



ACADEMIC DETAILING SERVICE

**Highlight Summary of Service
Uptake and Impact**

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The Center for Effective Practice

Our mission

Our Mission is to close the gap between evidence and practice in health care.



Centre for Effective Practice

The Centre for Effective Practice (CEP) is an independent, not-for-profit organization that aims to close the gap between evidence and practice for health care providers by giving them the resources and tools they need to provide the best care to their patients. The CEP engages with providers to create solutions based on best-evidence that can be adapted into the local context.

1.0 Executive Summary

From October 2015 to December 2016, the CEP delivered one of the largest Ontario academic detailing services in long-term care (LTC). The CEP's service aimed to deliver providers with objective, balanced, evidence-informed information on best practices to optimize clinical care for LTC residents. Impact and outcome highlights of the CEP's academic detailing service are listed below:

- This service was provided in 41 Ontario LTC homes, which service approximately 5,000 residents.
- The service addressed two important topics in LTC:
 - The appropriate prescribing of antipsychotic medications for residents living with behavioural and psychological symptoms of dementia (BPSD); and
 - The role of appropriate prescribing in falls prevention.
- There was widespread uptake and receptivity of the service among participating providers and staff,

and participating providers and staff overwhelmingly reported a high level of satisfaction with the service.

- The service encouraged providers to appropriately prescribe antipsychotics and review medication to prevent falls, increased provider confidence to incorporate best practices, and increased team communication.
- The service engaged resident and family councils through educational presentations on the two topics.
- There was immense demand for the balanced, evidence-informed information developed as part of the service, with over 7,000 academic detailing discussions guides disseminated in-person to LTC providers and staff over and above the participating 41 LTC homes.

Overall, the impacts and outcomes of the CEP's academic detailing service were positive in LTC, and they support that academic detailing as an intervention can enhance patient/resident care and outcomes in the Ontario health care sector.

"The one-on-one ratio of detailer to physicians is unique in medical education. It allows for more open and honest discussions and provides a safe environment for the detailer and physician to ask each other questions and challenge each other's thinking on issues that aren't often well represented in literature."

– Medical Director, LTC home

2.0 Introduction

2.1 Overview of academic detailing

Academic detailing, sometimes referred to as educational outreach, is delivered by trained health care professionals, typically pharmacists, physicians or nurses to primary care providers. Academic detailing consists of service-oriented, one-on-one visits focused on delivering providers with objective, balanced, evidence-informed information on best practices to optimize clinical care. This information is always tailored to each provider's expressed needs and is delivered at a time and location that is convenient for them.

Providers need an accurate, ongoing source of current best practices and evidence including comparative effectiveness, safety and cost of treatments. This information can be time consuming to assemble due to a continuous influx of research literature. By combining an interactive outreach approach with best evidence and experience, academic detailers can meet the individual needs of providers and their care teams.

Internationally, health care systems have adopted academic detailing as an effective and efficient way to support appropriate clinical decisions and prescribing. In Canada, large scope academic detailing programs are active in British Columbia, Saskatchewan and Nova Scotia.¹

2.2 Ontario's long term care academic detailing service

In August of 2014, the Ministry of Health and Long-Term Care (MOHLTC) and the Ontario Medical Association oversaw the Appropriate Prescribing Demonstration Project in collaboration with the CEP and Health Quality Ontario. The goal was to support the delivery of evidence-based care in LTC homes that results in:

- Improved health outcomes and quality of life for residents living in LTC homes;
- Improved experience for family members;
- Improved experience for physicians, nurse practitioners, pharmacists, allied health professionals, and inter-professional team members working in LTC homes; and,
- Establishing a greater understanding of appropriateness of prescribing.

