2017 CSHP National Awards Program Winners
Programme national des prix 2017 de la SCPH : lauréats et lauréates

The winner of the **Isabel E. Stauffer Meritorious Service Award** (sponsored by Fresenius Kabi Canada Ltd.) is **Nadine Grimm** (Halifax, NS).

The winner of the **Hospital Pharmacy Student Award** (co-sponsored by the Canadian Society of Hospital Pharmacists [CSHP] and the Canadian Association of Pharmacy Students and Interns [CAPSI]) is **Erin Alexandria Cicinelli** (Bolton, ON).

Note: **The Distinguished Service Award** and the **New Hospital Pharmacy Practitioner Award** were not awarded in 2017.

Management and Leadership Best Practice Award
Sponsored by **Apotex Inc.**
Assessment of the Impact of Pharmacy Learners on Essential Patient Care Processes (completed at University Health Network)
Matthew Chow, Philip Lui, Karen Cameron, Sean K Gorman, Laura Murphy, Jennifer Harrison, Andrea Cameron, Kent Toombs, Andrea Meade, Amita Woods, Lalitha Raman-Wilms, Richard S Slavik, Sean Spina, Olavo Fernandes

Sponsored by **Medbuy Corporation**
Pharmacists' Perceptions of the Barriers and Facilitators to the Implementation of Clinical Pharmacy Key Performance Indicators (completed at Nova Scotia Health Authority)
Laura Vivian Minard, Kent Toombs, Heather Neville, Andrea Meade

New Technology Award
Sponsored by **Mylan Pharmaceuticals ULC**
Comparison of Information Available in the Medication Profile of an Electronic Health Record and the Inpatient Best Possible Medication History (completed at CHU Sainte-Justine)
Denis Lebel, Pascal Bédard, Jean-François Bussières

Patient Care Enhancement Award
Sponsored by **Pfizer Canada Inc.**
Ensuring Appropriate Use of Antipsychotic Medications in Older Patients with Dementia (completed at Nova Scotia Health Authority)
Melissa Gehrig, Susan Bowles

Sponsored by **Teva Canada Limited**
Evaluation of a *Clostridium difficile* Infection Management Policy with Clinical Pharmacy and Medical Microbiology Involvement at a Major Canadian Teaching Hospital (completed at Vancouver General Hospital)
Janice K Yeung, Tim T Y Lau

Pharmacotherapy Best Practices Award
Sponsored by **Pfizer Canada Inc.**
Development, Evaluation and Validation of a Screening Tool for Late Onset Bacteremia in Neonates (completed at Sunnybrook Health Sciences Centre)
Melanie Cormier, Sandra A N Walker, Marion Elligsen, Dolores Iaboni

Sponsored by **Sandoz Canada Inc.**
A Case-Control Study Analyzing Mannitol Dosing for Prevention of Cisplatin-Induced Acute Nephrotoxicity (completed at University Health Network)
Patwant Dhillon, Pamela Ng

Safe Medication Practices Award
Sponsored by **Health*PRO* Procurement Services Inc.**
Reliability of a Best Possible Medication History Completed by Non-Admitted Patients in the Emergency Department (completed at Moncton Hospital)
Nicole MacDonald, Leslie Manuel, Haley Brennan, Richard Wanbon

Sponsored by **Medbuy Corporation**
An Evaluation of Pharmacist Intervention on Discharge Medication Reconciliation (completed at Surrey Memorial Hospital)
Suzanne C Malfair, Sukhjinder Sidhu, Caitlin Lang, Adil Virani

Specialties in Pharmacy Practice Award
Sponsored by **Pharmascience Inc.**
Development of a New Web-Based Resource for Managing HIV and Hepatitis C Drug Therapy/Drug Interactions (completed at University Health Network, Alberta Health Services, and The Ottawa Hospital)
Alice Tseng, Michelle Foisy, Pierre Giguère

