Ontario College of Pharmacists
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PHARMACY CONNECTION

SPRING 2016 • VOLUME 23 NUMBER 2

THE OFFICIAL PUBLICATION OF
THE ONTARIO COLLEGE OF PHARMACISTS

PHARMACY PROFESSIONALS CAN REDUCE THE RISK OF PATIENTS BEING HOSPITALIZED OR READMITTED AFTER A HEALTHCARE TRANSITION.

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Ontario College of Pharmacists
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Strategic Framework
2015-2018

Mission
The Ontario College of Pharmacists regulates pharmacy to ensure that the public receives quality services and care.

Vision
Lead the advancement of pharmacy to optimize health and wellness through patient-centred care.

Values
Transparency ◆ Accountability ◆ Excellence

Strategic Priorities
Core Programs Fulfillment of Mandate ◆ Optimize Practice within Scope ◆ Inter & Intra Professional Collaboration

Strategic Initiatives
Patients First
Effective Communications
Continuous Quality Improvement

The objectives of *Pharmacy Connection* are to communicate information about College activities and policies as well as provincial and federal initiatives affecting the profession; to encourage dialogue and discuss issues of interest to pharmacists, pharmacy technicians and applicants; to promote interprofessional collaboration of members with other allied health care professionals; and to communicate our role to members and stakeholders as regulator of the profession in the public interest.

We publish four times a year, in the Fall, Winter, Spring and Summer.

We also invite you to share your comments, suggestions or criticisms by letter to the Editor. Letters considered for reprinting must include the author's name, address and telephone number. The opinions expressed in this publication do not necessarily represent the views or official position of the Ontario College of Pharmacists.

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Esmail Merani,
R.Ph., Pharm.D, B.Sc. (Pharm), ICD.D
President

> "It's important that we find the time in our busy schedules to continue to learn and grow – our patients are counting on it!"

For any regulatory health college, a fundamental means of fulfilling the mandate to serve and protect the public interest is through quality assurance activities. These ensure that pharmacists and pharmacy technicians are not only qualified to practice as they enter the profession but that they remain qualified throughout their careers.

The College's current Quality Assurance (QA) Program includes self-assessment, a learning portfolio and Peer Review — a random selection of pharmacists who participate in a knowledge and practice assessment. Peer Review occurs four times per year at the College offices in Toronto. Although this particular program has served the College well for many years, there are a few important limitations.

Practically, the number of practitioners that are able to participate in the Peer Review each year is limited. In addition, the practice assessment component is done in a simulated environment, using case studies and standardized patients. This may not be reflective of the individual's actual practice environment.

It is for these reasons that the College's Quality Assurance Committee has recently engaged in an initiative to evaluate and re-design the QA program for pharmacists and pharmacy technicians.

The goal of the changes would be to not only allow more practitioners to engage in a quality assurance activity more frequently throughout their careers, but also to incorporate an aspect of the program that observes and evaluates them in their own practice setting. Development opportunities would then be individualized to the specific practice setting, and using a coaching approach, quality assurance assessors would work with practitioners to enhance their delivery of quality patient care.

Last year, the College introduced individual practitioner assessments to the routine pharmacy assessment. These have provided an additional opportunity — outside the QA program — to evaluate competence and through coaching and mentoring in order to enhance practice. More information, including assessment criteria and how to prepare for an assessment can be found on the OCP website.

At the core of any health profession's quality assurance activities, of course, is the understanding that as healthcare professionals we must be committed to lifelong learning. In recent years the College has done a lot to develop and provide easier access to a wide range of learning resources to support professional development and share learnings and best practices.

At times, this work is done in partnership with other organizations. One example is "Decisions, Decisions: Addressing Challenging Pharmacy Practice Situations", which is currently being presented jointly with the University of Toronto. It's part of a multi-year initiative designed to support changes in practice behaviour that enhance patient care.

In this issue of *Pharmacy Connection* you will find a number of articles that use real practice scenarios to highlight the significance of our responsibilities during the transitions of a patient's care. Additionally, on page seven you will find an easy reference guide to the variety of videos, e-learning modules or practice tools and other resources that are available to you.

It's important that we find the time in our busy schedules to continue to learn and grow – our patients are counting on it! Pc

MARCH 2016 COUNCIL MEETING

As recorded following Council's regularly scheduled meeting held at the College offices on March 29, 2016.

PROPOSED CHANGES TO THE *PHARMACY ACT* REGULATIONS *(Administration of Vaccines by Pharmacists)*

In anticipation of the government approving a broader authority for pharmacists to administer vaccinations, Council discussed amendments to the *Pharmacy Act* regulation which would authorize pharmacists to administer select vaccines.

The proposed changes would allow for the administration of vaccinations for 13 diseases that are preventable by vaccines. This includes vaccinations for Haemophilus Influenzae Type B, Hepatitis A, Hepatitis B, Herpes Zoster, Human Papillomavirus, Japanese Encephalitis, Meningitis, Pneumococcal Disease, Rabies, Tuberculosis, Typhoid Disease, Varicella Virus and Yellow Fever.

The proposed amendments would also authorize pharmacy students and interns to administer injections — both those under the Universal Influenza Immunization Program and the selected vaccines — subject to the terms, limits and conditions imposed on their certificate of registration.

Accordingly, Council approved the recommendation that the proposed changes to the *Pharmacy Act* regulations be circulated and posted for public consultation on the College's website with a deadline of May 29, 2016. Comments and input will be considered by Council at its meeting in June.

COUNCIL APPROVES AUDITED STATEMENTS FOR COLLEGE OPERATIONS FOR 2015

Council approved the Audited Financial Statements for the operations of the College for 2015 as prepared by management and audited by Clarke Henning, LLP, Chartered Accountants. The audit and resulting financial statements were prepared in accordance with Canadian Auditing Standards. Council was pleased to note that the auditors did not identify any major issues of concern. The summarized financial statements will be published in the 2015 Annual Report early in April.

NEW PUBLIC MEMBER APPOINTED TO COUNCIL

Council welcomed Mr. Wes Vickers, to the table. Mr. Vickers will be serving on the Discipline, Inquiries Complaints and Reports, and the Registration Committees of the College. With the addition of Mr. Vickers there are currently 10 publicly appointed members on Council; a full compliment is 16.

Mr. John Amodeo, Director, Corporate Management Branch, Ministry of Health and Long-Term Care also attended the meeting and presented an overview of the process of appointment by government of public members to regulatory colleges.

It was acknowledged that this College has been struggling with drawing duly constituted panels to consider matters referred to statutory committees for adjudication due to the limited availability of government appointed public members. This has sometimes resulted in cancelled panel meetings. Although legislation permits panels of adjudicatory committees (except for discipline) to proceed in the absence of Lieutenant Governor in Council (LGC) public members, the College is reluctant to do so and would like to ensure that as far as is possible, there is public participation at these meetings.

Council considered strategies that would allow the College to ensure panels meet both in a timely manner and with public participation and agreed to consider this matter further at the June Council meeting. Pc

COUNCIL MEETINGS IN 2016:

- Monday 13 June, 2016
- Monday 19 and Tuesday 20 September, 2016
- Monday 12 December, 2016

Council meetings are open to the public, and are held at the College: 483 Huron Street, Toronto, ON M5R 2R4. If you plan to attend, or for more information, please contact

Ms. Ushma Rajdev, Council and Executive Liaison at urajdev@ocpinfo.com

This new feature in *Pharmacy Connection* is a place to find information about news stories we're following. Here, you'll read summaries of recent stories relating to pharmacy in Ontario and Canada. For the latest updates, stay tuned to e-Connect and www.ocpinfo.com

PATCH4PATCH

Fentanyl, a prescription-only drug, is a synthetic opioid used primarily to treat severe pain. Fentanyl is available in many forms, including as an injection and as a transdermal patch that slowly releases the medication through the skin. When used incorrectly, or abused, fentanyl can pose significant health risks.

A recent report from the Canadian Centre on Substance Abuse indicates as many as 655 Canadians may have died between 2009 and 2014 as a result of fentanyl overdoses. The diversion of pharmaceutical fentanyl patches is one means by which fentanyl is finding its way into the illicit drug market. This non-medical use of fentanyl creates a risk of overdose because of the high potency of the drug.

Bill 33 *Safeguarding our Communities Act* (Patch for Patch Return Policy), 2015, received royal assent on December 10, 2015. The bill establishes a framework for implementing a regulated Patch4Patch program in Ontario. In addition to establishing requirements that apply to prescribers, the legislation sets out the rules that apply to persons who dispense fentanyl patches.

It is anticipated that regulations supporting the provisions in the Act will be developed by government and implemented in 2016.

MEDICAL ASSISTANCE IN DYING

As of February 6, 2016, all provinces and territories in Canada must ensure patients have access to medical assistance in dying (formerly known as physician-assisted death). While the Supreme Court provided a four-month extension for the development of legislation, individuals are able to apply to the courts for access to medical assistance in dying in the meantime.

Since federal and provincial legislation has not yet been enacted, the College has produced a preliminary guidance document for pharmacists and pharmacy technicians in Ontario. The document will continue to serve as interim guidance to support the profession when serving patients who have qualified and consented to medical assistance in dying. It is intended to help pharmacy professionals comply with the Code of Ethics and Standards of Practice in a manner that is consistent with the Supreme Court of Canada's decision.

The federal government introduced proposed legislation on April 14, 2016 which, if passed, would come into force on Royal Assent. The provincial government has not yet introduced legislation for consideration. The proposed federal legislation will ensure clear rules around who is eligible for medical assistance in dying, what safeguards must be followed to ensure that vulnerable individuals are protected, and create a monitoring regime to ensure accountability, transparency, and public trust in the system. Federal legislation will ensure a consistent approach to medical assistance in dying across Canada.

All pharmacy professionals should continually monitor information from the College about medical assistance in dying. Future development of policies, legislation or regulations may impact the guidance document, and will be communicated to the profession.

NALOXONE UPDATE

As drug overdose deaths in the province continue to rise, healthcare advocates across the country are encouraging the federal and provincial governments to make naloxone available without a prescription. In Ontario, naloxone is currently only available with a prescription or through take-home programs.

On March 22, 2016, Health Canada removed naloxone from the Prescription Drug List. However, there are still several steps required before naloxone can be dispensed without a prescription in this province.

The National Association of Pharmacy Regulatory Authorities (NAPRA) maintains the National Drug Schedules (NDS) program.

The NDS is used by reference in Ontario to indicate if a prescription is required (Schedule I), if pharmacist intervention is required (Schedule II), if an option to consult a pharmacist is required (Schedule III) or if no professional supervision is required (Unscheduled).

The next step toward making naloxone available without a prescription is a review by NAPRA and an online consultation to collect stakeholder feedback. In response to public health concerns, NAPRA has shortened the normal 90-day consultation period to 10 days. Therefore, the publication of the final recommendations for the scheduling of naloxone — anticipated to be Schedule II — should occur before the end of June, 2016.

Currently, naloxone is still a Schedule I drug and requires a prescription.

In the meantime, in order to eliminate barriers to access, the College of Physicians and Surgeons of Ontario has recently revised the Prescribing Drugs policy to permit physicians to prescribe naloxone outside of a physician-patient relationship so that it can be provided in opioid overdose emergency kits. This policy revision will be rescinded when naloxone becomes available without a prescription. Pc

A WEALTH OF RESOURCES AT YOUR FINGERTIPS

The College has a wealth of valuable resources for you – from practice tools to videos to e-Learning modules, manuals, brochures, and continuing education (CE) resources.

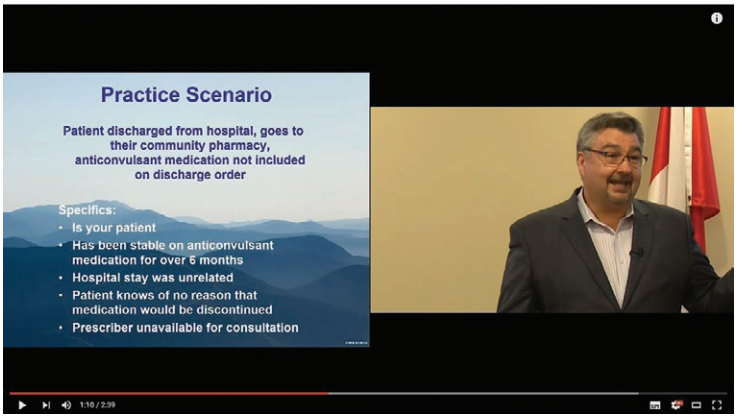
Browse our comprehensive list of practice tools on topics such as record keeping and documentation, designated managers, expanded scope, methadone and buprenorphine, and much more.

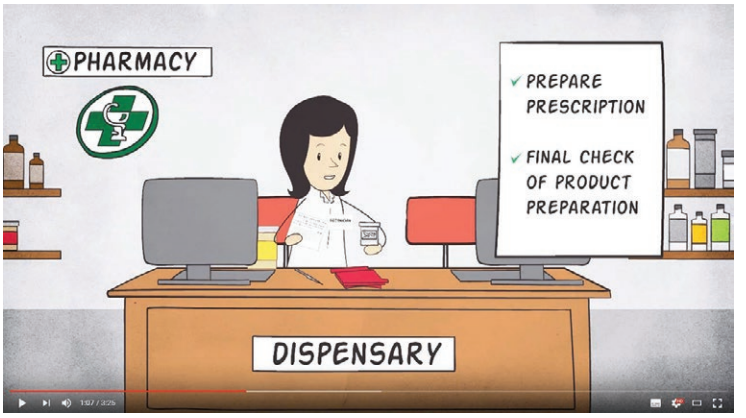
Our video library includes videos on topics such as "Integrating Pharmacy Technicians into Community Practice," "Narcotics Reconciliation," "A Decision to do Nothing is Still a Decision," and more!

We've developed interactive e-Learning modules to help you brush up on key regulations, like the *Drug and Pharmacies Regulation Act* (DPRA) and the *Ontario Drug Benefit Act* (ODBA).

And last but not least, the CE tool on our website organizes hundreds of potential professional development activities (for both pharmacists and pharmacy technicians), which makes finding your next continuing education activity quick and easy.

Take advantage of these great resources today!





THE ROLE OF THE PHARMACIST IN HEALTHCARE TRANSITIONS

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HEALTHCARE TRANSITIONS CAN CREATE SAFETY RISKS FOR PATIENTS DUE TO POOR COMMUNICATION, COORDINATION AND/OR INTEGRATION OF TREATMENT, AND SUBSEQUENT CHANGES IN MEDICATION THERAPY ALONG THE WAY

INTRODUCTION

Over the course of receiving treatment, a patient who has been diagnosed with a chronic illness will likely require care from more than one healthcare professional or care team. This may include admission or discharge from hospital, or transfer from hospital to another care setting. One healthcare transition may lead to another, such as when referral to a specialist leads to an inpatient admission, or when issues after discharge lead to a hospital readmission. Whatever the reason for a transfer of care, healthcare transitions can create safety risks for patients due to poor communication, coordination and/or integration of treatment, and subsequent changes in medication therapy along the way.

A pharmacist's role is to ensure optimal outcomes for a patient from his or her medication therapy. This article will explore how pharmacists can positively contribute to patient care during healthcare transitions by applying their unique knowledge, skills and judgment. During a healthcare transition, this contribution can be crucial in reducing the potential for serious adverse events leading to patient harm. A pharmacist has access to a number of tools to guide his or her practice and approach to decision-making for the benefit of the patient, including the *Code of Ethics* and *Standards of Practice*.

> "Approximately nine per cent of acute care patients are readmitted to an acute care hospital within 30 days of discharge, with one in every six patients returning multiple times within seven days of discharge."

PHARMACIST PRACTICE

Pharmacists provide care in numerous settings and can assist patients through inter-professional collaboration and the provision of advanced pharmaceutical care, wherever the patient is located. In long-term care facilities, pharmacists work with nurses and physicians to ensure patients are receiving optimal medication therapy — including, as an example, ensuring that residents' drug regimes are not contributing to a higher risk of falls. In Family Health Teams and Community Health Centres, pharmacists collaborate with other healthcare practitioners to improve chronic disease management and health promotion. Pharmacists are also well integrated in hospital facilities, including acute general, teaching and psychiatric hospitals, and rehabilitation and chronic care facilities. In these settings, pharmacists contribute at all stages of a patient's stay, including generating Best Possible Medication Histories (BPMH) on admission, verifying drug orders during treatment, managing medication therapy, and undertaking comprehensive medication reconciliations, including patient education at discharge. Pharmacists also provide clinical care by reviewing laboratory results and suggesting changes to medication therapy as required.

PATIENT RISK DURING CARE TRANSITIONS

During healthcare transitions, patients are particularly vulnerable to disjointed care which may lead to medication discrepancies, potential adverse drug events, delays in treatment, inappropriate treatment, duplication of treatment, avoidable healthcare costs, and ultimately, potential harm. These issues are directly related to poor communication between providers, patients and families, and the absence of overall accountability for patient care when patients cross boundaries within the treatment continuum. In addition to these issues, there are few mechanisms in place to coordinate care across settings and between providers.

