## SUPPLEMENTAL DIGITAL CONTENT

### SUPPLEMENTAL DIGITAL CONTENT, TABLE 1. Summary of Rome IV criteria for classification of common functional gastrointestinal diseases that are often associated with abdominal cramping pain symptoms.

| Functional gastrointestinal disease classification | Definition |
|---------------------------------------------------|-------------|
| Irritable bowel syndrome                          | Recurrent abdominal pain, occurring on at least 1 day/week over the past 3 months, which is associated with defecation or a change in bowel habits (frequency or appearance of stools) |
| Functional dyspepsia                              | One or more of the following: |
|                                                   | • Feeling full after a meal |
|                                                   | • Feeling full before finishing a meal (early satiety) |
|                                                   | • Upper abdominal (epigastric) pain |
|                                                   | • Upper abdominal burning |
| **Subtype: Postprandial distress syndrome**       | comprising one or both of the following on at least 3 days/week: |
|                                                   | • Bothersome fullness after a meal (ie, severe enough to impact on usual activities) |
|                                                   | • Bothersome feeling of fullness during a meal (ie, severe enough to prevent finishing a regular size meal) |
| **Subtype: Epigastric pain syndrome**             | comprising one or both of the following on at least 1 day/week: |
|                                                   | • Bothersome upper abdominal pain (ie, severe enough to impact on usual activities) |
| Functional gastrointestinal disease classification | Definition |
|----------------------------------------------------|-------------|
|                                                     | • Bothersome upper abdominal burning (ie, severe enough to impact on usual activities) |
| Biliary pain                                        | Pain in the upper abdomen and/or right-sided upper quadrant, and all the following: |
|                                                     | • Builds up to a steady level and lasts 30 min or longer |
|                                                     | • Occurs at different intervals (not daily) |
|                                                     | • Severe enough to interrupt daily activities or lead to an emergency department visit |
|                                                     | • Not significantly (<20%) related to bowel movements |
|                                                     | • Not significantly (<20%) relieved by a change in posture or use of medications to reduce stomach acid |
| Narcotic bowel syndrome*                             | All the following: |
|                                                     | • Long-lasting or frequently recurring abdominal pain (occurring on most days) that is treated with high-dose or long-term opioid medications |
|                                                     | • The pain is not explained by a current or previous gastrointestinal diagnosis |
|                                                     | • Two or more of the following: |
|                                                     | o The pain worsens or does not resolve completely with continued or increasing doses of opioids |
|                                                     | o There is marked worsening of pain when the opioid dose wears off and improvement when the next dose is taken (soar and crash) |
**Functional gastrointestinal disease classification**

| Definition |
|------------|
| - There is a progression in the frequency, duration, and intensity of pain episodes |

**Centrally mediated abdominal pain syndrome**

| All the following: |
|-------------------|
| - Continuous or nearly continuous abdominal pain |
| - No or only occasional relationship of pain with eating, defecation, or menstruation |
| - Pain limits some aspect of daily functioning (eg, work, sex life, social/leisure activities, family life, caregiving) |
| - The pain is not feigned |
| - The pain is not explained by another gastrointestinal disorder or medical condition |

*Also referred to as opioid-induced gastrointestinal hyperalgesia.*