

April 2013 - March 2014

The Drug Evaluation Alliance of Nova Scotia (DEANS) provides Nova Scotia with a structure to identify, develop, implement, and evaluate educational interventions that address drug utilization issues in Nova Scotia (NS). These educational interventions are often, but not always, coordinated with policy interventions in the NS Pharmacare programs to facilitate change and to provide the rationale for change.

Most DEANS interventions are multi-faceted and inter-professional, using presentation vehicles such as live online classrooms, didactic presentations, small-group workshops, and academic detailing to disseminate evidence on best practices. To measure the impact of interventions, DEANS establishes linkages with academic evaluators and encourages evaluations that generate new evidence to inform drug policy.

DEANS is coordinated by a volunteer Management Committee which oversees all activities and is responsible for establishing and managing partnerships. Much of the success of DEANS is due to its ability to build a framework of key partnerships and to engage these partners in the implementation and evaluation of initiatives.

### Health Technology Assessment

DEANS continues to pursue ways to encourage the use of health technology assessment as a bridge between research and clinical decision-making.

The *Katie* Program, which was launched in 2009, continues to support innovative methods of transferring knowledge from learning activities to clinical practice. New educational tools have been developed to help learners enhance their critical appraisal skills. Workshops were developed to

encourage presenters to incorporate *Katie* principles in their presentations and to encourage moderators to pose *Katie* questions during the question and answer portion of educational programs. The aim of the *Katie* program is to encourage all learners to be critical learners.

Funding from the Canadian Institutes of Health Research (CIHR) through a Meeting, Planning and Dissemination Grant under the Knowledge Translation Supplement competition facilitated the further development of the *Katie* tools, including the production of *Katie* videos for the website and for use in educational programs. Two videos are now complete and have been posted on the *Katie* website: The *Katie* Program: Introduction, published March 2013; and Characterizing the Evidence, published September 2013. *Katie* templates for PowerPoint slides and other materials have also been developed. As reported in last year's summary, the *Katie* Clinical Significance Calculator has been developed and posted on the website. This online tool allows the user to enter study data and calculate the relative risk reduction (RRR), the absolute risk reduction (ARR) and numbers needed to treat (NNT) or harm (NNH). A second calculator tool, the *Gardner's Effect Size Illustrator* is now available at the following website: <http://esi.medicine.dal.ca/>. This tool is useful for clinically interpreting continuous or scale data. For information about *Katie* and to access *Katie* tools, go to: <http://katie.dal.ca/>

During 2013/14, the *Katie* team continued to work towards streamlining *Katie* activities to ensure that these tools are being used efficiently. The goal is to incorporate *Katie* concepts into all continuing education activities and conferences, with three target audiences – presenters, session moderators and learners. Presenters are encouraged to attend a

speakers' workshop and learners are encouraged to think about how they can apply the messages received at the event to their practice. Moderators are encouraged to access the tool "*Tips for Moderators*". The goal of this tool is to help session moderators engage the audience and facilitate learning. Some helpful advice is posted on the website:

<http://katie.dal.ca/presenters.htm>).

As in previous years, *Katie* principles were incorporated into the Dalhousie Continuing Pharmacy Education Refresher (November 2013) and the Dalhousie Medical Refresher Course (November/December 2013). *Katie* principles were also incorporated into the 2013 CADTH Symposium: Evidence in Context. May 5 – 7, 2013, St. John's, Newfoundland and Labrador.

### **Lipids in Primary Prevention: A Calculated Risk**

In 2012/13, the ADS developed an educational intervention "*Lipids in Primary Prevention: A Calculated Risk*". This topic was an update of the 2005 session on statins and cardiovascular disease, with a focus on primary prevention. One objective was to discuss the extent to which changes in risk assessment tools since 2005 increase the number of individuals on treatment and the absolute benefits and harms of this treatment.