Through consultations with key decision makers in the sector, two priority topics

were identified to be addressed through this project. The first topic was the appropriate prescribing of antipsychotic medications for LTC home residents living with behavioural and psychological symptoms of dementia (BPSD). This topic is an ongoing topic of concern in Ontario LTC homes. This concern arises from the potential negative impact antipsychotic medications may have on residents' quality of life and increased risk of adverse effects, as well as the variability in the prescribing of these medications across LTC homes.^{2,3,4,5,6,7} As part of this larger project, the academic detailing service provided visits to providers on this topic from October 2015 until July 2016, and reached 41 LTC homes across nine Local Health Integration Networks.

The second topic was falls prevention for residents living in LTC homes. Approximately 14.3% of Canadian resident living in LTC homes have a history of at least one fall in the previous 30 days.⁸ Approximately half of all LTC residents. Approximately 14.3% of Canadian resident living in LTC homes have a history of at least one fall in the previous 30 days.⁸ Approximately half of all LTC residents will fall at least once per year. The injuries resulting from falls are a significant quality of life issue for seniors and LTC homes have identified falls prevention as a major safety and care issue. The academic detailing service provided visits on this second topic from May 2016 until December 2016 to the same 41 participating LTC homes.

For both topics, participating LTC staff and providers received one-on-one and small group visits from one of seven CEP academic detailers (pharmacists). During each topic-specific visit, the detailer and provider discussed objective, balanced, evidence-informed information on best prescribing practices to optimize clinical care for their residents. This information was tailored by the detailer for each provider's needs. Through each visit, academic detailers also equipped providers with evidence-based discussion guides to support clinical decision-making and material to share with residents, families and caregivers. Each provider was offered a visit per topic, and second visits were offered based on identified need.

Both topic 1 and 2 were delivered successfully and have demonstrated that relationship-based educational outreach for providers and staff in LTC homes can impact the appropriate prescribing of medications and care for residents.

A third-party evaluation team, led by Dr. Noah Ivers from Women's College Hospital conducted a separate analysis using Ontario outcome data and interviews with participating providers. The results of this analysis are not publicly available yet. This highlights summary document will focus on the results of the academic detailing service program evaluation, however findings are aligned with the initial results from the third party evaluation team.

2.3 Program design

The LTC academic detailing service was based on successful models of academic detailing from around the world.^{9,10,11,12} Some of the key features of the service were:

- Intensive detailer training on the academic detailing model.
- Topic scoping involved end-users and stakeholders input to ensure meaningfulness and relevance.
- Intensive detailer topic-specific training to ensure in-depth knowledge of:
 - The primary and secondary research for each clinical topic;
 - Existing tools and initiatives related to each clinical topic; and
 - The care context including common gaps and enablers for providers and staff.
- A customized database to capture visit and evaluative information.
- Evidence based, practice informed discussion guides, developed together with thought leaders, end-users and the academic detailers, for primary and secondary audiences.

The academic detailing service provides the following advantages:

- It is a relationship-based intervention tailored to each provider's needs and delivered on-site which maximizes uptake and receptivity.
- It is a flexible intervention that can be applied to a broad range of topics and sectors which reduces the need for providers to participate in multiple interventions with competing priorities.
- It is an intervention with evidence to supports its effectiveness and ability to deliver return on investment.^{13,14,15,16}
- It is an intervention that can be combined effectively with other interventions to increase impact (e.g. audit and feedback).

Details on these advantages as compared to other Ontario supports are outlined in the table below.

Comparison of academic detailing and other Ontario supports

	Is it tailored to the entire care team?	Is it tailored to patients/residents, family members and caregivers?	Is it delivered on-site?	Are providers receptive to it?	Does it address multiple topics?	Is it relevant across multiple sectors?	Is there evidence to support its effectiveness?	Is there evidence to support its return on investment?	Can it improve the uptake of other interventions?
CEP's academic detailing service	✓	✓	✓	✓	✓	✓	✓	✓	✓
MOHLTC's behavioural supports Ontario initiative	✓	✓	✓	?	x	✓	?	?	?
Health Quality Ontario's practice reports	✓	x	x	?	✓	✓	✓	?	?
College of Physicians and Surgeons of Ontario's and Ontario College of Family Physicians' continuing medical education	x	x	x	✓	✓	✓	✓	?	?
MOHLTC's Ontario LTC medication management demonstration project	✓	x	x	?	x	?	?	?	x
Order sets (e.g. Open Source Order Sets, Think Research's patient order sets)	✓	x	✓	?	✓	✓	✓	?	?
Health Quality Ontario's quality improvement plans and quality standards	✓	x	x	?	✓	✓	✓	?	?

