Module 2: Pain Management
Supplemental Teaching Materials/Training Session Activities Contents

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Module 2
Table 1: Pain Management Guidelines & Opioid Conversion Table

PAIN MANAGEMENT GUIDELINES

1. **Use a multi-modal drug approach. Combine opioids with non-opioids and adjuvant analgesics as indicated. Integrate nonpharmacological approaches when feasible.**
2. **Base administration schedule on the analgesic's duration of effect. Best to use sustained release opioids for scheduled dosing and always use immediate release opioids for rescue or breakthrough dosing. Do not cut, crush or chew extended-release preparations. Some preparations include capsules that can be opened; sprinkles can be put in food/enteral feedings (check package insert).**
3. **In opioid naïve patients start with low dose, short acting opioids and titrate for effect.**
4. **Acetaminophen (APAP): Do not exceed 3000 mg q 24 hours for adults; and for older adults do not exceed 2000 mg q 24 hrs. Use lower doses or omit APAP if liver disease, review prescribed combination products as well as over the counter (OTC) medications.**
5. **Non-invasive routes preferred. For severe pain or rapidly escalating pain, it may be necessary to provide intravenous analgesics until the pain is managed. If oral, rectal, or transdermal dosing is no longer practical or appropriate, continuous subcutaneous or intravenous infusions are indicated.**
6. **Mild Pain: Start with simple analgesics; acetaminophen (APAP) or NSAIDs, with adjuvant analgesics as appropriate [for neuropathic pain].**
7. **Moderate to Severe Pain: When pain does not respond to non-opioid analgesics and adjuvants, consider adding an opioid. Drugs with APAP, ASA or NSAIDs in combination with opioids limit flexibility of dosing.**
8. **Titration: Increase by 25 to 50% for moderate pain; increase by 50 to 100% for severe pain. Calculate amount of opioid taken in last 24 hours [add breakthrough + maintenance doses] and administer as new 24-hour maintenance dose; calculate new breakthrough dose.**
9. **Breakthrough Pain Dosing: Scheduled dosing will maintain stable serum drug levels and provide consistent relief. Patients on long acting opioids or continuous parenteral infusions must have an order for breakthrough pain medication. Frequent [generally more than 4 doses/24 hours] breakthrough dosing requires a change in the scheduled sustained release drug dose. Oral breakthrough dose is ≈ 10-20% of the oral 24 hour baseline dose. Peak effect of immediate-release oral opioid is ≈ one hour; may repeat dose every one hour if patient is not overly sedated. IV/SQ breakthrough dose is ≈ 50 to 100% of the hourly IV/SQ rate. Peak effect of IV opioids is ≈ 10-15 minutes; may repeat dose every 15 minutes if patient not overly sedated. Peak effect of SQ opioids is ≈ 30 minutes; may repeat dose every 30 minutes if patient not overly sedated. IM dosing not recommended.**
10. **Opioid rotation may be warranted when escalating doses are ineffective in relieving pain or when adverse effects persist despite aggressive management. When changing drug or route of administration, use equianalgesic doses. See drug chart on other side. If changing from one drug to another, the new drug may be more effective, because of differences in potency or drug bioavailability. Start at 50-75% of the amount calculated using the equianalgesic tables. Make sure breakthrough medication is available and titrate dose according to individual patient response. Consult pain or palliative specialist when switching to and from methadone.**
11. **Prevent and manage opioid side effects aggressively. Patients never become tolerant to the constipating effects of opioids. Always start stimulant laxative/softener combination with initiation of opioids.**
12. **To discontinue opioids taper gradually (10% per week reduction or slower) to patient response to avoid withdrawal symptoms.**
13. **Always educate patients and caregivers about pain medications, side effect management, safe storage, and disposal.**

PAIN SOURCES	PAIN CHARACTER	DRUG CLASS/EXAMPLES
Nociceptive or Somatic Pain	Well localized. Aching, throbbing	— Acetaminophen/NSAIDs — Opioids
Visceral Pain	Injury to sympathetically innervated organs. Pain is vague in quality. Deep, dull, aching. Referred pain.	— NSAIDs — Corticosteroids — Opioids