The academic detailers began their educational visits on March 26, 2013, and continued through 2013/14. The detailers saw 373 family physicians, 25 medical students, 21 nurse practitioners, 29 RNs, 9 pharmacists and 24 other health care professionals through office visits. In addition, 15 family physicians in the Cape Breton/Antigonish area participated in a webinar.

As with other Dalhousie ADS programs, the materials were modified and delivered through *Academic Detailing Rx*, Dalhousie Continuing Pharmacy Education. About 50 pharmacists participated in a webinar presentation of the topic.

As in previous years, the topic was presented at the Dalhousie Continuing Pharmacy Education

Refresher (November 2013) and the Dalhousie Medical Refresher Course (November/December 2013). Each session was attended by about 100 participants.

### **Gout: Update 2013**

In 2013/14, the ADS developed an educational intervention, "*Gout: Update 2013*". This topic addresses issues regarding some current recommendations for the management of gout, and a review of the supporting evidence. Four specific clinical issues are addressed: treatment options for acute gout; initiating and monitoring urate lowering treatment; special considerations in treating gout; and the role of lifestyle in the prevention of gout.

The academic detailers began their educational visits to family physicians in January 2014. As with other Dalhousie ADS programs, the materials were modified and delivered through *Academic Detailing Rx*, Dalhousie Continuing Pharmacy Education.

The topic will be presented at the Forum for Family Medicine in November 2014, in Quebec City, Quebec, the Dalhousie Continuing Pharmacy Education Refresher (November 7-9, 2014) and the Dalhousie Medical Refresher Course (November/December 2014).

### **Acute Pain Management in Common Conditions**

Pain is common reason for seeking health care, and the presenting complaint accounting for many emergency department visits. Concern has been expressed that pain is poorly managed. In response to these concerns, the Dalhousie *Academic Detailing Service* (ADS) developed and completed an educational intervention, "Opioids in Chronic Non-cancer Pain" based on the National Opioid Use Guideline Group (NOUGG), "Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain". This program was well received by health care professionals when it was presented in 2011/12.

In 2013/14, DEANS supported the development of a new initiative to promote optimal pain management – with a focus on acute pain. Work on this initiative began in 2012/13 and continued through 2013/14. The education program is case-based, with each case designed to incorporate issues that complicate pain management. Three cases have been developed at present. This topic is envisioned as a series with additional cases addressing other pain conditions to be created and presented in the future.

### **Continuing Pharmacy Education: Pharmacists as Immunizers**

In 2013, legislation was passed in Nova Scotia permitting pharmacists to deliver this service to patients. Through the support of many organizations including DEANS, Dalhousie Continuing Pharmacy Education (Dal CPE) created the *Immunization and Injection Administration Training Program (IIATP)*. This program has been used to train pharmacists in the Maritime provinces to offer immunization and injection services.

Many NS Pharmacists completed the IIATP in previous years when it was anticipated that legislation was forthcoming. These pharmacists were required to complete the *Immunization and Injection Administration Refresher Program (IIARP)* before becoming certified through NSCP to administer injections. Dal CPE created the IIARP and re-trained approximately 200 pharmacists in time for the 2013 flu season. Dal CPE also offered several sessions of the IIATP program to NS pharmacists resulting in approximately 300 more pharmacists being trained before the end of 2013. Dal CPE continues to offer both the *IIATP* and the *IIARP* to Pharmacists in the Maritimes in 2014.

Pharmacist training through both the *IIARP* and the *IIATP* would not have been possible without the hard work of many trainers and support staff. Dal CPE is very thankful to many nurses, pharmacists, pharmacy students, and administrative staff who put in significant time and effort to ensure that pharmacists would be a crucial

member of the health care team that provides protection to Nova Scotians during the flu season and in times where other injection/immunizations are needed. Because of the support of everyone involved, NS pharmacists delivered more than 75,000 flu vaccines during the 2013/14 flu season.

### **Promoting Mental Health and Wellbeing through Community Pharmacy Collaboratives**

As reported previously, DEANS provided support for the first phase of this multi-phase, interdisciplinary project led by Drs. David Gardner and Andrea Murphy. The overarching purpose of this project is to generate and apply knowledge of the integrated community pharmacy team's roles in improving the mental health and wellbeing of Nova Scotians.

Phase I explored the relationships between community pharmacists and persons with lived experience with mental illness, through interviews and focus groups. This work is almost complete. Data have been gathered from pharmacy students through two focus groups, from pharmacists through one focus group and two in-person interviews, and from patients through two focus groups and six interviews. The results from the student group were published in the *Canadian Pharmacists Journal*. The article is available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3908620/>. Data from the latter two groups are currently being analyzed.

The funding for this project was also instrumental in supporting the development of the Navigator tool available from [www.morethanmeds.com](http://www.morethanmeds.com). This resource identifies mental health services and community supports relating to mental health and addictions throughout the province. The tool was designed to assist pharmacists when helping people with mental health and addiction problems find related services and supports.

Ongoing activities include a series of literature reviews to support all aspects of this project. To date, non-systematic reviews of published and grey literature have identified several areas in which

pharmacists have had a positive impact on mental health, and specific areas that require further research, including community pharmacists' roles in smoking cessation, brief interventions for alcohol dependence and suicide-related behaviours.

### **Optimizing Care of the Frail Elderly in Long-Term Care Facilities: A KT Network for Atlantic Canada**

Appropriate prescribing for frail elderly patients living in long term care (LTC) facilities remains a challenge. Frail elderly patients are at high risk for adverse drug reactions. Current practice guidelines are based on medication use studies conducted on younger, healthier populations, and may not be applicable to frail, elderly patients.

As reported previously, DEANS provided support for a 3-day meeting in September 2012 of 36 stakeholders involved in LTC in Atlantic Canada. One outcome from this meeting was the creation of the *Atlantic Long-Term Care Network*, which has continued to meet by teleconference throughout 2013 and 2014. The goal of the network is to improve care for frail elderly residents of LTC facilities in Atlantic Canada.

In October 2013, Dr. Constance LeBlanc represented the *Atlantic Long-Term Care Network* on a panel presentation of national polypharmacy in long-term care initiatives at the Canadian Association on Gerontology conference (October 17 – 19, 2013, Halifax NS). Leaders from initiatives in British Columbia, Saskatchewan and Ontario joined the group from Nova Scotia to share their plans for improving medication use in long-term care. This national group met face-to-face at the conference on October 18, 2013, and continue to share project updates through quarterly teleconferences.

### **STOPP-START Criteria**

The STOPP-START criteria are evidence-based sets of explicit criteria developed to facilitate screening for potentially inappropriate prescribing in older persons. STOPP refers to Screening Tool

of Older Person's potentially inappropriate Prescriptions, and START to Screening Tool to Alert doctors to the Right Treatment. These criteria were developed in Ireland using a modified Delphi process that involved 18 experts in geriatric pharmacotherapy from across the United Kingdom and Ireland.

As reported previously, DEANS provided funding to support a systematic review of research studies related to the STOPP-START criteria. DEANS also supported a retrospective observational study that examined the use of benzodiazepines and zopiclone by older persons in Nova Scotia, and concordance with the STOPP criteria. This study examined prescription claims for beneficiaries of the Nova Scotia Seniors' Pharmacare program (NSSPP) for the period April 1, 2006 to March 31, 2011.

Results indicated that annually, one in four beneficiaries redeemed at least one prescription for either a benzodiazepine or zopiclone. Long term use was common. In each year, about 24% and 19% of beneficiaries had claims for 30 or more and 90 or more days of dispensed treatment, respectively. User rates were lowest among the youngest age group (65 to 69 years) and highest among those aged 90 to 94 years.