Health Quality Ontario's findings confirm that fragmented patient care leads to hospitalizations and readmissions that could likely be avoided. Approximately nine per cent of acute care patients are readmitted to an acute care hospital within 30 days of discharge, with one in every six patients returning multiple times within seven days of discharge. The highest rates for readmission are associated with congestive heart failure and chronic obstructive pulmonary disease. With respect to seniors, it is estimated that adverse drug reactions (ADRs) account for up to two-thirds of drug-related hospital admissions and emergency department visits. Senior patients in rural areas are more likely to be readmitted than any other group, generally due to a lack of home cares services, and patients who received medical as opposed to surgical or obstetric care accounted for nearly two-thirds of unplanned readmissions. Further, among the factors known to increase the risk of ADRs are the number of drugs a patient is taking, whether or not he or she has started new medication therapy, and the number of pharmacies visited.

THE ROLE OF THE PHARMACIST IN OPTIMIZING PATIENT CARE

The current trend to early discharge of patients from hospital means that more acutely ill and complex patients are receiving therapies in the community. A recent survey found that 65% of Canadians reported difficulty in receiving after-

hours healthcare without visiting an emergency department, and emergency department wait times remain well above target for high complexity patients. There are several routine pharmacist actions that can ensure a patient's medication therapy is appropriate, including conducting medication reviews, identifying medications that pose risks to the patient and taking action, educating patients about medication therapy, identifying and reconciling changes in therapy during transitions, and documenting decisions and actions in the patient record. As the acknowledged experts on medication therapy, pharmacists can address or prevent many of these medication-related challenges and assist patients in managing their health conditions. Conducting regular reviews of a patient's medications can reduce the risk of ADRs.

Including a pharmacist in team-based care has been found to improve the overall quality of medication use and has been recommended by Health Quality Ontario. In some circumstances, where patients are seeing multiple health providers, or do not have a dedicated primary healthcare provider, the pharmacist may be the only health professional that has a complete record of medications prescribed and dispensed to a patient. With this record, the pharmacist is well-placed to spot potentially serious drug interactions and inappropriate therapy and address these issues immediately. The pharmacist will also monitor medication use and refill intervals to help identify patients who are not compliant.

CONCLUSION

The role of pharmacists is rapidly changing across Canada as pharmacists are taking on new roles and expanding clinical services. As new roles and services emerge, research continues to quantify the positive patient outcomes associated with the pharmacist's involvement, such as reducing drug interactions and lengths of stay in hospital, improving disease control, reducing drug costs, and reducing the use of health services. There is evidence that in times of healthcare transitions, the pharmacist's contribution can reduce both risks to a patient, and costs to the system. Continuing to integrate pharmacists working in all settings with other healthcare professionals could further improve patient outcomes during healthcare transitions. PC

Members Emeritus

Any pharmacist who has practiced continually in good standing in Ontario and/or other jurisdictions for at least 25 years can voluntarily resign from the Register and make an application for the Member Emeritus designation. Members Emeritus are not permitted to practice pharmacy in Ontario but will be added to the roll of persons so designated, receive a certificate and continue to receive *Pharmacy Connection* at no charge.

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How do community pharmacists make decisions?

RESULTS OF AN EXPLORATORY QUALITATIVE STUDY IN ONTARIO

This article was originally published in the March/April 2016 issue of Canadian Pharmacists Journal (Vol. 149, No. 2, pages 90-98).

Author Statement: Increasingly, pharmacists are required to move from simply providing advice and recommendations to actually making decisions and taking responsibility for them. For this study, we examined the clinical reasoning strategies community pharmacists used and relied upon to make decisions in complex, ambiguous situations in practice.

Original Research: Paul A.M. Gregory, BA, MLS;
Brenna Whyte, BASc, MSc;
Zubin Austin, BScPhm, MBA, MISc, PhD

ABSTRACT

Background: As the complexity of pharmacy practice increases, pharmacists are required to make more decisions under ambiguous or information-deficient conditions. There is scant literature examining how pharmacists make decisions and what factors or values influence their choices. The objective of this exploratory research was to characterize decision-making patterns in the clinical setting of community pharmacists in Ontario.

Methods: The think-aloud decision-making method was used for this study. Community pharmacists with 3 or more years' experience were presented with 2 clinical case studies dealing with challenging situations and were asked to verbally reason through their decision-making process, while being probed by an interviewer for clarification, justification and further explication. Verbatim transcripts were analyzed using a protocol analysis method.

Results and Discussion: A total of 12 pharmacists participated in this study. Participants experienced cognitive dissonance attempting to reconcile their desire for clear and confrontation-free conclusion to the case discussion and the reality of the challenge presented within each case. Strategies for resolving this cognitive dissonance included strong emphasis on the educational (rather than decision-making) role of the pharmacist, the value of strong interpersonal relationships as a way to avoid conflict and achieve desired outcomes, the desire to seek external advice or defer to others' authority to avoid making a decision and the use of strict interpretations of rules to avoid ambiguity and contextual interpretation. This research was neither representative nor generalizable, but indicative of patterns of decisional avoidance and fear of assuming responsibility for outcomes that warrant further investigation.

Conclusion: The think-aloud method functioned effectively in this context and provided insights into pharmacists' decision-making patterns in the clinical setting. Can Pharm J (Ott) 2016;149:90-98.

KNOWLEDGE INTO PRACTICE

- As pharmacy practice evolves, pharmacists are required to make decisions in challenging, ambiguous situations.
- Little is known about pharmacists' clinical decision-making practices.
- The think-aloud method is appropriate for exploratory research in clinical decision-making in pharmacy.
- Strategies for avoidance of conflict and actual decision-making characterize community pharmacists' decision-making.
- Confidence and comfort in making decisions is necessary for autonomous clinical practice.

BACKGROUND

There have been significant changes in the scope and nature of community pharmacists' work over the past decade.[1] Expanded scope of practice requires pharmacists to work in new ways, both as collaborators with patients and other professionals and as more autonomous decision-makers.[2] For decades, there has been discussion about pharmacists being an "underutilized" professional group: as they take on new responsibilities around immunization, prescribing, extending/modifying/adapting prescriptions, etc., this question of underutilization has begun to evolve towards the actual capacity of community pharmacists to absorb and fully integrate these new opportunities in day-to-day practice[3-5] As noted by Tsuyuki, pharmacists indeed do have a duty of care; however, it remains a question as to whether that responsibility ends with simply dispensing the right drug or whether it extends to other aspects of patient-centred care.[6]

Integral to these new roles for pharmacists is the responsibility for making clinical decisions (sometimes collaboratively with, sometimes independently of, other health care professionals such as family physicians).[7] Anecdotally, pharmacists report considerable stress and discomfort with these new responsibilities, particularly within the context of clinically complex, ambiguous and ethically sensitive situations.[8] Within the former technical model of professional practice (emphasizing dispensing and drug distribution), pharmacists knew if they were right or wrong in an objective and clear manner: did the right medication get in the right vial for the right patient at the right time? Moving beyond drug distribution requires decision-making when information may not be available, is incomplete or where there is no clear single right answer. This is particularly important in areas such as primary care where clear diagnoses may be absent and where treatment decisions must still be made even though crucial information (such as laboratory test results) may not be available.

Clinical reasoning is the discipline that helps explain thinking, problem-solving, analysis and decision-making in the health professions.[9] Within the field of medicine there is considerable literature exploring the nature of clinical reasoning.[10] Much of this literature has focused on the cognitive strategies physicians use to solve complex problems in ambiguous situations, including reasoning from first principles, application of guidelines/algorithms or (most frequently) heuristic-based pattern recognition. As noted by Norman and Eva, physician reliance on pattern recognition involves rapid, subconscious, cognitive cross-referencing between previously encountered clinical situations and current circumstances: while pattern recognition is fast and generally reliable as a method for clinical reasoning, it can sometimes result in attribution errors that can compromise outcomes.[10]

Historically, community pharmacy has been more procedural and technical in its orientation and so there has been less interest in this line of inquiry. As community pharmacists' work evolves from the technical to the clinical, the need to better under-

stand clinical reasoning in the context of expanded scope and information-imperfect environments has increased.

OBJECTIVES

This exploratory study was designed to characterize the clinical decision-making patterns of community pharmacists in Ontario, particularly during a time of significant evolution in the nature of professional practice. This research was undertaken as part of a research initiative exploring expanded scope of practice funded by the Ontario College of Pharmacists.

METHODS

As there was scant available literature in this area, a qualitative research methodology was used, one that emphasized previous methods, models and approaches used in clinical reasoning research in medicine. Among the most frequently used methods for describing clinical reasoning, the "think-aloud method" pioneered by Newell and Simon[11] is an established method for collecting self-reflective verbal data about cognitive processes during an actual problem-solving task. As noted by Ericsson and Simon,[12] this approach is based on the following assumptions: 1) human thinking is a form of information processing; 2) information processing can be verbalized through self-reflection; and 3) thinking aloud indicates what information the respondent is actually prioritizing and concentrating on at the time. While there are significant critiques of this approach (e.g., inherent subjectivity in self-reflection,[13] researcher bias effects of simultaneous combination of observation and interpretation[14] and disconnection between stated behaviours and actual real-world behaviours[15]), think-alouds have been widely used in the clinical reasoning literature in medicine, nursing and other professions[8,15,16] and were selected for use in this study.

BOX 1 - THINK-ALOUD CASES USED AS DISCUSSION PROMPTS

CASE 1: DON AND SARAH HILL

Sarah and Don Hill have 4 children, all under the age of 7, 3 of whom have a congenital heart defect requiring medication use. Without these medications there is a 75% risk of death within the next year; with use of these medications, this risk drops to 15%. Side effects of this medication are relatively benign and readily managed. The Hills belong to a recognized religious group that firmly believes in "non-interference" even in life-threatening medical conditions. Though insurance will pay for the medications, the Hills don't believe they should interfere with fate. Under pressure from Don's employer (a family friend) they have visited a physician, received prescriptions and have come to the pharmacy to get them filled. Your pharmacy technician has overheard them speaking and learned they actually have absolutely no intention of administering the medications to their children and have had the prescriptions filled simply to placate Don's employer. Your technician shares this information with you immediately prior to your counselling session with them.

CASE 2: SIGNET WILKINSON

Signet Wilkinson is a pharmacist working in a busy community practice. She has an excellent rapport with her patients and provides effective patient-centred care. Recently, her cousin Fanny told her about a terrific new guy she met. Fanny has been dating (unsuccessfully) for many years and is very keen on meeting someone, settling down and starting a family. Signet is thrilled for Fanny, as the 2 cousins are very close. Fanny's new boyfriend is called Joe Johnson. From what Signet is told by Fanny, Joe is a sweet and sensitive fellow. Signet has also seen a few pictures of Joe and he appears to be a strapping young man. Today in the pharmacy, Signet received a prescription for antiretroviral drugs used to treat HIV. These prescriptions are for "Joe Johnson." The person presenting the prescriptions looks very similar to the photographs Fanny has shown Signet, but Signet is not 100% certain it is the same person. What should Signet do?

Participants in this study were recruited from the Greater Toronto Area. Inclusion criteria for this study were: pharmacists licensed in Ontario with 3 or more years work experience in community practice in Ontario. A call for participants was put out through RxChat.org, Craigslist, pharmacy alumni resources at the University of Toronto and the University of Waterloo and through experiential education networks at the University of Toronto. Informed consent was received prior to each interview. This study was reviewed and approved by the University of Toronto's Research Ethics Board.

For this study, participants were presented with 2 case studies (see Box 1) and asked to reason through and verbally articulate how they would respond in each situation. Central to the think-aloud method is the opportunity for the interviewer (researcher) to ask probing questions of the participant to better understand the principles, values and reasons that underpin the decisions that are made and stated. This approach requires a high degree of vigilance on the part of the observer to ensure participants articulate, justify, reflect upon and defend their decisions.[17] As outlined by Someren et al.,[17] this research relied on a single researcher undertaking all interviews

while maintaining both field notes and verbatim transcripts. This allows the interviewer-researcher to actively engage with data and participants in an iterative manner, building upon previous participants' interviews throughout the research process. This method also builds the interviewer-researcher's confidence in a critical aspect of think-alouds: the use of individualized/non-standardized probing to force participants to uncover tacit assumptions or biases that may be shaping thinking, clinical reasoning and decision-making.[18]

The case studies used in this research were drawn from a bank of teaching cases used in the University of Toronto's undergraduate pharmacy degree program. They were designed to stimulate in-class discussions related to complex, ethically sensitive, information-imperfect clinical scenarios. After reading the case study, the interviewer would invite the participant to discuss how they would respond to the practice-related challenges inherent in the case. Without interview protocol or guide, the interviewer would then, in an iterative and highly individualized/nonstandardized way, ask for clarification, justification and explication of the participant's response as a way of probing the underlying thought processes and values that guided the response. As a result (and consistent with the think-aloud research process[17,18]), there was no formal or semi-structured interview or question guide—each interview was more conversational and fluid, following the cues set by the participant, with the goal of asking questions to prompt reflection, justification and clear explication. Each interview took its own direction based on the interaction between participant and interview and the flow of conversation. Following presentation of both case studies, the interviewer asked a series of general questions related to participant demographics (e.g., age, years in practice, years since graduation) and practice experiences (employment history, subjective impressions of community pharmacy work, etc.) as a way of helping to better contextualize case study responses.

Critical to the think-aloud method is the need to not allow or accept facile or obvious solutions to clearly complex problems.[11] For example, if a participant in this study, in responding to case study #1, said "Well, I would explain the importance to the parents of taking medications as they are prescribed and once they understood, then they would obviously adhere...," the interviewer would respond "Do you think that's realistic? Let's say they don't listen to you... What do you say or do next?" By pressing (or probing) participants in this way and ensuring unrealistic or naïve options were not simply allowed to continue unchallenged or unquestioned, participants were required to engage with each case in a thorough, thoughtful and realistic manner.

With permission, all interviews were audiotaped and verbatim transcripts were produced and analyzed. Transcripts were analyzed after each interview to support iterative, generative coding using protocol analysis and to inform subsequent interviews, thereby allowing the interviewer an opportunity to explore or confirm with subsequent participants emergent themes from previous interviews.[17] Protocol analysis was broken into 3 components: referring phrase analysis, assertional analysis and script analysis, which were used to lead, in the first instance, to coding and naming of themes.[11] The referring phrase is the verbal cue provided by the participant that they are responding to or referring to details of the case itself. Assertional analysis is the process by which the argument made by the participant following the referring phrase is analyzed to identify the values, norms or principles used to justify the stance taken—in essence a form of paraphrasing the participant's words. Script analysis involves a detailed analysis of the specific words and word choices used by the participant in framing their argument/justification. Recurring use of certain words, terms or turns of phrase provide insights into the manner in which they are framing the problem and their response to it; for example, recurring use of sentences involving "I" would suggest personal involvement in the case, while recurring sentences involving "we" or "the team" would suggest an attempt to diffuse or deflect responsibilities. Analyzing data from a think-aloud study using this method allows researchers to draw inferences about the priorities and principles that inform participants' responses. As interviews progressed and themes emerged, subsequent interviews shifted towards focused coding to facilitate thematic confirmation. See Table 1 for a sample protocol analysis.

FINDINGS AND DISCUSSION

A total of 12 pharmacists participated in this study; demographic information is provided in Table 2. Each interview lasted between 30 and 45 minutes, with the majority of time spent on case study discussions.

Across all participants, there was significant reluctance to actually make an independent decision and a strong expressed desire to find a "happily ever after" ending to each case, in which the pharmacist does

not come into any conflict with the patients involved and everyone agrees on a course of action. Where conflict was inevitable, there was a strong desire to pass the responsibility on to a "higher" authority (e.g., a regulatory body, an employer, a physician) rather than accept the responsibility and burden of managing the conflict and negotiating some kind of acceptable (if not satisfactory) resolution. The data analysis process resulted in identification of 3 specific reasoning/problem-solving tactics that pharmacists relied upon to manage their emotional discomfort or cognitive dissonance with the lack of a "happily ever after" ending to each case: 1) education of or relationship building with the patient as a means of ingratiation; 2) seeking advice from or deferring ultimate responsibility for decision-making to another more powerful professional (e.g., physician or regulator); and 3) seeking to manage conflict by assuming a somewhat helpless "I'm just following the rules" approach.

The data suggest that community pharmacists in this study may have conflicting beliefs between their views of themselves as professionals and as business people (even if they were employee pharmacists). A consistent theme of justification involved rationales such as "you don't want to annoy customers or they won't come back" or "Well, if I don't do this because of some ethical concern, they will just go to another pharmacy anyway..."