Neuropathic Pain	Results from damage to peripheral or central nervous system or both. Dysesthesia, burning, tingling, numbing, shooting electrical pain. May require higher doses of opioids.	Adjuvants — Anticonvulsants: gabapentin (Neurontin®), pregabalin (Lyrica®) — Tricyclic Antidepressants: nortriptyline (Pamelor®), desipramine (Norpramin®) — SNRI Antidepressants: duloxetine (Cymbalta®), venlafaxine (Effexor®) — Corticosteroids — Topical Anesthetic, lidocaine Patch 5% (Lidoderm®) or OTC lidocaine patch 4% — Opioids
SIDE EFFECT	**OPIOID SIDE EFFECT MANAGEMENT (See NRE Symptom Card)**	
Constipation	Tolerance to opioid related constipation does not occur. Start with combined senna as stimulant and docusate (Colace®) as softener. Max 8/day. If no BM in 2 days, add a laxative [bisacodyl, lactulose, magnesium hydroxide (Milk of Magnesia®), polyethylene glycol]. Methylnaltrexone (Relistor®) SQ q 48 hours or naloxegol (Movantik®) PO QD or naldemedine (Symproic®) PO QD (for noncancer pain) if other measures ineffective [only for opioid-induced constipation].	
Nausea/ Vomiting	Rule out reversible causes, e.g. constipation. Prochlorperazine (Compazine®) 10 mg PO q 6 hr PRN or 25 mg suppository PR q 6 hr PRN. May add lorazepam (Ativan®) 0.5 mg q 6 hr PO/SL, PRN or metoclopramide (Reglan®) (also helpful for early satiety and constipation) 10 mg PO QID. Scopolamine TD (Transderm-Scop®) patch 1.5 mg q 3 days is effective for movement related nausea q 72 hrs. Haloperidol (Haldol®) 0.5 - 4 mg PO or IV/SQ q 6 hrs.	
Respiratory Depression	Rare in opioid tolerant people as tolerance develops to sedation/drowsiness- closely monitor in opioid-naïve patients. Increased risk with obstructive sleep apnea, obesity, on benzodiazepines, or in those with respiratory compromise.	

References:

Ferrell, B., & Paice, J. (Eds). (2019). *Oxford textbook of palliative nursing*, 5th Edition. New York, NY: Oxford University Press.
Dahlin, C., Coyne, P., & Ferrell, B. (Eds). (2016). *Advanced practice palliative nursing.* New York, NY: Oxford University Press.

For additional resources, refer to:
City of Hope Nursing Research and Education Resources www.cityofhope.org/NRE; and
ELNEC: End-of-Life Nursing Education Consortium www.aacnnursing.org/ELNEC

OPIOID EQUIANALGESIC TABLE

DRUG	DOSAGE FORM/STRENGTHS	APPROXIMATE EQUIVALENCE	
		IV/SQ	ORAL
Buprenorphine	**Transdermal:** Butrans 5, 7.5, 10, 15, 20 mcg/h **Buccal Strip:** Belbuca™ 75,150, 300, 450, 600, 750, 900 mcg — Q 12 – 24 hours **Injection:** 0.3 mg/ml **Medication-Assisted Therapy (MAT):** for treatment of heroin or recreational opioid use – not typically used for pain control – requires specialized wavier (see https://www.samhsa.gov/medication-assisted-treatment) — Buprenorphine/naloxone film or tablets	0.3-0.4 mg	See package insert
Codeine	**Rarely recommended:** a pro-drug dependent on CYP2D6 – (significant percentage of people are poor metabolizers and cannot obtain relief)		200 mg
Fentanyl Parenteral		100 mcg	
Fentanyl Transdermal Long acting; Not for opioid naïve patients	**Fentanyl Transdermal:** Duragesic® and generic - 12, 25, 37.5, 50, 62.5,75, 87.5, 100 mcg/hr — Not for post op/acute pain — 12-24 hours for full onset — 12-24 hours to leave system		100 mcg patch q 2-3 days ≈ 200 mg oral Morphine q 24 hrs

