of the public, or any segment of the public, if the Chief Coroner reasonably believes that it is necessary in the interests of public safety to do so. 2009, c. 15, s. 10.

In the context of the PSRC, the use of the word "error" does not imply blame or responsibility on the part of any individual or organization. For the purposes of this committee, "error" is defined as a system design characteristic that either permits unintended adverse events to occur (latent error) or does not detect deviations from the

intended path of care (active error). System design would include not only the design of care processes, but also access to care management (such as delays in receiving care). The presence of such errors does not mean that an individual or organization should be assigned blame or responsibility for an unintended outcome. The mandate of the PSRC, like that of the Office of the Chief Coroner, is one of fact-finding, not fault-finding.

The aims and objectives of the PSRC during this time were:

- 1. To provide expert opinion about the cause and manner of death in healthcarerelated cases where systems-based errors appear to be a major factor.
- 2. To assist coroners to improve the investigation of deaths within, or arising from, the health care system in which systems-based errors appear to have occurred.
- To stimulate educational activities for professionals through identification of systemic problems, referral to appropriate agencies for action, collaboration with professional regulatory bodies and the dissemination of an annual report. Emphasis will be placed on speedy dissemination of information.
- 4. To provide expert evidence at inquests on request.
- 5. To conduct or promote research, where appropriate.
- 6. To undertake random or directed reviews when requested by the chairperson.
- 7. To help identify the presence or absence of systemic issues, problems, gaps, or shortcomings of each case to facilitate appropriate recommendations for prevention.

Structure and Size

The committee membership consists of respected practitioners from various disciplines related to health care. The membership is balanced to reflect wide and practicable geographical representation and representation from all levels of institutions, including teaching centres, to the extent possible. Other individuals with specialized knowledge or expertise are invited to participate in committee reviews when required and at the discretion of the chairperson.

In 2013 and 2014, the PSRC was comprised of a diverse membership, including the chairperson and executive lead, of healthcare professionals with significant experience in patient safety. The committee membership, and its balance, is reviewed regularly by the chairperson and by the Chief Coroner, as requested.

Limitations

The PSRC is advisory in nature and makes recommendations through the chairperson. While the committee's consensus report is limited by the data provided, efforts are made to obtain all available, relevant information. It is not within the mandate of the committee to re-open other investigations (e.g. criminal proceedings) that may have already occurred.

Information collected and examined by the PSRC, as well as its final report, are for the sole purpose of a coroner's investigation pursuant to section 15(4) of the *Coroners Act*, R.S.O. 1990 Chapter c.37, as amended.

All information obtained as a result of coroners' investigations and provided to the PSRC is subject to confidentiality and privacy limitations imposed by the *Coroners Act* of Ontario and the *Freedom of Information and Protection of Privacy Act*. Unless and until an inquest is called with respect to a specific death or deaths, the confidentiality and privacy interests of the decedents, as well as those involved in the circumstances of the death, will prevail. Accordingly, individual reports, review meetings, and any other documents or reports produced by the PSRC, are private and will not be released publicly.

Each committee member has entered into, and is bound by the terms of a confidentiality agreement that recognizes these interests and limitations.

Members of the committee do not give opinions outside the coroners' system about cases reviewed. In particular, members do not act as experts at civil trials for cases that the PSRC has reviewed.

Members do not participate in discussions or prepare reports of clinical cases where they have (or may have) a conflict of interest, or perceived conflict of interest, whether personal or professional.

Medical records, draft and consensus reports and the minutes of committee meetings are confidential documents.

Summary of Cases Reviewed in 2013 and 2014

Nine cases were reviewed by the PSRC in 2013 and in 2014, four cases were reviewed. Two cases referred to the committee in 2014 were deferred to the following year and were not included in the 2014 case review count. In 2013, 48 recommendations were made in response to the cases reviewed and in 2014, there were 20 recommendations made. The recommendations were categorized by the following theme/issues:

- Communication and Documentation
- Education, Training and Research
- Legislation
- Policy and Procedures
- Quality of Care Review
- Resources
- Miscellaneous / Other

The majority of themes / issues identified in cases reviewed in 2013 were communication and documentation, education, training and research and policy and procedures. The most prevalent themes / issues identified in cases reviewed in 2014 were communication and documentation, policy and procedures and resources. A summary of the 2013 and 2014 case recommendations has been included in Appendix A.

