

## 2013 CSHP National Awards Program Winners

### Programme national des prix 2013 de la SCPH : lauréats et lauréates

The winner of the ***Distinguished Service Award*** (sponsored by Johnson & Johnson Family of Companies) is **Régis Vaillancourt** (Ottawa, ON).

The winner of the ***Isabel E. Stauffer Meritorious Service Award*** (sponsored by Pharmaceutical Partners of Canada Inc., A Company of the Fresenius Kabi Group) is **Marita Tonkin** (Hamilton, ON).

The winners of the ***New Hospital Pharmacy Practitioner Award*** (sponsored by Sandoz Canada Inc.) are **Anna Maria Huisman** (Brampton, ON) and **Mayce Al-Sukhni** (Toronto, ON).

The winner of the ***Hospital Pharmacy Student Award*** (sponsored by the Canadian Society of Hospital Pharmacists [CSHP] and the Canadian Association of Pharmacy Students and Interns [CAPSI]) is **Emily Li** (Edmonton, AB).

#### **Management and Leadership Best Practices Award**

Sponsored by **Apotex Inc.**  
Ranking of Healthcare Programs Based on Health Outcome, Health Costs and Safe Delivery of Care in Hospital Pharmacy Practice (completed at CHU Sainte-Justine, Montréal, QC)  
*Jean-François Bussières*

Sponsored by **Medbuy Corporation**  
Clinical Benefits and Economic Impact of Post-surgical Care Provided by Pharmacists in a Canadian Hospital (completed at Capital Health, Halifax, NS)  
*Heather Neville, Anne Hiltz, Bernadette Chevalier, Neil MacKinnon, Kathryn Slayter, and Claudia Harding*

#### **Patient Care Enhancement Award**

Sponsored by **TEVA Canada Ltd.**  
Analysis of Opioid Incidents Requiring Naloxone Administration (completed at Regina Qu'Appelle Health Region, Regina, SK)  
*Katherine Lang, Kaitlyn McMillan, Allison Marcil, Lynette Kosar, Lisa Ruda, and Zack Dumont*

#### **Pharmacotherapy Best Practices Award**

Sponsored by **Pfizer Canada Inc.**  
The Safety and Effectiveness of Dexmedetomidine in the Pediatric Intensive Care Unit (SAD-PICU) (completed at BC Children's Hospital, Vancouver, BC)  
*Laura Carney, Roxane Carr, and Jennifer Kendrick*

#### **Sponsored by Merck Canada Inc.**

Evaluation of In-Hospital and Post-Discharge Utilization of Preventative Cardiovascular Pharmacotherapy in Patients who have Undergone Coronary Artery Bypass Graft Surgery (completed at Mazankowski Alberta Heart Institute, Edmonton, AB)  
*Arden Barry, Sheri Koshman, and Glen Pearson*

#### **Safe Medication Practices Award**

Sponsored by **McKesson Canada Corporation**  
Medication Reconciliation Standardization in a Regional Health Authority Renal Program (completed at Kelowna General Hospital, Kelowna, BC)  
*Mary Lou Lester and Piera Calissi*

#### **Sponsored by Medbuy Corporation**

Development of a Training Program for Hazardous Drugs Handling (completed at Winnipeg Regional Health Authority, Winnipeg, MB)  
*Donna Woloschuk, Wendy Simoens, Lorraine Woods, and Florence Mendelson*

Sponsored by **HealthPRO Procurement Services Inc.**  
Multicenter Study of Environmental Contamination with Hazardous Drugs in Hospitals (completed at CHU Sainte-Justine, Montréal, QC)  
*Jean-François Bussières*

#### **CSHP 2015 Hospital Pharmacy Residency Award**

Sponsored by **Pharmaceutical Partners of Canada, A Company of the Fresenius Kabi Group**  
Urinary Tract Infections: Leading Initiatives in Selecting Empiric Outpatient Treatment (UTILISE) (completed at Regina General Hospital, Regina, SK)  
*Eric Landry, Linda Sulz, and Heather Balogh*

#### **Teaching, Learning, and Education Award**

Sponsored by **Eli Lilly Canada Inc.**  
What Patients Want: Preferences Regarding Hospital Pharmacy Services (completed at Horizon Health Network, Moncton, NB)  
*Douglas Doucette*