Fentanyl **Transmucosal Immediate Release Fentanyl (TIRF)** Not for opioid naïve patients Requires TIRF-REMS compliance **https://www.tirfremsaccess.com/TirfUI/rems/home.action**	**Buccal Oral Lozenge:** — Actiq® and generic – 200, 400, 600, 800, 1200, 1600 mcg **Buccal Oral Tablet:** — Fentora® – 100, 200, 400, 600, 800 mcg **Sublingual Tablet:** — Abstral® Fentanyl SL –100, 200, 400, 800 mcg **Sublingual Spray:** — Subsys® – 100, 200, 400, 600, 800 mcg spray **Nasal Spray:** — Lazanda® –100, 300, 400 mcg	– – –	See package inserts
Hydrocodone	**Hydrocodone/Acetaminophen❖ Tablets:** — Vicodin® – 5/300 mg; Vicodin® ES – 7.5/300 mg; Lorcet® or Vicodin® HP – 10 mg/300 mg — Lortab® – 2.5/500 mg, 5/500 mg 7.5/500 mg, 10/500 mg — Norco® – 5/325 mg, 7.5/325 mg, 10/325 mg **Liquid❖:** Hycet® – 7.5/325/15 mL or Lortab 10/300/15 mL **Hydrocodone/Ibuprofen Tablets:** Vicoprofen® and generic – 7.5/200 mg **Extended Release:** Hysingla®ER***** 20, 30, 40, 50, 60, 80, 100, 120 mg q 24 or Zohydro® ER*****– 10, 15, 20, 30, 40, 50 mg q 12 hrs	– – –	20-30 mg
Hydromorphone	**Tablets:** Hydromorphone (Dilaudid® and generic) – 2, 4, 8 mg **Liquid:** Hydromorphone (Dilaudid®) – 1 mg/ml **Extended Release:** Exalgo®***** – 8, 12, 16, 32 mg q 24 hrs **Injection:** 1, 2, 4 mg/ml — Dilaudid® HP – 10 mg/ml **Suppository:** Hydromorphone – 3 mg	1.5 mg	7.5 mg
Methadone	Equivalency ratios for methadone are complex because of its long half-life, potency, and individual variations in pharmacokinetics.	– – –	Consult with Pain/Palliative Care Specialist
Morphine	**Immediate Release Tablets:** — Morphine Sulfate Immediate Release - 15, 30 mg **Liquid:** — Morphine Sulfate Immediate Release Solution – 2 mg/ml, 4 mg/ml, 20 mg/ml **Extended or Sustained Release Tablet:** — Generic – 10,15, 20, 30, 45, 50, 60, 75, 80, 90, 100, 120, 200 mg q 12 hrs — MS Contin® – 15, 30, 60, 100, 200 mg q 8 or 12 hrs — Kadian® –10, 20, 30, 40, 50, 60, 70, 80, 100, 130, 150, 200 mg q 12-24 hrs **Injection:** 2, 4, 5, 8, 10 mg/ml **Suppository:** Rectal Morphine Sulfate (RMS) – 5, 10, 20, 30 mg	10 mg	30 mg
Oxycodone	**Immediate Release Tablets:** — Oxycodone IR – 5, 10, 15, 20, 30 mg — Oxaydo – 5, 7.5 mg — Roxicodone® – 5, 15, 30 mg **Oxycodone/Acetaminophen Tablets❖:** — Endocet® – 5/325, 7.5/325, 10/325 mg — Percocet® and generics– 2.5/325, 5/325, 7.5/325, 10/325 mg — Primley™ – 2.5/300, 5/300, 7.5/300, 10/300 mg **Extended or Sustained Release Tablets:** — Oxycodone ER –10, 20, 40, 80 mg q 12 hrs — OxyContin®***** – 10, 15, 20, 30, 40, 60, 80 mg — Xtampza® ER***** – 9, 13.5, 18, 27, 36 mg q 12 hrs **Liquid:** Oxycodone – 5 mg/5ml20 mg/ml	– – –	20 mg
Oxymorphone	**Tablets:** — Opana® – 5, 10 mg; Generic IR – 5, 10 mg — Generic ER –7.5, 10, 15, 20, 30, 40 mg **Injection:** 1 mg/ml	1 mg	10 mg
Tapentadol (opioid and norepinephrine reuptake inhibitor)	**Tapentadol Tablets**:** Nucynta® – 50, 75, 100 mg **Extended Release:** Nucynta®ER– 50, 100, 150, 200, 250 mg q 12 hrs		150 mg
Tramadol (opioid and SNRI reuptake inhibitor)	**Tramadol Tablets***:** — Generic – 50, 100 mg — Generic– 37.5/325 mg acetaminophen❖ **Extended Release:** — ConZip and generic – 100, 200, 300 mg q 24 hrs **Liquid:** — Qdolo™ –5 mg/ml	– – –	300 mg

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Legend:

❖ See recommendations regarding acetaminophen on previous page
* Abuse Deterrent Opioid
** Maximum dose 500 mg/24 hrs
*** Maximum dose 400 mg q 24 hrs; age > 75 is 300 mg q 24 hrs; avoid in seizure disorder

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Published 2021 by:
City of Hope/ Division of Nursing Research & Education
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Module 2
Table 2: Opioid Rotation – Practice Examples

Practice Cases

Medication	PO	IV
Morphine	30 mg	10 mg
Oxycodone	20 mg	
Oxymorphone	10 mg	
Hydrocodone	30	
Hydromorphone	7.5 mg	1.5 mg
Fentanyl		100 mcg
Tramadol	300 mg	

Converting Oral Hydrocodone to Intravenous Morphine

A 35-year-old Veteran with breast cancer and back pain is admitted for a laminectomy due to spinal metastases. She has been taking hydrocodone/acetaminophen 10/325 2 tablets every 6 hours. She will be NPO after surgery. What intravenous morphine dose will be required after surgery?

