Managing Opioid Side Effects
Discussion Questions and Faculty Guide
Discussion Leader: ask the group the numbered, bolded questions. Guide the group to cover the key bulleted points that follow each question.

1. **What are the most common opioid side effects?**
   - Constipation
   - Sedation
   - Nausea and vomiting
   - Pruritus

2. **Which side effects are less common?**
   - Confusion or mental clouding
   - Hallucinations and nightmares
   - Respiratory depression
   - Urinary retention
   - Myoclonic jerks

3. **What are some basic principles that apply to management of all opioid side effects?**
   - Remember, there is great individual variation in the frequency and severity of side effects
   - Side effects can be managed and are often transient in nature
   - Tolerance develops to most side effects within a few days of consistent dosing. Tolerance does not develop to constipation
   - Anticipate and treat side effects. There are several possible approaches. Add another drug to counteract the side effect. Decrease the dose of the opioid and give the dose more frequently, or try an alternate route. If these efforts are ineffective, it may be necessary to switch to a different opioid.

4. **How should opioid induced constipation be managed?**
   - Treatment should be proactive and ongoing as long as the patient is receiving regular doses of an opioid
   - Patient education is critical
   - Keep the treatment regimen simple
   - Increase dietary fiber and fluid intake if possible.
   - Almost all patients will require the use of a laxative such as milk of magnesia, casanthranol, senna, or sorbitol.
   - Products that contain psyllium (Metamucil, Citrucel, Fiberall) are not first line choices and can only be used if the patient can drink at least 2 liters of fluid each day

5. **How should nausea and vomiting be managed?**
   - When nausea or vomiting occur, it is helpful to give a scheduled antiemetic for several days until tolerance to this side effect develops
   - Drug selection can be based on the nature of the patient’s report of nausea. For example, if the patient states that movement makes it worse they may want to try a drug that is used for motion sickness such as an antihistamine or scopolamine.
   - Opioids slow transit through the gut, resulting in constipation, which can amplify the patient’s nausea. Because of this, antiemetics that increase stomach emptying such as cisapride or metoclopramide may be helpful
   - Other antiemetics such as prochlorperazine or haloperidol, which block the chemoreceptor trigger zone that opioids stimulate, may be helpful.
   - Remember, antiemetics can compound sedation
   - Dividing the 24-hour opioid dose up into smaller, more frequent doses may help

6. **What is the risk of respiratory depression and how should opioid induced sedation be approached?**
   - When opioids are used appropriately the risk of developing clinically significant respiratory depression is <1%.
   - Factors which may increase the risk of respiratory depression include: advanced patient age, liver or kidney insufficiency, rapid escalation of opioid doses (especially rapid titration of a long acting opioid), co-administration of other sedative agents or the presence of a respiratory disease which limits respiratory reserve.
   - Respiratory depression is rare in patients who have been taking opioids on a regular basis for more than a few weeks
   - Respiratory depression is preceded by progressive sedation and can often be managed by simply reducing the dose of the opioid.
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Teaching Guide - Case Study
Discussion Leader: make copies of the cases below. Separate your group into teams of no more than 5. Give them 5-10 minutes to review each case, and then bring them together to discuss possible approaches to the case. Use the list of possible interventions listed on the opposite side of this card to facilitate the large group discussions.

Case 1
You’ve been assigned to visit a 62-year-old woman with a non-healing venous stasis ulcer on her ankle. She has a history of multiple medical problems including insulin dependent diabetes, peripheral vascular disease, and coronary artery disease. She takes gabapentin (Neurontin) 300mg TID for chronic neuropathic pain in both lower legs. Two days ago, she was started on short acting oral morphine 5-10 mg q4 hours prn for her leg ulcer pain. During your assessment she states the morphine controls her pain as long as she takes at least three 5mg doses a day. However she reports feeling nauseous for several hours after each dose and needs to lie still to avoid vomiting.