The 2012/2013 National Awards Program is proudly sponsored by **Hospira Healthcare Corporation.**

*The award-winning abstracts are published exactly as submitted by the authors and have not undergone any copyediting by the Canadian Journal of Hospital Pharmacy.*

*Le Journal canadien de la pharmacie hospitalière n'a pas soumis les résumés primés à une révision linguistique et les publie ici tels que remis par les auteurs.*

## Ranking of Healthcare Programs Based on Health Outcome, Health Costs and Safe Delivery of Care in Hospital Pharmacy Practice

**Management and Leadership Best Practices Award, sponsored by Apotex Inc.**

Jean-François Bussières<sup>1</sup>, Lionel Brisseau,<sup>1</sup> Denis Bois<sup>2</sup>, Marc Vallée<sup>3</sup>, Marie-Claude Racine<sup>4</sup>, André Bonnic<sup>5</sup>

<sup>1</sup>CHU Sainte-Justine, Montréal, QC

<sup>2</sup>Centre hospitalier universitaire de Montréal, Montréal, QC

<sup>3</sup>Centre hospitalier universitaire de Sherbrooke, Sherbrooke, QC

<sup>4</sup>Centre hospitalier universitaire de Québec, Québec, QC

<sup>5</sup>Centre universitaire de santé McGill, Montréal, QC

**Introduction:** Given the often limited human and financial resources, managers should consider the best evidence available on a profession's impact to plan healthcare services within an organization. Data are few on ranking healthcare programs in order to prioritize which healthcare program would mostly benefit from the delivery of pharmaceutical care by decentralised pharmacists. The aim of this project was to establish a consensual and coherent ranking of healthcare programs that involve the presence of decentralized pharmacists, based on health outcome, health costs and safe delivery of care.

**Project Description:** This descriptive study was derived from a structured dialogue (Delphi technique) among directors of pharmacy department. We established a quantitative profile of healthcare programs of five sites that involved the provision of decentralised pharmaceutical care. A summary table of evidence established a unique quality rating per inpatient or outpatient healthcare program. Each director rated the perceived impact of pharmaceutical care per inpatient or outpatient healthcare program on three fields: health outcome, health costs and safe delivery of care. Directors agreed by consensus on the final ranking of healthcare programs.

**Project Results:** A ranking was assigned for each of the 18 healthcare programs for outpatient care and the 17 healthcare programs for inpatient care involving the presence of pharmacists, based on health outcome, health costs and safe delivery of care. There was a good correlation between ranking based on data from the 2007–2008 Canadian report on hospital pharmacy practice and the ranking proposed by directors of pharmacy department.

**Discussion:** The use of strength of evidence quality rating combined with Delphi technique allowed our panel experts to propose a final consensual ranking of which healthcare programs would need to benefit from pharmaceutical care. Our study suggested that the ranking by the panellists was influenced by the quality of the evidences available and by current allocation of pharmacists in healthcare programs in Canada.

**Conclusions:** A novel approach used to rank healthcare programs that include the provision of pharmaceutical care by decentralised pharmacists was described. This ranking approach was based on the perceived impact of pharmaceutical care healthcare program on three fields: health outcome, health costs and safe delivery of care.

## Clinical Benefits and Economic Impact of Post-surgical Care Provided by Pharmacists in a Canadian Hospital

**Management and Leadership Best Practices Award, sponsored by Medbuy Corporation**

H L Neville, B Chevalier, C Daley, L Nodwell, C Harding, A Hiltz, T MacDonald, C Skeedgel, N J MacKinnon, K Slayter  
Capital District Health Authority, Halifax, NS

**Rationale:** The impact of clinical pharmacists on improving the quality of patient care in surgery is not well described.

**Objectives:** The objective was to prospectively evaluate clinical and economic outcomes after clinical pharmacist services were added to two general surgery wards in an adult tertiary care centre.

**Study Design and Methods:** This was a prospective, observational study. All clinical interventions were documented and assessed for severity, value and the probability of preventing adverse drug events (ADE). Cost avoidance was calculated using two methods: by avoiding additional days in hospital (\$3593/ADE) or additional hospital costs (\$7215/ADE). Two pharmacists independently categorized the interventions; disagreements were resolved by consensus.