In both case studies, all participants indicated at some point that they would reach the limits of what they could legally do as pharmacists and consequently the situation would have to unfold as it was meant to, in a somewhat fatalistic manner: when the interviewer pointed out that not making a decision was actually a decision of sorts, many participants expressed discomfort and defensiveness: "Everyone has to have their own decisions, I'm a pharmacist, I'm not here to judge... I will tell them the consequence of the medication not being taken and then it is up to them..."

Pharmacists in this study consistently demonstrated 3 specific decisional techniques to manage clinical

TABLE 1 PROTOCOL ANALYSIS (EXAMPLE)

Case #1 (Don and Sarah Hill)

Speaker	*Transcript*	*Protocol Analysis*	*Coding/Theme*
Participant	Well, I guess the thing is, I don't think that they would tell me right away that they aren't going to administer the medication to the kids... I don't think I would make another appointment with them because I don't think they'd come back...		
Interviewer	You'd be kind of realistic about it	Script analysis (summarizing)	
Participant	...I would say, no, I understand your beliefs. But just so that you know (it's) yadda yadda yadda... If you come on too strong they won't call you... So I'd rather be there as an information-giver as opposed to somebody who's going to be scolding them saying they're doing a bad job.		Building a relationship Pharmacist as educator not decision maker
Interviewer	So building rapport and a relationship...	Assertional Analysis (paraphrasing, suggesting category or label)	
Participant	Yeah... I wouldn't want some stranger telling me that I'm being a bad parent because I'm following a belief that I've always had. So I'm not one to judge. I guess even at entry I would still fill it anyway in hopes that after I fill it at least the medications will be in their house. And if they choose to do it or if they choose not to do it, then that's their decision. But at least having it close to them gives them a higher chance of using it. If I don't fill it at all, then there's no chance of them using the medication.		Avoiding conflict

TABLE 2 DEMOGRAPHIC PROFILE OF PARTICIPANTS (N = 12)

Age (mean and range)	50.2 years (range: 32–70 years)
Sex	Female: Male = 8:4
Years of practice experience (mean and range)	25.5 years (range: 8–45 years)
Location of practice	Urban: 8
	Suburban: 4

*All participants were community pharmacists in Ontario with a minimum of 3 years of work experience in the Greater Toronto Area.

TABLE 3 SAMPLE TRANSCRIPT EXCERPTS AND THEMES/CODES

Case #1 (Don and Sarah Hill)

Transcript excerpt (Participant's statements)	*Theme/Code*
To be honest, I'd have to look into this... I don't think it would be our place to call the third-party plan. I don't know if it's... patients can do what they choose to do. Who am I to tell them what's right and what's wrong?	Deferring to others Relationship-building
I wouldn't even know who to call to ask about this. Obviously start with the College. But they're not going to know for sure. This is more... you just end up with an ethical situation... You'd have to go to the College.	Seeking advice Deferring to others (regulator)
I'd try to let Don understand the... I'd educate him so he knows what he is doing... Then he can make his choice for himself.	Education
I think another step would have to be taken here. The doctor is under the impression they are filling the medications. I think the doctor has the right to know that they're not using the medication... So I think I would also have to involve the doctor.	Deferring to others (physician)
Am I allowed to call a third-party plan, who is paying for the medication or the doctor, to talk to them about the drug habits of their clients? But I still think there's some confidentiality here.	Rule-following
Well, if I explain it to them correctly, you know, in a way they understand, so they get the consequences of their decisions, that should change their minds.	Education

complexity and ambiguity and their own cognitive dissonance (Table 3):

Relationship building/education

All 12 participants in this study began with, strongly emphasized and tenaciously clung to the notion that "If I explain it to them, they will do the right thing..." This belief that, given enough information, people would ultimately make the correct decision was the dominant theme of the study. It also informed pharmacists' desire to avoid conflict or disagreement at all costs, as this could interfere with the acceptance of education. Several participants explicitly reframed their understanding of "responsibility": instead of focusing on best possible clinical outcome, responsibility was defined as doing the best possible job of educating patients to make their own decisions. As noted by one participant: "My job is to explain the facts to them, right? Educate the patient at the same time so, you know, maybe make myself feel a little better?" Another participant indicated (speaking about Case 1): "It's their choice to come to me. It's their choice to go to somebody else and just get no education or whatever... This is 100% the parent's decision. I will give them all the information but I can't get involved... It's not my decision to force them to do something..."

In an attempt to manage the cognitive dissonance triggered by these challenging cases, all participants opted for a decision-making technique to diffuse or distribute responsibility among other organizations or professionals. Referring to a physician, a

regulatory body, an employer or some other "higher" authority was a frequent decision that was made, rather than addressing the case/situation directly and independently, and assuming professional responsibility for the outcome. This was particularly important for many participants as a way of avoiding direct conflict with the patient. Deferring to a higher authority provided a convenient vehicle for plausibly claiming "it's not my fault." One participant noted: "Yeah, I'd probably go and see what they [the regulatory body] would recommend I do because, I mean, they're the licensing body, right? I know that actions that I take can make me lose my license so it's very important that I follow the law and I just don't fly off by emotion." Another participant stated: "Well, this is really the doctor's call, not mine... I mean they are the doctor's patients even if they are my customers."

Rule following/Strict interpretation of rules

When the interviewer would press participants around deferring to others and attempt to redirect the discussion towards individual responsibility for decision-making, most participants expressed a strong need to undertake further research into legal/technical requirements. Again in the name of conflict avoidance and maintaining good patient-pharmacist relationships, the participants in this study expressed a strong need for legalistic "cover" for their decisions, as well as a strong belief that, somewhere, there was a rule, regulation, policy or guideline that would provide the answer to a complex problem. The need to adhere to the letter of the law (rather than its intent or spirit) was challenging in both cases, particularly since issues of patient confidentiality requiring contextual interpretation were so prominent. Participants in this study expressed unwillingness to interpret relevant policy, legislation or regulations within situational contexts and instead sought certainty, specificity and clarity in regulation, even if no such clarity actually existed. As one participant noted: "Well, I chose to be a pharmacist – I have to follow those rules... If I join the team I've got to follow those rules or step out of the team, right? So it means I have to respect the patient's confidentiality even if the consequences are dire." Another participant noted, "I definitely can't go and talk with (Don Hill's employer) or the doctor if they've asked me not to... That's, you know, their right, confidential, you'd be passing a line, even if it was the right thing to do."

Management of cognitive dissonance—the desire to still appear to be "nice" and "helpful" even while simultaneously knowing the right thing to do may bring you into conflict with the patient—was an overarching theme of this study. When taking responsibility involves potential interpersonal conflict and negative personal judgments from patients, pharmacists in this study demonstrated a variety of contorted problem-solving and decision-making strategies to foster unrealistic "happily ever after" endings, even though the cases were constructed in a way so as to preclude such endings.

Of interest was a common theme across most interviews related to the balance between business interests and professional responsibilities. Most of the participants used, as part of their justification process for allowing the Hills (Case 1) to make their own choices, a version of the following quotation from one participant: "If you come on too strong, they won't call you back... They're just going to go somewhere else and then we lose the business."

Despite the fact that none of the phar-

macists in this study were actually owners of their pharmacies, this concern for lost business opportunities was repeatedly cited as a rationale or justification for not getting overly involved in the situation. When pressed on this point by the interviewer, these participants acknowledged the tension between professional responsibilities and business self-interest and moved to other rationales/justifications instead. Interestingly, there appeared to be a pattern of naïve justification and/or excuse-making demonstrated by most participants in this study: the first line of reasoning (and defence against actual decision-making) was to provide education and in the process build a strong relationship. When asked to expand on the value of this approach, most participants indicated that they believed that high-quality education could trump ignorance or unawareness.

Findings from this study appear to align with recent research examining responsibility-taking in health care. As noted by Daker-White and colleagues, effective face-to-face communication between patients and health care professionals is essential to quality care; deferring of responsibility to others or believing another more powerful professional will "fix" a problem can be detrimental to patient safety.[19] Recent work by Rosenthal et al.[20,21] examining relationships between personality traits and pharmacist performance within the research trial setting also suggests that personality traits—including self-efficacy and self-confidence—may play an important role in how pharmacists approach adoption of new scopes of practice related to clinical decision-making and responsibility. The behaviours demonstrated by pharmacists in this study suggest opportunities for educators to support students and practitioners in enhancing the self-confidence of pharmacists to better manage conflict and informational ambiguity in clinical decision-making.

As a preliminary exploratory study, caution must be exercised in applying findings too broadly. These findings cannot be seen as being representative of community pharmacists everywhere. As a first step in better understanding decision-making in complex situations, this study has highlighted important findings for the profession and raises further questions about the ways in which pharmacists frame "responsibility," "certainty" and decision-making in ambiguous cases. Further work must be undertaken to better understand the barriers and facilitators to independent and confident decision-making among community pharmacists. The think-aloud method used in this study appears well suited for this type of research.

CONCLUSION

This exploratory study identified management of cognitive dissonance as a major factor in clinical decision-making among community pharmacists. Stated another way, pharmacists in this study demonstrated decision-making avoidance related to professional responsibility for outcomes. Reconciling their clinical responsibilities with their personal need to be "liked" and "nice" resulted in these pharmacists relying heavily upon 3 decision-making strategies: relationship-building and education, deferral to others and legalistic interpretation of rules. This study highlights opportunities for educators and employers to consider new ways of preparing pharmacists to assume responsibility for their decisions or, in some cases, their unwillingness to make decisions. Pc

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References: *References available upon request.*

PRACTICE TIP!

Dispensing errors can occur. The question is, does your pharmacy have a Continuous Quality Improvement (CQI) process in place?
http://www.ocpinfo.com/library/practice-related/download/CQI_benefitspatients.pdf

Leadership, Learning and Giving Back

PACE ASSESSORS SHARE WHAT THEY OFFERED AND GAINED

By Stuart Foxman

For three weeks, Kalpesh Chauhan, R.Ph. was a fly on the wall in his own Shoppers Drug Mart in Brampton. While an international pharmacy graduate from India practised there, Chauhan simply observed and assessed. He likened the experience to a driving test. During driving lessons, an instructor teaches and offers feedback. But when it's time to see if a license is deserved, the examiner sits in the passenger seat and watches.

Chauhan volunteered to help with the initial test of the new PACE program. PACE stands for Practice Assessment of Competence at Entry. The College is piloting this approach to measure applicants' readiness for practice. Eventually, PACE will replace the College's current Structured Practical Training (SPT) program as the entry-to-practice requirement for all applicants.

As one of the pharmacists involved in what was essentially a pre-pilot of the PACE assessment model, Chauhan welcomed this opportunity to give back to the profession.

"We have an obligation, as members of a self-regulated profession, to protect the public," he says.

"We do that every day in our own practice, and as assessors we can do so by ensuring that the candidates who follow in our footsteps are competent to practice."

As PACE is introduced, what's involved in being an assessor, and what do pharmacists gain from their involvement? We talked to three pharmacists who shared their experiences from the pre-pilot.

First, a brief look at PACE. The goal is to ensure a consistent approach to assessing readiness for practice for domestic and international pharmacy graduates. PACE focuses on a candidate's ability to demonstrate entry-to-practice competencies in a practice setting.

In the SPT model, candidates came in for 12 weeks, allowing the pharmacy to supplement staffing and provide coaching/training. PACE is purely a short-term assessment, with coaching/training not part of the process. Instead, College-trained and -appointed assessors use direct observation of the candidate over a specified period – 70 hours over two weeks (full-time) or three weeks (part-time).

The completed assessment goes to the College where a standardized scoring rubric is applied. This determines if the candidate has demonstrated their competence or requires additional development.

PACE relies on volunteer assessors – practicing community or hospital pharmacists who'll observe a minimum of three candidates per year.

Antoinette Duronio, R.Ph. found the PACE assessment model to be much less labour-intensive than the SPT process. "You're just there to observe, so the pharmacist you're assessing is doing the work. The time passed very quickly," says Duronio, Clinical Pharmacy Manager and Residency Coordinator at Windsor General Hospital.

ASSESSORS SUPPORT THE PROFESSION BUT LEARN TOO

PACE assessors are leaders within the profession, committed to upholding its standards. Duronio and others who filled the assessor role say they were motivated not only to support their profession but to learn something – about assessments, about the future of the profession, and about themselves as well.

Duronio was mindful that someone's profession and license was on the line. That's a huge responsibility. As she says, pharmacists once volunteered to evaluated her too; without that, she wouldn't be here.

For Chauhan, the assessment wasn't onerous. As a franchise owner, he has responsibilities beyond the dispensary so just had to focus on his time management. But the candidate handled about 75% of the typical tasks of a pharmacist.

Chauhan still took care of some routine duties, but left it to the candidate to attend to all other roles that needed some degree of clinical and therapeutic involvement. He says assessing a candidate was a great opportunity, and can also "open your eyes to new ways of practicing and keep you fresh."

Like Chauhan, Donnie Edwards, R.Ph. carefully studied the candidate in his Boggio & Edwards IDA in Ridgeway. For instance, he noticed how the candidate thought very methodically before talking to patients, wanting to ensure that all points came across. It reminded Edwards that he could sometimes slow down when counselling patients.

"I learn from other pharmacists and students all the time, how they interact with patients and what methods work. That can help me improve my practice too," says Edwards.

When Edwards assessed his candidate, he went through a mental exercise: "Would I hire this person?" That was his gold standard, but as an assessor he knew his task was to help answer another question: "Am I comfortable that this pharmacist is ready to practice today?"

"We want to make this profession better," says Edwards, "and it's students who keep moving us forward." Pc

PRACTICE TIP!

While pharmacy technicians are not permitted to accept verbal prescriptions for narcotics, they ARE permitted to perform a technical check of narcotic prescriptions. Learn more about pharmacy technicians' scope of practice: http://www.ocpinfo.com/practice-education/practice-tools/support-materials/technician-role/

COMMON QUESTIONS ABOUT PACE

Thinking about applying to be a PACE assessor? Here are some common questions we've heard that might help you decide!

What sort of time commitment is required to be a PACE assessor?

In addition to the training required to become an assessor, the assessment requires direct observation of a candidate's practice for 70 hours over a two or three-week period. There is also an orientation period that lasts approximately 35 hours over a one-week period. Assessors are expected to participate in PACE a minimum of three times per year.

Visit the PACE Key Initiative more on the criteria to become an assessor. http://www.ocpinfo.com/about/key-initiatives/pace/

I'm already a preceptor for a program at the University of Toronto or the University of Waterloo. Why would I also become a PACE assessor?

It's great that you are already giving back to the profession! The PACE assessor role is different than the preceptor role because it's focused more on observation and evaluation. You would be asked to determine if a candidate's performance demonstrates that they have the knowledge, skills and judgment to enter the profession. As well, the PACE assessment is over a shorter period of time — just 70 hours. Conveniently, PACE uses the same assessment tool as the university programs, so you'll be well-versed.

What's in it for me?

Becoming a PACE assessor is a great way to give back to your profession. You'll be part of an elite group of pharmacists who will be recognized by the College as leaders in pharmacy practice. You'll also be featured annually in *Pharmacy Connection*, and be invited to attend the College's exclusive annual professional development event. Being a PACE assessor is also a great continuing professional development opportunity for you, will keep you connected to the profession and the College, and you will be among the first to see up and coming new talent emerging in the profession.

How can I convince the owner or manager of my pharmacy to allow me to participate in PACE?

Start by explaining the value of PACE to your owner or manager. Tell them you want to contribute to ensuring the pharmacists of tomorrow are prepared and qualified. Remind them that PACE candidates are volunteers, which means they aren't on the pharmacy's payroll. Explain that the day-to-day operations of the pharmacy will still go on, and you'll be there to observe and ensure that patients continue to receive safe and appropriate care. Remember, it's all about giving back to the profession.

If the candidates are volunteers and aren't covered under the Workplace Safety and Insurance Board (WSIB), what kind of insurance do I need for them?

All students and interns registered with the College are required to have their own Personal Professional Liability Insurance as a registration requirement. Candidates should also arrange for their own student accident insurance (sometimes called accidental death and dismemberment or AD&D insurance) to participate in PACE and to protect against workplace accidents. The pharmacy itself is not required to have its own insurance to host the candidate. Pc

REWARDING NEW OPPORTUNITY:

Apply to Become a College Assessor!

Ontario College of Pharmacists

Putting patients first since 1871

Help shape the future of the pharmacy profession!