3.0 Who participated



41
LTC homes engaged



778
Individuals engaged in visits



7,220
Discussion guides disseminated



181
Educational presentations conducted



548
Visits conducted

The MOHLTC invited Ontario LTC homes to voluntarily participate in the academic detailing service. From the group of 83 volunteers who came forward, ~60 homes were selected in two waves and randomized (within their wave) to either receive the intervention or to a control group, resulting in 40 intervention homes and 22 control homes. Three LTC homes were unable to participate in the intervention, and four additional interested homes in the Ottawa area were then added as expansion homes.

Within each LTC home the primary targets, including physicians, medical directors, nurse practitioners and pharmacists were offered individual detailing visits.

Other members of the care team were also engaged in academic detailing visits, including geriatric psychiatrists, nursing staff, personal support workers, recreation staff, dietitians and social workers. Engaging these members of the care team was identified as an essential aspect to the service as these

care team members play an important role in providing and documenting care for LTC residents, which helps inform prescribing decisions.

4.0 Impacts & outcomes

Success in academic detailing is reliant on the perceived credibility of the service, the academic detailers and the information and material presented during the visits.¹ The goals of the CEP's academic detailing service were therefore to:

- Lead to positive clinical and quality outcomes for residents as they relate to appropriate antipsychotic prescribing and falls prevention;
- Bring providers valuable information;
- Ensure providers are happy with their participation in the service visits;
- Ensure providers perceive detailers as professional, influential and effective service providers; and,
- Implement a cost and operationally efficient service.

4.1 Evaluation methodology

Three sources of information were employed to assess the quality of the academic detailing service and to ensure it continually met the needs of the LTC homes, its providers and the residents, families and caregivers.

For every encounter, anonymous feedback forms were completed post-visit (41% response rate). Providers and staff were asked to describe their experience with the service, their intended behaviour change as a result of their involvement in the service (if they felt it was applicable), and overall comments.



GOALS:



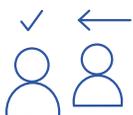
Positive outcomes for residents



Providers perceive detailers as influential



Bring providers valuable information



Providers are happy with their participation in the service visits



Cost and operationally efficient service

Academic detailers also contributed quantitative and qualitative data post-visit via the service database, to capture service metrics (e.g. number of visits) and their reflection on uptake.

To supplement this data, the service team worked with a sample of participating LTC homes to develop brief case studies based on quality improvement data and qualitative narratives from providers and staff to understand how the service was implemented in their home and the potential impact.

Quantitative and qualitative analysis of the results were done to understand the full value of the academic detailing service to providers and the role the service played in enabling appropriate prescribing behaviour.

What is the most important change you will consider making in your practice given this detailing visit?

"Review antipsychotic prescriptions on patients and identify those that would benefit from a trial of a decreased dose, discontinuation or new medication."
– Physician, LTC home

4.2 Summary of results

The combined results for topic 1 and topic 2 highlights reported change in critical areas: knowledge, prescribing practice, communication, and overall satisfaction.

4.2.1 Knowledge

Participants overwhelmingly reported increased knowledge in key clinical areas.

- 91% (topic 2) of respondents felt better able to identify risk factors contributing to an individual resident's risk of falls.
- 98% (topic 1) and 97% (topic 2) reported that the information would be useful in their practice.
- 98% (topic 1) and 95% (topic 2) reported the information adequately addressed one or more of their concerns.
- (topic 1) conversations were on average twice as long as booked – indicating a keen interest in the topic and usefulness of information about the topic.