Figure 1: 2013 PSRC Recommendations based on theme / issue

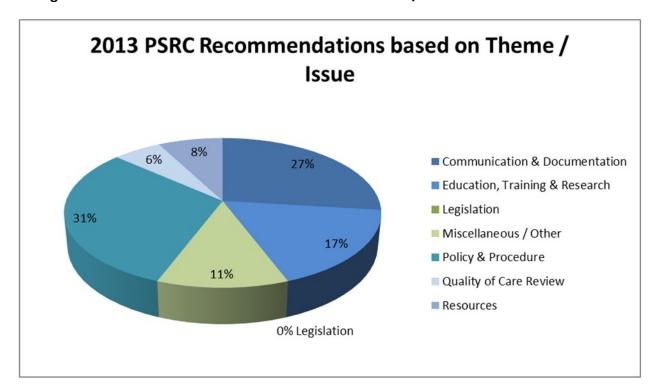


Figure 1 demonstrates the distribution of themes / issues derived from the recommendations of patient safety related cases reviewed by the PSRC in 2013. Policy and procedure was identified most often, (31%), followed by communication and documentation (27%), education, training and research (17%), miscellaneous / other (11%), resources (8%) and quality of care review (3%). There were no themes / issues related to legislation. Note that some recommendations had more than one theme / issue identified.

Figure 2: 2014 PSRC Recommendations based on theme / issue

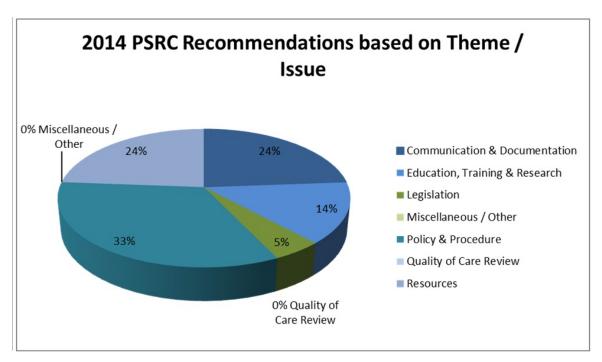


Figure 2 demonstrates the distribution of themes / issues derived from the recommendations of patient safety related cases reviewed by the PSRC in 2014. Policy and procedure was identified most often, (33%), followed by communication and documentation (24%), resources (24%) education, training and research (14%) and legislation (5%). There were no themes / issues related to quality of care review or miscellaneous / other. Note that some recommendations had more than one theme / issue identified.

Appendix A

2013 PSRC Recommendations

PSRC File Number	Recommendations	
2013-01	1.	To Hospital A, the Ontario Hospital Association, and the Ontario Medical Association: Venous thromboembolism (VTE) prophylaxis should be initiated as soon as possible after presentation to hospital for any patient in whom it is indicated. Theme: Quality of Care Review
	2.	To Hospital A, the Ontario Hospital Association, and the Ontario Medical Association: Greater consideration be given to the possibility that sudden and unexplained hypoxia and tachycardia could be the result of a pulmonary embolus in any patient who has been immobilized for a period of time, even if conventional anticoagulant therapy to prevent venous thromboembolic disease has been part of the treatment regimen. Theme: Education, Training & Research
	3.	To Hospital A, the Ontario Hospital Association, and the Ontario Medical Association: Hospitals should review the antidotes they stock on a regular basis, and at least annually. If a given antidote is not stocked by a hospital, a plan should be in place and readily available to staff in order to ensure that this antidote can be obtained rapidly from another institution or source, on a 24/7 basis. Theme: Resources
	4.	To Hospital A, the Ontario Hospital Association, and the Ontario Medical Association: Alcohol withdrawal should be considered in any patient admitted to hospital within the last five days who demonstrates signs or symptoms such as tachycardia, hypertension, tremor or confusion / disorientation / hallucinations. If alcohol withdrawal is suspected, this should be assessed and managed using accepted protocols, such as the CIWA-Ar score and symptom-triggered therapy with benzodiazepines. Theme: Education, Training & Research
2013-02	1.	To Hospital A: The hospital should consider and respond to the additional questions posed by the PSRC reviewer in this case, and in addition, should report back to the PSRC on the actions taken as a result of their internal review. Theme: Quality of Care Review