Sponsored by **Sandoz Canada Inc.**
Creation of a Natural Health Products Database for Assessing Safety in Patients with Chronic Kidney Disease or Renal Transplant (completed at St Paul's Hospital)
Marianna Leung

Teaching, Learning and Education Award
Sponsored by **Eli Lilly Canada Inc.**
Medication Errors Room: A Simulation to Assess the Medical, Nursing and Pharmacy Staffs' Ability to Identify Errors Related to the Medication-Use System (completed at CHU Saint-Justine)
Pascal Bédard, Denis Lebel, Jean-François Bussières

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.*

Assessment of the Impact of Pharmacy Learners on Essential Patient Care Processes

Management and Leadership Best Practice Award, sponsored by Apotex Inc.

Chow M[1,2], Lui P[1,2], Romanko A[1], Cameron K[1,2], Hamandi B[1,2], Gorman SK[3,4], Murphy L[1,2], Harrison J[1,2], Cameron A[2], Toombs K[5], Meade A[5], Wong G[1,2], Dara C[1,2], Woods A[1,2], Kumra R[1], Lam M[1], Lutfy F[1,2], Raman-Wilms L[2], Slavik RS[3,4], Spina S[4,6], Rubin B,[1,2], Fernandes O[1,2]

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[4]Faculty of Pharmacy, University of British Columbia, Vancouver, BC
[5]Pharmacy Department, Nova Scotia Health Authority, Halifax, NS
[6]Vancouver Island Health Authority Pharmacy Services, Royal Jubilee Hospital, Victoria, BC

Background: Currently there is a lack of published data examining the impact of Canadian pharmacy learners on patient care outcomes. A Canadian collaborative of hospital pharmacists established consensus on eight national clinical pharmacy key performance indicators (cpKPIs) representing essential patient processes of care. The national implementation of cpKPI measurement, along with the increased presence of learners from the expansion of entry-to-practice PharmD experiential programs, creates an opportunity to quantify pharmacy learner contribution to care.

Objective: To determine if the presence of pharmacy learners partnering with pharmacists is associated with an increased number of patients receiving cpKPI care processes [primary endpoint - admission medication reconciliation (AMR)].

Methods: In this prospective observational study, pharmacists and learners (on 5 week rotations) tracked patients receiving cpKPIs in the electronic health record from Jan 25-Jul 17, 2016. cpKPI were compared during timeframes when a learner was present (intervention) to when a learner was not present (control). A post-rotation survey was administered to determine pharmacist and learner perspectives.

Results: In the main analysis of 30 learner-pharmacist pairs with 4684 patients, 1136 patients received AMR in the intervention group vs. 887 patients in the control group (normalized for 5 weeks). The number of patients receiving AMR per 5 weeks was significantly increased when a pharmacy learner partnered with a pharmacist (median = 29) compared to a pharmacist alone (median = 24), with a median difference of 5 additional admission medication reconciliations performed with a learner present (IQR= -1 to 6.9, p=0.0001). Overall, 58% of pharmacists (15/26) and 84% of learners (16/19) agreed that learners partnering with pharmacists increased the delivery of cpKPI pharmacy services.

Discussion: Learners made a meaningful contribution to patient care and partnered to perform AMR for 41% of patients.

Conclusion: Pharmacy learners partnering with pharmacists increased the number of patients receiving admission medication reconciliation.

Pharmacists' Perceptions of the Barriers and Facilitators to the Implementation of Clinical Pharmacy Key Performance Indicators

Management and Leadership Best Practice Award, sponsored by Medbuy Corporation

Minard LV[1], Deal H[2], Harrison ME[2], Toombs K[1], Neville H[1], Meade A[1]
[1]Department of Pharmacy, Nova Scotia Health Authority, Halifax, NS
[2]College of Pharmacy, Dalhousie University, Halifax, NS

Introduction: Until recently, there has been no consensus regarding which clinical activities a hospital pharmacist should focus on. In 2011, a Canadian clinical pharmacy key performance indicator (cpKPI) collaborative was formed. Following a literature review, which indicated that pharmacists can improve patient outcomes by carrying out specific activities, and an evidence-informed consensus process, a final set of eight cpKPIs were established. Canadian hospitals leading the cpKPI initiative are currently implementing these indicators. Our objective was to explore pharmacists' perceptions of the barriers and facilitators to cpKPI implementation.

