Impact of Clinical Pharmacist Follow Up Service in an Outpatient Oncology Pain Clinic

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Background

- TBCC Oncology Outpatient Pain Clinic: Interdisciplinary consultative team which assesses and manages difficult pain and symptom issues.
- 2007: clinic pharmacist funding was increased to 1 FTE (from 0.4 FTE) to provide consistent longitudinal patient follow up.
- It is the pharmacist’s role in the clinic to summarize treatment plan developed by the team and provide personalized patient education, and then provide ongoing follow up to monitor, manage and optimize outcomes.
- 2013: publication evaluating clinic’s pharmacist follow up service for 4 weeks
  - Average of 88 minutes per patient
  - Conclusion: enhanced role of pharmacists in Pain Clinic favoured by patients and healthcare professionals, and increased clinic efficiency.

Objectives

Primary Objective
- To quantify impact of clinical pharmacist longitudinal patient follow up on proportion of new patients seen by Pain Clinic team.

Secondary Objectives
- To quantify patient-pharmacist follow up interactions over 6 month segment
- Capture new versus follow up visits
- Describe clinical pharmacist activities performed
- Describe patient population by tumour group
- Provide data of clinical workload for one week
- Highlight relative cost to healthcare system of pharmacist follow up versus outpatient clinic visit

Methods

1. A retrospective chart review of clinic appointments from January 2005 to December 2013 was completed capturing annual new clinic and follow up clinic visits.
2. A second retrospective chart review of a 6 month segment (July 1 to December 31, 2013) was performed to determine:
   - Quantity of patient-pharmacist interactions
   - Quantity of follow up clinic visits per patient
   - Clinical pharmacist activities
   - Pain patient population by tumour group

Results

Figure 1. Exclusion criteria implementation for tracking patient-pharmacist interactions within 6 months with primary clinic visit occurring July to December 2013.

Figure 2. Number of patients seen in Pain Clinic by year and further separated by number of new patient visits and follow up (F/U) patient visits.

Figure 3. Patient Pain Clinic visits: percentage new versus follow up

Figure 4. Clinical activities performed by Pain Clinic pharmacists

Figure 5. Patient-pharmacist interactions within 6 months of primary clinic visit occurring between Jul. 1 – Dec. 31, 2013

Figure 6. Percentage Pain Clinic patients by tumour group (Jul. 1 – Dec. 31, 2013)

Figure 7. Number of clinic visits per patient within 6 months (Jul. 1 – Dec. 31, 2013)

Figure 8. Number of visits required per patient within 6 months (Jul. 1 – Dec. 31, 2013)

Results continued

- Medication reconciliation
- Treatment plan initiation
- Adherence to pain/symptom medications
- Dose optimization
- Adjunct pain medication initiation
- Symptom control medication initiation
- Opioid initiation/rotation
- Adverse effect anticipation/management
- Prescription renewal arrangement
- Aberrant behavior monitoring
- Collaboration with palliative homecare
- Arrange follow up clinic visits
- Referral to alternate healthcare professionals
- Red flag symptom monitoring
- Non-pharmacological intervention
- Patient education

Discussion

- Since implementation of dedicated clinical pharmacist follow up time, the proportion of clinic visits allocated to new patients steadily increased from 26% in 2006 to 46% in 2013 (Figure 3).
- This is a 77% increase in capacity to see new patients, improving patient access to the interdisciplinary Pain Clinic, as follow up clinic visits per patient was reduced.
- With a finite number of patient appointment slots, low wait times have been maintained.
- The follow up service increases the effectiveness of the established treatment plan and the ability to achieve results in a timely fashion.
- This service saves patients and caregivers needless trips to the cancer centre.
- Why the steady increase over seven years?
  - Evolving responsibility given to clinical pharmacists
  - Creation and refinement of clinical tools and templates
  - Pharmacists obtaining Additional Prescribing Authority
- No other variables, in terms of clinic resources, were altered in this time period.

Six Month Data Analysis

- For the 131 patients included in the analysis, there were 1125 patient-pharmacist interactions, averaging 8.6 interactions per patient (Figure 8).
- This is equivalent to eight to nine hours spent per patient outside of clinic.

- Three-quarters of the 166 patients (~75%) were managed with one clinic visit plus clinical pharmacist follow up within 6 month segment (Figures 7 and 8).
- Over 9/10 patients were managed with one or two clinic visits plus follow up.
- Just 6.6% of patients required more than two clinic visits.
- Separated by tumour group, the patients seen most frequently were GI (22.3%), lung (19.9%) and breast (12.7%); followed by head & neck (9.6%), hematology (8.4%), GU (6.5%) and gynecology (7.2%) (Figure 6).
- Using AHS Pharmacy Services Worktrax online tool to provide data for one week of the clinical workload revealed >40 patient-pharmacist interactions per day with each interaction lasting approximately one hour (Figure 9).
- The hourly rate of a clinical pharmacist represents one-tenth of the cost of one outpatient clinic visit (Costs source: AHS CancerControl) (Figure 10).

Conclusion

- A clinical pharmacist providing longitudinal patient follow up in an outpatient oncology Pain Clinic increased efficiency and improved patient access to service.
- This challenging environment is an opportunity for clinical pharmacists to get involved in improving efficiency and patient outcomes.

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Reference