**Results:** The pharmacists made 1097 interventions in six months with a 98% acceptance rate by surgical staff. Half of the interventions were rated significant for severity (561, 51.1%) and value (559, 51.0%). One-quarter of the interventions had a 40% or greater probability of preventing an ADE (270, 24.6%). Cost avoidance was estimated to be \$0.68 – 1.36 million or \$617 to \$1239 per intervention.

**Conclusions:** The importance of having pharmacists manage the drug therapy needs of the post-surgical patient was demonstrated. Investments in a clinical pharmacist position in surgery may yield a benefit to cost ratio of 7:1.

**Key words:** clinical pharmacist, cost avoidance, interventions, quality, surgery

## Analysis of Opioid Incidents Requiring Naloxone Administration

**Patient Care Enhancement Award, sponsored by TEVA Canada Ltd.**

Katherine Lang, Allison Marcil, Lynette Kosar, Zack Dumont, Lisa Ruda, Kaitlyn McMillan

Department of Pharmacy Services, Regina Qu'Appelle Health Region, Regina, SK

**Rationale:** Opioid analgesics are high alert medications that are known to cause adverse drug events.

**Objective:** To determine the cause of opioid incidents that require the administration of naloxone (opioid reversal agent).

**Methods:** A retrospective chart review of inpatients who received naloxone for reversal of toxicity resulting from licit, in-hospital opioid use was conducted. Cases were analyzed to determine preventability, and preventable cases were assessed to determine the phase of the medication process where incident occurred, as well as the type of incident that occurred (determined through thematic grouping). The drug responsible for toxicity was determined, and the proportion of cases documented by occurrence reporting was noted.

**Results:** Thirty-six cases were identified, 29 (80.6%) of which were preventable. The primary medication incident occurred most frequently in the prescribing phase, but multiple phases were often involved. Six types of incidents were identified thematically. Morphine was the drug that most frequently resulted in toxicity. Two (5.6%) cases were documented by occurrence reports.

**Conclusion:** Opioid incidents occurred in the acute care centres under study. Targeted educational initiatives or policy changes are required to decrease the frequency of these incidents and better document their occurrence.

**Key Words:** medication incident, naloxone, opioid toxicity, adverse drug event

### The Safety and Effectiveness of Dexmedetomidine in the Pediatric Intensive Care Unit (SAD-PICU)

**Pharmacotherapy Best Practices Award, sponsored by Pfizer Canada Inc.**

Laura Carney, Jennifer Kendrick, Roxane Carr  
Children's and Women's Health Centre of BC, Vancouver, BC

**Background:** Critically ill children require sedation for comfort and to facilitate interventions. Dexmedetomidine is a newer sedative with little safety data in pediatrics, particularly with durations of therapy greater than 48 hours.

**Objective:** To quantify the frequency of adverse events and withdrawal syndromes associated with dexmedetomidine and describe its use for continuous sedation in critically ill children.

**Methods:** A retrospective medical record review of patients who received dexmedetomidine for sedation in the Pediatric Intensive Care Unit. Adverse events were assessed using a Naranjo Score to determine the likelihood of an association with dexmedetomidine.

**Results:** Included were 144 patients (median age 34 months (range 0 to 17.7 years)) with 153 treatment courses. Mean infusion rate was 0.42 (SD 0.17; range 0.05 to 2) mcg/kg/h. Median therapy duration was 20.5 (range 0.75 to 854.75) hours. Hypotension (N=81 (52.9%)) and bradycardia (N=38 (24.8%)) were the most common adverse events, and were "probably" attributable to dexmedetomidine in 17 (11%) and 9 (6%) of treatment courses, respectively. Agitation and hypertension were the most common withdrawal symptoms observed.

**Conclusions:** Dexmedetomidine is commonly administered for greater than 24 hours in our institution and is generally well tolerated. Patients receiving dexmedetomidine for over 24 hours should be monitored for withdrawal following discontinuation.

**Key Words:** Dexmedetomidine, Critical Care, Children, Sedation

### Evaluation of In-Hospital and Post-Discharge Utilization of Preventative Cardiovascular Pharmacotherapy in Patients who have Undergone Coronary Artery Bypass Graft Surgery

**Pharmacotherapy Best Practices Award, sponsored by Merck Canada Inc.**

Arden R Barry<sup>1</sup>, Sheri L Koshman<sup>2</sup>, Colleen M Norris<sup>3</sup>, David B Ross<sup>3</sup>,  
Glen J Pearson<sup>2</sup>

<sup>1</sup>Mazankowski Alberta Heart Institute, Alberta Health Services, Edmonton, AB

<sup>2</sup>Division of Cardiology, University of Alberta, Edmonton, AB

<sup>3</sup>Division of Cardiac Surgery, University of Alberta, Edmonton, AB

**Rationale:** Secondary prevention medications, including acetylsalicylic acid (ASA), statins,  $\beta$ -blockers and angiotensin-modulating agents (angiotensin-converting enzyme inhibitors or angiotensin receptor blockers), are recommended in patients who have undergone coronary artery bypass graft (CABG) surgery.

**Objective:** To evaluate the rate of secondary prevention medication utilization from discharge to one-year post-CABG surgery for a cohort of adult patients at the Mazankowski Alberta Heart Institute in Edmonton, Alberta.

**Study Design Methods:** A retrospective analysis was performed using a clinical patient registry. A randomly selected subset of patients was invited to evaluate medication utilization at one-year post-surgery using community pharmacy records.

**Results:** The registry identified 1,031 patients. The mean age was 66 years and 80% were male. The proportion of patients discharged on all four medications post-CABG surgery was 35%. The individual utilization rates for ASA, statins,  $\beta$ -blockers and angiotensin-modulating agents were 96%, 94%, 92% and 42%, respectively. Of the patients invited to participate in the one-year evaluation, 151 (39%) provided consent. The proportion of patients on all four medications at one-year was 48%. Individual utilization rates for ASA, statins,  $\beta$ -blockers and angiotensin-modulating agents were 95%, 84%, 84% and 65%, respectively.

**Conclusion:** The rate of utilization of four secondary prevention medications was 35% at discharge and 48% at one-year post-CABG surgery. These rates were primarily limited by the low use of angiotensin-modulating agents.

### Medication Reconciliation Standardization in a Regional Health Authority Renal Program

**Safe Medication Practices Award, sponsored by McKesson Canada Corporation**

Mary Lou Lester, Piera Calisi  
Interior Health Renal Program, Kelowna, BC

**Background:** Maintenance of an up-to-date medication list, using medication reconciliation (MedRec) to identify discrepancies, has been shown to reduce adverse drug events in hemodialysis patients.

**Objectives:** Develop and implement a renal program-wide, sustainable MedRec program primarily using nurses.

**Methods:** The project team worked with the hemodialysis nurses to develop a standardized MedRec process utilizing the provincial patient database and guidelines from Safer Healthcare Now. The nurses were educated and given tools to support them to gather a best possible medication history (BPMH). An Evaluation Analyst developed a Logic Model and Data Collection Plan to support the project.

**Results:** After one year, the percentage of medications with a discrepancy and the average number fell from 23% to 15% and 3.9 to 2.7 per patient, respectively. Over 85% of the staff surveyed stated that there were now clear processes and tools in place to conduct a BPMH, update the medication lists in the provincial renal database, and to communicate the medication information to the patient and other caregivers.

**Conclusions:** A project team consisting of three hospital pharmacists with support from an Evaluation Analyst was able to successfully standardize a MedRec process in a regional outpatient HD program primarily using nurses.

**Key Words:** medication reconciliation, hemodialysis, renal, BPMH (best possible medication history)

### Development of a Training Program for Hazardous Drugs Handling

**Safe Medication Practices Award, sponsored by Medbuy Corporation**

D M M Woloschuk, W Simoens, L Woods, F Mendelson  
Winnipeg Regional Health Authority Pharmacy Program, Winnipeg, MB

**Objective:** We sought to create an effective, accessible, sustainable, multi-faceted pharmacy staff training program for safe handling of hazardous drugs that could be easily adapted for other disciplines. We also wanted to design a program that would advise staff on an ongoing basis

about known or reasonably foreseeable risks to safety and health arising from hazardous drugs used in pharmacy work areas.

**Methods:** We conducted a needs assessment, then designed and evaluated a set of instructional materials that form a comprehensive training program for safe handling of hazardous drugs. The materials include a slide presentation intended for face-to-face inservices, a self-learning package in hard copy and on-line format, an annual refresher quiz, and a mock spill drill.