Methods: Clinical pharmacists employed by the Nova Scotia Health Authority were invited to participate in focus groups. Focus group discussions were audio-recorded and transcribed, and data was analyzed using thematic analysis.

Results: Three focus groups (n = 26) were conducted in February 2015. Three major themes were identified. *Resisting the change* was comprised of documentation challenges, increased workload, practice environment constraints, and competing priorities. *Embracing cpKPIs* was composed of seeing the benefit, demonstrating value, and existing supports. *Navigating the unknown* was made up of quality versus quantity battle, and insights into the future.

Discussion: Although pharmacists were challenged by documentation and other changes associated with the implementation of cpKPIs, they demonstrated significant support for cpKPIs and provided insights into the future of pharmacy practice.

Conclusion: The identification of barriers and facilitators to cpKPI implementation is being used to inform the implementation process, thereby increasing its success with the overall goal of allowing more patients to be impacted by pharmacists, and the quality of care to be enhanced.

Comparison of Information Available in the Medication Profile of an Electronic Health Record and the Inpatient Best Possible Medication History

New Technology Award, sponsored by Mylan Pharmaceuticals ULC

Daupin J[1], Rousseaux G[1], Lebel D[1], Atkinson S[1], Bédard P[1], Bussières JF[1,2]
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Background: Medication reconciliation (MedRec) can improve patient safety. In Canada, most provinces are implementing electronic health records (EHR). The Quebec Health Record (QHR) can theoretically be used for medication reconciliation. However, the quantity and the quality of information available in this EHR have not been studied.

Objectives: The aim of the study was to compare the quantity and quality of the information collected between the inpatient best possible medication history (BPMH) and the QHR.

Methods: This is a descriptive prospective study conducted in a 500-bed tertiary mother-and-child university hospital center. All inpatients from May 19th to 26th 2015 were considered for inclusion. Every prescription line in the BPMH and QHR was compared.

Results: The study included 344 patients. A total of 1,039 prescription lines were analyzed. The medications' name and dosing were more often available in the QHR (95%) than in the BPMH (61%). However, fewer medications were reported in the QHR than in the BPMH, with averages of 1.30 vs. 1.84 medications per patient, respectively. Concordance between the medication names between QHR and BPMH was found

in 48% of the prescription lines; this rate fell to 29% when also factoring daily dosage. When analyzing discrepancies, 29% of the QHR lines that did not match (85/290) referred to as needed medications and 20% of the BPMH unmatched lines (89/443) referred to natural health products.

Conclusions: This study suggests that the QHR can provide high-quality information to support the MedRec hospital process. However, it should be used as a second source to optimize the BPMH obtained from a thorough interview with the patient or his family. More studies are required to confirm the most optimal way to integrate the QHR to the MedRec process in hospitals.

Ensuring Appropriate Use of Antipsychotic Medications in Older Patients with Dementia

Patient Care Enhancement Award, sponsored by Pfizer Canada Inc.

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Introduction: Antipsychotic medications have potential to cause harm for older patients and use should be reserved as a last resort when all non-pharmacological and other pharmacological options have been unsuccessful. In Canada, approximately one in three residents living in long term care facilities are prescribed an antipsychotic medication.

Methods: Our facility participated in a year-long national collaboration funded by Canadian Foundation of Healthcare Initiative with the goal to ensure appropriate antipsychotic use. The initiative involved education, in particular of our medical and nursing staff who have a direct influence on prescribing, but included all staff as they aid in monitoring drug effectiveness and resident wellbeing.