96% (topic 2) believed the information added to their perspective/knowledge on falls prevention.

CASE STUDY : COMMUNICATION

Arbour Heights

Academic detailing service Supports Arbour Heights in Cutting Antipsychotic Use Without a Diagnosis of Psychosis in Half

The home states that the academic detailing service helped to facilitate dialogue between nursing and physicians, identify and document behaviours likely to respond to antipsychotics, and provide a "common language" for the team.

The Home leadership reported that:

The percentage of residents on an antipsychotic without a diagnosis of an antipsychotic decreased from 28.2% to 20.1% from Q2 2015 to Q2 2016, and continued to drop during 2016, reaching 14% in Q4 2016.

Percentage of residents taking antipsychotics without a diagnosis of psychosis



CASE STUDY: KNOWLEDGE

Simcoe Manor

Simcoe Manor, a 126-bed home in Beeton ON, has achieved a dramatic 39% reduction in the percentage of residents taking antipsychotic medication without a diagnosis of psychosis over the past year.

The Home leadership reported that:

Having an outside expert (the academic detailer) helped to reinforce best practices and effect a cultural change within the home towards appropriate use of antipsychotic medications.

Participants overwhelmingly reported:



Increased knowledge



Benefited prescribing practice



Improved communication



Satisfaction with the service

4.2.2 Prescribing practice

Participants overwhelmingly reported benefits to their prescribing practice.

- 84% (topic 1) of respondents felt more confident to identify behaviours that are more likely or less likely to respond to antipsychotic therapy.
- 81% (topic 1) of respondents were more confident in how to trial the deprescribing of antipsychotic medications.
- 90% (topic 2) of respondents felt more comfortable participating in the development of an individualized falls prevention plan.
- 89% (topic 2) of respondents indicated an increased likelihood that they will review medications for residents with three or more central nervous system drugs.
- 90% (topic 2) of respondents felt more confident in how to assess and reduce anticholinergic drug load in residents for whom this may be appropriate.

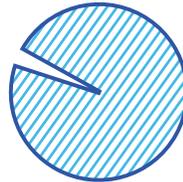
4.2.3 Communication

Participants reported that communications among the care team benefitted from academic detailing.

- 86% (topic 1) of respondents indicated an increased likelihood that the visit will help them improve their communication with colleagues.
- 91% (topic 2) of respondents indicated an increased likelihood that the visit will help them improve their communication with colleagues.

4.2.4 Overall satisfaction

Participants overwhelmingly reported satisfaction with their participation in the service.



97% (topic 1 & topic 2) said they would be interested in an other visit.

4.3 Participants thoughts

Participating LTC providers and staff were asked for their thoughts about their experience with the academic detailing service. The following is a sampling of their responses.

Academic detailing was valuable

"I would describe my experience with academic detailing as very productive, helpful, and overall, exceptionally worthwhile. Thank you for the opportunity to participate."

– Dr. W. Scott Nash, Medical Director, Wentworth Lodge

"Resources for staff and family have been highly valued. It allows for interaction to determine needs and follow-up to assist in implementation of changes has been valuable"

– Dr. Lyla Graham, Medical Director, St. Patrick's Home of Ottawa

Academic detailing compares favorably to other educational experiences

"It encourages the team to look at strategies before resorting to medication. Many educational

documents discuss taking residents off the antipsychotic, but don't provide the information on how to wean them for success."

– Cindy Brandt, Administrator, Caressant Care

"The 1:1 ratio of detailer to physician is unique in medical education. In my view, it allows for more open, honest discussions. It provides a safe environment for the detailer and the physician to ask each other questions and to challenge each other's thinking on issues that are often not well represented in the literature.

