Clinical and Economic Considerations in Chronic Pain Management:

Opioid-Induced Constipation (OIC) in Patients Receiving Opioids for Chronic Non-cancer Pain

Overview

Economic Burden

Quality of Life and Productivity

Clinical Burden

Summary

Overview

- The common side effects of chronic pain management with opioids, including OIC
- The pathophysiology, characteristics, and current management of OIC
- The clinical burden of OIC and unmet need in patients with chronic pain
- The potential impact of OIC on health care utilization and health care costs

Considerations in Chronic Pain Management With Opioids

Opioids are a commonly selected treatment for patients with a variety of chronic pain conditions who have not adequately responded to other treatment options[1-3]

- Common conditions necessitating opioid treatment for chronic, non-cancer pain include muscle, joint, and limb pain[4]

Common Side Effects of Opioids Include[5,6]

- Constipation
- Sedation
- Nausea
- Vomiting

- OIC is one of the most common side effects of opioids[5]
- OIC can occur at the initiation of opioid therapy[5,7]
- Unlike some other opioid-induced side effects, OIC may persist for the duration of opioid use[5,7]

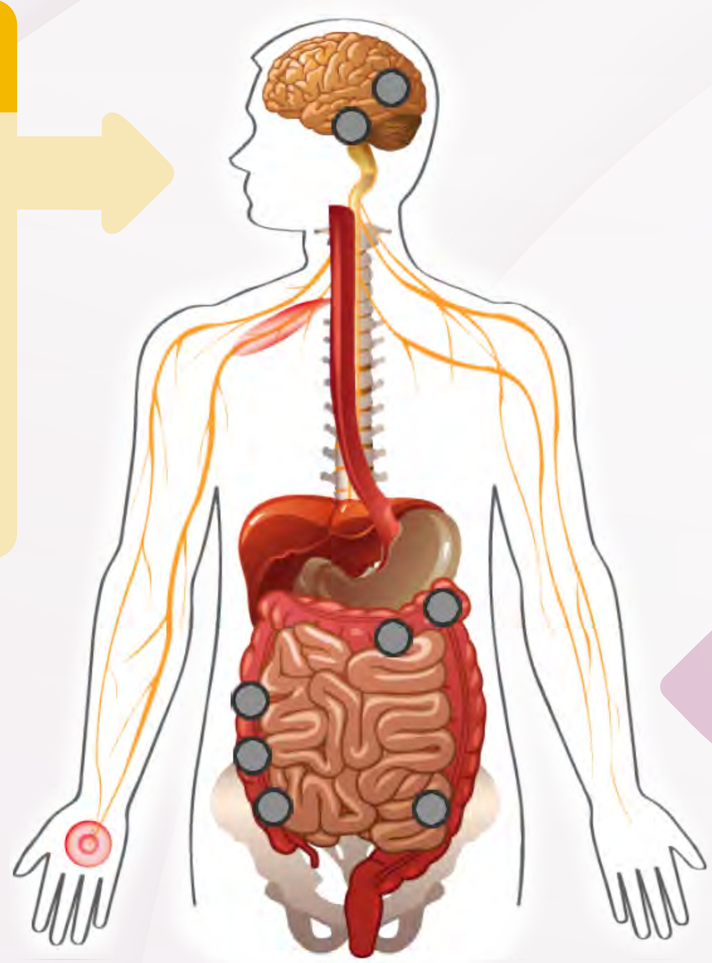
1. American Academy of Pain Medicine. http://www.painmed.org/files/use-of-opioids-for-the-treatment-of-chronic-pain.pdf. Accessed September 13, 2014. 2. Gore M et al. *Spine*. 2012;37(11):E668-E677. 3. Zhang W et al. *Osteoarthritis Cartilage*. 2008;16(2):137-162. 4. Cicero TJ et al. *Pain*. 2009;144(1-2):20-27. 5. Benyamin R et al. *Pain Physician*. 2008;11(suppl 2):S105-S120. 6. Inturrisi CE. Clin J *Pain*. 2002;18:S3-S13. 7. Becker G, Blum HE. *Lancet*. 2009;373(9670):1198-1206.