**Results:** Since inception of the training program in 2010, 335 pharmacy staff members have completed one or more training program components. Field tests of each component have improved content, enabled high success rates on refresher quizzes, and identified opportunities to improve the region's Safe Medication Handling policy. The training program has been easy to sustain at a reasonable cost.

**Conclusion:** Our experience has shown that improving staff safety requires not only a policy and associated procedures, job aides and work tools, but also a comprehensive training program to ensure initial and ongoing use of job aides and work tools by front line staff members. Adoption of the pharmacy hazardous drugs training program for training of nursing personnel region-wide attests to the quality of the program and to pharmacy's medication safety leadership role. Training program materials will be available for viewing during the facilitated poster presentation.

### Multicenter Study of Environmental Contamination with Hazardous Drugs in Hospitals

**Safe Medication Practices Award, sponsored by HealthPRO Procurement Services Inc.**

Jean-François Bussi eres<sup>1</sup>, Cynthia Tanguay<sup>1</sup>, Karine Touzin<sup>1</sup>,  ric Langlois<sup>2</sup>, Michel Lefebvre<sup>2</sup>

<sup>1</sup>CHU Sainte-Justine, Montreal, QC

<sup>2</sup>Centre de toxicologie du Qu ebec, Institut National de Sant  Publique du Qu ebec, Qu ebec, QC

**Introduction/Objectives:** Since the publication of the *National Institute for Occupational Safety and Health Alert on hazardous drugs in 2004*, many healthcare organizations have reviewed their guidelines and procedures for handling hazardous drugs. Occupational exposure may occur when handling, compounding or administering a drug considered to be hazardous, from storage to waste management. The aim of this project was to measure environmental contamination with cyclophosphamide (CP), ifosfamide (IF) and methotrexate (MTX) in pharmacy and patient care areas of hospitals.

**Description of the Project/Methods:** Twelve standardized measurement sites within pharmacy (6 sites) and patient care areas (6 sites) were selected. Sites were sampled mid-week at the end of the day. Samples were analyzed for the presence of CP, IF and MTX by UPLC-MS-MS technology. The limit of detection (LOD) was 0.0015 ng/cm<sup>2</sup> for CP, 0.0012 ng/cm<sup>2</sup> for IF and 0.0060 ng/cm<sup>2</sup> for MTX.

**Project Experience/Results:** A total of 25 hospitals participated in the project (37% response rate). Overall, 259 samples were collected between April 2008 and January 2010 (147 samples from 25 pharmacy areas and 112 samples from 24 patient care areas). No hospital was using a closed system transfer device (CSTD) at the time of the study. The median[*min-max*] number of sites per center with at least one positive sample for at least one drug of the three hazardous drugs evaluated was 6[1-12]. A total of 135(52%) samples were positive for CP, 53(20%) were positive for IF and 7(3%) were positive for MTX.

The median[*min-max*] concentration was of 0.0035[<LOD-28] ng/cm<sup>2</sup> for CP, <LOD [<LOD-8.6] ng/cm<sup>2</sup> for IF and <LOD [<LOD-0.58] ng/cm<sup>2</sup> for MTX.

**Discussion:** CP levels were a good indicator to estimate the level of hazardous drug contamination, considering that it is still largely used in most healthcare centers. It also allowed a good comparison with other studies. Our results from 25 hospitals indicated that it is feasible to have a similar (and in some cases, lower) proportion of CP positive surface samples without the use of a closed-system transfer device.

**Conclusions:** Periodic surface contamination measurements are necessary to ensure that current practices limit healthcare workers occupational exposure to hazardous drugs. This project have helped participating centers identify their specific areas for improvement. The overall results from this project will also serve as an attainable goal that any Canadian hospital may refer to in order to reduce the risks to healthcare workers' safety.

### Urinary Tract Infections: Leading Initiatives in Selecting Empiric Outpatient Treatment (UTILISE)

**CSHP 2015 Hospital Pharmacy Residency Award, sponsored by Pharmaceutical Partners of Canada, A Company of the Fresenius Kabi Group**

Eric Landry, Linda Sulz, Ali Bell, Lane Rathgeber, Heather Balogh  
Saskatoon Health Region, Regina, SK

**Introduction:** Overuse of fluoroquinolone (FQ) antibiotics is associated with outbreaks of MRSA and *C. difficile*-associated diarrhea and increasing resistance to gram-negative organisms. The Regina Qu'Appelle Health Region (RQHR) has seen increasing *E. coli* resistance to ciprofloxacin over the last decade. The purpose of this study was to evaluate and optimize empiric treatment of Regina General Hospital (RGH) emergency department (ED) outpatients with uncomplicated UTIs, using antimicrobial stewardship principles to align prescribing with local resistance data and best practice.