The findings of this study identify a gap in concordance between the STOPP criteria and benzodiazepine-zopiclone claims by Nova Scotia's older adults. A strategy to improve the use of these agents is warranted.

### **Audit and Feedback of Prescribing Profiles to Nova Scotia Family Physicians who are using Electronic Medical Records for Prescribing**

The use of electronic medical records (EMRs) in primary care provides an opportunity to collect accurate, complete and timely data on patient-health system interactions that can support clinical decision-making. These data may also be used to promote optimal medication use by providing feedback to physicians regarding their prescribing profiles.

DEANS provided funding to support the development of a project “*Audit and feedback of prescribing profiles to Nova Scotia family physicians using electronic medical records for prescribing*”, led by Dr. Nandini Natarajan, Associate Professor, Department of Family Medicine, Dalhousie University, with co-investigators Dr. Ingrid Sketris (College of Pharmacy, Dalhousie University) and Ms. Heather Neville (Capital District Health Authority). The objective is to assess the feasibility of using prescription data extracted from the Nightingale EMR for Maritime Network Canadian Primary Care Surveillance System Network (MarNet CPCSSN) to calculate the DU90% prescribing indicator for all participating and consenting physicians, and to provide the physicians with their individual DU90% prescribing profiles. The final stage will be to explore how physicians value this feedback, and whether they find the feedback useful for clinical practice.

For the current phase of this study, the researchers will extract prescription data for the diabetes patients of about 30 family physicians from Capital Health.

### ***SleepWell Nova Scotia: An Interdisciplinary Approach to Managing Insomnia***

As reported last year, the Management Committee approved the development of an interdisciplinary, multi-phase initiative to address the appropriate management of insomnia. As with other DEANS’ initiatives, this project will be a collaborative effort by multiple stakeholders, including researchers, clinicians and decision-makers. Planning began in early 2013 with the formation of a working group.

The initial impetus for this initiative was the high prevalence of benzodiazepine use among elderly Nova Scotians. Concerns regarding the use of all hypnotic agents in patients of all ages, and the overall management of insomnia prompted the working group to recommend expanding the scope of the initiative. The objective of the initiative would be the rational management of insomnia, with the following aims: to prevent unnecessary starts and use of hypnotics; and to improve sleep

outcomes through the use of non-pharmacological interventions.

In November 2013, the management committee endorsed in principle a strategy to move forward. The initiative will proceed using a two-fold approach that includes an education component for health care professionals and the distribution of ‘sleep kits’. The kits will provide an alternative to medications, and will be provided to participants at the educational sessions.

Work continued in early 2014 with the development of the *SleepWell NS* website and creation of a logo.

### **Farewells and Welcomes**

This has been a year of changes. In June 2013, Dr. Mike Allen retired as Director, Evidence-based programs and Academic Detailing Service (ADS). Dr. Allen will continue to work two days per week with Continuing Medical Education (CME) and ADS. In January 2014, DEANS welcomed Dr. Bronwen Jones as the new Director of Evidence-based programs with Continuing Professional Development, Continuing Medical Education, Dalhousie University.

In April 2013, Ms. Lillian Berry retired as the academic detailer serving the Truro/Antigonish/Cape Breton region. In December 2013, ADS welcomed two new detailers: Ms. Gabrielle Richard-McGibney who will cover Antigonish-Truro; and Julia Green Clements who will cover Cape Breton.

### **Publications/Presentations**

Allen M. Information from Industry Representatives. Continuing Medical Education. Webinar, May 8, 2013, Dalhousie University, Halifax NS.

Allen M, McLean-Veysey P, Knowledge to Practice: A Practical tool to enhance presentation of evidence. Workshop at: Canadian Agency for Drugs and Technologies in Health (CADTH) Symposium, May 2013, St. John’s NL.

Chisholm, H. A Big Issue in a Small Province: the Growing Cost of Overweight and Obesity in Nova Scotia. Poster presentation at: 2013 CADTH Symposium on Evidence in Context, May 5-7, 2013, St. John's Newfoundland & Labrador. Best Poster 2013.