OIC Is Caused by Binding of Mu-Receptors in the GI Tract

- Opioid receptors, including the subtypes mu, delta, and kappa, are widely distributed throughout the central nervous system (CNS), peripheral nervous system (PNS), gastrointestinal (GI) tract, and other tissues[1]

CNS

Binding to mu-opioid receptors by opioids in the CNS primarily mediates analgesia[2]



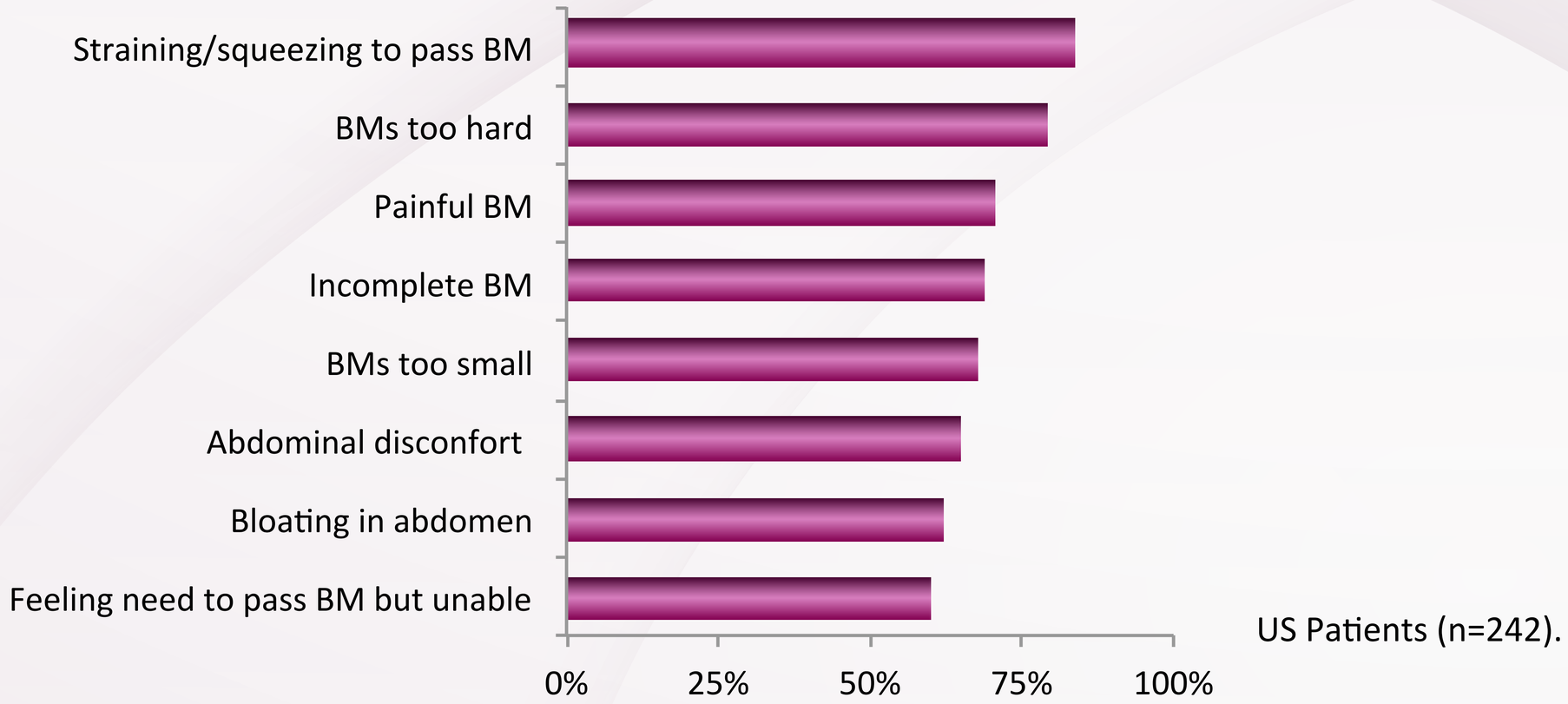
GI

Binding to mu-opioid receptors by opioids in the GI tract leads to OIC and other side effects[2]