Results: Our facility had an overall decrease of antipsychotic use from 17% to 12.4% over an 11 month period. Of our original 27 residents, antipsychotic medications were completely discontinued for 43% and the dose was reduced for 10%. Observations did not show an increase in responsive or aggressive behaviors. The total daily cost of antipsychotic medications also decreased from $12.51 to $3.87.

Discussion: The culture around antipsychotics use in our older population made a positive shift towards appropriate use and prescribing. Initially, staff felt that antipsychotics were the primary means of managing behaviors and there was considerable reluctance around attempting a decrease or stopping these medications in target residents. A focus on education and introducing monitoring forms made evaluating response to therapy more objective and easy to analyze. All staff became more engaged in the process

Conclusion: Our initiative showed there has been an overuse of antipsychotic medications in an older population and they are not necessarily used at the lowest dose for the shortest period of time. We successfully decreased and stopped antipsychotics for many residents without any negative effects and have demonstrated that continual re-evaluation of appropriateness of these medications is crucial to minimize potential long term harm.

Evaluation of a *Clostridium difficile* Infection Management Policy with Clinical Pharmacy and Medical Microbiology Involvement at a Major Canadian Teaching Hospital

Patient Care Enhancement Award, sponsored by Teva Canada Limited

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Introduction: *Clostridium difficile* infection (CDI) represents a spectrum of disease and is a significant concern for healthcare institutions. Our study objective was to assess whether implementation of a regional CDI management policy with Clinical Pharmacy and Medical Microbiology and Infection Control involvement would lead to an improvement in concordance of prescribing practices to an evidence-based CDI disease severity assessment and pharmacological treatment algorithm.

Description of Methods: This two-phase quality assurance study consisted of a baseline retrospective healthcare record review of patients with CDI prior to the implementation of a regional CDI management policy followed by a prospective evaluation post-implementation. The primary endpoint was concordance with the CDI management policy.

Results: One hundred and forty-one CDI episodes in the pre-implementation group were compared to 283 episodes post-implementation. Overall treatment concordance to the CDI treatment algorithm was achieved in 48 of 141 cases (34%) pre-implementation compared to 136 of 283 cases (48.1%) post-implementation ($p = 0.01$). The median time to treatment with vancomycin was reduced from five days to one day ($p < 0.01$), with median length of hospital stay decreasing from 30 days to 21 days ($p = 0.01$) post-implementation. There was no difference in 30-day all-cause mortality.

Discussion: A comprehensive approach with appropriate stakeholder involvement in the development of a clinical pathway, education to health care workers, and prospective audit with intervention and feedback can be used to effectively optimize the management of patients with CDI.

Conclusion: A collaborative approach with clinical pharmacists assessing all CDI patients for treatment appropriateness and medical microbiology providing clinical resources is an effective strategy to optimize patients outcomes for CDI.

Development, Evaluation and Validation of a Screening Tool for Late Onset Bacteremia in Neonates

Pharmacotherapy Best Practices Award, sponsored by Pfizer Canada Inc.

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Introduction: Clinical and laboratory parameters can aid in the early identification of neonates at risk for bacteremia before clinical deterioration occurs. However, current prediction models have poor diagnostic capabilities.

Objectives: To develop, evaluate and validate a screening tool for late onset (> 72 hours post admission) neonatal bacteremia using common laboratory and clinical parameters.

Methods: A combined retrospective and prospective review of neonates admitted to a neonatal intensive care unit (NICU) was completed. Neonates with late-onset bacteremia (> 72 hours after NICU admission) were matched to non-infected controls on several demographic parameters. Independent variables significantly associated with infection ($p<0.05$, univariate analysis) were identified and analyzed using iterative binary logistic regression to develop the simplest significant model ($p<0.05$).

Results: Maximum blood glucose, heart rate, neutrophils and bands were the best predictors of bacteremia in a binary logistic regression model. Sensitivity, specificity and accuracy were 90%, 80% and 85%, respectively, with a false positive rate of 20% and a false negative rate of 9.7%.

