

A Survey of Canadian Pharmacists' Knowledge and Comfort in the Management of Epilepsy and Antiepileptic Drugs

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INTRODUCTION

- Epilepsy is one of the most common neurological diseases affecting almost 46 million people worldwide and seizures can have a significant impact on quality of life.
- Antiepileptic drugs (AEDs) remain the mainstay of epilepsy management but one of the greatest challenges comes with optimizing the balance between seizure control and side effects of therapy.
- Pharmacists' involvement in the care of patients with chronic conditions can make a significant difference to patient outcomes and pharmacists have the potential to play an integral role in the management of epilepsy and AEDs.
- While some international studies have shown a gap in knowledge in the management of epilepsy and the need for support tools, little is known about Canadian pharmacists' knowledge and comfort in the management of epilepsy and AEDs.

OBJECTIVE

To characterize Canadian Pharmacists' knowledge and comfort in managing epilepsy and antiepileptic drugs and conduct a needs assessment to aid in the future development of pharmacy-specific epilepsy educational support tools.

METHODS

Design: Anonymous cross-sectional electronic survey

Population: A secure link to the survey was distributed to licensed pharmacists in Canada through professional organizations and social media outlets.

Data Collection:

- Survey designed and developed through evidence-based guidelines and designed to target knowledge most relevant to pharmacists.
- Consisted of multiple-choice questions with four sections assessing demographics, knowledge, comfort and needs assessment around epilepsy management and AEDs.

Data Analysis

- Descriptive statistics in frequencies, percentage and mean scores were used to characterize demographic, comfort, knowledge and needs data.
- Key analyses included comparison of mean knowledge scores by years of experience and practice setting.
- Logistic regression was conducted using demographic variables as predictors of knowledge scores greater than 50%.

RESULTS

Table 1: Overview of Key Demographics

Demographic Category	n (%)
Sex	
Male	223 (37.1)
Female	370 (61.6)
Prefer not to say	8 (1.3)
Number of years practicing	
Less or equal 5 years	133 (22)
6 to 10 years	99 (16.4)
>10 years	372 (61.6)
Setting of current practice	
Hospital	155 (25.7)
Community	399 (66.2)
Other*	49 (8.1)
Province of current practice	
Alberta	253 (42.0)
Ontario	309 (51.3)
British Columbia	10 (1.6)
Saskatchewan	8 (1.3)
Quebec	8 (1.6)
Other	14 (2.3)

Figure 1: Canadian Pharmacists' Comfort in Epilepsy Management Survey Responses

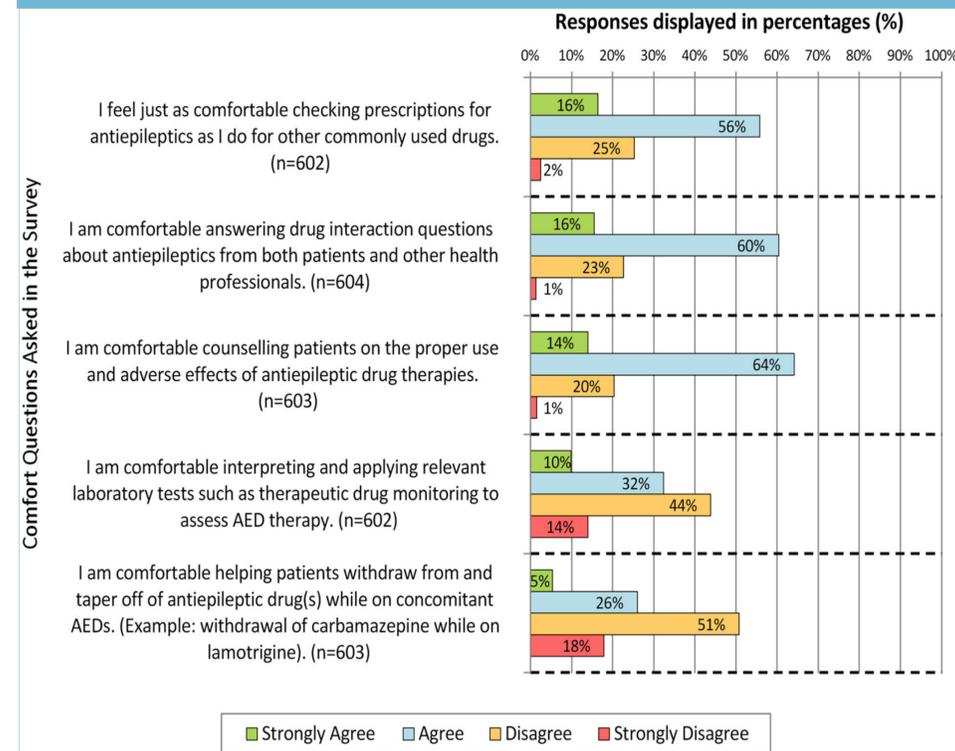
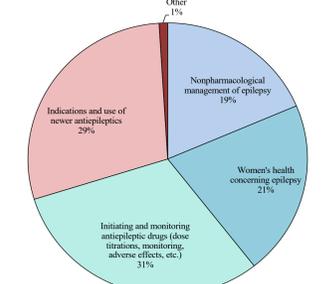


