

Patient-Reported Outcomes and Symptom Management Pathways to Reduce Preventable ED Visits and Hospitalizations for Patients with Cancer

BIDMC Center for Healthcare Delivery Science Innovation Grant Project (2017-2018)

Mohana Roy¹, Brian T. Halbert¹, Scott Devlin², and Jessica A. Zerillo³

Beth Israel Deaconess Medical Center, ¹Department of Medicine, ²Center for Healthcare Delivery Science, ³ Division of Hematology/Oncology

Introduction

- There is growing interest on improving quality and decreasing unnecessary emergency department (ED) use and hospitalizations in cancer patients
- The Centers of Medicare and Medicaid Services Oncology Care Model (OCM) has designed a multi-payer model focused on providing higher quality, more coordinated oncology care and a proposal slated to begin in 2020 specifically seeks to reduce preventable ED visit sand hospitalizations for patients receiving outpatient chemotherapy
- Routinely collecting patient reported outcomes (PRO) is increasingly being used to proactively manage care, instead of relying on traditional patient-initiated contact
- A 3 clinician retrospective review of 100 ED discharges at BIDMC found that about 40% were potentially preventable
- We found that three target symptom categories (pain, fever, and gastrointestinal symptoms) accounted both for highest proportion of overall visits and potentially preventable visits (Figure 1)

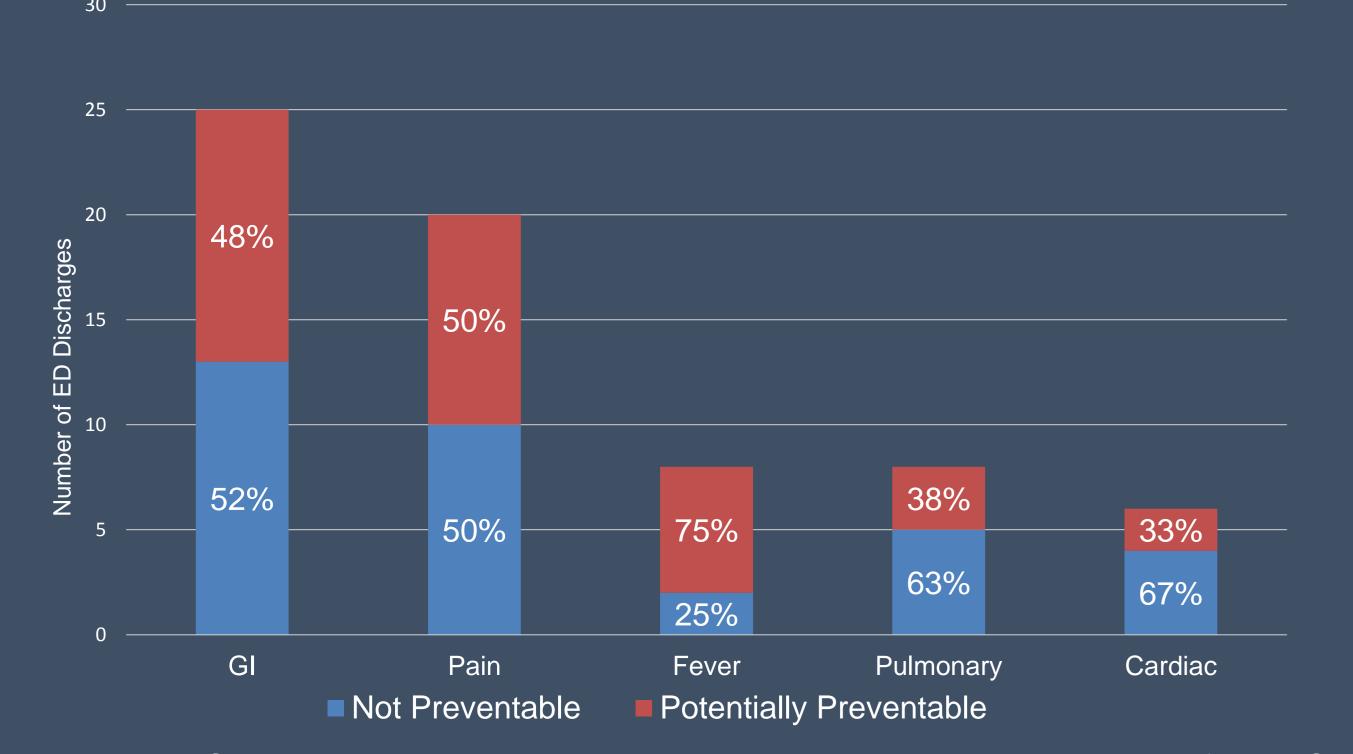


Figure 1: Symptom categories and potential preventable chart review rating of BIDMC cancer patients discharged from the ED (April-May 2016, February-March 2017)