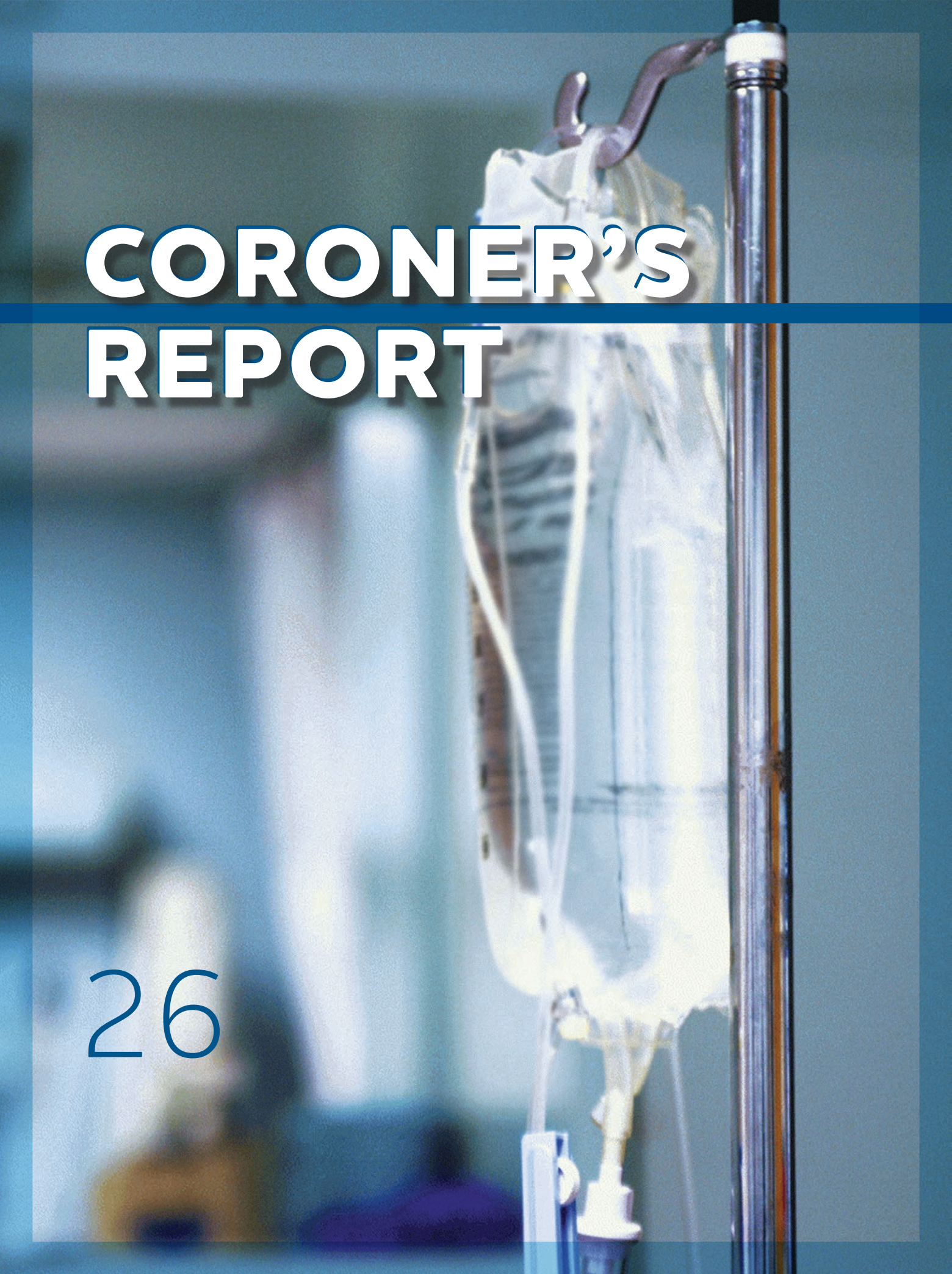
Are you an experienced community or hospital pharmacist who believes in the importance of patient-centred care? Apply to become an assessor for Practice Assessment of Competence at Entry (PACE) – an initiative currently being piloted with pharmacists to meet the structured practical training requirement prior to registration.

Learn more and apply now:
www.ocpinfo.com/about/key-initiatives/pace

Why become a PACE assessor?

- ✓ Give back to your profession
- ✓ Part of an elite group of pharmacists recognized by the College as practice leaders
- ✓ Featured in *Pharmacy Connection*, the College's quarterly magazine
- ✓ Invitation to the College's exclusive annual professional development event
- ✓ Priority consideration for future assessor roles with the College
- ✓ And much more...

***FACT:** 86% of past College assessors felt that having a candidate at site as part of PACE had a positive impact!*



CORONER'S REPORT

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THE CORONER HAS RECOMMENDED THAT THE ONTARIO COLLEGE OF PHARMACISTS EDUCATE CLINICIANS ON THE DEFINITION OF OPIOID TOLERANCE, AND REVIEW THE PATIENT CONDITIONS AND COMORBIDITIES THAT MAY SUGGEST THE NEED FOR REDUCED DOSE OF OPIOIDS.

CASE SUMMARY

A 100-year old woman, with no recognized chronic medical issues, died four days after being admitted to hospital for weakness and pain in her buttock radiating to her abdomen. The reported cause of death was acute overdose of HYDROmorphone as a result of a medication error complicating the treatment of hepatocellular carcinoma in association with micronodular cirrhosis.

Case history: Prior to admission to hospital, the patient was living in a retirement residence in good health. She used a walker for mobility and her only prescribed medication was oxazepam 15 mg orally at bedtime as needed for nighttime sedation. A consultant note indicated she had also been taking acetaminophen for buttock pain that she attributed to a muscle strain after an exercise class. The patient was transferred to a local emergency department with weakness and pain in her buttock, radiating to her abdomen. On exam she was found to have a hemoglobin of 64, melena, and liver dysfunction. A liver mass was noted on CT and MRI.

Course in Hospital: On the day of admission, the patient's abdominal discomfort escalated and that evening she was ordered an antacid and a local anesthetic.

CORONER'S REPORT

Later that evening, she became agitated and was moved to the nursing station for monitoring.

The following morning, the patient was ordered haloperidol 0.5 mg hs (no route specified, oral assumed) for agitation, morphine 1 mg IV q1h prn pain with instructions to increase to 3mg q1h prn pain, dimenhydrinate 25 mg IV prn nausea. A physician note indicated that the situation was quite grave, the CT suggested significant intra-abdominal pathology and there were plans for an MRI and follow-up with a family member.

Based on her clinical situation, a decision was made to transition the patient to palliative care. The patient was started on oral morphine for pain control. On the second day in hospital, the patient received morphine (1 mg x 1 dose) at 1:15 p.m. The next day, the patient received 1mg morphine at 9 a.m., 2mg of morphine at 12:55p.m., and 3mg morphine at 6:10p.m.

At 6:00 a.m. on the fourth day after the patient was admitted, an order was written to start a 0.2 mg/hour HYDROmorphone infusion with 0.2mg HYDROmorphone for breakthrough pain every 30 minutes prn. The original order did not include the route of administration. The pharmacy processed the order as subcutaneous route of administration, which was reflected on the pharmacy computer generated MAR (Medication Administration Record). The patient was started on a HYDROmorphone pump at 3:30 p.m. that day. At 6:30 p.m. the patient was noted to be comfortable and sleeping. At 8:00 p.m. the patient was noted to have reduced level of consciousness and over the course of the night remained rousable only when stimulated. At 6:20 a.m. the next morning the patient was found without vital signs.

Upon reviewing the orders for the patient, the nursing staff noted a discrepancy between the order of 0.2 mg/hr HYDROmorphone infusion, and the pump, which had been programmed to infuse 2 mg/hr of HYDROmorphone.

The Coroner's Committee identified four key issues:
1. Transcription error
2. Lack of independent double check processes for transcription , administration of high-alert medication and infusion pump programming
3. Infusion rate not included on the pharmacy-generated MAR
4. Selection and dosing of opioids in patients who are opioid-naive

SUMMARY:

This case involved the inadvertent administration of a ten-fold overdose of HYDROmorphone to a vulnerable elderly patient. Key contributing factors identified in this incident include a change in the opioid medication being administered from morphine to HYDROmorphone, and the subsequent transcription error that lead to the overdose. This case highlights the critical importance of including independent double checks in the medication use process. Opportunities for intervention to prevent and detect this and similar errors are present at every stage of the process – prescribing, order processing, dispensing, administration and monitoring — and require the involvement of all disciplines.

High-Risk Patients & High-Risk Medications

ENSURING SAFE AND EFFECTIVE THERAPY FOR PATIENTS

The Coroner has recommended that the Ontario College of Pharmacists educate clinicians on the definition of opioid tolerance, and review the patient conditions and comorbidities that may suggest the need for reduced dose of opioids.

ROLE OF THE PHARMACIST

Pharmacists are important members of the interdisciplinary team providing care to patients admitted to hospitals.[1] They are responsible for ensuring patients receive safe and effective drug therapy. This includes reviewing medications ordered before they are delivered to the nursing unit for appropriateness for the specific patient. Pharmacists must also collect and interpret relevant patient information, monitor the patient's response to medication, and document the care they have provided.[2] There are several steps in the medication review process that a pharmacist must take when a medication order is received — both in a hospital or community setting.

STEP 1: PRESCRIPTION REVIEW

Pharmacists have a responsibility to assess prescriptions to confirm they meet legal requirements, and to ensure the prescribed therapy is safe, effective and optimal for the patient.[2,3,4] There are three main components to assessing a prescription:

A. Review the medication

- Is it a high-alert medication[9] Does this medication require dose adjustments based on concomitant medical conditions or drug therapies?
- Does this medication have a narrow therapeutic index?
- Is this medication likely to cause clinically significant drug interactions when prescribed concomitantly with other medications?
- Are additional safeguards necessary to consider with this medication?

B. Review patient information (from patient profile and dialogue with the patient)

- Information gathered from the patient profile and through dialogue with the patient should be used to determine if the medication prescribed is appropriate for the patient as ordered.
- Patient demographics (individual characteristics of the patient) – i.e. age, weight, height, gender, allergies, high-risk patient population
- Clinical information – i.e. reason for admission, current medical conditions, renal function, liver function, laboratory values (i.e. WBC, Hgb, electrolytes etc.)

C. Complete a therapeutic check

- Is the dose both safe and appropriate based on patient information?
- Is the medication compatible with current medical conditions and allergies?
- Is the medication compatible with other medications the patient is taking?
- Is the prescription appropriate for this patient and the condition being treated?

If the mediation is not appropriate as ordered, it is the pharmacist's responsibility to appropriately act on this information.[2]

STEP 2: LABELLING OF PATIENT SPECIFIC MEDICATION AND TECHNICAL CHECK

Legislative requirements describe what is required on a prescription label.[3] Requirements depend on the medication, dosage form and route of administration.[4,5,6,14]

When deciding what to include on the label for a particular product or delivery device, a pharmacist must be sure sufficient information is provided to ensure the medication will be administered as intended. Information should be presented in a format that is easily understood and does not cause confusion for those who will be administering the medication. Once the medication has been selected, labelled, and verified against the original prescription, the product is sent to the hospital ward.

Things to consider including when preparing a label for a prescription:

- Patient's name, hospital ID number, location
- Generic name(s) of the drug
- Strength and quantity of ingredients
- Final concentration of active ingredients and base solutions/diluents
- Dosage form
- Total amount/volume of final product (in circumstances where overfill is required, the overfill volume should be printed on the label separate from the dose information)
- Rate of infusion/duration of infusion
- Beyond use date of the compound
- Manufacturer identification and lot number or pharmacy control number
- Storage conditions, if applicable
- Auxiliary labels, if applicable
- Date dispensed
- Barcode, if applicable
- Name of the pharmacy or hospital

STEP 3: PATIENT MONITORING

Pharmacists are responsible for monitoring medication therapy to ensure patient-specific medications are effective and safe.[2,7] This is particularly important for high-risk patient populations, when high-risk medications have been prescribed, or when the patient's condition is changing or unstable. Pharmacists should work to establish a method to identify and prioritize patient's who require follow-up, and the timeframe within which that should occur.[1,2]

STEP 4: DOCUMENTATION:

Documentation is a key element of every health professional's Standards of Practice and one of the most basic professional responsibilities.[8] Pharmacists are expected to document directly in the patient's healthcare record.[2,4,8] Relevant information should also be documented in the pharmacy system to support continuity of care and ensure other pharmacists who may also be providing care for that patient are informed of pertinent details regarding the patient's care plan.

Documentation may include:[8]

- Assessments, interventions, and recommendations where professional judgment was exercised
- Evidence on which the recommendations are based
- A follow-up plan that is sufficiently detailed to monitor the patient's progress and ensure continuity of care by the pharmacist, and other regulated health professionals or caregivers, if applicable
- Decision-making process

OPIOID TOLERANT PATIENTS:

The use of opioid therapy to manage pain is commonly seen in both acute and chronic care. Opioids are considered high-alert medications and require extra vigilance by pharmacists when they are prescribed.[9] High-alert medications are drugs that bear a heightened risk of causing significant patient harm, where the consequences of an error are much more serious in nature and can significantly impact patients.[9]

When receiving a prescription to increase the dose of an opioid, the pharmacist should identify it as a

high-alert medication and determine if the new dose prescribed is appropriate, given the total daily dose the patient received over the last 24 to 48 hrs. If the prescription is for a different opioid, or different route for the same opioid, the total 24-hour dose should be used to determine the equivalent dose.[16] However, it must be noted that any conversion is an estimate, and dosing on the lower end of the conversion dosing range is recommended.[10]

Appropriate opioid dosing will vary depending on whether a patient is considered opioid naïve or has developed tolerance following continued opioid use. Opioid tolerant patients are less susceptible to the effects of opioids in terms of pain relief and most side effects, (such as sedation and respiratory depression). However, no tolerance develops to the side effect of constipation.[15] According to the FDA definition, opioid tolerant patients are defined as patients who are taking, for one week or longer, at least:

- 60 mg oral morphine/day
- 25 µg transdermal fentanyl/hour
- 30 mg oral oxycodone/day
- 8 mg oral hydromorphone/day
- 25 mg oral oxymorphone/day
- An equianalgesic dose of any other opioid

OPIOID NAÏVE PATIENTS

Opioid naïve patients should be monitored closely not only for pain relief (efficacy) but also for constipation, sedation and respiratory depression (side effects).

HIGH-RISK PATIENT POPULATIONS:

Pharmacists need to consider each patient individually when reviewing medication orders to determine if therapy is safe and effective given the patient's unique circumstances. Elderly patients are considered high-risk patients not only because of age-related physiological changes (e.g. decreased renal function, changes in absorption etc.) but because they are often on many medications due to multiple chronic conditions which increases the risk of drug interactions.

Pediatric patients are also considered high-risk.[11] Factors that put pediatric patients at an increased risk for adverse drug reactions are:

- Different and changing pharmacokinetic parameters between patients at various ages and stages of maturational development
- Need for calculation of individualized doses based on the patient's age, weight, (mg/kg), body surface area (mg/m2) and clinical condition
- Lack of available dosage form and connections available for administration to neonates, infants and children
- Lack of stability, compatibility, or bioavailability data for extemporaneously compounded dosage formulations
- Need for precise dose measurement and appropriate drug delivery systems
- Lack of published information or Food and Drug Administration- approved labeling regarding dosing, pharmacokinetics, safety, efficacy ad clinical use of drugs in the pediatric population.

Other examples of patients that may be considered high-risk are those whose condition is unstable, have compromised organ function, or are at risk of clinically significant adverse drug reactions etc.

SUMMARY:

Pharmacy practice in Ontario is continuing to evolve, with pharmacists responsible for an even further expanded scope of practice. Doing nothing is no longer an option. OCP's Professional Responsibility Principles,[13] and Code of Ethics, along with the Standards of Practice, outline professional and ethical responsibilities when delivering patient care. Pharmacy professionals must use heightened caution and extra diligence when they encounter red flag situations, such as those that involve high risk drugs or vulnerable patient populations.

THIS CASE HIGHLIGHTS AT LEAST FOUR RED FLAGS:

1. Elderly patient (high-risk population therefore require greater scrutiny of patient-specific information including current medications)
2. High-alert medications (though not inherently more likely to cause medication errors, these carry an elevated risk of more serious harm if an error occurs with their use and so additional safeguards are required)[9]
3. Opioid naïve patient (switching to a high potency opioid-hydromorphone in an opioid naïve patient who was taking only low doses of morphine)
4. Change in route, schedule, and increased total daily dose
   - Conversion for dose equivalency between two different medications based on total daily dose
   - Conversion from one administration route (intermittent IV to a different route (continuous SC)
   - Conversion from intermittent prn dosing to continuous dosing

Pharmacy professionals must realize that a decision to do nothing is still a decision, and that you are professionally responsible and accountable for all decisions made when delivering patient care. Pharmacists must apply therapeutic judgment in order to assess the appropriateness of therapy given individual patient circumstances and must, when necessary, act appropriately to ensure that therapy is safe and effective. PC

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PRACTICE TIP!

