Comprehensive transition of care education program to improve medication adherence and compliance following orthopedic surgery

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Introduction

Transition of care is the involvement of health care providers with patients transferring between different care settings, which requires patient education to ensure safety.[1] It is imperative for patients to receive comprehensive education of medications prescribed to ensure adherence and compliance after hospital discharge. Multimodal pain management, treatment for opioid-induced constipation, venous thromboembolism (VTE) prophylaxis, and prevention of abnormal bone growth after total hip arthroplasty comprise the postoperative regimen for arthroplasty patients. Elective orthopedic surgery leads to multiple medication changes while transitioning care and polypharmacy could further complicate postoperative compliance. Polymedication and greater dosing frequency can eventually lead to an increased risk of disability, poor adherence, and adverse drug events.[2] For this reason, personalized medication calendars that contain detailed education of each medication are effective adherence aids used specifically at Northwell Health Syosset Hospital.

Objectives

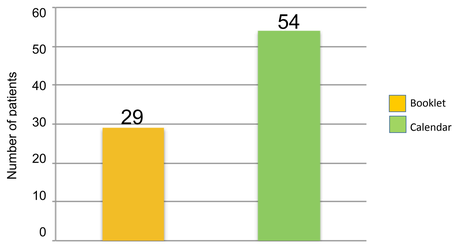
- Assessment of patients' utilization of discharge educational tools after total hip and knee arthroplasty to ensure medication adherence and compliance.
- Following total hip and knee arthroplasty, patients are provided with a Transition of Care booklet and a personalized medication calendar.

Methods

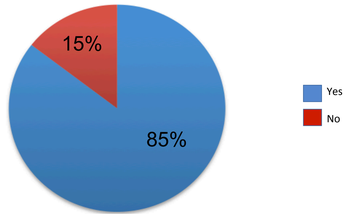
- Patients aged 18 and older who had a total hip arthroplasty (THA) or total knee arthroplasty (TKA) at Syosset Hospital in the prior 6 weeks were contacted postoperatively via phone.
- Study criteria excluded a medical history of Alzheimer's disease, dementia, and non-English speaking patients.
- All patients watched a Transition of Care video which discusses new medications prescribed, postoperative safety precautions, and potential drug interactions.
- An individualized patient calendar is prepared based on past medical history, surgery performed, chronic medications, and allergies. The calendar includes indication of the drug, start and stop date of the regimen, information to take each medication safely, and contact information of the clinical pharmacist. A Transition of Care booklet, which mirrors the information shown in the video, is provided to each patient with the medication calendar as a resource after discharge.

Results

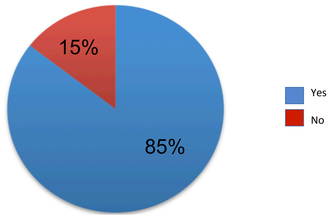
Patient utilization of Transition of Care booklet vs. personalized medication calendar



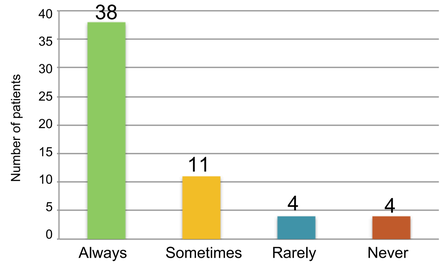
Did you find the Transition of Care booklet and medication calendar beneficial?



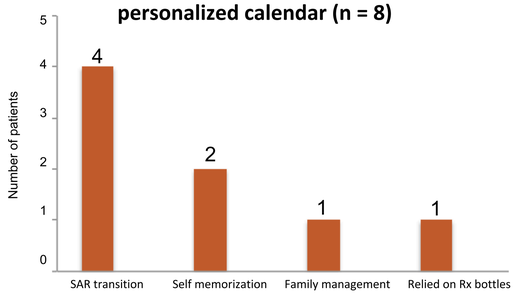
Did you find the calendar easy to use?



How often did you use the calendar?



Distribution of nonadherence to personalized calendar (n = 8)



Demographics (n = 62 patients)	n(%)
Sex	
Male	39 (24)
Female	38 (61)
Orthopedic Surgery	
Hip	19 (31)
Knee	43 (69)
Age	
Mean age	68

- The study group included 62 patients. Five patients were excluded when asked if they found the materials beneficial because the rehab facility changed their medications. The average patient age was 68 years with an age range from 49 to 89 years old. When analyzing discharge disposition, 66% (41 out of 62) were discharged home while 34% (21 out of 62) were discharged to subacute rehabilitation.
- Study endpoints were as follows: 47% (29 out of 62) read the Transition of Care booklet, and 87% (54 out of 62) used the medication calendar. Of the patients who went directly home, 98% (40 out of 41) used the calendar.
- Additional comments were suggested after surveying patients. The most common reason for patients to report nonuse was medication management by the rehabilitation facility.

Methods (cont'd)

- Patients were asked if they read the booklet, if they used the medication calendar, how often they used the calendar, if the calendar was easy to use, and if they found the calendar and booklet beneficial.
- Subgroup analyses such as gender, age, discharge disposition (directly home or subacute rehabilitation), and type of surgery were performed to identify any significant adherence patterns.

Conclusion

- This retrospective study was conducted to evaluate the utilization of a personalized discharge medication calendar and Transition of Care booklet after total joint arthroplasty.
- Overall, 87% of study patients used the calendar to guide medication management. Of those discharged directly home, 98% used the calendar and considered the calendar a useful tool.
- Results indicated that since all 62 patients watched the video before discharge, many did not read the booklet as this was a supplemental material to the video that provided the same information.
- Patient counseling is important upon discharge to prevent discrepancies in regimen and prevent further hospital readmissions.
- A limitation of this research project is that we surmised that those patients using the calendar were adherent to the medication regimens prescribed.

References

1. Kristeller J. Transition of care: pharmacist help needed. *Hosp Pharm*. 2014;49(3): 215–216. Accessed September 17, 2019.
2. Gamble JM, Hall JJ, Marrie TJ, Sadowski CA, Majumdar SR, Eurich DT. Medication transitions and polypharmacy in older adults following acute care. *Ther Clin Risk Manag*. 2014;10:189–196. Accessed September 17, 2019.

Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.
Ruchira Kasbekar: Nothing to disclose
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