1. Camilleri M. Am *J Gastroenterol*. 2011;106:835-842. 2. Brock C et al. *Drugs*. 2012;72:1847-1865.

OIC Has a High Symptom Burden

Most Common Symptoms of Moderate or Greater Severity on PAC-SYM (≥60%)*

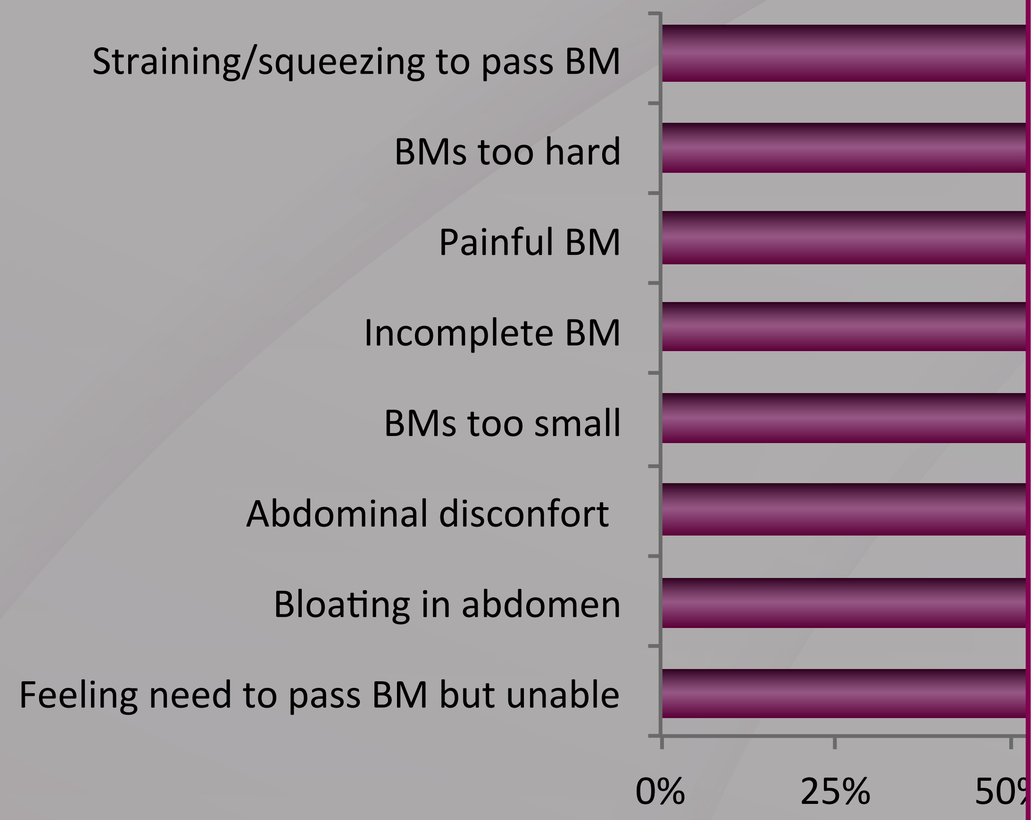


Patients also experienced moderate to severe rectal burning (45%) and rectal bleeding or tearing (25%)

BM=bowel movement; PAC-SYM=Patient Assessment of Constipation-Symptoms.
*A 12-item measure that assesses 3 subscales, ie, stool, rectal, and abdominal symptoms.
Coyne KS et al. Clinicoecon Outcomes Res. 2014;6:269-281.

OIC Has a High Symptom Burden

Most Common Symptoms of
Greater Severity on PAC-S



Patients also experienced modera
burning (45%) and rectal bleedir

BM=bowel movement; PAC-SYM=Patient Assessment of Constipation-Symptoms.
*A 12-item measure that assesses 3 subscales, ie, stool, rectal, and abdominal symptoms.
Coyne KS et al. Clinicoecon Outcomes Res. 2014;6:269-281.

Key Point: OIC is associated with a high symptom burden.
In the US cohort (n=242) of an ongoing, prospective, longitudinal, multinational study in patients with chronic non-cancer pain and self-reported OIC (N=493), the most common symptoms of moderate or greater severity included: straining/squeezing to pass bowel movement (BM) (84%), BMs too hard (79%), painful BMs (71%), incomplete BM (68%), BMs too small (68%), abdominal discomfort (65%), abdominal bloating (62%), and feeling the need to pass a BM but unable to (60%). Similar results were noted in the overall population
Patients in this study also experienced moderate to severe rectal burning (45%) and rectal bleeding or tearing (25%), which contribute to the overall symptom burden of OIC

Additional Background
Coyne et al published baseline results from an ongoing longitudinal, multinational study to assess the burden of OIC in adult patients with non-cancer pain using a combination of a patient survey, retrospective data abstraction from medical records, and a physician survey. A total of 493 participants with self-reported OIC and confirmed daily opioid therapy for ≥4 weeks were included in the study. Participants completed the following questionnaires: Patient Assessment of Constipation-Symptoms (PAC-SYM) to assess patient-reported symptoms and severity of symptoms over the previous 2 weeks; Work Productivity and Activity Impairment Questionnaire (WPAI-SHP) to assess the effect of constipation on work productivity, daily activities, and classroom impairment over the past 7 days; EuroQOL 5 Dimensions (EQ-5D) to assess participants' full health status; and Global Assessment of Treatment Benefit, Satisfaction, and Willingness to Continue (BSW) to capture participants' perception of the effect of their treatment in terms of benefits, satisfaction, and willingness to continue treatment.

Reference
Coyne KS, LoCasale RJ, Datto CJ, Sexton CC, Yeomans K, Tack J. Opioid-induced constipation in patients with chronic noncancer pain in the USA, Canada, Germany, and the UK: descriptive analysis of baseline patient-reported outcomes and retrospective chart review. Clinicoecon Outcomes Res. 2014;6:269-281.