Discussion: The screening tool developed in this study uses parameters that are routinely collected in the NICU. The tool has a low false positive rate, high sensitivity and the second lowest negative post-test probability when compared to previously published tools.

Conclusion: The model developed in the current study is superior to currently published neonatal bacteremia screening tools. Validation of the tool in a historic data set of neonates will be completed.

A Case-Control Study Analyzing Mannitol Dosing for Prevention of Cisplatin-Induced Acute Nephrotoxicity

Pharmacotherapy Best Practices Award, sponsored by Sandoz Canada Inc.

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Introduction: Mannitol is a diuretic given routinely as part of cisplatin regimens to prevent nephrotoxicity, despite limited data on the ideal dosage. At our centre, 3 different doses are used: 12g, 20g, and 40g per cycle for cisplatin doses of ≥ 50 mg/m^2. The primary objective was to determine if variations in mannitol dosing significantly influence the incidence of cisplatin-induced acute nephrotoxicity.

Methods: A case-control study was performed. Electronic records of 1462 consecutive outpatients who received cisplatin at ≥ 50 mg/m^2 per cycle between January 2010 and December 2014 were reviewed. Patients experiencing nephrotoxicity of any grade within 30 days of last cisplatin dose, as defined by NCI CTCAE 4.0, were matched to a minimum of 2 and maximum of 5 controls based on the following criteria: age +/- 5 years; baseline estimated glomerular filtration rate (eGFR) +/- 10 mL/min/1.73m^2; cisplatin dose per cycle; and presence of diabetes.

Results: Of 1245 included patients, 237 had nephrotoxicity and 1008 were matched controls. Median baseline eGFR for cases and controls were 83 and 80 mL/min/1.73m^2, respectively. 3.8% of cases experienced ≥ grade 3 nephrotoxicity. Univariable analysis showed that diabetes, lymphoma, low baseline eGFR, and low baseline magnesium level were significantly associated with nephrotoxicity, whereas mannitol dosing did not show any association (odds ratio 1.08; $p = 0.29$). In multivariable analysis, diabetes and lymphoma retained statistical significance.

Discussion: Cisplatin-induced acute nephrotoxicity remains common in patients with good baseline renal function despite preventive measures. Our analysis showed that diabetes and lymphoma were predictors of nephrotoxicity, whereas mannitol dosing had no association.

Conclusion: Our study results showed a lack of an optimal mannitol dosing schedule to decrease the incidence of cisplatin-induced acute nephrotoxicity. This suggests that doses may be standardized across regimens containing cisplatin at ≥ 50 mg/m^2 per cycle.

Reliability of a Best Possible Medication History Completed by Non-Admitted Patients in the Emergency Department

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

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Introduction: Accreditation standards have outlined the need for Emergency Departments (ED) to initiate the medication reconciliation process for a target group of clients who are at risk for potential adverse drug events. The authors hypothesized that use of a guided form would assist with completion of a Best Possible Medication History (BPMH) in the non-admitted population of the ED. The objective was to determine the percentage of patients in the non-acute area of the ED who could complete a guided BPMH with no clinically significant discrepancies (defined as zero major and one or less moderate discrepancies).

Methods: This prospective, exploratory study was conducted over 4 weeks from February to March 2016. Data was collected using a BPMH form, patient interview, and a data collection form. Patients were randomized for interview by pharmacy team members to assess the BPMH form for discrepancies. Inclusion criteria consisted of non-acute patients triaged to the waiting room. Patients who were already admitted, not seen by triage nurse, or immediately triaged to acute or trauma areas of the ED were excluded.

Results: A total of 160 patients were interviewed, 146 (91.3%) of which were able to complete the form with one or less moderate discrepancies (but some number of minor discrepancies). There were no discrepancies

in 31 (19.4%) of the BPMH forms and 101 (63.1%) forms had only minor discrepancies.