Fisher J, Broadfield L, Sketris IS, Walsh G. The impact of age on the prevalence and dose of opioid analgesics in patients with cancer at end-of-life: A population based study. Oral presentation at: 42<sup>nd</sup> Annual Scientific and Educational Meeting, Canadian Association on Gerontology, October 17, 2013. Halifax NS.

Fleming I, Allen M. Lipids in Primary Prevention: A Calculated Risk. Continuing Medical Education. Webinar, June 2013, Dalhousie University, Halifax NS.

Gout: Update 2013, Dalhousie CME Academic Detailing Service, November 2013, [http://cme.medicine.dal.ca/ad\\_resources.htm](http://cme.medicine.dal.ca/ad_resources.htm).

Green M, Williamson T, Khan S, Birtwhistle R, Wong S, Natarajan N, Manca D, Drummond N. Validating the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) algorithms for eight chronic diseases. Canadian Association for Health Services and Policy Research (CAHSPR). May 28 – 30, 2013. Vancouver, British Columbia.

and

Family Medicine Forum, November 7-8, 2013. Vancouver, British Columbia.

Hill-Taylor BJ, Sketris IS, Gardner DM, Thompson K, Haughn C. Benzodiazepine and zopiclone prescription claims by older adults in Nova Scotia: Trends and concordance with the Screening Tool of Older Persons' potentially inappropriate Prescriptions (STOPP). International Symposium on Health Information Management Research (ISHIMR) 2013 Conference Proceedings, Halifax, Nova Scotia. June 26 – 28, 2013. Available online at <http://ppr.cs.dal.ca/ishimr/>

and

Oral Presentation at: International Symposium on

Health Information Management Research (ISHIMR) 2013, June 27, 2013. Halifax Nova Scotia.

Hill-Taylor B, Sketris IS, Hayden J, Byrne S, O'Sullivan D, Christie R. Application of the STOPP/START criteria: a systematic review of the prevalence of potentially inappropriate prescribing in older adults, and evidence of clinical, humanistic and economic impact. *Journal of Clinical Pharmacy and Therapeutics*. Oct; 38(5):360-72. Doi: 10.1111/jcpt.12059. Epub 2013 April 2.

Keshavjee K, Williamson T, Natarajan N, Stafford K. Canada's chronic disease surveillance network is now live. *Canadian Healthcare Technology*, 2013,18(4),21-22.

[http://www.ehealthinformation.ca/documents/CPCSSN\\_in\\_CHT\\_May\\_2013.pdf](http://www.ehealthinformation.ca/documents/CPCSSN_in_CHT_May_2013.pdf)

McLean-Veysey P. Where has KATIE been this year? Has she visited you? Oral presentation at: Nova Scotia Branch, Canadian Society of Hospital Pharmacists (CSHP), Education Day and Annual General Meeting, April 20 2013, Halifax NS.

McLean-Veysey P, Fleming I. Lipids in Primary Prevention: A Calculated Risk. *Academic Detailing Rx*. Webinar, June 11, 2013.

McLean-Veysey P, Fleming I. Lipids in Primary Prevention: A Calculated Risk. Oral presentation at: 49<sup>th</sup> Annual Dalhousie Continuing Pharmacy Refresher and PANS Annual Conference. November 1–3, 2013, Halifax NS.

McLean-Veysey P, Fleming I. Lipids in Primary Prevention: A Calculated Risk. Dalhousie Continuing Medical Education Refresher, Halifax NS, December 2, 2013.

Minard L, Zhang Y, Sketris I, Fisher J, Corkum A, Saleh A. Statin utilization among beneficiaries of the Nova Scotia Seniors' Pharmacare Program over a 14-year period. Poster Presentation: 49<sup>th</sup> Annual Dalhousie Continuing Pharmacy Refresher and PANS Annual Conference. November 1–3, 2013, Halifax NS.

and

Oral Presentation: Community Health and Epidemiology (CHE) Seminar. February 11, 2014.