PSRC File Number	Recommendations
Number	 To the Ontario Hospital Association: Consider automation (e.g., automated dispensing cabinets, bar code verification of medication administration) as a priority for critical care areas given the extensive use of floor stock in these care areas. Theme: Resources
	 To the Institute for Safe Medication Practices (ISMP) Canada: ISMP Canada should identify medications which may be fatal if administered via intravenous (IV) push, and make recommendations to manufacturers and pharmacies regarding labelling or other markings to minimize the likelihood that such medications will be administered by IV push in error. Theme: Miscellaneous / Other
	4. To the Ontario Hospital Association, the Ontario Nurses Association, the College of Nurses of Ontario, the Ontario Medical Association and the College of Physicians and Surgeons of Ontario: Ensure that processes, such as critical incident debriefing and employee assistance programs, are in place to provide psychological support for staff involved in incidents. Theme: Miscellaneous / Other and Policy & Procedures
2013-03	 To the Ontario Hospital Association (OHA), the Ontario Nurses Association, and the Canadian Society of Hospital Pharmacists, Ontario Division: Use smart pumps with hard stops for the administration of infusions of high alert medications such as propofol. In the absence of smart pump technology, ensure that independent checks include verification of pump programming. Theme: Policy & Procedures
	 To the Ontario Hospital Association (OHA), the Ontario Nurses Association, and the Canadian Society of Hospital Pharmacists, Ontario Division: Ensure that programming of smart pumps is consistent in all areas of the hospital and give priority for technology to support wireless updates so that all pumps can be updated simultaneously. Theme: Policy & Procedures
	 To the Ontario Hospital Association (OHA), the Ontario Nurses Association, and the Canadian Society of Hospital Pharmacists, Ontario Division: Develop order sets to guide administration of high alert medications such as propofol. Theme: Policy & Procedures

PSRC	Recommendations		
File Number			
	4. To the Ontario Hospital Association: Develop processes to support the provision of safe care to admitted patients in the Emergency Department when there are no intensive care beds available. Such processes may include, but are not limited to: protocols to support rapid transfer to ICU; bringing ICU nurses to provide care to ICU patients in the ED, and; use of smart pumps and other technological solutions in order to mitigate risk when high alert medication infusions are used in the ED setting. Theme: Policy & Procedures		
	 To the institute for Safe Medication Practices (ISMP) Canada: ISMP Canada should review the labeling and packaging issue related to this product (i.e., product label not designed to support reading upside down). Theme: Miscellaneous / Other 		
	6. To the Ontario Hospital Association, the Ontario Nurses Association, the College of Nurses of Ontario, the Ontario Medical Association and the College of Physicians and Surgeons of Ontario: Ensure that processes, such as critical incident debriefing and employee assistance programs, are in place to provide psychological support for staff involved in incidents. Theme: Policy & Procedures		
2013-04	 To Hospital A, the Ontario Hospital Association, the Ontario Nurses Association and the College of Nurses of Ontario: Review the medication administration processes to identify and address barriers to taking the MAR to the bedside for medication administration. Theme: Policy & Procedures 		
	 To Hospital A, the Ontario Hospital Association, the Ontario Nurses Association and the College of Nurses of Ontario: Ensure consistent use of two patient identifiers at all steps in the medication use process. Theme: Policy & Procedures 		
	 To the Ontario Hospital Association, the Ontario Nurses Association, the College of Nurses of Ontario, the Ontario Medical Association and the College of Physicians and Surgeons of Ontario: If the clinical status of a patient changes suddenly, consider medication error in the differential diagnosis. Theme: Education, Training & Research 		
	4. To the Ontario Hospital Association, the Ontario Nurses Association, the College of Nurses of Ontario, the Ontario Medical Association and the College of Physicians and Surgeons of Ontario: Routinely check blood glucose levels when a patient experiences a sudden altered level of consciousness. Theme: Education, Training & Research		

