4-29-2020

Incorporating a clinical pharmacist in an outpatient palliative care team

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PROVIDENCE Health & Services

Background

- The goals of palliative care are often different from the traditional goals of medicine. Patients with limited life expectancy unnecessarily have a large medication burden, which may increase the risk of adverse drug events due to side effects or drug-drug interactions.
- Several studies emphasize the need for medication de-prescribing in a variety of palliative care populations.
- Fahlman et al identified 44% of community dwelling elderly in their last year of life received at least one inappropriate medication based on the Beers criteria.[1]
- Holmes et al developed a census that rated the appropriateness of medications of 34 patients with advanced dementia. Results showed that 29% of patients were prescribed medication considered never appropriate and 21% of patients were prescribed a medication considered rarely appropriate.[2]
- Current studies demonstrating the integration of pharmacists in the palliative care setting are limited.
- Whitman et al assessed pharmacists de-prescribing interventions in older adults with cancer using three geriatric screening tools (Beers Criteria, STOPP and MAI). Results showed the pharmacists were able to identify and de-prescribe 73% of potentially inappropriate medications, with an average of 3 medications de-prescribed per patient.[3]
- The evaluation of the clinical pharmacist and their interventions may allow better care for palliative care patients and improve interdisciplinary care within the palliative care setting.

Objectives

- The primary objective is to evaluate the clinical pharmacist's role within an outpatient palliative care team performing medication reconciliation and review and to potentially streamline the work involved in the palliative care consult service. Medication review includes de-prescribing high-risk medications and optimizing medications in symptom management for palliative care patients.

Study Design

- The study utilizes the STOPPFrail and Beers criteria as a guide for de-prescribing potentially inappropriate medication, optimizing medication use or adding medication for symptom management. However, this does not exempt clinical decision making that relies on other patient factors.
- **Study Period**
  - January 2020 to February 2020
  - Study was followed up until March 2020
- **Primary Endpoints**
  - Number of medications discontinued
  - Number of recommendations accepted by provider
  - Number of medications recommended for symptom management
  - Time spent on chart/medication review
- **Inclusion criteria**
  - Adults at least 55 years of age
  - Enrolled in outpatient palliative care service
  - Have at least 5 routine medications at the time of consult

Methods

Telehealth

- A telehealth visit is a video consult conducted through Zoom platform and is initiated by the home health RN
- Nurse practitioners (NPs) screen patients for study eligibility as patients are scheduled for outpatient palliative care visits via telehealth
- Clinical pharmacist reviews chart prior to the visit and identifies potentially inappropriate medications and optimizing medication regimen
- Make recommendations to NP via a 3-way telehealth call with home health RN and NP
- NP passes on final recommendations to the PCP

Consult

- NPs initiate and request pharmacy consult on specific patients to review current medications and provide assessment
- Pharmacist reviews chart and/or interviews patient and provides recommendations to NP
- NP either accepts or denies recommendations and sends to PCP

Telephone

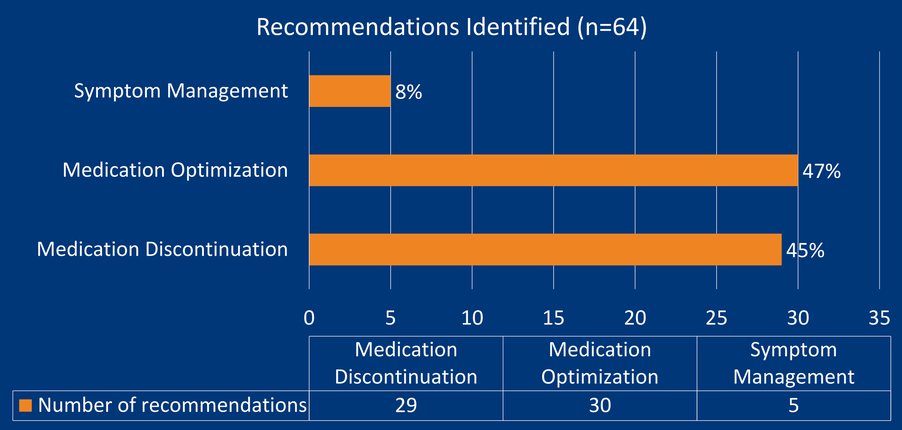
- Clinical pharmacist screens patients for study eligibility
- Prior to the scheduled home visit with NP, pharmacist initiates the interview to the patient via telephone or requests a medication administration record (MAR) to review current medications
- Pharmacist sends recommendations to NP at least 2 days prior to the visit
- After the visit and in consultation with NP, pharmacist sends recommendations to the PCP