Also, the 1:1 nature of this educational intervention, I feel, leaves participating physicians feeling valued and supported. This is vital to LTC home physician retention and recruitment efforts."

– Dr. W. Scott Nash, Medical Director, Wentworth Lodge

Academic detailing has resulted in practice changes

"The result is that we are using fewer pharmacologic interventions, and if a pharmacologic intervention is deemed

CASE STUDY : PRESCRIBING PRACTICE

Victoria Manor

Academic detailing service Helps Victoria Manor Encourage Appropriate antipsychotic Use by Providing a "Common Language"

"The academic detailer's knowledge of medications provided me with an amazing foundation and education in how medications affect the elderly positively and negatively. [The detailer's] support was important for us to understand how to best serve our aging population using evidence-based, practical knowledge."

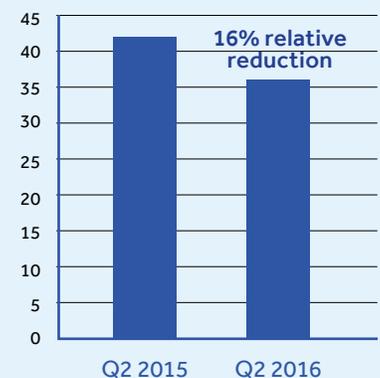
– Emily Leney,
Behavioural Support Ontario,
Registered Practical Nurs

The Home leadership reported that:

As a result of the academic detailing service, staff were less likely to ask for antipsychotic medications in cases where they would not be appropriate; providers felt more comfortable tapering antipsychotic medications and evaluating for benefits and harms; and patients, families and providers had a common language to discuss behaviours.

There was a 16% relative reduction in the percentage of residents taking antipsychotic medications without a diagnosis of psychosis over 12 months thanks to a series of initiatives. These included academic detailing and staff education.

Percentage of residents taking antipsychotics without a diagnosis of psychosis



necessary, we are working together to minimize the dose and duration of this treatment.

Also, by engaging, educating, and supporting physicians at a provider level, in my view, physicians are more likely to integrate best-practices into their care, and are more likely to think creatively about solutions to the challenges ahead of us in long-term care."

– **Dr. W. Scott Nash, Medical Director, Wentworth Lodge**

"It has given families more detailed information for example regarding the use of drugs to treat Dementia so we can ask more direct questions to the LTC home and the doctors to better advocate for our family members."

– **Gerry Armstrong, Family Council Chair, Forest Hill**

"We have noted a definitive change of focus for all levels of our team and stakeholders in understanding the use of antipsychotics and the importance of appropriate usage of various medications and a better understanding of responsive behaviours."

– **Care Team, Leacock Care Centre**

"Definitely. I regularly use information that I discussed with the detailer within my recommendations to physicians and within discussions with the nursing staff. My ability to integrate evidence into my recommendations has greatly improved. I also use the resources provided from the detailer to help communicate messages to staff members."

– **Erika Hatherly, Consulting Pharmacist, Langstaff Square Care Community**

"Your care plans include interventions that are more likely to result in a positive outcome. We created a behavior observation form for residents who are prescribed an antipsychotic based on the information provided by [the detailer].

The information [the detailer] provided is now one of our favorite resources that we constantly refer to when dealing with a responsive behavior."

– **Rosemary Ferraro, Director of Care, Hellenic Home**

Academic detailing focused on solving real practice challenges

"Our conversation was completely focused on my practice setting and my current knowledge of the topic. We

discussed the current practices in the home regarding anti-psychotic use. This included everything from the tools staff use to track behaviors, current prescribing practices, and the key stakeholders at the home that could influence change. We then focused on my current background on the topic; my experience assessing antipsychotic use, comfort with talking with nurses and physicians about the topic and knowledge of antipsychotics themselves. This allowed our conversation to focus on specific key points and skills that would be useful to influence practice change in the home."