Discussion: This study found the majority of patients that were interviewed by our pharmacy team were able to complete the BPMH form with no clinically significant discrepancies.

Conclusion: The BPMH form would be a useful tool to initiate medication reconciliation in the ED in this patient population, but is not reliable as a BPMH on its own for patients, given the lower number of patients who completed the form with no discrepancies.

An Evaluation of Pharmacist Intervention on Discharge Medication Reconciliation

Safe Medication Practices Award, sponsored by Medbuy Corporation

Lee R[1], Malfair SC[1,2,4], Schneider J[3,4], Sidhu S[3,4], Lang C[3,4], Bredenkamp N[3,4], Liang S[3,4], Hou A[3,4], Virani A[1,3,4]
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Introduction: Planning is underway to implement discharge medication reconciliation (MedRec) at a large urban teaching hospital, with plans to expand across the health authority's various sites by the end of 2018. For this project, clinical pharmacists on the Acute Care for the Elderly (ACE) unit carried out discharge planning and led MedRec, to inform the future implementation.

Methods: The primary outcome was to examine changes in discrepancies. The secondary outcomes were pharmacist impact on recommendations, MedRec, and polypharmacy. Usability of admission MedRec and thirty-day readmission rates were also examined.

Results: Data was collected from 66 patients in the control group, and 306 patients in the intervention group. Discrepancies per patient decreased from a median of 6.5 to 3 post-intervention ($p<0.001$), documented changes without rationale increased from 2 to 3, and documented changes with rationale increased from 1 to 2. Pharmacists made a per-patient median of 1 progress note recommendation, and 2 orders in the control group, and 2 recommendations/orders each in the intervention group. Median recommendation acceptance was 100% in both groups, but there were twice the recommendations made in the intervention group. Discharge counselling was provided for 23% of control group patients, and 65% of intervention group patients. Communication with community pharmacists occurred in 10% of control group patients, and 61% of intervention group patients.

Discussion: Clinical pharmacist involvement was demonstrated to improve Discharge MedRec planning and documentation. Decreases in medication discrepancies, as well as an increase in discharge counselling should improve continuity of care across the healthcare team and increase patient adherence. This study further demonstrates the leadership role pharmacists play in the assessment, and clear documentation of medication changes at all transitions of care.

Conclusion: A pharmacist-led Discharge MedRec service was successful in decreasing discrepancies, providing more documented and accepted recommendations, and improving discharge planning.

Development of a New Web-Based Resource for Managing HIV and Hepatitis C Drug Therapy/Drug Interactions

Specialties in Pharmacy Practice Award, sponsored by Pharmascience Inc.

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Introduction: Both antiretrovirals (ARVs) and directly acting antivirals (DAAs) for hepatitis C (HCV) are associated with a high potential for drug interactions, particularly in patients with high rates of comorbidities and polypharmacy. Existing drug interaction management tools are specific to either HIV or HCV, and often lack a holistic approach to patient care. The goal was to develop an integrated ARV and DAA drug interaction application for health care professionals.

Methods: Three pharmacists, two computer programmers/developers and a medical interface designer developed the application. Key design elements for the application included an intuitive, multi-platform search engine to access scientific information on drug-drug interactions and drug pharmacology from a centralized drug database, and a function to propose safer treatment alternatives. Funding was secured through unrestricted educational industry grants.

Results: Work began on the app in late 2013 and the web application (app.hivclinic.ca) was launched in spring 2016. The application includes more than 45 HIV and HCV licensed and investigational drugs, and allows users to search ARV and DAA pharmacology information and conduct customized searches for interactions between ARVs, DAAs, and over 500 other drugs. Interactions are colour-coded by severity, summary recommendations and data/links to references are provided, along with suggestions for interaction management and alternative options. New data are easily incorporated into the database and immediately accessible in the application. Since the launch, the application site has received over 6000 page views per month.