Results

Baseline Characteristics	
Demographics, N=19	
Age, years, mean (range)	81 (63-95)
Sex, female, No. (%)	11 (58%)
Number of medications, average (range)	
Total	15 (5-23)
Scheduled	11 (4-17)
PRN	3 (0-10)
Number of patients taking, No. (%)	
Analgesic	15 (79%)
Opioid	4 (21%)
Non-opioid	11 (58%)
Long-term antibiotic	2 (11%)
Steroid	2 (11%)
Proton pump inhibitor (PPI)	11 (58%)
Lipid-lowering agent	11 (58%)
Ezetimibe	2 (11%)
Statin	9 (47%)
Anticoagulant	6 (32%)
Anticholinergics	3 (16%)
Aspirin	5 (26%)
Reason for Palliative Care Consult, No. (%)	
Dementia	4 (21%)
Heart failure	4 (21%)

Recommendations Identified (n=64)	
Medication Discontinuation, No.	
PPI	8
Lipid-lowering agent	2
Anti-hypertensives	4
Antiplatelets	2
NSAIDs	2
Urogenital agents	1
CNS agents	2
Memantine	1
Supplements	5
Antibiotic	2
Medication optimization, No.	
Therapy alternative	9
Dose adjustment	15
Administration	2
Therapy addition	4
Symptom management, No.	
Pain	3
Bowel Regimen	1
Appetite stimulant	1

Recommendations Accepted (n=6)	
Medications Discontinued	**3**
PPI	1
Supplement	2
Medication Optimized	**3**
Recommend antibiotic	1
Administration	1
Dose adjustment	1



Discussion

Findings

- The majority of patients were taking an analgesic, PPI and a lipid-lowering agent at baseline.
- Sixty eight percent of patients (n=13) were identified as taking at least one medication that is considered potentially inappropriate by STOPPFrail criteria.
- Clinical pharmacist was able to identify not only medications for discontinuation but also medications for optimization, which included adjusting the dose and switching to a more suitable therapy alternative based on safety or efficacy.
- While multiple methods of gathering data were used, the most utilized method was telephone interviews (n=13), followed by telehealth (n=4) and consult (n=2).
- A very small proportion of pharmacist recommendations were accepted by the provider.
- The average time spent on chart review was 1.5 hours.

Study Limitations

- Non-randomized trial with a small sample size and lack of control group for comparison
- Short duration of follow-up to track provider rejection or acceptance of recommendations and safety outcomes
- Scheduled patient visits may be cancelled, postponed or missed unexpectedly, which affected opportunities for intervention.
- Because the pharmacist is not formally integrated into the palliative care team, there was an educational component to patients and providers about the pharmacist's role.
- Changes to the pharmacist process (i.e. telehealth, telephone and consult) were made throughout the study. This may have led to inconsistent results as one method may have been more effective than another.
- A large barrier to utilizing telehealth was the lack of standardization of technology.
- The palliative care consult service makes recommendations to providers and does not change active medication orders. Since recommendations are written as progress notes and may be either faxed or sent through EMR message, there is limited certainty if the provider received the recommendations in a timely manner.
- Many patients had various specialists managing their care, which complicated sending recommendations to the most appropriate provider.

Conclusions

- Pharmacist involvement in outpatient palliative care may be valuable as evidenced by the number of interventions identified by the clinical pharmacist.
- Many patients were taking medications, such as lipid-lowering agents and PPIs, that may not be consistent with their goals of care based on the STOPPFrail criteria and may be subject to deprescribing.
- However, many barriers to providing meaningful interventions were identified in this study.
- While telehealth potentially provided convenience to the patient and caregivers, utilization by home health nurses was limited due to lack of standardization of technology.
- Telephone interviews made by the clinical pharmacist allowed proper medication reconciliation prior to the palliative care visit, but non-medication related issues, including hospice referrals, may be prioritized after the visit by the NP and the provider.
- Pharmacy consult requested by palliative care nurse practitioners allowed targeted efficiency, but it did not allow formal pharmacist integration in the outpatient palliative care team.
- Further studies quantifying the pharmacist's role in outpatient palliative care are warranted.

References

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