Answer:

Her total daily dose is 10 mg X 8 tablets = 80 mg (do not try to account for the acetaminophen). Hydrocodone is ≈ to morphine (see above chart). Thus, her daily dose in oral morphine equivalents will be ≈ 80 mg. However, she will be NPO, so we need to convert the oral morphine to intravenous morphine: 30 mg of oral morphine is ≈ 10 mg intravenous morphine (3:1 conversion). The ≈ intravenous dose would be 26.6 mg/24 hours.

To account for incomplete cross tolerance, reduce the 80 mg total daily oral morphine dose by 20% (26.6 – 5.3 = 21.6 mg). The 24-hour intravenous dose of morphine would be 21.6 mg. An easy way to administer this would be to give a continuous infusion of morphine 0.9 mg/hour (Divide 21.6 by 24 = 0.9 mg). The PCA bolus dose would be 0.4 to 0.9 mg every 15 minutes (50-100% of the hourly rate).

However:

The above calculations only replace her previous dose of hydrocodone with intravenous morphine. Remember, she will have pain after surgery!!!!! So, we need to provide the above dose of morphine in addition to the usual postoperative dose of morphine (e.g., 0.9 mg + 1.0 mg =1.9 mg/hour or more). This was a trick question, but it illustrates an important concept. Veterans on chronic opioid therapy will need higher than usual doses, in part to replace their usual opioid, but also because they are tolerant to this class of drugs.

Converting Oral Morphine to a Parenteral Morphine

A 65-year-old Veteran with advanced colorectal cancer has severe pain associated with extension of the disease into the sacrum. He describes the usual pain intensity as a 5, but an 8 at its worst (on a scale of 0=no pain; 10=worst pain). He has been taking morphine extended-release 15 mg every 12 hours, with liquid morphine 5 mg for breakthrough pain. He takes about 2 doses of liquid morphine

most days. He is hospitalized with severe nausea and vomiting and cannot keep down food or her medications. What is the appropriate intravenous morphine dose?

Answer:
The total daily dose of oral morphine is approximately 40 mg (2 doses of 15 mg morphine extended release and 2 doses of liquid morphine 5 mg). The conversion from oral morphine to IV morphine is 3:1. So divide the 40 mg by 3=13.3. The 24-hour intravenous dose, of morphine would be 13.3 mg. An easy way to administer this would be to give a continuous infusion of morphine 0.5 mg/hour (Divide 13.3 by 24 = 0.55 mg). The PCA bolus dose would be 0.25 to 0.5 mg every 15 minutes (50-100% of the hourly rate).

Do we need to dose reduce to account for cross tolerance if we are giving him the same drug but by a different route? If you have any concern that he has not been absorbing the oral dose you may wish to reduce the dose by 20%. But ensure he has sufficient bolus doses available and titrate upward on the basal rate as appropriate.

Transitioning to Long Acting Opioids
A 75-year-old Veteran with metastatic NSCLC is receiving liquid morphine 10 mg every 3-4 hours for relief of severe pain. The total morphine intake during the last 24 hours was 50 mg, producing good relief and no side effects. She is also taking dexamethasone 8 mg every day and gabapentin (Neurontin®) 900 mg three times per day, as well as senna/docusate 2 tablets every night to prevent constipation. Pain relief is good but she reports waking in pain and other periods of inconsistent relief. What long acting opioid might be useful for this patient?

Answer:
There are several long-acting opioids available at this time in the US. They are long-acting morphine, long-acting oxycodone (OxyContin® or Xtampza®), the fentanyl patch, long-acting hydromorphone (Exalgo®), tapentadol (Nucynta®), and methadone. Since the patient's total morphine intake was 50 mg, a dose reduction of 20% would = 40 mg. She could then take long-acting morphine 20 mg po q 12.

If converting the 40 mg (20% dose reduction) to oxycodone, using a 3:2 conversion, OxyContin® dose would be 26 mg/24 hours or 10 mg po q 12 (this is the closest to 26 mg; all patients should have breakthrough pain medications available). Xtampza ER dosing is slightly different; the equivalent would be 9 mg q 12.

The 40 mg oral morphine is approximately equal to 20mcg/hour fentanyl. The smallest patch available in the US is 12 mcg/hour every 72 hours; the next dose of 25 mcg is too high to start. Again, be sure the patient has breakthrough medication.