Discussion: Demand and use of the application has exceeded expectations. A free mobile application will be released in early 2017. Future directions/challenges include addition of new features, keeping the database current with new data and obtaining sustainable funding.

Conclusions: An integrated HIV/HCV drug interaction web application was successfully developed and has been well received by practitioners managing HIV and/or HCV-infected patients across Canada and internationally.

Creation of a Natural Health Products Database for Assessing Safety in Patients with Chronic Kidney Diseae or Renal Transplant

Specialties in Pharmacy Practice Award, sponsored by Sandoz Canada Inc.

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Introduction: There is a lack of safety information on the use of natural health products (NHPs) in the literature for patients with chronic kidney disease (CKD) or renal transplant. Our objective was to create an on-line database to provide evidence-based safety recommendations for commonly used NHPs in patients with renal disease.

Methods: For each NHP, Medline, Embase, Lexi-Natural Products, Pubmed Dietary Supplement and Natural Medicines were searched for any information pertaining to dosage, adverse drug reactions, drug interactions, immunomodulatory effects, and pharmacokinetics in patients with renal disease. NHPs were classified into 4 safety ratings: Likely Safe, Possibly Safe, Possibly Unsafe, and Likely Unsafe. NHPs were listed as "possibly unsafe" for transplant patients if the NHP demonstrated *in vitro* immunomodulatory effects and /or significant CYP3A4 interactions with transplant medications.

Results: Twenty-one percent (4,126/19,676) of -registered patients with renal disease were using one or more NHPs. An on-line website was created at www.herbalckd.com in 2015 for 45 commonly used NHPs and 2 known nephrotoxins (aristolochic acid, silver).

Discussion: The herbal CKD website provides a systematic evaluation of safety information of select NHPs in CKD (non-dialysis and dialysis) and transplant populations. The most common category for NHP safety classification was "possibly safe" due to the paucity of studies in renal populations, but with safety data shown in the general population. Limitations to this website include the difficulty in interpreting and generalizing safety literature from unstandardized NHPs and the fact that some NHPs are combination products.

Conclusion: The website www.herbalckd.com provides an easy to use, evidence-based tool for health professionals to assess safety of NHPs in renal populations.

Medication Errors Room: A Simulation to Assess the Medical, Nursing and Pharmacy Staffs' Ability to Identify Errors Related to the Medication-Use System

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

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[3]Faculty of Pharmacy, Université de Montréal, Montréal, QC

Background: The medication-use system in hospitals is very complex. To improve the health professionals' awareness of the risks of errors related to the medication-use system, a simulation of medication errors was created.

Objectives: The main objective was to assess the medical, nursing and pharmacy staffs' ability to identify errors related to the medication-use system using a simulation. The secondary objective was to assess their level of satisfaction.

Method: This descriptive cross-sectional study was conducted in a university hospital. A multidisciplinary group set up 30 situations and replicated a patient room and a care unit pharmacy. All hospital staff, including nurses, physicians, pharmacists and pharmacy technicians, was invited. Participants had to detect if a situation contained an error and fill out a response grid. They also answered a satisfaction survey.

Results: The simulation was held during 100 hours. A total of 230 professionals visited the simulation, 207 handed in a response grid and 136 answered the satisfaction survey. The participants' overall rate of correct answers was 67.5% +- 13.3% (4073/6036). Among the least detected errors were situations involving a Y-site infusion incompatibility, an oral syringe preparation and the patient's identification. Participants mainly considered the simulation as effective in identifying incorrect practices (132/136, 97.8%) and relevant to their practice (129/136, 95.6%). Most of them (114/136; 84.4%) intended to change their practices in view of their exposure to the simulation.

Discussion: This study assessed the medical, nursing and pharmacy staffs' ability to detect errors related to the medication-use system through a simulation.

Conclusions: We implemented a realistic medication-use system errors simulation in a hospital, with a wide audience. This simulation was an effective, relevant and innovative tool to raise the health care professionals' awareness of critical processes.