PSRC File Number	Recommendations	
Number	5. To the Ontario Hospital Association, the Ontario Nurses Association, the College of Nurses of Ontario, the Ontario Medical Association and the College of Physicians and Surgeons of Ontario: Assess current staff identification practices and remind staff to wear identification tags in a way that makes them visible to patients and family members; work to create a culture of healthcare workers introducing themselves to patients and family members. Theme: Communication & Documentation	
	6. To the Ontario Hospital Association, the Ontario Nurses Association, the College of Nurses of Ontario, the Ontario Medical Association and the College of Physicians and Surgeons of Ontario: Ensure that processes, such as critical incident debriefing and employee assistance programs, are in place to provide psychological support for staff involved in incidents Theme: Policy & Procedures	
	7. To the Ontario Association of Chiefs of Police: Police investigators who are conducting interviews in a healthcare setting should be mindful of the potential negative impact of overly-aggressive lines of inquiry on staff and their willingness to participate in both the current investigation, and subsequent incident reporting of medical errors. Theme: Communication & Documentation	
	8. To the Ontario Association of Chiefs of Police: When police are investigating a death (whether under the aegis of the coroner, or as part of a criminal investigation), consideration should be given to enlisting the assistance of health care providers who might educate and guide the police in some of the relevant medical issues and lines of inquiry, so as to allow police to focus their inquiry more effectively. Theme: Communication & Documentation	
2013-05	 Hospital A should undertake a review of the care provided in this case, including but not limited to: Determining whether there was a delay in timely access to past health records and if so, whether the circumstances that gave rise to such delay are the result of a remediable issue. If possible, processes to facilitate timely access to past health records should be instituted. Whether due consideration was given to the possibility that the decedent's dramatic decline may have been prompted by an acute change in his coagulation status and seek to identify the cause for this. This would be done with a view to identifying protocols / best practices for the management of similar patients in future. Theme: Quality of Care Review 	

PSRC File Number	Recommendations
	 To the Office of the Chief Coroner: The PSRC recommends that the Office of the Chief Coroner approach the Canadian Health Information Management Association (CHIMA) to seek collaborative opportunities to develop a standardized approach to the organization of health records transmitted in electronic format specifically with the intention of supporting clinical review processes directed at quality and safety in healthcare. Theme: Policy & Procedures and Communication & Documentation
2013-06	 To the Ontario Hospital Association (OHA): Hospital boards should ensure that appropriate consultation is obtained (including, but not limited to Medical Advisory Committees) when implementing policies impacting the delivery of patient care. Theme: Communication & Documentation
	 To the Ontario Hospital Association (OHA): All hospitals should develop clear policies and protocols which delineate the role of hospital Code teams and local EMS resources for medical emergencies which occur outside of the walls of the hospital. Such protocols should include processes to ensure that EMS responders are provided with accurate information and assistance to facilitate their timely access to the patient. Theme: Policy & Procedures
	 To the Ontario Hospital Association (OHA): Hospitals should perform mock exercises to test and improve upon their response to medical emergencies in atypical locations as part of their ongoing quality improvement and emergency response processes. Theme: Education, Training & Research
2013-07	 The Minister of Health and Social Services for the Northwest Territories should establish a working group to set standards for physicians and nurse practitioners on the prescribing of opioids and benzodiazepines. The Canadian Guideline needs to be adapted to the NWT setting, where short- term locums provide much of the care and the patient population has a high prevalence of substance use disorders. Theme: Policy & Procedures
	 The Ministry of Health and Social Services for the NWT should review the NWT Ministry of Health's eligibility criteria for Suboxone coverage, to ensure that all patients who need it are able to receive it. Theme: Miscellaneous / Other