When thinking about narcotics reconciliation, manual and computer records are not error proof – while helpful, they can provide incomplete or incorrect data.
http://www.ocpinfo.com/practice-education/practice-tools/fact-sheets/recon-security/

Follow @OCPinfo on Twitter and get a helpful practice tip each week.
#OCPPracticeTip

OPEN CONSULTATION:

PROPOSED CHANGES TO THE PHARMACY ACT

(ADMINISTRATION OF VACCINES BY PHARMACISTS)

SUMMARY

The College is currently seeking feedback on proposed amendments to the *Pharmacy Act* Regulations that, if approved, would authorize pharmacists to administer select vaccines.

The proposed changes would allow for the administration of vaccinations for 13 diseases that are preventable by vaccines. This includes vaccinations for Haemophilus Influenzae Type B, Hepatitis A, Hepatitis B, Herpes Zoster, Human Papillomavirus, Japanese Encephalitis, Meningitis, Pneumococcal Disease, Rabies, Tuberculosis, Typhoid Disease, Varicella Virus and Yellow Fever.

The Regulation amendments, if passed, would make these vaccines more convenient and accessible for patients. However, pharmacists would not be authorized to prescribe vaccinations, and patients would be required to obtain a prescription from an authorized prescriber before a pharmacist could administer it.

Additionally, the proposed amendments would authorize pharmacy students and interns to administer injections — both those under the Universal Influenza Immunization Program and the selected vaccines — subject to the terms, limits and conditions imposed on their certificate of registration.

Read the amendments to the Pharmacy Act Regulations on the OCP website.

BACKGROUND

Currently, pharmacists may administer the influenza vaccine within the context of Ontario's Universal Influenza Immunization Program (UIIP). These proposed amendments to the Pharmacy Act Regulation support the Ministry of Health and Long-Term Care's promise to provide Ontario's patients with an improved healthcare experience.

COMMON QUESTIONS

Is any training required?

Yes. Any pharmacist administering injections has to successfully complete OCP-approved pharmacist injection training, maintain valid certification in CPR and First Aid, and register their training with the College. Pharmacy professionals who have completed injection training are noted as such on the "Find a Pharmacy or Pharmacy Professional" section of the College website.

Are training requirements the same for UIIP and other vaccines?

Yes, injection training requirements are the same for administering any authorized injection. Those pharmacists who previously registered their injection training for the UIIP will already meet the requirements to administer the vaccinations for the 13 diseases listed in the proposed Regulation. Pc

MULTI-INCIDENT ANALYSIS ON INCIDENTS INVOLVING PATIENTS:

Lessons Learned from a Provincial Pilot Study

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Although this pilot study was situated in New Brunswick, lessons learned from this multi-incident analysis will be relevant and applicable to pharmacy practitioners in other provinces in Canada.

BACKGROUND

As of December 31, 2015, the New Brunswick College of Pharmacists requires all pharmacy managers in the province to implement a quality management program (QMP) to support safe practices and facilitate adherence to professional standards and requirements. The QMP must include monitoring staff performance, equipment, facilities, and adherence to the standards of practice.[1]

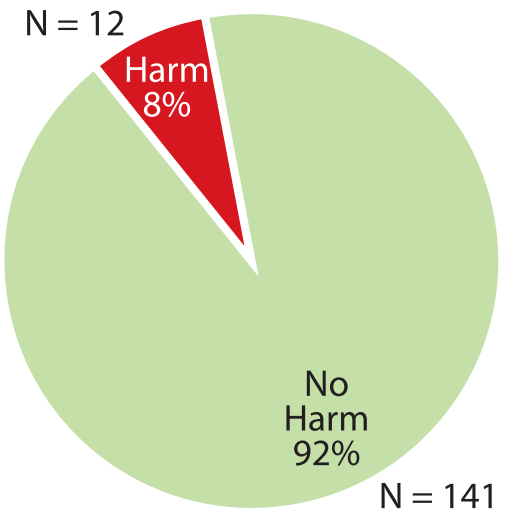
The Community Pharmacy Incident Reporting (CPhIR) Program is an anonymous program designed by the Institute for Safe Medication Practice Canada (ISMP Canada) to empower pharmacies for continuous quality improvement. The purpose of CPhIR is for community pharmacies to report and analyze near misses and medication incidents as learning opportunities to prevent similar incidents from occurring in the future. These anonymously reported medication incidents will also be analyzed by ISMP Canada for shared learning and incident prevention strategy formulation.[2]

MULTI-INCIDENT ANALYSIS (MIA) INVOLVING MEDICATIONS DISPENSED TO PATIENTS: A PILOT STUDY IN NEW BRUNSWICK

A Multi-Incident Analysis (MIA) was performed on incidents reported from New Brunswick pharmacies to CPhIR from July 2015 to February 2016. Of the 223 pharmacies in New Brunswick, 82 were enrolled in a complimentary pilot project for the use of CPhIR as a QMP. The objective of this multi-incident analysis is threefold; first, to understand how and why these medication incidents occur; second, to identify the potential contributing factors of these incidents; and third, to provide recommendations to prevent future medication incidents.

A total of 669 medication incidents were extracted from the CPhIR database. 511 incidents were near misses that were intercepted at the pharmacy and did not reach the patient. 158 incidents involved medications that were dispensed to patients. Of the 158 incidents, 5 were excluded from this analysis due to: 1) duplicate reports, or 2) test or dummy incident records. Figure 1 illustrates that despite reaching the patient, majority (92%) of these medication incidents did not lead to harm.

FIGURE 1: FREQUENCY OF INCIDENTS ACCORDING TO THE DEGREE OF HARM TO PATIENTS



When conducting a qualitative, multi-incident analysis of the 153 incidents that reached patients, five main themes were identified: 1) look-alike/sound-alike medications, 2) high-alert medications, 3) use of multi-medication compliance aids, 4) technical error, and 5) incorrect patient. Table 1 includes the definition and sample cases of each of these themes, as well as the corresponding potential contributing factors. (Note: The "Incident Examples" provided in Table 1 were limited by what was inputted by pharmacy practitioners to the "Incident Description" field of the CPhIR program. The "Potential Contributing Factors" apply to the corresponding "Themes" in general and may not necessarily pertain to the selected "Incident Examples" that were shown in Table 1.)

Although the majority of the medication incidents in this analysis did not result in patient harm, they provided good learning opportunities to identify potential contributing factors and develop recommendations to prevent similar incidents from occurring in the future. Two common potential contributing factors are present in all five themes – (1) look-alike / sound-alike (LASA) medications; and (2) lack of independent double checks. LASA medications can easily be confused for one another by pharmacy staff, leading to a medication incident. The lack of independent double checks among pharmacy staff also greatly increases the risk of errors.

TABLE 1: DEFINITION, INCIDENT EXAMPLES AND POTENTIAL CONTRIBUTING FACTORS

THEMES	DEFINITION OF THEMES	INCIDENT EXAMPLES	POTENTIAL CONTRIBUTING FACTORS
Look-alike / Sound-alike (LASA) Medications	LASA medications have either similar names or similar packaging.	[The patient] went to outpatient department on weekend for treatment for shoulder pain, [and] was **prescribed Diclofenac** which was **interpreted as Diflucan**™. [The pharmacist] had [to] follow up with family doctor who thought it was a "weird choice" for shoulder pain. Prescription written for **nitro patch 0.4 mg** and was entered as is - product **dispensed** to patient was **nitro patch 0.6 mg** - mistake was discovered by patient herself when she got home she realized she did not get dose prescribed . . .	• Lack of variety in pharmaceutical manufacturer • Proximity of storage of LASA medication pairs • LASA medications in the same therapeutic class
High-alert Medications	High-alert medications carry a higher risk of more serious harm to patients if an error occurs.	Patient called (about 2 weeks after receiving her prescription) saying she was not feeling as much relief with her pain medication (**MS-IR® 10 mg**) as usual - she then brought in her bottle with some pills left in it - the pharmacist on duty **identified the tablets in the bottle as MS-IR® 5** mg (but bottle said MS-IR® 10 mg) - **wrong strength dispensed initially** . . . Patient was **given wrong take home doses of methadone.** Patient was contacted to verify bottles and asked to return wrong doses. Patient returned 2 doses and received correct doses. Patient consumed half of another take home dose that was for another patient even though patient was asked to check them. **Patient consumed approximately 70 mg methadone instead of 9 mg. Patient vomited dose.** Contacted doctor and doctor is monitoring patient.	• Confirmation bias* • Inconsistent verification of patient identity

CONTINUED

THEMES	DEFINITION OF THEMES	INCIDENT EXAMPLES	POTENTIAL CONTRIBUTING FACTORS
Use of Multi-medication Compliance Aids	Preparing medications by placing different medications in the same compartment organized by dosing intervals.	Pillpak was returned from special care home after errors were noticed by the staff on [the] 4th card of 4-week supply of pillpaks. Clozapine 100 mg **tablet was missing from AM slot** (one whole card), irbesartan 75 mg was missing from one evening slot and **there were two tablets in the next day's evening slot** . . . Evening nurse noticed **patient to receive 5 medications, however [only] 4 medications are in bubble.**	• No standardized process for preparing compliance packs • Compliance packs prepared well in advance of patient pick-up or delivery • Lack of verification with patient's current prescription orders
Technical Errors	In this analysis, technical errors refer to any errors that occurred during the order entry and dispensing stages of the medication-use process. The therapeutic or cognitive aspects of the medication-use process were not included.	Patient dropped off new prescription for an increase in strength; prescription was logged to profile but old strength was not discontinued; patient ordered refill and the **old strength was filled.** Patient realized his **30-day prescription** (60 caps) ran out in 15 days; he brought the vial in to me and it was **evident that 60 caps would not have fit** into the vial used to dispense the prescription . . .	• Multi-tasking • Insufficient staff orientation, education, or training
Incorrect Patients	Prescriptions or medications were dispensed to a patient for whom the medication was not prescribed or ordered.	Patient noticed after giving herself injection that the **name on the label was not hers**. She brought the box to the pharmacy and we looked into what had happened. We realized that 2 patients had the same injection in the fridge waiting to be picked up . . . Pharmacy Assistant noticed bag still on counter when patient had picked up medications. Had to figure which bag I had given to patient, looked through our filing and realised patients had same first name and both bags were placed on [the] counter next to each other.	• Confirmation bias* • Inconsistent verification of patient identity • Failure to follow up on patient's medication therapy management

* Confirmation bias leads us to "see" information that confirms our expectation rather than to see information that contradicts our expectation. (For further information, refer to ISMP. Inattentional blindness: What captures your attention? ISMP Medication Safety Alert!® Acute Care. 2009; Feb 26. Available from https://www.ismp.org/newsletters/acutecare/articles/20090226.asp.)

** Independent double checks take place when the first practitioner does not communicate what he or she expects the second practitioner to see while the second practitioner is conducting verification. (For further information, refer to ISMP Canada. Definitions of Terms. Available from https://www.ismp-canada.org/definitions.htm.)

DISCUSSION

Recommendations were developed based on the medication workflow process, which includes inventory management, receiving/shelving, prescription order entry, dispensing, compliance packaging, and counselling/pick-up (Figure 2).

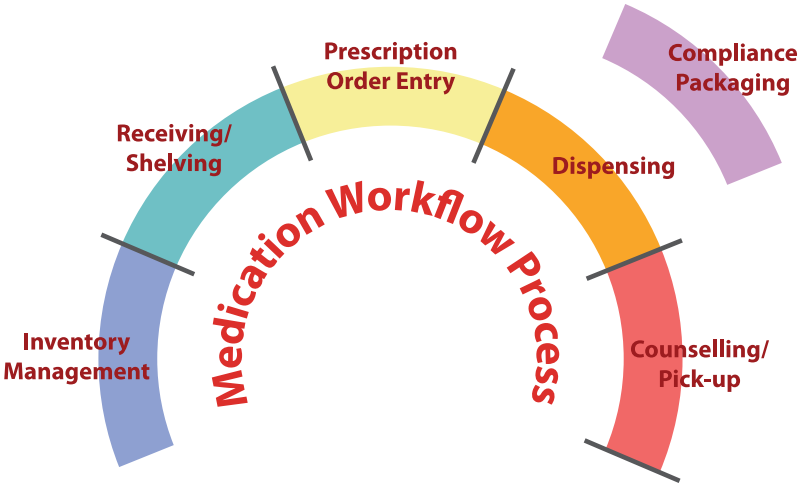
INVENTORY MANAGEMENT

Within each pharmacy, there are many LASA medications in the inventory due to the lack of manufacturer variety when ordering medications. The same manufacturer will often have the same size bottle, label colours and fonts for medication packaging.[3] At the inventory management stage, ordering from different manufacturers can help decrease the chances of confusing LASA medications.[4]

RECEIVING / SHELVING

While receiving and shelving the medications at the pharmacy, storing LASA medications in different areas or differentiating them with shelf labels, stickers, or dividers can accentuate their visual identification and prevent pharmacy staff from selecting the incorrect medication.[5]

FIGURE 2: MEDICATION WORKFLOW PROCESS



PRESCRIPTION ORDER ENTRY

At prescription order entry, staff should ask each patient for at least two patient identifiers, such as name and date of birth.[6] It may also be beneficial to contact software vendors to incorporate warning flags into the dispensing software program to alert staff of potential duplicate therapy and to consider incorporating TALL-man lettering into the computer system.[7]

DISPENSING

At the dispensing stage, incorporating barcoding into the dispensing software program can serve as an independent double check by the computer.[8] Staff would scan a software generated barcode on the prescription hardcopy (or label), followed by the medication stock bottle (or package) to ensure that the medications that are entered during order entry are selected from the inventory for preparation and dispensing.[9, 10] In fact, it is also a good practice to take this opportunity (that is, prior to the actual filling of the prescription) to visually review and confirm that the order entry was done correctly as per the original prescription. This will prevent subsequent re-processing of the prescription should an error was caught within the workflow.

COMPLIANCE PACKAGING

While compliance packaging is not typically part of the normal medication workflow process as illustrated above, many medication incidents analyzed in this report pertained to multi-medication compliance aids. Therefore, it is important to consider strategies to mitigate these incidents. When preparing compliance packaging, it is essential to develop a standardized process.[11] Prior to preparing the multi-medication compliance packages, staff should verify that the printed prescription hardcopy (or label) is accurate by referring to the most current prescription orders.[10]

It is also advisable to assign designated pharmacy personnel or allot time to allow pharmacy staff to work in a quiet and uninterrupted environment (i.e. away from the usual pharmacy workflow) for compliance packaging. Furthermore, preparing compliance packs well in advance of patient pick-up or delivery may lead to discrepancies of patient's most current prescription orders. Compliance packs should only be prepared for the frequency the patient receives or picks up his/her prescriptions at the pharmacy. For example, compliance packs should be prepared weekly for patients who come to the pharmacy on a weekly basis. If a change in therapy occurs during this period, it is easier to identify and reconcile the discrepancies accordingly.

COUNSELLING / PICK-UP

During prescription pick-up, it is always good practice to ask each patient, using open-ended questions, for at least two patient identifiers, such as name and date of birth. [12]

Counselling at pick-up is not only important for educating patients on their medication therapy, but also serves as a last check before patient leaves the pharmacy.[13] While having a dialogue with the patient, take the opportunity to review the prescription labels and contents of each prescription vial to check that the medications are correct.[12]

Finally, regular monitoring and following up with patients on their medication therapy can ensure that patients are using their medications in a safe and effective way.

Table 2 presents a checklist that summarizes the above recommendations for improving the medication workflow process.

TABLE 2: A CHECKLIST FOR QUALITY IMPROVEMENT OF THE MEDICATION WORKFLOW PROCESS

MEDICATION WORKFLOW PROCESS	SUGGESTED QUALITY IMPROVEMENT STRATEGIES
Inventory Management (ordering medications from suppliers or wholesalers)	• Consider ordering from different manufacturers for LASA medications[4]
Receiving/Shelving (scanning medications into dispensing system and placing them onto pharmacy shelves)	• Store LASA medications in different areas[5] • Differentiate LASA pairs through the use of shelf labels or dividers[5]
Prescription Order Entry (inputting prescriptions into computer system)	• Verify patient with at least two patient identifiers (e.g. name, date of birth, phone number, etc.)[6] • Assess opportunities for system-based alerts to inform staff of potential duplicate therapy [6] • Consider incorporating TALLman lettering into computer system[7]
Dispensing (preparation of medication, e.g. counting tablets, compounding medications, etc.)	• Incorporate barcoding into the dispensing software program[8] • Conduct independent double checks[9,10]
Compliance Packaging (preparing medications by placing different medications in the same compartment organized by dosing intervals)	• Outline standardized policies and procedures for preparing compliance packaging[11] • Verify printed prescription hardcopies (or labels) with patient's most current prescription orders[10] • Designate pharmacy staff to prepare compliance packaging • Allot time for pharmacy staff to prepare compliance packaging in a quiet and uninterrupted environment • Conduct independent double checks • Avoid preparing compliance packs well in advance of patient pick-up or delivery • Prepare compliance pack only for the frequency the patient receives or picks up his/her prescriptions at the pharmacy (e.g. For patients with weekly blister packs, only prepare one week's worth of blister pack at a time.)
Counselling/Pick-up (educating patients on proper medication use, side effects, etc.)	• Verify patient with at least two patient identifiers (i.e. name, date of birth, phone number, etc.) using open ended questions [12] • Consider technological enhancement at the point-of-sale where staff is required to input a patient identifier (i.e date of birth) before the transaction can be completed at the POS register [12] • Review pharmacy labels and contents of each prescription vial to check that the medications are correct[12] • Perform regular monitoring and follow-up on patients' medication therapy[13]

CONCLUSION

This analysis of medication incidents involving patients in New Brunswick identified vulnerabilities to patient safety that may occur after medications were dispensed to patients and potential factors that may have contributed to these incidents. The importance of system-based recommendations was recognized and quality improvement strategies were suggested to the medication workflow process for advancing safe medication use.