Murphy AL, Gardner D. The Navigator, available at <http://www.morethanmeds.com/>

Murphy AL., Szumilas M., Rowe D., Landry K., Martin-Misener R., Kutcher S., Gardner, D. (2014) Pharmacy students' experiences in community pharmacy mental health services provision. *Canadian Pharmacists Journal / Revue des Pharmaciens du Canada January/February 2014 147: 55-65*, doi:10.1177/1715163513514170

Natarajan N. Two Hot Topics in Family Medicine. Therapeutics Refresher, Dalhousie University CME. February 20, 2014, Halifax Nova Scotia.

Natarajan N, VanAarsen K, Varatharasan N, Sabri S, Putnam W. Validating the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) case detection algorithm for hypertension using Nova Scotia EMR data. *Canadian Association for Health Services and Policy Research (CAHPSR)*. May 28 – 30, 2013. Vancouver, British Columbia.

Natarajan N, Varatharasan N, Sabri S, Williamson T. Is chart abstraction sufficient or is the "gold standard" of physician diagnosis needed when validating EMR case detection algorithms? 41st North American Primary Care Research Group (NAPCRG). November 9 – 13, 2013. Ottawa, ON.

Sabri S, Natarajan N, Varatharasan N, Williamson T. Comparing diagnostic indicators in identifying patients with chronic disease using EMR data. 41st North American Primary Care Research Group (NAPCRG). November 9 – 13, 2013. Ottawa ON.

Sketris IS, Isenor J, Hill –Taylor B. Improving the Quality of Prescribing in Older Adults. Current Research in Aging & Continuing Care: Northwood Annual Research Symposium, June 14, 2013, Halifax, NS.

Tett SE, Sketris IS, Cooke C, van Zanten SV, Barozzi N. Differences in utilization of

gastroprotective drugs between 2001 and 2005 in Australia and Nova Scotia, Canada. *Pharmacoepidemiology and Drug Safety*. 2013 Jul;22(7):735-43. doi: 10.1002/pds.3442.

Williamson T, Natarajan N, Barber D, Jackson D, Greiver M. Caring for the whole practice: The future of primary care. *Canadian family physician Médecin de famille canadien*, July 2013, 59(7), 800. <http://www.cfp.ca/content/59/7/800.short>

### **DEANS Management Committee**

- Ms. Lisa Farrell, (Chair) Liaison Officer, Canadian Agency for Drugs and Technologies in Health
- Ms. Pam McLean-Veysey, Team Leader, Drug Evaluation Unit, QEII Health Sciences Centre
- Dr. Michael Allen, Continuing Medical Education, Dalhousie University
- Dr. Connie LeBlanc, Continuing Medical Education, Dalhousie University
- Dr. Bronwen Jones, Continuing Medical Education, Dalhousie University
- Dr. Nandini Natarajan, Department of Family Medicine, Dalhousie University
- Dr. Ingrid Sketris, College of Pharmacy, Dalhousie University
- Ms. Diane Harpell, Division of Continuing Pharmacy Education, College of Pharmacy, Dalhousie University
- Dr. David Gardner, College of Pharmacy, Dalhousie University
- Mr. Kevin Lynch, Manager, Nova Scotia Prescription Monitoring Program
- Ms. Jennifer Ross Makhan, Regional Pharmacist, First Nations and Inuit Health, Health Canada
- Ms. Allison Bodnar, Pharmacy Association of Nova Scotia

For more information about DEANS, go to <http://novascotia.ca/dhw/pharmacare/drug-evaluation-alliance-of-nova-scotia.asp>

To suggest topics or issues, contact Judith Fisher at [judith.fisher@gov.ns.ca](mailto:judith.fisher@gov.ns.ca)