Center for Healthcare Delivery Science Work in Progress

Meetings with consultants (Infectious Disease, Palliative Care)

Meetings with oncology attendings, ED residents and physicians

Nursing Coordinator and Leadership Meetings

Launch

Meeting

October 2017

Aims

Major Aim: To reduce ED visits through the development and implementation of symptom management pathways

Phase 1: Develop and implement standardized symptom management pathways for the most common preventable ED visits and hospitalizations in medical hematology/oncology

Phase 2: Design an electronic collection tool for proactive patient-reported outcomes and pilot implementation in gastrointestinal (GI) oncology

The Team

- Core Team: Mohana Roy- Internal Medicine; Brian Halbert- Oncology Hospital Medicine; Jessica Zerillo,- Hematology/Oncology; Scott Devlin- Center for Health Care Quality
- ED Team: Carrie Tibbles, Patrick Tyler, Jared Anderson, David Chiu- Emergency Medicine
- Data Collection: Victor Novak, Stephanie Li- Health Care Quality
 - Collaborators for designing outpatient pathways: Shapiro 7 and 9 BMT and Oncology nurse coordinators and nurse practitioners (especially Carol Pilgrim, Danielle Wright, Jo Unherhill) Hematology/Oncology attendings (Ayad Hamdan, Ben Schlecter, Robin Joyce, Malgorzata McMasters), Infectious Disease attendings (Mary LaSalvia, Carolyn Alonso), Palliative Care attending (Mary Buss), Pharmacist (Morgan Smith)

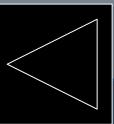
Interventions and Progress to Date

- 1. Designing outpatient and ED pathways
- 2. Building process for triage and using pathways in the clinic phone call setting
- 3. Preliminary data collection with pharmacy chemotherapy codes, baseline demographics, ED visit and hospitalization information
- 4. Meetings with collaborators as shown on the left
- 5. Working with media services to create pathway packets
- 6. RedCap set up to create PRO questionnaire

For more information, contact:

Mohana Roy, MD PGY3 Internal Medicine mroy1@bidmc.harvard.edu





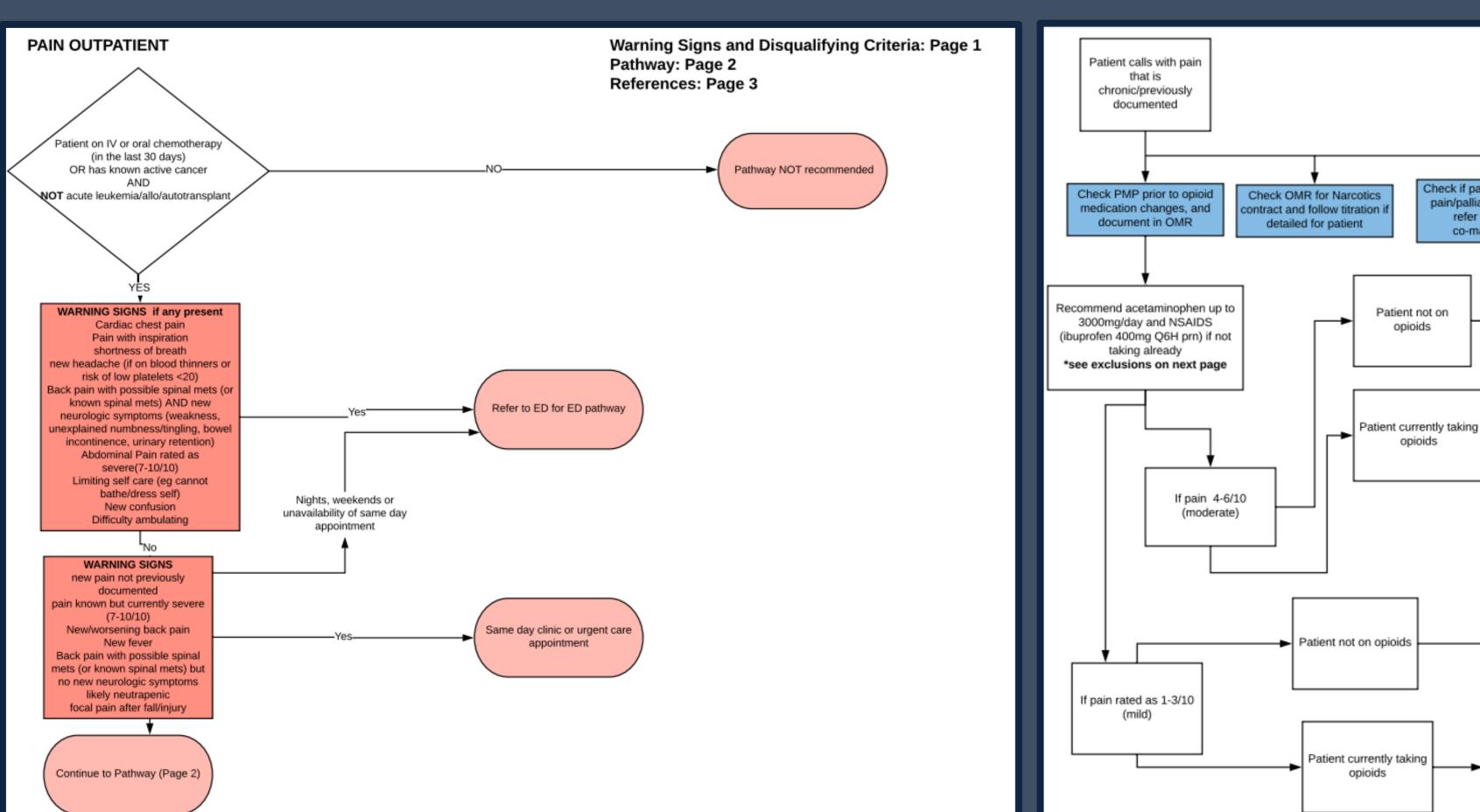


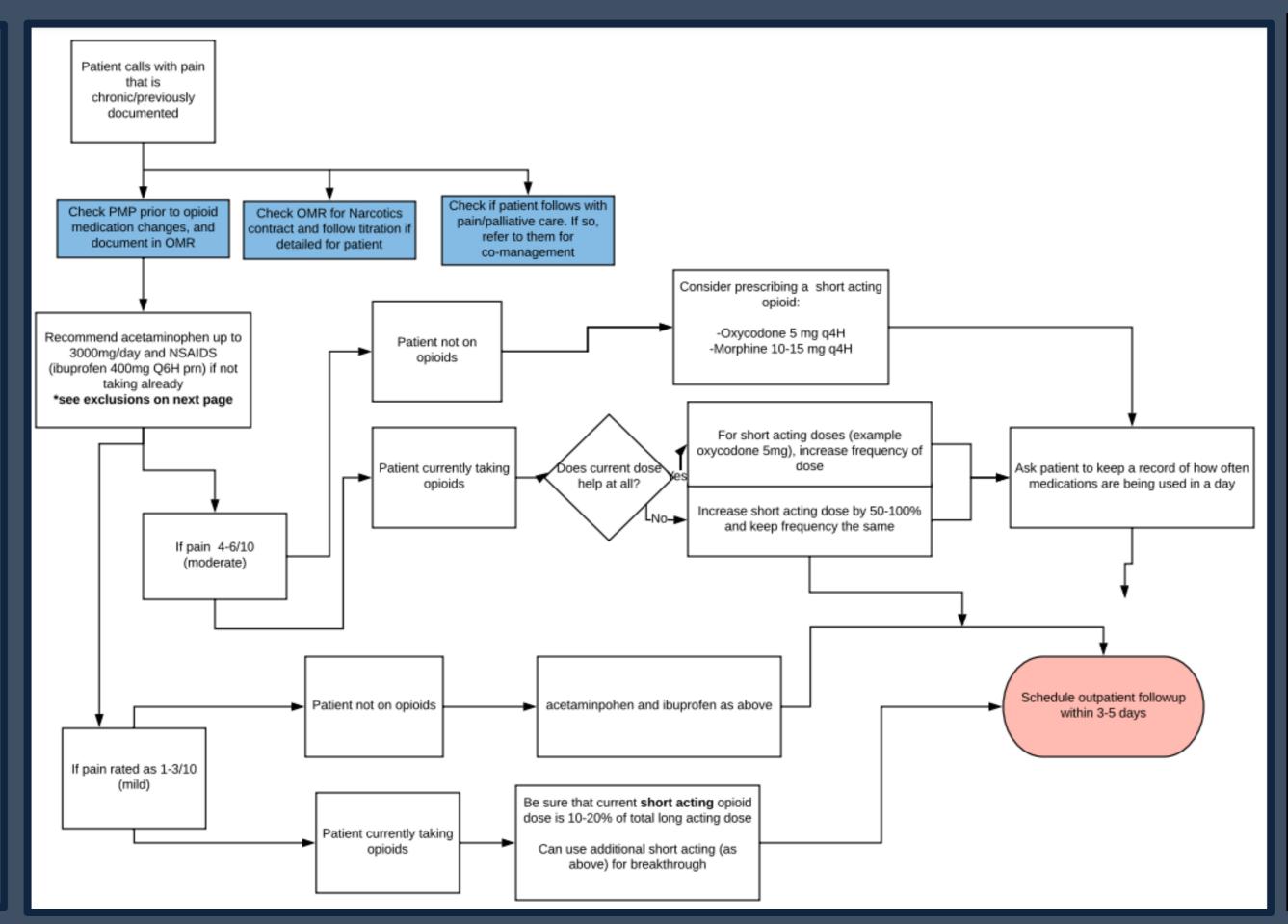
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Progress to Date