PSRC File Number	Recommendations er	
	3.	The Ministry of Health and Social Services for the NWT should establish a working group to set guidelines and standards for the medical management of opioid dependence. Current guidelines on Suboxone prescribing and dispensing need to be adapted for the NWT setting. Theme: Policy & Procedures
	4.	In setting up addiction services, the eight NWT Regional Health Authorities must work closely with First Nations communities and their band councils. Theme: Communication & Documentation
	5.	The Ministry of Health and Social Services for the Northwest Territories should provide training for physicians and nurse practitioners on opioid and benzodiazepine prescribing and on the identification and management of opioid misuse and addiction. The training could be offered through telemedicine. Theme: Education, Training & Research
	6.	The Ministry of Health and Social Services for the NWT should provide physicians and nurses with access to a long distance clinical support network to assist them in the management of opioid prescribing and opioid addiction. Theme: Communication & Documentation
	7.	The Ministry of Health and Social Services for the Northwest Territories should arrange for one or more physicians and nurse practitioners to receive more intensive training in Suboxone prescribing, structured opioid therapy, and benzodiazepine tapering. Theme: Education, Training & Research
2013-08	1.	To Hospital A, the Ontario Hospital Association, the Ontario Nurses Association, the Registered Nurses Association of Ontario, and the Ontario Branch of the Canadian Society of Hospital Pharmacists: Where a continuous infusion rate has been ordered, include this information on pharmacy- generated Medication Administration Records (MARs) to support pump programming. Theme: Communication & Documentation
	2.	To Hospital A, the Ontario Hospital Association, the Ontario Nurses Association, the Registered Nurses Association of Ontario, and the Ontario Branch of the Canadian Society of Hospital Pharmacists: When using a Patient Controlled Analgesia (PCA) flow sheet or equivalent document, include the medication order on the flow sheet (transcribed via a double check process) for reference. Theme: Communication & Documentation

PSRC	Recommendations	
File		
Number		
	3.	To Hospital A, the Ontario Hospital Association, the Ontario Nurses Association, the Registered Nurses Association of Ontario, and the Ontario Branch of the Canadian Society of Hospital Pharmacists: Institute independent double check practices for programming of infusion pumps for opioid infusions (and other high-alert medications). Theme: Policy & Procedures
	4.	To Hospital A, the Ontario Hospital Association, the Ontario Nurses Association, the Registered Nurses Association of Ontario, and the Ontario Branch of the Canadian Society of Hospital Pharmacists: Create a process at shift change whereby infusion or fluid orders are reviewed and confirmed against the original order or independently checked MAR. Theme: Communication & Documentation
	5.	To Hospital A, the Ontario Hospital Association, the Ontario Nurses Association, the Registered Nurses Association of Ontario, and the Ontario Branch of the Canadian Society of Hospital Pharmacists: Ensure that the 24 hour check process includes comparison of the original order to both handwritten and pharmacy-generated MARs, including drug, dose, concentration, rate, frequency, breakthrough parameters, etc. Theme: Communication & Documentation
	6.	To Hospital A, the Ontario Hospital Association, the Ontario Nurses Association, the Registered Nurses Association of Ontario, and the Ontario Branch of the Canadian Society of Hospital Pharmacists: Require a clinical review of opioid infusion orders by a pharmacist that includes assessment of prior opioid use. Theme: Communication & Documentation
	7.	To Hospital A, the Ontario Hospital Association, the College of Physicians and Surgeons of Ontario, the College of Nurses of Ontario, and the College of Pharmacists of Ontario: Educate clinicians on the definition of opioid tolerance, and review the patient conditions and comorbidities that may suggest the need for a reduced dose of opioid. In addition to ongoing educational efforts, this information may be included as part of a palliative care pathway or protocol. Theme: Education, Training & Research