If converting to long-acting hydromorphone, the conversion is 30 mg of morphine is approximately equal to 7.5 mg of hydromorphone. Thus, the 40 mg (20% dose reduction) is ≈ 10 mg hydromorphone. The available doses are 8, 12, 16, and 32 mg once daily. The safest approach would be to start at 8 mg once daily and titrate upward as warranted.
All Veterans should have breakthrough pain medications available.

Methadone is a complicated drug and the conversion ratio is not clear. New recommendations suggest starting the opioid-naive patient on 5 mg bid and the opioid tolerant patient on 5-10 mg q 8 hours. Be certain the prescription reads "for pain" when methadone is prescribed for outpatients (methadone prescribed for maintenance therapy after heroin use requires a special DEA license but its use for pain does not).

For all long-acting opioids, there is a voluntary risk evaluation and mitigation strategy (REMS) that describes the minimum dose and duration of opioid use prior to converting to a long acting agent.

Calculating Breakthrough Opioids when using a Fentanyl Patch

A 60-year-old Veteran diagnosed with multiple sclerosis 6 years ago has severe nociceptive and neuropathic pain as well as spasticity. He has been treated with a fentanyl patch 100 mcg/hour every 72 hours at home and morphine IR 15 mg for breakthrough. He does not feel the breakthrough is effective (it only "takes the edge off" one hour after taking). Calculate a more appropriate breakthrough dose of morphine? What about oxycodone or hydromorphone?

Answer:

The fentanyl patch 100 mcg/hour is approximately equal to 200 mg of oral morphine/24 hours. The patient should have a breakthrough dose of morphine immediate release ordered at 10-20 % of the 24-hour dose or 20 – 40 mg per dose. Or 13 – 26 mg of oxycodone immediate release. Or 5 – 10 mg of hydromorphone immediate release.

How often would you order this? Good question. The peak effect is one hour. Yet due to staffing issues on inpatient units, medications are usually ordered every 2 or 3 hours. And in rare cases when Veterans have difficulty understanding "prn" despite education and they take every dose whether they have pain or not, we may need to order less often (every 4 or even 6 hours).

Source:
Judith A. Paice, PhD, RN; email: j-paice@northwestern.edu (2018)

Module 2
Table 3: Patient Case Presentation –Pain

Chief Report
Mr. Xander a 56-year-old Veteran with metastatic NSCLC diagnosed after experiencing a chronic cough that did not resolve with antibiotic therapy; we were asked to see him for concerns related to back pain. Briefly, he was diagnosed with NSCLC eight months ago and underwent 4 courses of chemotherapy (carboplatin and pemetrexed). He recently developed right hip pain and was found to have a pathologic fracture of right femur which was treated with open reduction internal fixation and XRT 3 months ago. He now presents with low back pain and right rib pain – these are consistent with sites of metastatic disease on recent CT scan.

Pain History
Precise location (s)
Intensity
Quality of pain
Degree of interference with daily activities

Current Analgesic Regimen
Medications – for opioids include last date filled per state Prescription Drug Monitoring Program (PDMP) – evidence that this has been checked is required by law in many states
Radiation therapy
Other – nerve blocks, vertebroplasty, PT/OT, acupuncture, etc.

Past Pain Treatments
Medications – dose, duration, adverse effects, why stopped
Radiation therapy (sites)
Other – nerve blocks, vertebroplasty, PT/OT, acupuncture, etc.

Past Medical History
The PMH includes relevant serious illness, chronic diseases, surgical procedures, and injuries the patient has experienced.

Social History
Marital status/partnered
Children/grandchildren
Type of home (stairs); who lives in home, provides support
Work history, education

Substance Use History
Smoking
ETOH
Recreational drug use
Family history of SUD
Physical or sexual abuse; PTSD

Review of Systems
May use Edmonton Symptom Assessment Scale (ESAS) or other symptom assessment tool in place of ROS.

GENERAL: fatigue, sleep
HEENT: xerostomia, dysphagia

CV: chest pain
RESP: sob, cough
GI: last BM x days ago, usual frequency, consistency (soft, formed, hard, other), appetite poor/good, nausea and vomiting
GU: urgency, frequency, incontinence or dysuria
MS: tripping or falls
NEURO: neuropathy
SKIN: rash or open wounds
SEX: libido, erection/ejaculation/orgasm
PSYCH: feeling sad/depressed, finds strength through

ESAS (0 = none, 10 = worst imaginable)
Pain –
Tiredness –
Nausea –
Depression –
Anxiety –
Drowsiness –
Appetite –
Well-being –
Shortness of breath -

Performance Status
May use ECOG, Karnofsky, Palliative Performance Scale or other tool – helps determine function and prognosis.

