Implementation of Additional Prescribing Authorization Among Oncology Pharmacists in Alberta

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BACKGROUND

- With the rising incidence of cancer, the demand for health care professionals trained in the management of oncology patients should be anticipated because the supply of medical oncologists is not likely to increase at the rate that would be needed to meet patient care demands.¹ ²
- Oncology pharmacists have demonstrated that they can make meaningful contributions to patient care in several ways.³ ⁴
- The introduction of additional prescribing authorization (APA) in April 2007 has allowed pharmacists to prescribe medication to initiate drug therapy or to manage ongoing therapy.⁵ ⁶ ⁷ ⁸
- An understanding of current prescribing practices can inform further development of advanced practice for all oncology pharmacists.
- There is no literature addressing the wide scale implementation of prescribing among oncology pharmacists’ practices.

OBJECTIVES

Primary Objective:

- Describe the practice setting where oncology pharmacists are implementing APA: o Institution type o Inpatient or ambulatory care o Rural or urban setting o Specific clinical activities performed

Secondary Objectives:

- To identify: o Types of therapy prescribed o Practice patterns o Frequency of prescribing o Proportion of oncology pharmacists with APA o Existing facilitators and barriers to prescribing
- Compare the differences between pharmacists with and without APA

METHODS

Study Design:

- Anonymous, descriptive, cross-sectional, web-based survey
- Conducted over 4 weeks from March – April 2016

Inclusion Criteria:

- Oncology pharmacists in Alberta with and without APA o Identified using the Alberta Health Services (AHS) Cancer Services Pharmacy Directory and pharmacy clinical practice leaders o APA status verified on Alberta College of Pharmacist’s list and through pharmacy clinical practice leaders
- 175 eligible pharmacists

Survey Questionnaire:

- Questions were developed based on the existing literature
- Piloted by two clinical pharmacists that were not eligible for study participation but provided leadership and guidance to oncology pharmacists at one of the tertiary cancer sites

Data Collection Tool:

- AHS Select Survey Tool was used to administer the questionnaire
- Email invitation sent to all eligible participants with a link to the online survey

Statistical Analysis:

- Descriptive statistics were used to report categorical and continuous variables

RESULTS

Response Rate Flow Diagram

175 eligible pharmacists

71 pharmacists responded (41%)

27 pharmacists had APA (38%)*

44 pharmacists did not have APA (62%)

*27 out of 42 oncology pharmacists with APA (64%) responded to the survey

Table 1. Pharmacist Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Respondents with APA</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td>&gt; 31 years old (82%)</td>
</tr>
<tr>
<td>Years of Licensure</td>
<td>&gt; 10 years (59%)</td>
</tr>
<tr>
<td>Education</td>
<td>Bachelor of Science in Pharmacy (100%)</td>
</tr>
<tr>
<td>Years of Employment</td>
<td>&lt; 10 years at current employment site (66%)</td>
</tr>
<tr>
<td>Length of APA Licensure</td>
<td>2-8 years (55%)</td>
</tr>
<tr>
<td>FTE spent on direct patient care services</td>
<td>40-59%</td>
</tr>
<tr>
<td>Patients seen per week (median)</td>
<td>15 (interquartile range = 24)</td>
</tr>
<tr>
<td>Prescriptions written per week (median)</td>
<td>5 (interquartile range = 8)</td>
</tr>
</tbody>
</table>

Figure 1. Involvement of Pharmacists with APA in Clinical Activities

Table 2. Practice Setting

<table>
<thead>
<tr>
<th>Variable</th>
<th>Respondents with APA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution Type</td>
<td>Tertiary Cancer Centre (52%)</td>
</tr>
<tr>
<td>Location</td>
<td>Urban (61%)</td>
</tr>
<tr>
<td>Practice Setting</td>
<td>Ambulatory Care (73%)</td>
</tr>
<tr>
<td>Clinical Activities Performed Most Frequently</td>
<td>1) Medication Reconciliation (100%)</td>
</tr>
<tr>
<td></td>
<td>2) Medication Counselling/Education (100%)</td>
</tr>
<tr>
<td></td>
<td>3) Assessing Patients in Ambulatory Clinics (78%)</td>
</tr>
</tbody>
</table>

Figure 2. Using APA in Clinical Practice

Figure 3. Frequency and Types of Therapy Prescribed

Legend: Red = Never; Blue = Rarely (< once a month); Orange = Occasionally (< once a week); Green = Regularly (at least once a week)

DISCUSSION

- Oncology pharmacists with APA display the following similarities to other oncology pharmacists in the literature:⁹ ¹⁰ ¹¹ ¹² ¹³ ¹⁴ ¹⁵ ¹⁶
- The high frequency of supportive care medications prescribed reflects the role oncology pharmacists play in managing supportive care issues for cancer patients.
- Oncology pharmacists with APA display the following differences with other Alberta hospital pharmacists with APA:⁹ ¹⁰ ¹¹ ¹² ¹³ ¹⁴ ¹⁵ ¹⁶
- Oncology pharmacists did not find a significant role for medication reconciliation whereas other Alberta hospital pharmacists prescribed most often for medication reconciliation and dosage adjustment
- Proposed explanations for the difference in utilization of prescribing authority for medication reconciliation include: o The lack of a consistent definition for ambulatory medication reconciliation compared to inpatient medication reconciliation

LIMITATIONS

- Small sample size
- Response and recall bias
- Results are only reflective of prescribing practices during the survey distribution period
- Participants may have had different interpretations of each clinical activity

CONCLUSIONS

- Oncology pharmacists with APA primarily worked in urban, tertiary cancer centres, and practiced in ambulatory care.
- They participated in the most medication reconciliation, medication counselling/education, and ambulatory patient assessment.

FUTURE DIRECTIONS

- It would be valuable to analyze the impact oncology pharmacists with APA have on patient care outcomes.

ACKNOWLEDGEMENTS

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REFERENCES

References are available upon request.