– **Erika Hatherly, Consulting Pharmacist, Langstaff Square Care Community**

Academic detailing should be continued

"Yes It provides an excellent educational resource which can be flexible to meet the needs and practices of the facility Also the development of standard approaches to these issue and the evidence based resources provided have been valuable to the home which does not have the resources to develop this quality of resource individually The involvement of all disciplines and also family members has been very beneficial."

– **Dr. Lyla Graham, Medical Director, St. Patrick's Home of Ottawa**

"Yes, this is a very educational method for family members to address very difficult issues they are confronted with in an environment where they can speak openly."

– **Gerry Armstrong, Family Council Chair, Forest Hill**

"Yes. It engages staff in evidence-based practice and creates a team approach to implementing measures that can improve the well-being of our residents. It is completely individualized to our home environment and staff members; something you can't replicate with general education sessions or training."

– **Erika Hatherly, Consulting Pharmacist, Langstaff Square Care Community**

I learned a great deal about falls and felt that the overview of the topic was very well put together. I have attended many education events about falls and this was the most LTC focused of them.
– **Physician, LTC home**

CASE STUDY : COMMUNICATION

ST. JOSEPH'S VILLA

Academic Detailing Service* Helps St. Joseph's Villa and St. Joseph's Lifecare Encourage Appropriate Antipsychotic Use, Achieving Better than Provincial and LHIN Averages

"Academic Detailing has helped establish long-term care as the center of excellence for appropriate APM prescribing. It was really refreshing to have someone [the Detailer] who had a positive attitude, knew the literature, knew appropriate uses, knew the benefits but also knew that we needed help, needed support for documentation in terms of communication. Detailing helped us come even closer together as a team to better deliver care."

– **Dr. Hugh Boyd, Medical Director, St. Joseph's Villa**

5.0 Lessons learned

Demonstration projects provide the opportunity to reflect on critical success factors. The following factors contributed to the academic detailers service being an effective channel of evidence-based guidance for providers.

5.1 Skills & knowledge

- ✓ Recruit academic detailers for clinical knowledge and the right personality.
- ✓ Adequately train and equip detailers. This includes "soft" attributes such as strong interpersonal skills and "hard" knowledge such as best evidence and organizational understandings of LTC homes.
- ✓ Continual professional development through individual supervision and ongoing training is critical to keeping a skilled workforce.

5.2 Relationships matter

- ✓ Establishing credibility and developing a strong relationship is a necessary precursor to influencing prescribing behavior.

5.3 Topic related

- ✓ Topic choice and tool development must be rooted in evidence, informed by practice and meet existing knowledge and care gaps.
- ✓ Key messages must be few in number, meaningful in practice, and their impact must be measurable.

5.4 Context specific

- ✓ Academic detailing in LTC homes includes engaging non-prescribers.
- ✓ One-on-one sessions are optimal to engage prescribers and pharmacists (primary audience members). Group sessions provide a more economical and meaningful option for other members of the care team.

5.5 Measurement & evaluation

- ✓ Evaluation of complex behavior change initiatives requires methodologies that are sensitive to the nuances of behavior change. For example, stopping a prescription is only one of many possible outcomes of an appropriate medication review process.

6.0 Closing

LTC providers and staff reported a high level of satisfaction with the academic detailing service. The service encouraged providers to appropriately prescribe antipsychotics and review medication to prevent falls, increased provider confidence to incorporate best practices, and increased team communication. Overall, the impacts and outcomes of the CEP's academic detailing service were positive in LTC, and they support that academic detailing as an intervention can enhance patient/resident care and outcomes in the Ontario health care sector.

