Emergency Department Visits and Hospital Readmissions for Pain Management Among Palliative Care Patients with Advanced Cancer

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Introduction

- Common symptoms related with ED visits among patients with malignancies include pain, gastrointestinal symptoms, fever, and dyspnea (Siefert et al., 2015)
- Pain and shortness of breath are the leading symptoms for ED visits and hospital readmissions among palliative care patients with advanced cancer (Brant et al., 2019)

Background and Significance

- Palliative care is defined as a specialized branch of medicine that enhances the quality of life in people living with serious illnesses (WHO, 2016)
  - 7,618 board-certified palliative care physicians, 18,000 palliative care-certified nurses (Crook et al., 2019)
- Advanced cancer is defined as cancer that has spread from its primary location to adjacent tissue, lymph nodes, or distant parts of the body (NIH, 2017)
- 7.8 billion individuals living with cancer around the world (Canadian Institute for Health Information, 2018)
- 15.5 million people living with cancer in the US, and this is anticipated to increase to 26.1 million by 2040 (Rivera et al., 2017)
- 44% of these patients visit the ED yearly due to poorly managed disease symptoms, such as pain (Panattoni et al., 2017)
  - 53% of ED visits could have been avoided
  - 20.3% result in a hospital admission
- $1.7 million spent on pain related hospitalization among cancer patients per year
  - $884,000 spent on pain related ED visits among cancer patients per year

Needs Assessment

- In New Jersey there are a total of 25,500 men and 26,000 women diagnosed with a type of invasive cancer (NJDOH, 2018)
  - 5,557 individuals diagnosed in Bergen County
  - 36,025 oncology patients were admitted to the hospital or visited the ED in 2018
  - 10,224 ED visits and hospital admissions were among palliative care patients
  - 2,238 visits were contributed to cancer related pain
- The average cost of an ED visit is estimated to be $1,533 (AHRQ, 2020)
  - An outpatient palliative care visit is estimated to be $83.19 in 2020 (CMS, 2020)

Outpatient Pain and Palliative Care Clinic

- No formal data of the rates of ED visits or hospital readmissions for pain management among palliative care patients with advanced cancer
  - Estimated 10 to 25 per month
  - No follow-up communication practice to patients that visited the ED or were readmitted to the hospital for pain management
  - $38,325 has been spent per month on treating palliative care patients visiting the ED for pain control versus about $2,079 if treated in the outpatient setting

Contact Information

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Purpose Statement

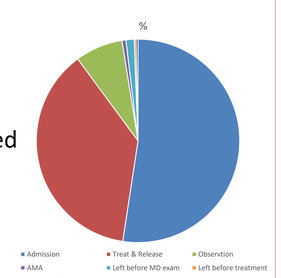
- To identify reasons pain and palliative care patients with advanced cancer were returning to the ED for pain management rather than the outpatient setting; identify interventions in the literature that address return visits to the ED; and make recommendations to the palliative care team as to which intervention should be tested to address this problem.

Methods

- **Design-** Quality Improvement project using a retrospective review of charts
- **Setting-** Outpatient pain and palliative care clinic housed in a large non-profit, teaching, and research hospital located in Northern NJ
- **Project Population**
  - **Inclusion Criteria**
  - Ages 25-90
  - Documented advanced solid tumor oncology diagnosis
  - Monitored in the outpatient palliative care clinic between July 1, 2019 until December 31, 2019
  - Patients monitored for pain management
  - All races & genders
- **Interventions**
  - Collect data on baseline patient engagement practices
  - Identify the number of palliative care patients with advanced cancer that visited the ED between July 1, 2019 until December 31, 2019
  - Identify reasons palliative care patients visited the ED or were admitted to the hospital for pain management
  - Quantify If communication or interventions were attempted prior to ED visit or hospital readmission
  - Quantify post discharge communication
  - Examine the literature to identify interventions that were beneficial in reducing ED visits and hospital readmission in various populations
  - Establish recommendations for pain and palliative team

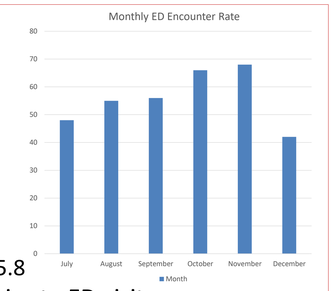
Results

- 147 patients with a total of 317 ED encounters
  - 52.4% - admissions
  - 37.5% - treated and released
  - 7.57% - observation services
  - 0.63% - AMA
  - 1.3% - left before being examined by a physician
  - 0.3% - left before being treated
  - 0.3% - sent for a procedure



Results

- Monthly ED encounter rate
  - 48, July
  - 55, August
  - 56, September
  - 66, October
  - 68, November
  - 42, December
  - Mean ED encounter per month- 55.8
- 46% of patient had communication prior to ED visit
- 30% post discharge communication
- No data on reasons patients went to the ED rather than the outpatient clinic
- Thorough outpatient engagement practices
- Recommendations
  - Follow-up phone calls, 48-72 hours post-discharge (Beise et al., 2014; Harrison et al., 2014; Jenq et al., 2016; Kotzsch et al., 2014; Miller & Schaper, 2015; Montero et al., 2016; Salmany et al., 2017)
  - Utilization of patient navigators (Balaban et al., 2015; Ingles, 2020; Horyna et al,. 2020; Seaberg, 2017)
  - Symptom clinic (Antonuzzo et al., 2017; Graze et al., 2015; Kuo et al., 2017; Mason et al., 2013; Xiao et al., 2020)



Discussion

- Monthly ED visits among pain and palliative care patients with advanced cancer for pain management was greater than the estimated amount by the pain and palliative care clinic
- More than half of the patients visiting the ED did not have any communication or intervention prior to ED visit or hospital admission
- 70% of patients visiting the ED did not receive any post-discharge communication
- PD was unable to conclude reasons patients visited the ED rather pain management rather than the outpatient pain and palliative care clinic due to lack of documentation in patients' charts
- PD was unable to correlate ED visits and hospital readmissions with age, gender, or race

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