Case 2
Mr. Smith is a 54-year-old gentleman with lung cancer. To control his pain from bony metastasis he takes 120mg of extended release oral morphine TID, with one to two 30mg doses per day of short acting oral morphine for breakthrough pain. In addition he takes amitriptyline (Elavil®) 75mg at bedtime and casanthranol with docusate (Pericolace®) two tabs TID. Since his most recent opioid dose increase a week ago he has noticed his bowel movements have become smaller in volume and less frequent (only one in the last 4 days). What would you recommend to adjust his bowel management regimen and why? If your first idea doesn’t work what would you try next?

Discussion Guide
Case 1 - Nausea
1. Assess other factors and medications that may be contributing to nausea
2. Administer antiemetic on fixed schedule:
   To block the chemoreceptor trigger zone:
   • Prochlorperazine (Compazine®) 5-20mg PO q4h
   • Chlorpromazine (Thorazine®) 10-25mg PO q4h
   • Haloperidol (Haldol®) 0.5mg q12h to 1.0mg PO q4h
   To aid in gastric emptying:
   • Cisapride (Propulsid®) 10-20mg PO ac + hs
   • Metoclopramide (Reglan®) 10mg q8h to 20mg PO ac + hs
   If vestibular component suspected:
   • Meclizine (Antivert®) 12.5mg qd to 25 mg PO q6h
   • Scopolamine (Transderm-Scop®) 1 patch q 3d
3. Relieve constipation
4. Change dosing regimen. Rather than large doses, the patient may tolerate smaller more frequent doses. For example, a patient receiving sustained release morphine 300mg q12h may better tolerate a regimen of 200mg q8h.
5. Change to different opioid

Case 2 - Constipation:
1. Increase fiber and fluids if possible
2. Warm liquids often help
3. Mild to moderate exercise if possible
4. Avoid psyllium-based products (Metamucil®, Citrucel®, Fiberall®) if the patient is unable to drink at least 2 liters of fluid per day.
5. Initiate treatments for constipation
   Administer on fixed schedule one of the following:
   • Casanthranol and docusate (Pericolace®) or docusate (Colace®) 1-2 tabs BID
   • Senna and docusate (Senokot S®) 2-4 tabs BID
   if needed, add one of the following:
   • Magnesium hydroxide (Mild of Magnesia®)15-60 ml qhs
   • Bisacodyl PO 10-30mg q hs or suppository
   • Lactulose 30-60 ml qd to TID
   • Magnesium citrate 8 oz
   if constipation persists:
   • Fleets®, tap water, or oil retention enema
6. Consider transdermal fentanyl as alternative opioid
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Post-test Questions

1. Opioid side effects include all but which of the following:
   a. Pruritis
   b. Kidney and liver damage
   c. Sedation
   d. Constipation

2. Tolerance usually develops within a few days to all but which of the following opioid side effects
   a. Respiratory depression
   b. Sedation
   c. Constipation
   d. Nausea

3. Which of the following is an important point for patient and family teaching?
   a. Sedation is a common and persistent side effect, which usually requires that the patient also take a scheduled stimulant.
   b. Sedation often limits the amount of opioid a patient can take over time.
   c. Sedation is common after a patient starts or increases the dose of an opioid and usually goes away a few days.
   d. Prior sleep deprivation due to unrelieved pain plays little to no role in the sedation a patient initially experiences after starting an opioid.

4. Medications that may be useful for opioid induced nausea include:
   a. prochlorperazine (Compazine®)
   b. an antihistamine (e.g. Benedryl®)
   c. metoclopramide (Reglan®)
   d. All of the above

5. Risk factors for opioid-induced respiratory depression include all but which of the following?
   a. The patient is opioid naive
   b. Liver or renal insufficiency
   c. Chronic opioid therapy
   d. COPD or other respiratory diseases

6. When a patient on opioids develops pruritis:
   a. discontinue the opioid since the pruritis means the patient is allergic.
   b. immediately administer IV epinephrine
   c. institute measures to soothe the skin and ask the physician to prescribe an antihistamine
   d. All of the above