

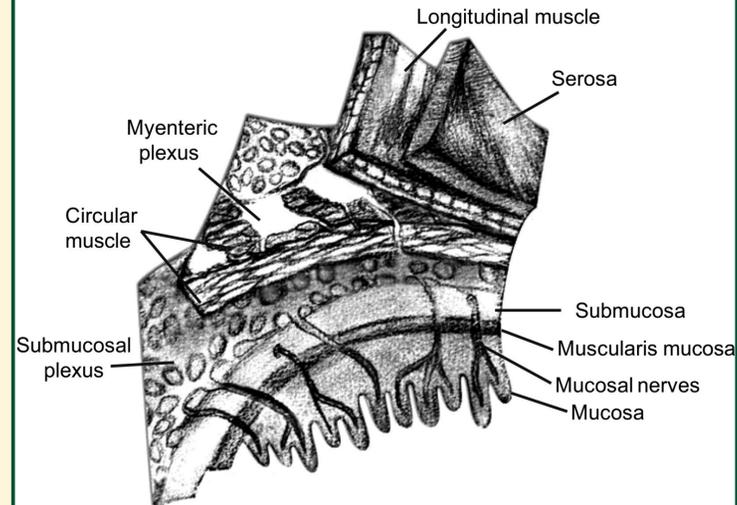
## Background

- Opioids are frequently used for symptom management in hospice and palliative care patients
- Opioid-induced bowel dysfunction (OBD) is a commonly seen side effect with an estimated prevalence of almost 90% in these patients<sup>1</sup>
- In order to address OBD, the National Quality Forum recommends tracking the “percentage of vulnerable adults treated with an opioid that are offered/prescribed a bowel regimen or documentation of why this was not needed”
- This project measures how frequently a local hospice prescribes a bowel regimen to patients on opioid therapy or documents why this is not needed

## Opioid-Induced Bowel Dysfunction

- Stems from exogenous opioids activating mu receptors in the GI tract (see Figure 1)
- Main symptom is constipation but includes a spectrum of gastrointestinal symptoms including reflux, abdominal pain, nausea and vomiting
- Causes significant adverse effects on quality of life
  - Poor performance status and decreased ability to perform activities of daily living<sup>2</sup>
  - Bowel obstruction, urinary retention, delirium, dehydration, death
  - Non-compliance with opioids leading to increased pain
- There is evidence suggesting that using prophylactic bowel regimens with opioid therapy leads to improved quality of life<sup>3</sup>

## Pathophysiology of OBD



*The GI tract has a complex enteric nervous system including mu opioid receptors found between the submucosal and myenteric plexi. Opioids interfere with normal GI function causing decreased mobility, less fluid secretion, delayed transit time in the colon, increased sphincter tone, and inhibition of defecation. Figure adapted from Schetzline and Liddle.*

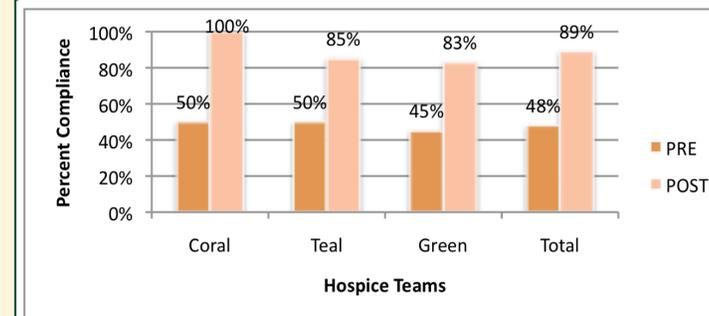
## Methods

- Three hospice teams caring for ~200 patients total were randomly selected from Hospice of Palm Beach County, a large, local, non-profit hospice
- With the help of the Hospice of Palm Beach County pharmacists, patients prescribed scheduled opioids were identified
- Patients on standing opioids were manually reviewed to see if they were also prescribed a bowel regimen or had documentation as to why this was not needed

## Intervention

- In an attempt to improve compliance, preliminary results as well as education on OBD were presented to the three test teams. Team nurses and physicians were provided a list of patients on scheduled opioids and asked to assess these patients for a bowel regimen. Going forward, teams were asked to review new patients newly started on opioids for a bowel regimen
- After 5 weeks, the three test teams were reviewed again for compliance

## Results



## Conclusions

- Prior to intervention, there was only 48% compliance with hospice teams prescribing a bowel regimen to patients on scheduled opioids or documenting why this was not needed
- After education and intervention, results improved dramatically to 89% compliance
- Review of electronic medical order entry versus providers’ narrative notes revealed some of the non-compliance to be related to providers not updating the electronic medication list

## Next Steps

- Results have been presented to the medical staff, who provided input on how to standardize the process of prescribing a bowel regimen to patients taking scheduled opioids or documenting why this was not needed
- Test team physicians are presenting final results to test teams and eliciting feedback on how to increase compliance while not impeding provider workflow
- Collaboration is ongoing with pharmacy, P&T committee, and administrators of electronic medical record to discuss providing reliable cues to providers to prescribe a bowel regimen whenever scheduled opioids are being used
- Goal is to for compliance to be reliable, reproducible, universal, and efficient

## References

1. Sykes NP: An investigation of the ability of oral naloxone to correct opioid-related constipation in patients with advanced cancer. *Palliat Med* 1996;10:135–144.
1. Panchal SJ, Muller-Schwefe P, Wurzelmann JI: Opioid-induced pathophysiology and burden. *Int J Clin Pract* 2007;61:1181–1187.
1. Myotoko M, et al.: Reduction of Opioid Side Effects by Prophylactic Measures of Palliative Care Team May Result in Improved Quality of Life. *J Pall Med* 2010; 13: 401-406