Physical Exam
It is only necessary to list the physical assessment findings that are "remarkable."

Patient Goals
What the patient hopes to achieve if pain relieved (e.g., return to work, play with grandchildren, go to church).

Impression/Plan
1.
2.
3.
4.

Developed by Judith Paice, RN, PhD, FAAN, Director of the Cancer Pain Program in the Division of Hematology-Oncology and a Research Professor of Medicine, Northwestern University; Feinberg School of Medicine. (updated 2022).

Figure 1: Communicating Pain Assessment Findings

Unhelpful Communication

"Dr. Jones? This is Jane Brown from 12 West. Your patient, Mrs. Smith, has pain. What are you going to do about it?"

Helpful Communication

"Dr. Jones? This is Jane Brown from 12 West. I am concerned about our patient, Mrs. Smith. She has a pain intensity score of 9 on a 0-10 scale; she describes the pain location in her right thigh where we know she has a bone metastasis; the pain is aching and throbbing and is worse when she stands or walks. She was unable to participate in physical therapy today because of the pain. We have been giving her liquid morphine 10 mg every 3 hours, which reduces the pain to about a 7, but this only lasts about one hour. Fortunately, she denies any side effects to the morphine. And looking at her medication list, she is not on any other medications for pain. What do you think we should do?"

"Jane, I'm not sure. Do you have any ideas?"

"Since the morphine works to some degree, I think it is the correct drug. However, 10 mg is only reducing her pain from a 9 to a 7. Because she is tolerating this well, I would like to double the dose to 20 mg. And because she only gets about an hour of relief, I think we should offer it to her every hour. She can always refuse the morphine, and knowing her, she won't take it unless she really needs the medication. So, I think we should order liquid morphine 20 mg po every hour prn. If this works, tomorrow we can talk about converting her to a long acting opioid so she doesn't need to take the drug so often. One more thing, since this is bone pain, and Mrs. Smith denies a history of ulcers, I think adding a nonsteroidal anti-inflammatory drug would be helpful."