PSRC File	Recommendations
Number 2013-09	 To Hospital A: Transfer of care policies and procedures for patients awaiting transfer should be reviewed. The patient's condition, as well as information regarding the urgency, mode and reason for the transfer should be communicated to the attending physician if the admitting/transferring physician is not on site. It must be clear at all times who is the Most Responsible Physician (MRP) for the patient. Theme: Policy & Procedures and Communication & Documentation
	 To the Ontario Hospital Association, Criticall, all Local Health Integration Networks (LHINs), and the Ministry of Health and Long-Term Care: Access to urgent/emergent care for patients with morbid obesity should be better coordinated and facilitated. Theme: Resources
	 To the Ontario Hospital Association, Criticall, all Local Health Integration Networks (LHINs), and the Ministry of Health and Long-Term Care: Timely access to ICU beds must be ensured for patients with life-threatening conditions. Theme: Resources
	4. To the Ontario Hospital Association and the Ontario Medical Association Sections on General and Family Practice and Emergency Medicine: Develop and/or enhance existing processes to ensure that appropriate primary care follow-up is arranged following emergency department (ED) visits, particularly for patients with repeat ED visits for the same problem. Theme: Policy & Procedures
	 To the College of Physicians and Surgeons of Ontario and the Ontario Medical Association: Physicians should be reminded of the challenges in clinical assessment of morbidly obese patients which may lead to a risk of under- appreciation of the severity of their condition. Theme: Education, Training & Research

PSRC File Number	Recom	mendations
2013-10		To Hospital A: It is understood that Hospital A has undertaken an extensive review subsequent to this man's death and has addressed a number of issues identified in the review process. As the results of that process were not available to the PSRC, recommendations regarding issues identified by the PSRC for review and follow-up by the hospital are as follows: a. Nursing documentation and follow-up, including notification of the attending physician, when abnormal conditions arise. b. Clinical assessments during the night shift including suitable documentation that patients are assessed regularly. c. Ensure that a policy exists that promotes the documentation of allergic reactions for each allergy identified or clearly documents when this information is deficient and a plan to address. d. Review airway management during the resuscitation and remedy any identified impediments to timely intubation, if they exist. Theme: Communication & Documentation and Miscellaneous / Other To the Regional Supervising Coroner: In view of the finding of cardiomegaly of unknown etiology at post-mortem examination, first-degree relatives should be advised to be assessed by a cardiologist with a view to providing advice regarding risk and follow-up, as appropriate. Theme: Policy & Procedures

2014 PSRC Recommendations

PSRC File Number	Recommendations Cross deferred to fellowing region and	
2014-01	Case deferred to following review year	
2014-02	 To Hospital A, Ontario Hospital Association: It is recommended that access to critical Diagnostic Imaging investigations, particularly Computerized Tomography, be available 24/7 for urgent indications as assessed by specialist services. Theme: Resources 	
	 To Hospital A, Ontario Hospital Association: All hospitals utilizing the services of trainee physicians should establish, or review, policies requiring prompt notification of staff specialists when patients have potentially serious diagnoses. Theme: Policy & Procedure 	

PSRC File Number	Recommendations		
	3.	To Hospital A, Ontario Hospital Association: Hospitals should continue efforts to reduce or eliminate situations of ambulance offload delay. If offload delay does occur, hospitals should ensure that, whenever possible, urgent patient assessments (including laboratory investigations and physical examinations) are initiated promptly, even if these assessments occur on the ambulance stretcher. Theme: Resources	
2014-03	1.	To Hospital A, the Ontario Association of Radiologists, and the Ontario Hospital Association (OHA): Hospitals should ensure that x-rays and other forms of imaging are labelled (on the image itself) with the time and date the image was acquired in a clear and unambiguous way. Ideally, annotation should be made on the image in an automated way that does not depend on human intervention. Theme: Communication & Documentation	
	2.	To Hospital A, the Ontario Association of Radiologists, and the Ontario Hospital Association (OHA): Electronic imaging (PACS) systems should clearly indicate when images have been ordered and/or acquired but not yet displayed, in order to minimize the likelihood of image confusion. Theme: Communication & Documentation	
	3.	To Hospital A, the Ontario Association of Radiologists, and the Ontario Hospital Association (OHA): Hospitals should ensure that processes exist to ensure that critical findings (including, but not limited to, mal-placed feeding tubes) on diagnostic images are communicated immediately and directly to the responsible clinical staff by the reading radiologist as soon as they are identified. Theme: Policy & Procedure	
	4.	To Hospital A, the OHA and the College of Physicians and Surgeons of Ontario: Procedure notes should be written for all invasive procedures. Such documentation should include: • the name and position (e.g., medical student; third-year resident; staff physician) of the person performing the procedure, and the person who is providing supervision (if any); • risks explained and how/from whom consent was obtained • any complications • name and position of person confirming placement of device (feeding tube; central line, etc.) as applicable. Theme: Communication & Documentation, Policy & Procedure	

PSRC File	Recommendations
Number	
	 To Hospital A and the OHA: Hospitals should develop (or review existing) policies for the use of patient care assistants, with a specific aim of ensuring that patient needs are identified and addressed across transitions of care (i.e., changes in service; transfers within or between institutions). Theme: Policy & Procedure
2014-04	 To Hospital A, Hospital B, and the Ontario Hospital Association: All hospitals in which negative pressure wound therapy (NPWT) devices are used should develop (or adapt existing) policies, procedures and clinical tools (such as standard order sets, transfer of care documents, etc.) to support clinicians using these devices. Such documents should provide clinicians with information including, but not limited to: Appropriate use of NPWT devices, Indications and contraindications (relative and absolute),
	c. Troubleshooting d. Emergencies, such as bleeding. Such policies, procedures and clinical tools should support, but not replace, appropriate education and training for clinicians using these devices. Theme: Policy & Procedure
	2. To Hospital A, Hospital B, and the Ontario Hospital Association: The use of negative pressure wound therapy (NPWT) devices over infected graft sites should be discussed with the patient's full health care team, with documentation of discussion of bleeding risk and emergency measures to be taken if bleeding occurs. This should include education of patients with respect to signs to watch for and the need to urgently alert clinical staff should signs of bleeding occur. This information should be explicitly communicated as part of every transition of care. Theme: Communication & Documentation
	 To Hospital B: This case should be reported to Health Canada as a serious adverse event associated with a medical device, if this has not already occurred. Theme: Communication & Documentation
	 To Health Canada: A safety alert should be issued by Health Canada regarding the risk of bleeding associated with negative pressure wound therapy (NPWT) devices in certain clinical scenarios. Theme: Legislation
2014-05	Case deferred to following review year

PSRC	Recommendations
File Number	
2014-06	 Re: the Nursing Station: Point of Care blood testing could be made available to enhance the level of care that can be rendered in remote locations. (To include: CBC, INR, electrolytes, urea, creatinine, glucose, liver function tests, albumin, calcium, amylase, CK and troponin). Theme: Resources
	 Re: the Nursing Station: Functional suction devices must be available at all times at nursing stations. Theme: Resources
	 Re: the Nursing Station: Medical and nursing staff who deal with patients with chronic alcoholism should be made aware of the increased potential for acetaminophen toxicity in these patients. Theme: Education, Training & Research
	4. Re: the Nursing Station: A review should be conducted of the policies and procedures for transfer of patients from nursing stations to regional / tertiary care centres. This review should include the indications for transfer (including the need for timely investigations not available at the nursing stations). Theme: Policy & Procedure
	 Re: Aeromedical Transport: Transport teams should perform a daily equipment check based on a pre-established list of required items (e.g. blood tubing). Theme: Policy & Procedure
	 Re: Aeromedical Transport: Monitoring equipment must be capable of assessing BP, Pulse and O2 saturation at all times despite aircraft noise and vibration. Theme: Resources
	 Re: Aeromedical Transport: Crews should receive in-service education to ensure they are completely familiar with equipment they carry, including blood transfusion tubing and oxygen connections for their ventilator. Theme: Education, Training & Research
	8. Re: Transport Physicians: Physicians who are providing on-scene or on-line advice to paramedics, need to be aware of guidelines for airway management in critically ill patients, including the need for airway protection in patients with decreased levels of consciousness, and controlled ventilation in shock states in which there is poor tissue perfusion and oxygenation. Theme: Education, Training & Research

Questions or comments pertaining to this report may be directed to:

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