**Methods:** An educational strategy, aimed at ED physicians, presented the changes in RQHR antibiotic resistance patterns, principles of antimicrobial stewardship, the drivers of resistance, and a literature review of best practice for outpatient UTIs. An overview of baseline findings from a retrospective chart review, along with the suggested best practice was also presented. A post-intervention audit was conducted in the same manner as the baseline audit for comparison purposes.

**Results:** Adherence to best practice significantly increased from 40.6% pre-intervention, to 65.8% post-intervention (P<0.001; OR = 2.81, 95% CI 1.51-5.25). There was also a significant change in overall antibiotic selection from pre to post-intervention (P<0.001; OR = 0.25, 95% CI = 0.11-0.58). Further statistical analysis suggests this significance was driven by a decrease in ciprofloxacin use from 32.3% in pre-intervention to 10.5% post-intervention. Future interventions may be required to further improve adherence and to determine what effect this may have on reducing resistance rates of *E. coli* to ciprofloxacin.

#### Goals and Objectives

1. To raise awareness of the potential antimicrobial stewardship interventions which exist in the treatment of a very common infection, outpatient urinary tract infections.
2. To provide an example of a simply designed, pharmacist lead, inter-professional collaboration on an antimicrobial stewardship initiative in the emergency room setting.

**Self-Assessment Questions**

1. What are some of the consequences of fluoroquinolone overuse?
2. Which antimicrobial resistance rates are issues in your health region?
3. Is there opportunity to influence prescribing habits through educational intervention?

Other CSHP 2015 “winning” success stories will also be highlighted at the end of the session.

**What Patients Want: Preferences Regarding Hospital Pharmacy Services**

*Teaching, Learning, and Education Award, sponsored by Eli Lilly Canada Inc.*

Paula Buckley<sup>1</sup>, Odette Gould<sup>1</sup>, Douglas Doucette<sup>2,3</sup>

<sup>1</sup>Department of Psychology, Mount Allison University, Sackville, NB

<sup>2</sup>Pharmacy Services, Horizon Health Network, New Brunswick

<sup>3</sup>College of Pharmacy, Dalhousie University, Halifax, NS

**Rationale:** Recently discharged patients were surveyed about their preferences for pharmacy services as part of a phone questionnaire to determine the percentage of patients who recalled interacting with the pharmacist during their hospital admission (CSHP 2015 Objective 1.5).

**Objective:** To analyse content of former patients’ open-ended survey responses to a telephone questionnaire.

**Methods:** A telephone questionnaire was conducted with former inpatients randomly selected following discharge from hospitals in Horizon Health Network, New Brunswick. Responses were recorded to the question “what service or information would you like a pharmacist to provide in the hospital that would most help you in managing your medications?” Two raters established response categories, obtained acceptable inter-rater agreement, and independently scored the survey responses.

**Results:** Sixty-three percent (n=445) of all responses obtained were related to Information About Medication (e.g. purpose, adherence, side effects). Self-Disclosure (23.7%, n=167), detailing experiences with pharmacies, medication or hospital, was the second most common global category. Subjects’ responses were less frequently associated with Pharmacy Services (7.7%, n=54) and their Information Source for Medications (5.3%, n=37).

**Conclusions:** Most patients would like a pharmacist to provide a general medication overview during their admission. Results suggest many patients are unaware of other clinical pharmacy services.

**Key Words:** clinical pharmacy services, expanded pharmacy services, patient expectations

# CJHP Call for photographs

The *Canadian Journal of Hospital Pharmacy* is looking for photographs for the cover of the Journal.

The photo theme for 2013 is:

## *Canadian Landscapes and Scenery*

Interested participants are asked to submit a digital photo or group of photos for selection along with a short (max 150 words) write-up about the location of the photo, the date and time of the photo, and the type of equipment used. Be sure to include any stories or details that make this photograph or location unique!

Entries can be submitted to Colleen Drake, Publications Administrator, at [cdrake@cshp.ca](mailto:cdrake@cshp.ca).