"Together we reviewed the BPSD Discussion Guide/Tool, discussed our current practices and any evidence-based modifications, lots of opportunity for discussion/Q&A"
– Physician, LTC home

"Very positive. [The detailer] arranged to meet me at a time of my convenience, asked how much time I had, and what questions I had RE: specific topic. Very knowledgeable. For questions [the detailer] didn't have answers to, [the detailer] said so and would find answers for me."
– Physician, LTC home

6.0 References

- [1] Maclure M, Allen M, Bacovsky R, Bugden S, Lopatka H, MacNair K et al. Show me the evidence: best practices for using educational visits to promote evidence-based prescribing. Canadian Academic Detailing Collaboration, Drug Policy Future; 2006 Jun.
- [2] Steinberg M, Lyketsos CG. Atypical antipsychotic use in patients with dementia: managing safety concerns. American Journal of Psychiatry. 2012;169(9):900-6.
- [3] Jeste DV, Blazer D, Casey D, Meeks T, Salzman C, Schneider L, et al. ACNP white paper: update on use of antipsychotic drugs in elderly persons with dementia. Neuropsychopharmacology. 2008;33(5):957-70.
- [4] Singh S, Wooltorton E. Increased mortality among elderly patients with dementia using atypical antipsychotics. Canadian Medical Association Journal. 2005;173(3):252.
- [5] Gill SS, Rochon PA, Herrmann N, Lee PE, Sykora K, Gunraj N, et al. Atypical antipsychotic drugs and risk of ischaemic stroke: population based retrospective cohort study. British Medical Journal 2005;330:1-6.
- [6] Hwang YJ, Dixon SN, Reiss JP, Wald R, Parikh CR, Gandhi S, et al. Atypical antipsychotic drugs and the risk for acute kidney injury and other adverse outcomes in older adults: a population-based cohort study. Annals of Internal Medicine. 2014;161(4):242-8.
- [7] Rochon PA, Stukel TA, Bronskill SE, Gomes T, Sykora K, Wodchis WP, Hillmer M, Kopp A, Gurwitz JH, Anderson GM. Variation in nursing home antipsychotic prescribing rates. Archives of Internal Medicine. 2007;167(7): 676-8. 8
- [8] Canadian Institute for Health Information. Your health system [Internet]. Canadian Institute for Health Information; 2014 [cited 2016 Apr 28]. Available from: <http://yourhealthsystem.cihi.ca/>
- [9] Veteran's Health Administration. Pharmacy benefits management services [Internet]. U.S. Department of Veterans Affairs [cited 2017 Apr 13]. Available from: <https://www.pbm.va.gov/PBM/academicdetailingservice/AboutUs.asp>
- [10] Alosa Health. Academic detailing programs. Alosa Health [cited 2017 Apr 13]. Available from: <http://alosahealth.org/our-solutions/academic-detailing-programs>
- [11] RxFiles. RxFiles – About us. RxFiles [cited 2017 Apr 13]. Available from: <http://www.rxfiles.ca/rxfiles/modules/aboutus/AboutUs.aspx>
- [12] National Prescribing Service Medicinewise. Educational visits. National Prescribing Service Medicinewise [cited 2017 Apr 13]. Available from: <http://www.nps.org.au/health-professionals/cpd/educational-visits>
- [13] Avorn J, Soumerai SB. Improving drug-therapy decisions through educational outreach – a randomized controlled trial of academically based detailing. N Engl J Med. 1983; 308:1457-1463. doi: 10.1056/NEJM198306163082406
- [14] Grindrod KA, Patel P, Martin JE. What interventions should pharmacists employ to impact health practitioners' prescribing practices? Ann Pharmacother. 2006;40(9):1546-57. doi: 10.1345/aph.1G300
- [15] O'Brien MA, Rogers S, Jamtvedt G, et al. Educational outreach visits: effects on professional practice and health care outcomes (review). Cochrane Database of Syst Rev. 2007;4:CD000409. doi: 10.1002/14651858.CD000409.pub2.
- [16] NPS MedicineWise [Internet]. Annual Evaluation Report 2014. 2015 Feb 17. Available from: http://www.nps.org.au/_data/assets/pdf_file/0006/317418/Annual_Eval_Report_2014.pdf