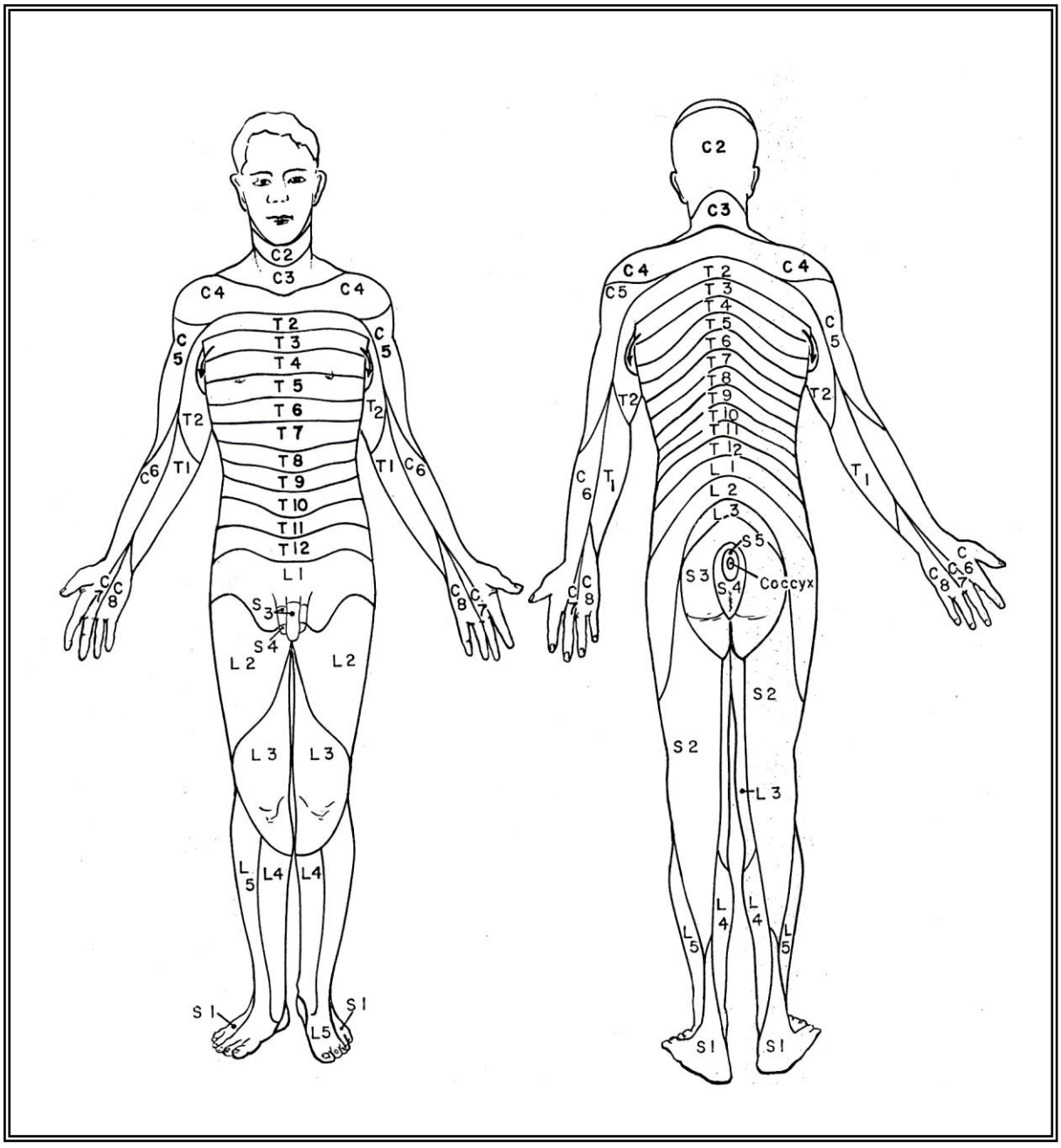
Components of Helpful Communication

- Give complete information, including the location, intensity, and quality of the pain.
- Remind colleagues about the probable etiology of the pain, but do not rule out other potential causes.
- Describe the effect of pain on the patient's function (e.g., unable to walk, can't participate in therapy, had to terminate radiation therapy due to discomfort).
- List the medications given for pain, the efficacy of the medication, and any adverse effects.
- Ask for suggestions but be prepared to make recommendations.
- Be objective in the presentation.
- When faced with unhelpful responses, reframe, educate, and normalize. Examples:
  - "I don't think she really has that much pain"
    - "Mrs. Smith is pretty stoic and doesn't usually reveal the pain in her face or posture, but the pain is severely affecting her movement now."
  - "She has lung cancer; I don't want to cause respiratory depression"

        - "Her respiratory rate is 24 and there is no change when she is given the oral morphine. Since she has been on the morphine for three days now, and was on Vicodin® for a few weeks, she has likely developed tolerance to the respiratory depressant effect of the opioid."
    - "That seems like a lot of narcotic."
        - "That dose is really not unusual. Plus, we know that the correct dose of opioid is the dose that works."

Module 2
Figure 2: Dermatomes Chart

Cutaneous Distribution of Spinal Nerves (dermatomes)



Source:
Barr, M. L., Kiernan, J. A. (1988). *The human nervous system: An anatomical viewpoint* (5th ed., p. 102). Philadelphia, PA: Lippincott Company. Reprinted with permission.

Module 2
Figure 3: Pain Intensity Scales

Faces Pain Scale—Revised (FPS-R)

Instructions:
"The faces show how much pain or discomfort someone is feeling. The face on the left shows no pain. Each face shows more and more pain and the last face shows the worst pain possible. Point to the face that shows how bad your pain is right NOW."

Scoring: The score the chosen face as 0, 2, 4, 6, 8 or 10, counting left to right so 0= "no pain" and 10= "worst pain possible"

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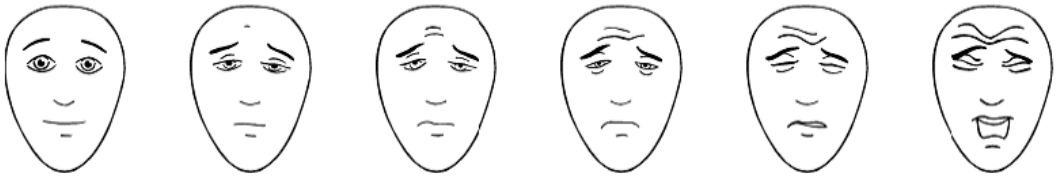

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Module 2
Figure 4: Checklist of Nonverbal Pain Indicators

Date:_____ Patient Name:_____

Checklist of Nonverbal Pain Indicators

(Write a 0 if the behavior was not observed, and a 1 if the behavior occurred even briefly during activity or rest.)