Opioid Equianalgesic Doses		
Drug	PO/PR (mg)	Subcut/IV (mg)
Morphine	30	10
OxyCODONE	20	n/a
HYDROcodone	20	n/a
HYDROmorphone	7.5	1.5
Methadone	See page #10 for conversion	
FentaNYL	n/a	0.1 (100 mcg)
(See page #11 for		
transdermal conversions)		
OxyMORphone	10	1

How to use the Opioid Equianalgesic Doses Table his data in this table represents approximate equianalgesic doses of the most commonly used pioids for the control of pain. In this table it can be inferred that for an opioid-naïve patient that a 10 g oral dose of oxyMORphone will provide a similar analgesic effect to 30 mg of oral morphine or 10 that occurs with chronic dosing and dosage adjustments must be considered when switching from

e opioid to another. An example of a conversion is presented below for review

A patient is on ER oxyCODONE 40 mg po q8h and oxyCODONE 15 mg (three 5 mg tablets) po q3h prn breakthrough pain. The patient's pain has been well controlled on this regimen, as only one rescue dose of 15 mg has been required for breakthrough pain each day. Oral administration has become contraindicated in this patient, and you wish to convert the pain management regimen to a continuous IV

Calculate the patient's total daily opioid requirement. Total daily dose (TDD) of oxyCODONE from ER oxyCODONE = 40 mg x 3 Total daily dose of oxyCODONE from three, 5 mg oxyCODONE tablets = 15 mg 120 mg oxyCODONE + 15 mg oxyCODONE = 135 mg oxyCODONE/day

Convert the daily requirement of the old opioid to that of the new opioid. 20 mg of oral oxyCODONE = 10 mg of IV morphine X = 67.5 mg IV morphine/day

(i.e., 67.5 mg IV morphine/day is equianalgesic to 135 mg po oxyCODONE/day Reduce dose by 25% for incomplete cross tolerance: ~50 mg IV morphine/day

References: Dana Farber Cancer Institute "Pink Book"

If patient is taking >3 breakthrough opiod doses/day

-Increase the dose by:

-25-50% of the q4-q6 h dose for short acting opioids -OR 25-33% of the q12 hour dose for long acting opioids -OR 10% of the total daily dose

https://www.mass.gov/files/documents/2017/10/02/247cmr5.pd

- Call pharmacy to ensure they can provide a 72-hour emergency release supply. Fax pharmacy an Rx with 72-hour supply.
- 3. Mail this Rx to the pharmacy.

may also be done if there is a pending prior authorization for an opiod prescription

NSAIDS restrictions: must have normal platelets, INR, kidney function and no risk of bleeding on blood thinners. Avoid use in patients with multiple myelmoma

acetaminophen restrictictions: must have normal bilirubin/liver function and not monitoring currently for fever, no possibility that neutrapenic

 CVS Pharmacy – at 587 Boylston Street, Boston, MA 02116. Ph: (617) 437-8414 CVS Pharmacy – at 210 Border Street, East Boston, MA 02128. Ph: (617) 567-5147

7. CVS Pharmacy – at 715 Morrissey Boulevard, Dorchester, MA 02122. Ph: (617) 822-1307 CVS Pharmacy – at 600 Southern Artery, Quincy, MA 02169. Ph: (617) 472-7534

.0. Walgreens – at 1010 Broadway, Chelsea, MA 02150. Ph: (617) 884-0917

Walgreens – at 430 Broadway, Revere, MA 02151. Ph: (781) 289-3607

 Walgreens – at 418 Quincy Ave, Quincy, MA 02169. Ph: (617) 472-4483 Walgreens – at 750 Washington St, Weymouth, MA 02188. Ph: (781) 331-5301

Figure 2: Current Pathway Design Model shown above, with sample Pain Pathway. All pathways have been designed in 3 sections: 1) Instructions and Warning Signs 2) Pathway 3) References

Lessons Learned and Next Steps

- Generalizing care for a heterogeneous and complex patient populations is challenging
- Developing clinical pathways is an iterative process that requires involvement of multiple stakeholders
- Developing a new system for clinical action also requires creation of guidelines for a best practice process
- It is important to discuss how best to collect outcomes data in the most standardized way possible, especially in quality improvement projects

- Planned launch of outpatient pathways at the end of March 2018
- Start recruitment for pilot PRO project in the BIDMC GI oncology group
- Create online link for PRO survey with plan to disseminate survey through PatientSite
- Baseline data analysis with pre-post comparison

For more information, contact: