



Outcome of Pharmacists' Counseling Infusion Center Patients on Chemotherapy

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PURPOSE

The purpose of this study is to determine patient satisfaction after being counseled by a pharmacist as well as to see if education decreased any hospitalizations while the patient was receiving treatment.

BACKGROUND

Cancer is increasing worldwide and more and more people have received chemotherapy treatment. Chemotherapy agents are cytotoxic drugs that kill cancer cells. Due to the increase in cancer, there has also been an increase in research for cancer medications. For most people, the diagnosis of cancer causes many psychological and emotional effects which make it difficult to accept the ramifications of disease and treatment process. There are several support groups that patients can attend, but studies have shown that educating patients about cancer and chemotherapy in general can increase the patient's compliance and satisfaction as well as decrease side effects and hospitalizations. Pharmacists can offer teaching and education to these patients and their families to help decrease anxiety and complications.¹

METHODS

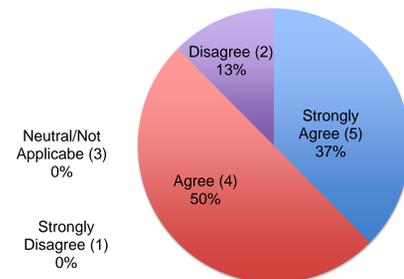
This was a single center, prospective, survey-based study at a small community hospital infusion center that consists of approximately five chairs. An oncology pharmacy specialist was available to provide counseling and education to patients while in the infusion center three days of the week. When the oncology specialist was unavailable, counseling was performed by other clinical specialists on staff. A standard chemotherapy handout was developed and one website (www.chemocare.com) was used to print drug handouts for patients. All clinical specialists at the hospital received training on the use of these handouts.

The study consisted of 15 patients, over the course of six months (April-October 2016). Counseling and education was completed at the beginning and middle of each patient's chemotherapy cycle. At the end of the cycle, a Likert-scale and short answer survey was administered to determine patient satisfaction and whether any hospitalizations occurred.

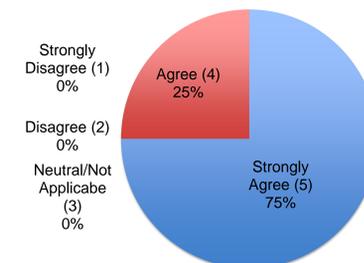
All patients participating in the study were asked for permission to be counseled and whether they would want to fill out the survey at the end of their cycle. To be included in the study, patients only had to receive chemotherapy in the infusion center being studied.

RESULTS

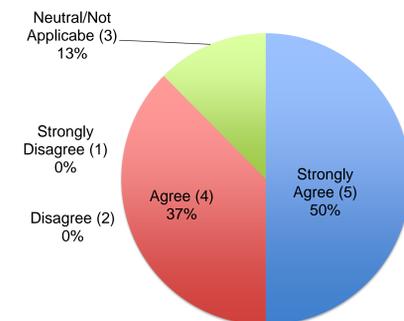
Question 1: I felt very knowledgeable about my chemotherapy regimen before the pharmacist counseled me



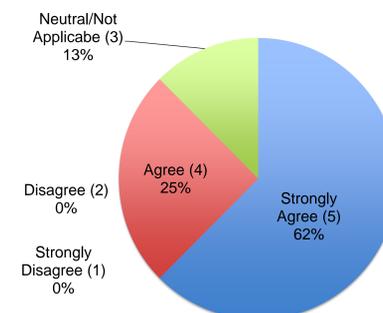
Question 2: I felt knowledgeable about my chemotherapy regimen after the pharmacist counseled me



Question 3: I knew exactly what to do when I had any side effects



Question 4: The pharmacist helped my understand exactly why and how the drugs worked



Eight patients completed the survey from the fifteen total patients enrolled. The results are shown above.

Figure 1: ED Admission Status

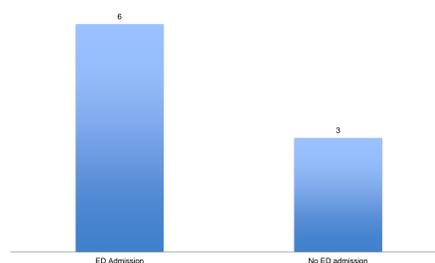
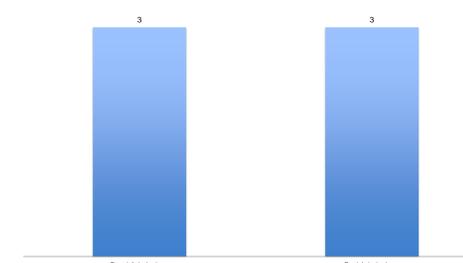


Figure 2: Type of ED Admission



Nine patients were analyzed for Emergency Department (ED) admissions. A "good admission" was considered an admission to the ED in which patients had followed counseling to remain at home up to the point of admission being required based on pharmacist's previous recommendations. A "bad admission" was considered an admission that could have been prevented by adhering to pharmacist counseling or receiving pharmacist counseling before chemotherapy.

CONCLUSIONS

New and complicated chemotherapy regimens require educated physicians, nurses, and pharmacists for patient counseling. Oncology pharmacists' counseling plays a key role in patient education. Based on the results of the survey, patients at North Fulton Hospital felt confident in their knowledge of the chemotherapy regimen, of what to do in the occurrence of side effects, and how/why their drugs work. In regards to Emergency Department admissions, half of them were "good admissions" based on pharmacists' recommendations; and the other half were before counseling, due to patient non adherence to recommendations or uncontrolled antiemetic therapy.



Some limitations of this study include the small population, various pharmacists giving counseling information, and not every pharmacist who counseled was trained in oncology. Time was also a limitation for many pharmacists due to their other clinical responsibilities, so some patients were not counseled until the 2nd or 3rd cycle of chemotherapy. If oncology patients were admitted to any other ED than North Fulton without relaying this information, these admissions may not have been included in the study for lack of knowledge. If patients reported side effects to their oncologists only, there was no direct communication between pharmacy and oncologists, so these side effects may be missed in reporting.

REFERENCES

- ¹ Avery, Mia; Williams, Felicia. *The Importance of Pharmacist Providing Patient Education in Oncology*. Journal of Pharmacy Practice 2015, Vol 28; 26-30.

The authors have nothing to disclose: Kayla Waymyers, Sonia Patel