Figure 2: Canadian Pharmacists' Epilepsy Management Needs Assessment

Please indicate which of the following you would be interested in learning more about:



In order to increase my knowledge of epilepsy and AEDs to support my practice, I would benefit from and be most interested in:

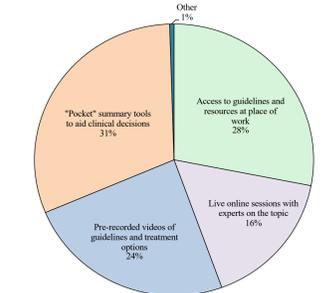
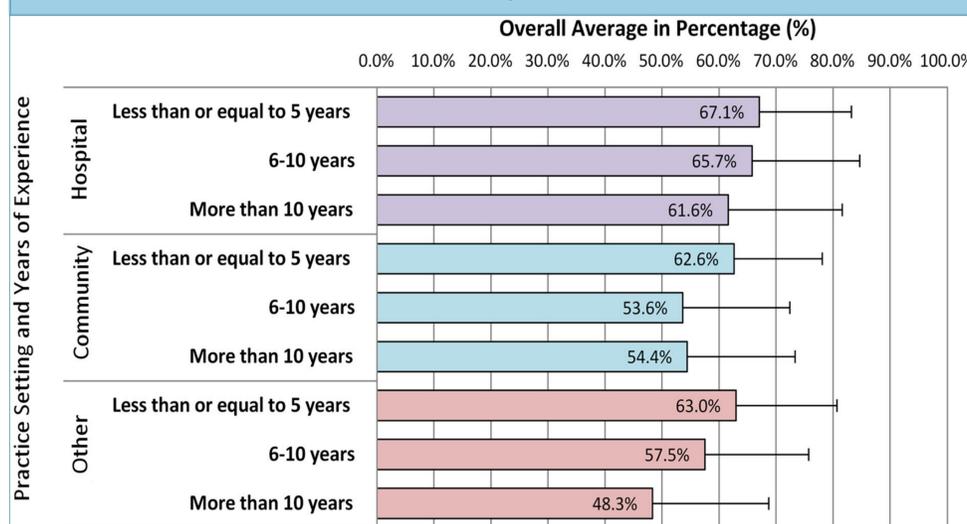


Figure 3: Average Knowledge Score of Pharmacists Stratified by Practice Setting and Years of Experience



- The overall average score on the knowledge component was 57.6±19.1% (n=602).
- Our analysis shows hospital practice, recent graduation and experience in a neurology-related practice to be independent predictors of higher scores.

- A total number of 605 completed responses were obtained
- Participants reported high comfort in counselling patients, answering questions and checking prescriptions. Conversely, majority selected the opposite when asked about therapeutic drug monitoring and tapering of AEDs.
- A lower reported comfort level was correlated with lower scores on the knowledge component of the survey
- Participants indicated interest in many types of educational tools including "pocket" summaries of guidelines

CONCLUSION

- Canadian Pharmacists displayed knowledge and comfort in certain aspects of epilepsy management such as dispensing and counselling with significant gaps in knowledge in other areas. Specifically, significant gaps exist in skills and concepts more specialized to epilepsy management, such as TDM, generic substitutions, women's health and withdrawing from AED therapy.
- Pharmacists indicated a need and interest in epilepsy education tools development
- In order to strengthen pharmacists' comfort and knowledge in epilepsy management, future studies aimed at the development of pharmacy-specific epilepsy educational support tools are needed.

References

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