It is hoped that this multi-incident analysis demonstrated the importance of reporting and analysis of medication incidents as learning opportunities for pharmacy practitioners to prevent similar incidents from occurring in the future.

ACKNOWLEDGEMENT

ISMP Canada would like to acknowledge support from the Ontario Ministry of Health and Long-Term Care for the development of the Community Pharmacy Incident Reporting (CPhIR) Program (http://www.cphir.ca). The CPhIR Program also contributes to the Canadian Medication Incident Reporting and Prevention System (CMIRPS) (http://www.ismpcanada.org/cmirps.htm). A goal of CMIRPS is to analyze medication incident reports and develop recommendations for enhancing medication safety in all healthcare settings. The incidents anonymously reported by community pharmacy practitioners to CPhIR were extremely helpful in the preparation of this article. PC

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PRACTICE TIP!

GET A NEW PRACTICE TIP EVERY WEEK ON TWITTER

As you may be aware, the College has an official Twitter account. On a daily basis, we tweet out helpful regulatory news and updates, new practice tools, important member reminders, and much more. Recently, we launched an initiative where every week we give you a new practice tip (followed by the hashtag #OCPPracticeTip).

Tips are developed from actual observations and encounters in practice and include: record keeping and documentation, methadone dispensing, narcotics reconciliation, clinical decision making, patient counselling, and much more.

You may have noticed practice tips scattered throughout this issue of *Pharmacy Connection*. These are tips that we've previously tweeted out as part of this new initiative. Enjoy!

Be sure to follow OCP on Twitter so you can see each new tip once it is published!

Prescribing Errors with levETIRAcetam Oral Solution

From the Acute Care ISMP Medication Safety Alert. Reprinted with permission copyright ISMP 2016

PROBLEM

A 3-month-old baby girl was evaluated in an emergency department (ED) for a cough, congestion, difficulty breathing, and lethargy. A medication history was obtained from the baby's parents to begin the reconciliation process. According to the parents, the baby was receiving 8 mL of KEPPRA (levETIRAcetam) (800 mg of a 100 mg/mL solution) every 12 hours to treat a seizure disorder that had developed after birth. The clinician taking the medication history did not recognize the dose as being excessive for the baby.

It was determined that the baby required admission to treat her respiratory infection. Based on the medication history provided by the parents, the pediatric resident prescribed Keppra in the same dose, 800 mg, with instructions to administer each dose every 12 hours. Although the resident knew the baby's age and weight, he too failed to recognize that the Keppra dose was excessive, and there was no dose alert issued by the computerized prescriber order entry system to warn him.

The hospital pharmacist reviewed the order and noted the excessive dose based on the baby's age and weight. After verifying the dosing recommendations in a pediatric drug reference, the pharmacist contacted the pediatric resident about the excessive dose. The resident asked the baby's parents to bring the bottle of Keppra into the hospital for verification. The baby's mother told the pediatric resident that the prescription bottle did not have a pharmacy label on it, so she did not bring it into the hospital. The pharmacy label had been placed on the outer carton, which she had discarded after removing the bottle of medicine from the carton. The hospital pharmacist then called the community pharmacy to clarify the details of the dispensed medication. It was confirmed with the community pharmacy that a bottle of liquid Keppra 100 mg/mL had been dispensed with directions to "give 8 mL by mouth every 12 hours." Suspecting that

the baby had been receiving an overdose of the drug at home, the hospital pharmacist then continued to investigate how the error had happened.

The hospital pharmacist determined that the baby had been admitted to the hospital about 3 weeks earlier. During that hospitalization, the baby had been receiving Keppra 80 mg every 12 hours, a 20 mg/kg/dose for the 4 kg baby. The hospital pharmacy had dispensed the commercially available product (100 mg/mL) in pharmacy-prepared oral syringes

containing 0.8 mL (80 mg) of the drug. So during hospitalization, the baby had received the proper dose. However, upon discharge, the physician had electronically prescribed "8 mL" of Keppra twice daily, without listing the intended total dose or concentration. The reason for prescribing the drug by mL only, and in the incorrect volume (8 mL instead of 0.8 mL) is unknown—perhaps simply a mental slip and lapse. Another possibility is that the prescriber actually ordered ".8" mL of the drug, which, without a leading zero, could have been misread as "8" mL if the decimal point was missed. The hospital pharmacy did not have access to the electronic prescription at discharge for verification, and the unit nurses did not notice the error in the discharge summary, which listed all prescribed medications. The community pharmacy used the only commercially available strength of 100 mg/mL to fill the prescription, for which the prescribed 8 mL was equivalent to 800 mg.

When the community pharmacist received the prescription, he failed to recognize the significant dosing error. He did not verify the actual dose with the discharging physician, despite the volume-only dose of 8 mL, likely because the oral solution was commercially available in a single 100 mg/mL strength, which might have been included on the electronic prescription. It is not known if the retail pharmacist recognized that the prescription was for a 4 kg baby. (The baby's previous prescription for Keppra 80 mg twice daily had been filled at a different pharmacy shortly after her birth.) A dose alert did not appear when the order was verified in the retail pharmacy system, likely because the child's weight or age was not in the pharmacy computer. Thus, the drug was dispensed as 800 mg twice daily, resulting in the baby receiving a 10-fold overdose at home for about 3 weeks prior to presentation in the ED.

Fortunately, the baby did not seem to have any significant clinical adverse effects upon evaluation of the overdose. The child's initial Keppra serum level was supratherapeutic at 63.4 mcg/mL. (According to Lexi-Lab & Diagnostic Procedures, toxic levels have not been well established, but most patients display an optimal response to levels between 5 and 45 mcg/mL.) Keppra was held upon hospital admission. A repeat level several days later yielded a value of 7.8 mcg/mL. The baby was eventually discharged after her respiratory infection was resolved. This time, the baby's physician prescribed Keppra 100 mg (1 mL) by mouth twice daily upon discharge for maintenance of seizure control. The baby was seen in a follow-up visit several weeks later and was doing well clinically.

A number of errors reported to ISMP have been caused by practitioners prescribing an oral solution by volume rather than in metric units by weight. For example, in our April 23, 2015 newsletter, we published a series of errors that had occurred with flecainide oral suspension—the dose was prescribed in volume, but the dispensed concentration was different than what the prescribers thought would be used (www.ismp.org/sc?id=1710). One error involved a 9-month-old infant whose parents were told to increase the dose of flecainide to 4 mL, assuming the concentration was 5 mg/mL as in the original prescription. But the parents refilled the prescription at another pharmacy, receiving the drug in a 20 mg/mL concentration. The infant received 80 mg/4 mL, a 4-fold overdose, resulting in wide complex tachycardia and QRS prolongation.

SAFE PRACTICE RECOMMENDATIONS:

As a result of this error, the hospital has put safeguards in place that will help prevent future medication errors of this type in the pediatric population. These safeguards and other strategies recommended by ISMP are provided below for consideration and implementation in other hospitals to avoid similar errors.

Order doses by weight in metric units. Express single-entity medication doses in metric weight (e.g., mg, mEq, mcg, units), not the volume alone (e.g., mL), even if an oral solution is available in a single strength. (Exceptions are with some combination oral liquid products in a single strength that can be safely expressed in volume alone, or powders that are not dosed by weight.) Including a metric weight dose improves safety because the volume could differ depending on the concentration of the medication.

Include patient's weight in kg (g) on discharge prescriptions. To improve dosing accuracy of weight-based medications in populations at high risk for dosing errors (e.g., patients weighing 50 kg or less), include the weight in kg (g) on discharge prescriptions.

If there is no designated field for this information in your electronic prescribing application, include it in the notes/additional information field until vendors provide a designated field for weight. (Community pharmacists may miss information in non-designated, non-required fields with an electronic prescription; thus, vendors should evaluate the need to include this field for both prescribers and dispensing pharmacists to best safeguard pediatric patients, and even adult patients given the influx of newer, weight-based medications.) Including the patient's weight on prescriptions allows an ambulatory care pharmacist to confirm the ordered dose on the prescription for weight-based medications.

Include the patient's age/date of birth on prescriptions. For appropriate dosing and patient identification, include the patient's age/birthdate on outpatient prescriptions.

Include weight-based and calculated doses. For pediatric medication orders and outpatient prescriptions, include the mg/kg or other dose expression (e.g., mcg/kg) used to calculate the dose, along with the total dose (e.g., 20 mg/kg/dose, 80 mg).

Convert an inpatient order to an outpatient prescription. Require the ordering prescriber to perform the discharge medication reconciliation so that all inpatient and preadmission home medications and doses are reviewed, and if appropriate, converted to outpatient prescriptions. Changes, discontinuations, or the addition of medications upon discharge should be clearly noted in the discharge summary given to the patient.

Verify discharge orders. Require nurses to verify the medications prior to discharge by comparing them with the patient's inpatient medication administration record (MAR) and home medication list. For high-risk patients, such as pediatric patients, also require pharmacists to review all medications listed on discharge summaries, preferably before discharge, but at least within 24 hours of discharge. Like nurses, hospital pharmacists have access to inpatient medication doses to see if there are mismatches with the discharge prescriptions. Report any unexplained discrepancies to the discharging physicians. Be sure to initially and periodically monitor and measure your success with implementing this intervention.

Involve pharmacists in reconciliation. Increase pharmacy involvement in medication reconciliation upon admission to the ED and/or hospital. According to the Agency for Healthcare Research and Quality, the most effective medication reconciliation process involves pharmacists' interventions to clarify doses. Pharmacists, because of their knowledge and skills, are qualified to lead the interdisciplinary effort to maintain an effective medication reconciliation process. Pharmacist involvement is most needed during the initial capture or review of the medications that the patient has been taking at home.

Provide dosing alerts. Enable or build alerts to warn both prescribers and pharmacists about unsafe doses, including weight-based doses, that could cause patient harm. The order entry systems should not allow entry of an order without the patient's age/birthdate and weight populating the requisite, interactive fields to allow the dose warning system to work. Test the alert system periodically, and ensure that the dose alerts are enabled and not bypassed easily without documentation.

Educate patients. Prior to discharge, review each prescribed medication and how to measure each dose with the patient/parents/caregivers. Require the patient/parents/caregivers to demonstrate proper dose measurement of all liquid medications for pediatric patients. (This might have alerted the nurse to the discharge prescribing error, or alerted the parents that an 8 mL dose was a possible mistake.) Remind parents that the measurement device provided at the community pharmacy may be different than that used in the hospital, and to ask the pharmacist if any questions arise about dose measurement. Also remind patients and parents to keep the outer carton of prescription medications if it contains the pharmacy label so they can refer back to the instructions for use. Pharmacists need to do their best to label the container that holds the drug, not the carton alone. Pc

PRACTICE TIP!

Avoid complaints to the College - Be diligent in counselling patients before releasing new medication to them and make use of effective communication techniques (such as paying attention to patients' non verbal cues to ensure they understand)
http://www.ocpinfo.com/library/practice-related/download/CloseUpOnComplaintsWinter2016.pdf

Delivering pharmacy services is a complex, human process. Although technology is a helpful tool to assist in identifying red flag situations, mistakes can still occur. "Close-Up on Complaints" presents some of these errors so that practitioners can use them as learning opportunities.

Ideally, pharmacists and pharmacy technicians will be able to identify areas of potential concern within their own practice, and plan and implement measures to help avoid similar incidents from occurring in the future.

Medication Reconciliation Key in Transfer of Care

SUMMARY OF THE INCIDENT

This incident occurred when an elderly patient was discharged after a short stay in the hospital. Upon her release, the hospital pharmacy faxed a copy of her Best Possible Medication History (BPMH) form to the community pharmacy. Later that day the discharging physician phoned the community pharmacy to make changes to the patient's medication therapy. He requested to decrease the patient's doses of gabapentin and ferrous fumarate, to stop her furosemide, and to titrate off pantoprazole.

The patient's daughter visited the pharmacy to pick up her mother's prescriptions and returned home to care for her mother.

About four days later, the patient was re-admitted to the hospital with delirium. Hospital pharmacy staff contacted the patient's community pharmacy for a list of her current medications. It was then discovered that the community pharmacist had mistakenly given the patient four medications that had never been prescribed for her. These included three psychotropic/anticonvulsant medications and one calcium channel blocker — olanzapine, valproic acid, paroxetine, and nifedipine.

The four inaccurate medications were stopped when the patient was re-admitted to the hospital. After a week, she was discharged and sent home with her daughter.

WHY DID THIS HAPPEN?

When the patient was initially discharged, the hospital faxed a copy of her BPMH form to her community pharmacy. The second page of the form had no personal identifiers on it and it was discovered — after medications had been dispensed — that the second page of the BPMH belonged to a different person and was accidently included in the fax to the community pharmacy. The patient was dispensed, and took, all four of the medications that were listed on the second page of the BPMH.

Through the investigation process, it was determined that the pharmacist did not meet Standards of Practice for dispensing medications. For all prescriptions the pharmacist must reconcile the patient's drug therapy, perform a therapeutic check that considers patient specific factors, document the changes and rationale, and communicate the changes to the patient or the patient's agent. It was also determined that the pharmacy did not have appropri-

Have a Complaint?

Anyone who is not satisfied with the care of services provided by a pharmacy, pharmacist, pharmacy technician, student or intern can file a formal complaint with the College. Complaints must be received in writing and include as much detail as possible. The College investigates all written complaints.

ate safeguards in their workflow to ensure the accuracy of the patient's therapy. In particular, the Designated Manager (DM) had not implemented systematic procedures for receiving discharge orders.

COMPLAINT OUTCOME

The College's Inquiries, Complaints & Reports Committee (ICRC) oversees investigations of each complaint the College receives. The Committee considers a practitioner's conduct, competence and capacity by assessing the facts of each case, reviewing submissions from both the complainant and the practitioner, and evaluating the available records and documents related to the case.

The Committee found that this error was caused by a lack of due diligence and therapeutic insight when reviewing the medication history, and a lack of proper procedures in the pharmacy – especially when dealing with a vulnerable patient. The Committee noted that the pharmacist should have more closely followed the Standards of Practice, such as providing counselling, engaging in a therapeutic check of medications in relation to their appropriateness for the patient, and following up with the prescriber regarding any issues or discrepancies.

The Committee ordered that the pharmacist appear in person to receive an oral caution.

LEARNING FOR PRACTITIONERS

Pharmacists must use their medication expertise to ensure that the medications prescribed for patients are appropriate, and that they are dispensed accurately. This is especially true for patients who are transitioning between healthcare settings. Pharmacists must conduct an appropriate medication reconciliation using a patient's hospital discharge order, a BPMH (if available) and the patient's medication history at the pharmacy. Also, pharmacists must ensure that therapeutic checks are patient-centred and take into consideration patient-specific factors such as age, concomitant medical conditions, and the patient's ability to manage dosage forms and dosing schedules.

In this case, the pharmacist should have identified and reconciled the patient's new and existing medications. He should have asked himself questions like:

- Is this medication appropriate for my patient considering the patient's age, lifestyle, medical conditions, and current medications?
- Is the medication indicated for my patient?
- Is the dosage appropriate for my patient?
- Do any of these medications pose a risk to the patient?
- Is this medication going to help my patient get better?
- Are there any potential unintended dosage changes?
- Will there be any possible drug interactions?
- Are there any duplicate therapies?

In this case, the pharmacist should have noticed some red flags while conducting the medication reconciliation. Any time there is a transfer of care, there is an increased probability of medication errors. The pharmacist should have realized that two of the four unintended medications were not suitable for a geriatric patient and confirmed the indication for the other two medications. He should have had questions and followed up with the discharging physician, hospital pharmacy, the patient herself, the patient's daughter, or even the patient's primary care physician to ensure the medications prescribed were as he thought. The pharmacist missed an opportunity to discuss any discrepancies when the discharging physician called to make further changes to the patient's medications.

ORAL CAUTIONS

An oral caution is issued as a remedial measure for serious matters where a referral to the Discipline Committee would not be appropriate. Oral cautions require the practitioner to meet with the ICRC in person for a face-to-face discussion about their practice and the changes they will make that will help avoid a similar incident from occurring in the future. It is not an opportunity for the practitioner to further argue their position, provide additional documentation, or attempt to change the ICRC's view with respect to their final decision. For all complaints filed after April 1, 2015, we post a summary of the oral caution and its date on the "Find a Pharmacy or Pharmacist" section of our website.

It's important to note that the pharmacist should have followed up his medication reconciliation process by documenting his interpretations, decisions, and actions in the patient record. The documentation should have been systematic and should have had enough information so that anyone on any healthcare team could determine what happened, why the change in therapy was made, and the rationale behind the pharmacist's decisions. The College has documentation guidelines that suggest a systematic documentation method to encourage completeness and consistency.

Red-flag patient populations require extra time and attention.

Finally, it's important to remember that pharmacists must counsel patients or their agents on all new therapies. This means that the pharmacist in this case should have taken the opportunity to communicate with the patient's daughter to discuss the new medications and ensure the medications were going to help the patient. If the pharmacist had investigated the indication for the new therapies and asked if the patient's daughter was aware of these changes to her mother's medication therapy, then the error may have been prevented.

All practitioners are responsible to practise to the Standards of Practice and the Code of Ethics, and for providing patient-centred care. Pharmacists must ensure that they do not lose sight of the patient when applying therapeutic knowledge and reviewing a patient's medication. Consideration of specific patient circumstances, including age, concomitant medical conditions and whether the patient can manage the prescribed dosage form and dosing schedule independently must be incorporated into the review process.

A contributing factor to this incident was the absence of appropriate policies and procedures intended to prevent medication errors. In all community pharmacies the DM is responsible for ensuring that the pharmacy has appropriate policies and procedures in place to support pharmacy professionals in practicing to the Standards. For example, to ensure that all staff engage in appropriate processes for reviewing and reconciling a patient's medication history.

The processes must be designed to minimize errors, protect the public, and enable staff to satisfy their professional and patient safety obligations. This includes all measures necessary to ensure that the medications dispensed are therapeutically appropriate — the right medication, for the right patient, in the right dose, in the right strength, with the correct instructions. Policies should clearly outline what pharmacists need to do in situations where there are outstanding questions about a patient's therapy, and how they should reconcile any discrepancies.

The pharmacist in this case may have identified the errors and prevented the incident if he had taken a moment to question the four medications listed on the second page of the BPMH. PC

PRACTICE TIP!

The patient record is comprised of the patient profile, a scanned copy of the original prescription, prescription information and more. You are responsible for maintaining a complete patient record. Learn all the documents that this comprises: http://www.ocpinfo.com/practice-education/practice-tools/fact-sheets/record-keeping/

Follow @OCPinfo on Twitter and get a helpful practice tip each week.
#OCPPracticeTip

DISCIPLINE DECISIONS

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Member: Marian Michael (OCP #213913)

Following a hearing held on July 6, 2015, a Panel of the Discipline Committee found that Ms. Michael committed professional misconduct, while engaged in the practice of pharmacy as director, shareholder, Designated Manager and/or dispensing pharmacist at Procare Pharmacy, with respect to:

- submitting accounts or charges for services that she knew or reasonably ought to have known were false or misleading to the Ontario Drug Benefit program for one or more drugs and/or products; and/or
- falsifying pharmacy records relating to her practice in relation to claims made to the Ontario Drug Benefit program for one or more drugs and/or products.

In particular, the Panel found that

- she failed to maintain a standard of practice of the profession;
- records relating to her practice were falsified;
- she submitted accounts or charges for services that she knew or reasonably ought to have known were false or misleading;
- she contravened a federal or provincial law or municipal by-law with respect to the distribution, sale or dispensing of any drug or mixture of drugs, and in particular sections 5 and 15(1)(b) of the Ontario Drug Benefits Act, R.S.O. 1990, c. O.10, as amended, and/or Ontario Regulation 201/96 made thereunder;
- she engaged in conduct or performed an act or acts relevant to the practice of pharmacy that, having regard to all the circumstances, would reasonably be regarded by members of the profession as disgraceful, dishonourable or unprofessional.

In a decision dated February 8, 2016, the Panel imposed an Order which included as follows:

1. A reprimand before a Panel of the Discipline Committee, such reprimand to be administered in person, on a date not later than 16 months from the date the Order is imposed

2. A ten-month suspension of the Member's certificate of registration, commencing if and when the Member returns to practice in Ontario

3. An Order directing the Registrar to impose specified terms, conditions or limitations on the Member's certificate of registration as follows:
   a. the Member must successfully complete with an unconditional pass, at her own expense and within 16 months of the date the Order is imposed, the ProBE Program on Professional / Problem- Based Ethics for health care professionals offered by the Centre for Personalized Education for Physicians
   b. for a period of three years from the date the Member returns to practice in Ontario, the Member shall be prohibited from
      i. having any proprietary interest in a pharmacy of any kind;
      ii. acting as a Designated Manager in any pharmacy; and,
      iii. receiving any remuneration for her work as a pharmacist other than remuneration based on hourly or weekly rates only;
   c. for a period of three years from the date the Member returns to practice in Ontario, the member shall be required to notify the College in writing of the name(s), address(es) and telephone number(s) of all employer(s) within fourteen days of commencing employment in a pharmacy;
   d. for a period of three years from the date the Member returns to practice in Ontario , the

member shall provide her employer with a copy of the Discipline Committee Panel's decision in this matter and its Order;

e. for a period of three years from the date the Member returns to practice in Ontario, the member shall only engage in the practice of pharmacy for an employer who agrees to write to the College within fourteen days of the member's commencing employment, confirming that it has received a copy of the required documents identified above, and confirming the nature of the member's remuneration;

4. Costs to the College in the amount of $10,000.

The reprimand in this matter is outstanding pending scheduling.

Member: Gina Ghobrial (OCP #212885)

At a hearing on March 1, 2016, a Panel of the Discipline Committee made findings of professional misconduct against Ms. Ghobrial with respect to the following incidents:

- That she submitted accounts or charges for services that she knew or reasonably ought to have known were false or misleading to the Ontario Drug Benefit program; and
- That she falsified pharmacy records relating to her practice in relation to claims made to the Ontario Drug Benefit program.

In particular, the Panel found that Ms. Ghobrial

- Failed to maintain a standard of practice of the profession;
- Falsified records relating to her practice;
- Submitted accounts or charges for services that she knew to be false or misleading;
- Contravened a federal or provincial law or municipal by-law with respect to the distribution, sale or dispensing of any drug or mixture of drugs, and in particular, sections 5 and 15(1)(b) of the Ontario Drug Benefit Act, R.S.O. 1990, c. O.10, as amended, and/or Ontario Regulation 201/96 made thereunder, and/or s. 9 of the Drug Interchangeability and Dispensing Fee Act, R.S.O. 1990, c. P.23 and/or s. 5 of Ontario Regulation 936 made thereunder; and
- Engaged in conduct or performed an act or acts relevant to the practice of pharmacy that, having regarding to all the circumstances, would reasonably be regarded by members of the profession as disgraceful, dishonourable or unprofessional.

The Panel imposed an Order which included as follows:

1. A reprimand

2. An 8 month suspension of the Member's certificate of registration, with 1 month of the suspension to be remitted on condition that the Member complete the remedial training specified below.

3. an Order directing the Registrar to impose specified terms, conditions or limitations on the Member's certificate of registration as follows:
   a) the Member must successfully complete with an unconditional pass, at her own expense and within 12 months of the date the Order is imposed, the ProBE Program on professional / problem-based ethics for health care professionals offered by the Centre for Personalized Education for Physicians;
   b) for a period of three years from the date the Order is imposed, the Member shall be prohibited from:
      i. having any proprietary interest in a pharmacy of any kind;
      ii. acting as a Designated Manager in any pharmacy; and,
      iii. receiving any remuneration for her work as a pharmacist other than remuneration based on hourly or weekly rates only;
   c) for a period of three years from the date the Order is imposed, the Member shall be required to notify the College in writing of the name(s), address(es) and telephone number(s) of all pharmacy employer(s) within fourteen days of commencing employment in a pharmacy;
   d) for a period of three years from the date the Order is imposed, the Member shall provide her pharmacy employer with a copy of the Discipline Committee Panel's decision in this matter and its Order;
   e) for a period of three years from the date the Order is imposed, the Member shall only engage in the practice of pharmacy for an employer who agrees to write to the College within fourteen days of the Member's commencing employment, confirming that it has received a copy of the required documents identified above, and confirming the nature of the Member's remuneration

4. Costs to the College in the amount of $7,500.

In its reprimand, the Panel observed that integrity and trust are paramount to the profession of pharmacy, and that pharmacists are held in high regard for the role they play in the provision of healthcare. The Panel noted the seriousness of the Member's misconduct and expressed its disappointment with the Member's failure to maintain a standard of practice of the profession.

The Panel indicated that the practice of pharmacy is a privilege which carries significant obligations. The Panel related that as a result of her misconduct, the Member eroded the public trust in the pharmacy profession and cast a shadow over her own integrity. The Panel observed that the Member's conduct was dishonourable, disgraceful, and unprofessional, and expressed its hope that the Member does not appear before a panel of the Discipline Committee again.

Member: Sunil Chitnis (OCP #216697)

At a hearing on March 2, 2016, a Panel of the Discipline Committee made findings of professional misconduct against Mr. Chitnis with respect to the following incidents:

- That he dispensed narcotics to patients in advance of the interval specified by the prescriber for dispensing, without communicating with the prescriber and/or attempting to do so and/or documenting any communication with the prescriber or the reason for the early dispensing
- That he dispensed and/or permitted to be dispensed and/or condoned the dispensing of targeted substances to patients pursuant to prescription refills without making a record of the refill and/or requiring that a record of the refill be made in accordance with ss. 52 and 53 of the Benzodiazepines and other Targeted Substances Regulations, SOR/2000-217
- That he dispensed and/or permitted to be dispensed and/or condoned the dispensing of Suboxone to patient I.E. in advance of the interval specified by the prescriber for dispensing, and without observing I.E. ingest the medication (i.e. he dispensed "observed doses" as "carry doses"), contrary to the directions of the prescriber
- That he dispensed and/or permitted to be dispensed and/or condoned the dispensing of Suboxone to patient I.E. without valid authorization and/or without keeping a record of a valid authorization and/or without recording on the prescription the information required by s. 156 of the Drug and Pharmacies Regulation Act, R.S.O. 1990, c. H.4
- That he dispensed and/or permitted to be dispensed and/or condoned the dispensing of Suboxone to patient I.E. pursuant to authorizations containing erroneous dates, without taking and/or documenting any steps to verify the dates and/or authorizations with the prescriber
- That he created and/or permitted and/or condoned the creation of false and/or misleading pharmacy records, which recorded that patient I.E. was dispensed Suboxone on certain dates, when he was not
- That he signed prescription hardcopies recording that he dispensed Suboxone to patient I.E. on certain dates, when he did not dispense Suboxone to I.E. on those dates
- That he created and/or permitted to be created and/or condoned the creation of pharmacy records containing false and/or misleading statements by processing prescriptions that were not in fact dispensed, and/or were dispensed on a later date than indicated on the pharmacy records
- That he submitted and/or permitted to be submitted and/or condoned the submission of accounts containing false and/or misleading statements by billing for prescriptions that were not in fact dispensed, and/or were dispensed on a later date than indicated on the accounts
- That he signed prescription hardcopies for prescriptions that he did not in fact dispense, and/or that he dispensed on a later date than the date the hardcopy was signed
- That he created and/or permitted to be created and/or condoned the creation of and/or as Designated Manager were ultimately responsible for the creation of pharmacy records that inaccurately recorded the name of the prescriber
- That he dispensed prescription #1089382 to patient G.S. on or about January 1, 2014 without accurately recording the name of the prescriber

In particular, the Panel found that Mr. Chitnis

- Failed to maintain a standard of practice of the profession
- Failed to keep records as required respecting his patients
- Falsified a record relating to his practice
- Signed or issued, in his professional capacity, a document that he knew contained a false or misleading statement
- Submitted an account or charge for services that

he knew was false or misleading
- Contravened the Act, the Drug and Pharmacies Regulation Act, the Regulated Health Professions Act, 1991, or the regulations under those Acts, and in particular, sections 155 and/or 156 of the Drug and Pharmacies Regulation Act , R.S.O. 1990, c. H-4, as amended
- Contravened a federal or provincial law or municipal by-law with respect to the distribution, sale or dispensing of any drug or mixture of drugs, and in particular, section 31 of the Narcotic Control Regulations, C.R.C., c.1041, as amended, under the Controlled Drugs and Substances Act, S.C. 1996, c. 19, as amended
- Engaged in conduct or performed an act relevant to the practice of pharmacy that, having regard to all the circumstances, would reasonably be regarded by members of the profession as disgraceful, dishonourable or unprofessional

The Panel imposed an Order which included as follows:

1. A reprimand

2. Directing the Registrar to impose specified terms, conditions or limitations on the Member's Certificate of Registration, and in particular:
   a. that the Member complete successfully, at his own expense, within 12 months of the date of this Order, the following courses and evaluations:
      i. CPS II Module 3 (Professional Practice & Pharmacy Management II) offered by the Leslie Dan Faculty of Pharmacy;
      ii. Medication safety for pharmacy practice: Incident analysis and prospective risk assessment offered by the Institute for Safe Medication Practices;
   b. that the Member shall be prohibited from having any proprietary interest in, or acting as a Designated Manager in, any pharmacy, for 2 years from the date of this Order;
   c. that, for a period of 12 months from the date the Order is imposed, the Member shall be required to notify the College in writing of the name(s), address(es) and telephone number(s) of all pharmacy employer(s) ("employers") within 14 days of commencing employment in a pharmacy;
   d. that, for a period of 12 months from the date the Order is imposed, the Member shall provide his employers with a copy of the Discipline Committee Panel's decision in this matter and its Order; and
   e. that, for a period of 12 months from the date the Order is imposed, the Member shall only engage in the practice of pharmacy for an employer who agrees to write to the College within 14 days of the Member's starting employment, confirming that it has received a copy of the required documents identified above

3. Directing the Registrar to suspend the Member's Certificate of Registration for a period of 8 months, with 2 months of the suspension to be remitted on condition that the Member complete the remedial training as specified in subparagraph 2(a) above.

4. Costs to the College in the amount of $3,500.

In its reprimand, the Panel expressed its disapproval of the Member's conduct and indicated that he betrayed the public and brought discredit to the profession and himself. The Panel notes that what the Member did was intentional and systemic and created a serious risk to public safety and protection. The Panel pointed out that the Member circumvented checks and balances set in place to assist patients in appropriately managing their narcotic addiction.

Member: Vanthany Viravong (OCP #95656)

At a hearing on March 9, 2016, a Panel of the Discipline Committee made findings of professional misconduct against Ms. Viravong in that she:

- Practised at a pharmacy for which a certificate of accreditation had not been issued by the College
- Used the protected designations "drug" or "drugs" in connection with a retail business that was not an accredited pharmacy;
- Sold prescription drugs by retail to customers in the U.S. without valid prescription or other authorization recognized by law in Ontario;
- Permitted unregulated staff to perform controlled acts associated with the practice of pharmacy, including dispensing or selling drugs, and/or supervising the part of a pharmacy where drugs were kept;
- Practised at a pharmacy internet site in contravention of the Policy for Ontario Pharmacies Operating Internet Sites, issued by the College in June 2001, and/or the Policy for Prescriptions - Out of Country, issued by the College in January/ February 2003

In particular, the Panel found that Ms. Viravong

- Failed to maintain a standard of practice of the profession
- Contravened the Act, the Drug and Pharmacies Regulation Act, the Regulated Health Professions Act, 1991, or the regulations under those Acts, and in particular, sections 139, 147, 149, 155 and/or 156 of the Drug and Pharmacies Regulation Act , R.S.O. 1990, c. H.4, as amended; sections 56, 58, 59, 61 and/or 62 of Ontario Regulation 551, R.R.O. 1990, as amended; section 2.1 of Ontario Regulation 297/96, as amended; and/or sections 4, 40 and/or 43 of Ontario Regulation 58/11, as amended
- Contravened, while engaged in the practice of pharmacy, any federal or provincial law or municipal by-law with respect to the distribution, sale or dispensing of any drug or mixture of drugs, and in particular, sections C.01.041 and/or C.01.042 of the Food and Drug Regulations, C.R.C., c. 870, as amended
- Engaged in conduct or performed an act relevant to the practice of pharmacy that, having regard to all the circumstances, would reasonably be regarded by members of the profession as disgraceful, dishonourable or unprofessional.

The Panel imposed an Order which included as follows:

1. A reprimand

2. Directing the Registrar to impose specified terms, conditions or limitations on the Member's certificate of registration, including:
   a. That the Member shall complete successfully, at her own expense and within twelve (12) months of the date of this Order, the ProBE Program on Professional/Problem Based Ethics for Healthcare Professionals, with an unconditional pass, and within a further twelve (12) months, the ProBE Plus Program;
   b. That the Member shall be prohibited from:
      i. having any proprietary interest of any kind in a pharmacy, or
      ii. receiving remuneration for her work as a pharmacist other than remuneration based on hourly, weekly or monthly rates only,

      provided that this term, condition or limitation as set out in subparagraphs (i) and (ii), above, may be removed by an Order of a panel of the Discipline Committee, upon application by the Member, such application not to be made sooner than two (2) years from the date of this Order;
   c. That the Member's practice will be monitored by the College for a period of twenty-four (24) months from the date of this Order, on the following terms:
      i. the monitoring will be by means of inspections conducted by a representative of the College at such times as the College may determine;
      ii. the monitoring inspections may be in addition to any routine inspections conducted by the College pursuant to the Drug and Pharmacies Regulation Act, s. 148;
      iii. the Member shall cooperate fully during such inspections;
      iv. the Member shall pay to the College in respect of such monitoring inspections the amount of $600.00 per inspection, after each inspection, with the total number of inspections for which the Member must pay not to exceed a total of four (4); and
      v. the College may choose to conduct additional inspections within the monitoring period at no further cost to the Member; and
   d. That the Member shall provide notification to all her employers in pharmacy regarding the disposition of this discipline proceeding, for a period of three (3) years from the date of this Order, on the following terms:
      i. the Member shall notify the College in writing of the name, address and telephone number of any current or future employer, within fourteen (14) days of resuming any current employment or commencing any future employment in pharmacy;
      ii. the Member shall provide her employer(s) in pharmacy with a copy of the Decision and Reasons of the Discipline Committee in this matter, including this Order, prior to resuming any current employment or commencing any future employment in pharmacy; and
      iii. the Member shall only engage in the practice of pharmacy for an employer who agrees to advise the College in writing, within fourteen (14) days of the Member resuming any current employment with the employer or commencing any new employment, confirming that the Designated Manager of the employer's pharmacy has received a copy of the Decision and Reasons of the panel of the Discipline Committee in this matter, including this Order, and confirming the nature of the Member's remuneration.

3. Directing the Registrar to suspend the Member's certificate of registration for a period of ten (10) months, with two (2) months of the suspension to be remitted on condition that the Member

complete the remedial training specified in sub-paragraph 2(a) above.

4. Costs to the College in the amount of $7,500.

In its reprimand, the Panel noted that it was disturbed and disappointed by the events that brought Ms. Viravong before a panel of the Discipline Committee. The Panel pointed out that integrity and trust are paramount to the profession of pharmacy and it was necessary to impress on Ms. Viravong the seriousness of her misconduct. The Panel observed that the practice of pharmacy is a privilege which carries significant obligations, and that as a result of her actions Ms. Viravong eroded the public trust in the profession and cast a shadow over her own integrity. The Panel related that it was particularly concerned by Ms. Viravong's choice to allow unregulated staff to perform controlled acts associated with the practice of pharmacy.

Member: G.M.

At a hearing on October 13-16, 2015, a Panel of the Discipline Committee heard allegations of professional misconduct made against G.M. (the "Member"). It was alleged that the Member had engaged in sexual intercourse and/or other forms of physical sexual relations, and/or touching of a sexual nature, and/or behavior or remarks of a sexual nature with patient [Patient] from about 2007 to about 2013.

In particular, it was alleged that the Member had

1. Sexually abused a patient;
2. Failed to maintain a standard of practice of the profession; and
3. Engaged in conduct or performed an act relevant to the practice of pharmacy that, having regard to all the circumstances, would reasonably be regarded by members of the profession as disgraceful, dishonourable or unprofessional

The Member denied the allegations as set out in the Notice of Hearing.

In its reasons for decision, the Panel noted the following:

- The onus on the College was to prove the allegations on a balance of probabilities
- The Patient denied that the sexual intercourse with the Member occurred at a time when she was a patient
- Information differentiating between a patient of a pharmacist versus a patient of the pharmacy would be critical to making findings of sexual abuse, and very little such evidence was provided in this matter
- The Panel found the patient and the Member to be credible witnesses; conversely, the Panel identified concerns regarding evidence provided by other witnesses called in support of the College
- A sexual relationship was admitted, but sexual intercourse or other acts of a sexual nature, concurrent with the pharmacist-patient relationship, was not proven

After reviewing all of the evidence and submissions presented at the hearing, and considering the onus and the standard of proof, the Panel determined that it was unable to make findings against the Member with respect to the allegations set out in the Notice of Hearing. The Panel decided that the College failed to prove the allegations on a balance of probabilities with clear, cogent and convincing evidence, and in particular, failed to prove the concurrence of the sexual relationship with a Pharmacist-Patient relationship.

Accordingly, the Panel dismissed the allegations made against the Member. Pc

The full text of these decisions is available at www.canlii.org
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THE

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The following pages are selections from the College's 2015 Annual Report.

Each spring, the College publishes a report that features highlights and trends from the 2015 calendar year, including:

- Messages from the Registrar and President
- Statistics on pharmacists, pharmacy technicians and pharmacies
- Information and statistics on College programs
- Audited financial statements
- Special features about the Strategic Framework 2015-2018, transparency, practice assessments, Code of Ethics, hospital pharmacy baseline assessments, and more

The selections in *Pharmacy Connection* feature key statistics and "By The Numbers" from each main section of the report.

In keeping with our environment initiatives, the report was produced electronically only and is available at http://www.ocpinfo.com/extra/OCP_Report_2015/

PICTURE OF THE PROFESSION

BY THE NUMBERS

As of Dec. 31, 2015

15,113 pharmacists practising in Ontario
↗ **5% increase** since 2014

58% of pharmacists in Ontario are female
→ **Steady** since 2012

44 average age of a pharmacist in the province
↘ **Down from 45** in 2014

37% of Ontario's pharmacists were educated internationally
↗ **1% increase** since 2014

14% of pharmacists are 60+ and approaching retirement age

60% of pharmacists are registered to administer injections

3,835 pharmacy technicians practising in Ontario
↗ **31% increase** since 2014

6% of pharmacy technicians in Ontario are male
→ **Steady** since 2014

40 average age of a pharmacy technician in the province
→ **Steady** since 2014

79% of pharmacy technicians took the bridging program to become registered
↘ **Down 4%** since 2014

1% of pharmacy technicians are 60+

36% of pharmacists graduated more than 25 years ago
↗ **1% higher** than 2014

REGISTERING QUALIFIED PRACTITIONERS

All pharmacists and pharmacy technicians in Ontario must be registered with the Ontario College of Pharmacists. To become registered, applicants must demonstrate that they are qualified and possess the required knowledge, skills and abilities to practise pharmacy in the province.

One of the primary ways that we protect the public is by ensuring that only those applicants who have successfully met the registration requirements are granted the right to practise in Ontario. We review each applicant's education and training history, relevant practice experience, standardized testing results and evidence of good character before granting registration.

BY THE NUMBERS

999 new pharmacists registered in 2015

↗ **15% increase** compared to 2014

939 new pharmacy technicians registered in 2015

↘ **16% decrease** compared to 2014

50% of new pharmacists were educated internationally

→ **The same** as in 2014

1,664 pharmacy students and interns were training in Ontario in 2015

41% of new pharmacists were educated in Ontario

↗ **1% increase** since 2014

299 requests considered by panels of the Registration Committee in 2015

↗ **56 more** than in 2014

317 applicants registered in Ontario by way of the Agreement on Internal Trade (AIT) program, after first becoming licensed in another Canadian province

↗ **23% higher** than 2014

ENSURING COMPETENT PRACTITIONERS

Once a pharmacist or pharmacy technician is registered, the College has the responsibility to make sure they remain competent throughout their career. One of the ways we protect the public is to ensure that all practitioners retain their skills and competence, and maintain the ethical and practice standards of the profession throughout their careers.

The Quality Assurance program assesses the continuing competency of practicing pharmacists and thereby protects the public. Currently, the program consists of three components:

1. The learning portfolio
2. The self-assessment
3. The Peer Review

BY THE NUMBERS

14,225 pharmacists in Part A of the register*

888 pharmacists in Part B of the register*

90% of Peer Review participants were successful over the last 5 years

232 randomly selected candidates participated in one of four Peer Review sessions

* Pharmacists in Part A of the register must have worked a minimum of 600 hours providing patient care over the previous three years. Pharmacists in Part B of the register are not permitted to provide patient care or perform any of the controlled acts that are associated with providing pharmacy services to the public.

SUPPORTING PHARMACY PRACTICE

The College serves and protects the public and holds Ontario's pharmacists and pharmacy technicians accountable to the established Standards of Practice, Code of Ethics, legislation, policies and guidelines that are relevant to pharmacy practice.

While practitioners are expected to use their professional judgment to make decisions, the College also provides support for practitioners in their adherence to standards and legislation.

The College develops policies, guidelines and fact sheets that are meant to guide practitioners in their decision-making. College practice advisors are also available to respond to general practice questions, assist practitioners with meeting the standards and provide advice, guidance and clarification to support decision-making.

BY THE NUMBERS

8,580 pharmacists registered to administer injections

60% of all eligible pharmacists

21 online practice tools provide quick access to policies, guidelines, fact sheets, articles, practice videos and FAQs organized by subject

6 jurisprudence e-learning modules for practitioners to refresh their knowledge of legislation

2 practice consultants answering questions by phone and email

9% of calls and emails were questions related to narcotics

8% of calls and emails were questions related to opioid dependence (methadone and buprenorphine)

3,881 calls and emails related to practice matters

ASSESSING PHARMACIES

The College assesses and accredits all community pharmacies and drug preparation premises (DPPs) in Ontario. We ensure that all facilities are operating safely and the public is protected. Only those pharmacies and DPPs that have been assessed and have met the accreditation criteria are authorized to operate in the province. We routinely visit these facilities to ensure compliance with established standards and legislation.

In 2015, in anticipation of regulatory oversight of hospital pharmacies, the College conducted baseline assessments on pharmacies within Ontario's 224 hospitals.

BY THE NUMBERS

4,012 accredited community pharmacies

Consistent **4% growth** in 2013 and 2014

49% of Ontario community pharmacies are independently owned

Up 2% since 2014

25% of Ontario community pharmacies are small or large chains

1,719 community pharmacy assessments

17% increase since 2014

95% of community pharmacies received a pass on their first assessment

439 community pharmacies provided methadone maintenance treatment in 2015

197 community pharmacies provided compounding services in 2015

6 drug preparation premises

INVESTIGATING AND RESOLVING COMPLAINTS

One of the primary ways we protect the public is through our investigation process. When we receive information that raises concerns about the care or behaviour of a pharmacist, pharmacy technician, student or intern, we will investigate.

Any member of the public who is dissatisfied with the care or services provided by a practitioner or pharmacy may file a formal complaint or report the information to the College. We investigate and resolve every complaint we receive to ensure practitioners are providing appropriate, safe and ethical care.

There are a number of other ways we might be informed about a potential issue with a practitioner or practice site. For example, employers, facility owners or other regulated healthcare professionals have a mandatory obligation to report certain concerns, including information about sexual abuse of a patient, misconduct, incapacity or incompetence.

Additionally, practitioners are required to report themselves if they have been found guilty of an offense or are the subject of a non-College investigation. Regardless of how information comes to us, we always take potential issues seriously and take action to resolve them in the public's interest.

BY THE NUMBERS

266 complaints received in 2015

30% increase since 2014

88 reports received in 2015

26 more than 2014

1% of practitioners were under investigation as of Dec. 31, 2015

17 complaints have been resolved through the Alternative Dispute Resolution process since it was introduced

38% of complaints received in 2015 were related to dispensing errors

19% of reports were related to issues with narcotics, forgery and/or fraud

31 practitioners were referred to the Discipline Committee as a result of a complaint or report

51 practitioners were issued an oral caution as a result of a complaint or report

DISCIPLINE AND HEALTH MONITORING

If there are concerns that a pharmacist, pharmacy technician, student or intern has demonstrated a deliberate disregard for a patient's welfare, engaged in dishonourable behaviour or demonstrated extreme substandard care, then that practitioner is referred to the College's Discipline Committee.

The Discipline Committee receives referrals from:

Inquiries, Complaints and Reports Committee

The ICRC may decide to refer allegations of professional misconduct or incompetence to the Discipline Committee if it has concerns that the practitioner was dishonest, breached trust, appeared to show a willful disregard for professional values, and/or appeared to be unable to practice to the standards.

Accreditation Committee

The Accreditation Committee will refer a pharmacy, including the Designated Manager, Director or corporation to the Discipline Committee if the pharmacy has failed to meet the requirements of the *Drug and Pharmacies Regulation Act*.

BY THE NUMBERS

33 discipline hearings held in 2015

16 more than in 2014

100% of findings related to failure to meet the Standards of Practice

38% of decisions related to issuing false or misleading accounts

8 discipline hearings were contested

27 practitioners monitored while fulfilling orders from the Discipline Committee

50% increase since 2014

12 active health inquiries

1 more than 2014

1 practitioner found to be incapacitated

FOCUS ON ERROR PREVENTION

By Ian Stewart B.Sc.Phm., R.Ph.

ILLEGIBLE HANDWRITING

It is well known that failed communication due to illegible prescriber's handwriting is a major problem in pharmacy practice. Pharmacists spend an enormous amount of time contacting prescribers to clarify illegible or ambiguous handwritten prescriptions. At a minimum, this process results in a delay in the provision of patient care. At worse, misinterpretation of an illegible prescription may result in the dispensing of an incorrect drug, dosage, frequency or route of administration and can lead to patient morbidity or mortality.

With the availability of electronic prescribing, hand written prescriptions should be a thing of the past. Computerized physician order entry (CPOE) has been shown to prevent errors caused by illegible handwriting[1, 2]. CPOE systems can also screen prescriptions for potential problems such as drug allergies, inappropriate dose or frequency of administration, contraindications and drug-drug interactions. Computer generated prescriptions also reduces the potential for misinterpretation of the prescriber's intent due to similarity in drug names and abbreviations.

It was therefore interesting to learn that recent legislation passed in New York State requires all prescriptions issued in New York State to be electronically transmitted, with limited exceptions.

Though the I-STOP (Internet System for Tracking Over-Prescribing) Act was passed by the New York State legislature to help combat the rising rates of prescription drug abuse in New York, the effect would be the discontinuation of handwritten prescriptions.

Though computer generated prescriptions can reduce some types of medication errors, pharmacist must be vigilant as computer entry errors are often seen. Prescribers often make their selection of the drug from a drop down menu. An incorrect selection can result in a drug that is similar, but not therapeutically equivalent to the intended drug entity.

CASE:

A forty-six year old patient had been taking diclofenac **sodium** intermittently for a shoulder injury. The patient attempted to contact his family doctor for a refill of his medication, but was unsuccessful. The patient therefore visited a local walk-in clinic and requested a prescription for diclofenac tablets.

The physician used a CPOE system and selected diclofenac **potassium** from a list of drugs. The prescription was computer generated and given to the patient who took it to his regular community pharmacy for processing.

The prescription was processed correctly as prescribed and the medication given to the patient. The offer to receive counselling was refused by the patient as he indicated that the medication had been taken previously.

Upon arriving home, the patient opened the vial, noticed the change in tablet appearance and contacted the pharmacy to report that the incorrect medication had been dispensed.

POSSIBLE CONTRIBUTING FACTORS:

- The patient visited a new doctor who was likely unfamiliar with the different forms of diclofenac.
- The physician chose diclofenac from a drop down menu. Diclofenac **potassium** appears on the list before diclofenac **sodium** and was therefore selected.
- The patient's medication history was not consulted by the pharmacist to identify any change in drug therapy.

RECOMMENDATIONS:

- Though computer generated prescriptions can minimize medication errors due to illegible handwriting, be aware that computer entry errors can occur.
- Always consult the patient's medication history to identify changes in drug therapy and to detect prescribing and dispensing errors. Pc

Please continue to send reports of medication errors in confidence to Ian Stewart at: ian.stewart2@rogers.com .

Please ensure that all identifying information (e.g. patient name, pharmacy name, healthcare provider name, etc.) are removed before submitting.

REFERENCES

1. Bates DW, Leape LL, Cullen DJ, et al. Effect of computerized physician order entry and a team intervention on prevention of serious medication errors. *JAMA.1998;280 :1311– 1316*
2. Bates DW, Teich JM, Lee J, et al. The impact of computerized physician order entry on medication error prevention. *J Am Med Inform Assoc.1999;6 :313– 321*

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