	With Movement	Rest
1. Vocal complaints: Non-verbal (Expression of pain, not in words, moans, groans, grunts, cries, gasps, sighs)	_____	_____
2. Facial Grimaces/Winces (Furrowed brow, narrowed eyes, tightened lips, jaw drop, clenched teeth, distorted expressions).	_____	_____
3. Bracing (Clutching or holding onto side rails, bed, tray table, or affected area during movement)	_____	_____
4. Restlessness (Constant or intermittent shifting of position, rocking, intermittent or constant hand motions, inability to keep still)	_____	_____
5. Rubbing: (Massaging affected area)	_____	_____
(In addition, record Verbal complaints).		
6. Vocal complaints: Verbal (Words expressing discomfort or pain, "ouch" "that hurts;" cursing during movement, or exclamations of protest, "stop" "that's enough.")	_____	_____
Subtotal Scores	_____	_____
Total Score		_____

Feldt, K. S. (1996). Treatment of pain in cognitively impaired versus cognitively intact post hip fractured elders. (Doctoral dissertation, University of Minnesota, 1996). Dissertation Abstracts International, 57-09B, 5574.
Feldt, K.S. (2000). Checklist of Nonverbal Pain Indicators. Pain Management Nursing, 1 (1), 13-21.

Module 2
Figure 4: Checklist of Nonverbal Pain Indicators (Continued)

Verbal Descriptor Scale

___ **PAIN AS BAD AS IT COULD BE**

___ **EXTREME PAIN**

___ **SEVERE PAIN**

___ **MODERATE PAIN**

___ **MILD PAIN**

___ **SLIGHT PAIN**

___ **NO PAIN**

Note: You may also want to try the words: aching, soreness, or discomfort instead of pain.

Module 2
Figure 5: Pain Assessment IN Advanced Dementia-PAINAD

Pain Assessment IN Advanced Dementia – PAINAD (Warden, Hurley, Volicer, 2003)

	0	1	2	Score
Breathing Independent of vocalization	Normal	Occasional labored breathing. Short period of hyperventilation	Noisy labored breathing. Long period of hyperventilation. Cheyne-stokes respirations	
Negative Vocalization	None	Occasional moan or groan. Low level speech with a negative or disapproving quality	Repeated troubled calling out. Loud moaning or groaning. Crying	
Facial expression	Smiling, or inexpressive	Sad. Frightened. Frown	Facial grimacing	
Body Language	Relaxed	Tense. Distressed pacing. Fidgeting	Rigid. Fists clenched, Knees pulled up. Pulling or pushing away. Striking out	
Consolability	No need to console	Distracted or reassured by voice or touch	Unable to console, distract or reassure	
				TOTAL

Reference:

Warden, V., Hurley, A.C. & Volicer, L. (2003). Development and psychometric evaluation of the Pain Assessment in Advanced Dementia (PAINAD) scale. *Journal of the American Medical Director Association, 4*(1), 9-15.

Module 2
Figure 6: Teaching Tips

Guide/Tips for Teaching Module 2 – Pain

If you are an undergraduate/graduate nursing educator:

- Uses cases throughout the lecture to highlight key points.
- Ask students to share their experiences with pain.
  - If they are not yet in clinical rotations, talk about pain in the media; this may include images of people in pain as well as the use of opioids and SUD.
    - Examples include the limited series "Dopesick" or the book "Empire of Pain"
  - For students who have had some clinical experiences, process the way they have seen patients assessed and treated; discuss biases that may have come through from staff or the patient.
- Pain content may be presented in a variety of courses (e.g., pathophysiology courses [alterations in the nervous system], in pharmacology courses [opioids, nonopioids]. If there is no single pain lecture that pulls together these disparate components, clinical conferences should be devoted to pain during a variety of rotations.
- Take supplemental materials, such as the dermatome chart, and use them during different activities (physical assessment in a patient with shingles).
- Have students' role play educating a patient/family about the appropriate use of an analgesic regimen.
- Use cases throughout the lecture to highlight key points, emphasizing clinical, research and managerial perspectives as appropriate to the student audience and course. An example might be quality improvement strategies designed to prevent the use of meperidine – the NP identifies the problem, seeks assistance from quality improvement or research nurses to quantify the issue, and approaches the manager of the medicine nursing units regarding strategies to effect change.
- In physical assessment classes, incorporate the techniques used to identify neurologic changes associated with pain syndromes (e.g., sensory changes, altered reflexes, changes in proprioception, allodynia); if possible, recruit other students or staff with chronic pain to serve as models. You may ask colleagues in the pain clinic if one of their patients might volunteer to serve as a model.
- Have students' role play communication with physicians and other team members promoting effective pain management (e.g., justifying the use of an elevated dose of an opioid or seeking to increase the dose; advocate for a patient in pain where there is a question of SUD).
- Assign students to review issues related to prescribing Schedule II opioids in their state when discussing health policy.

If you are an oncology nurse educator:

- Pain content can be provided as an in-service (using a more traditional lecture format or a case-based presentation using an actual patient cared for by some of the nurses in attendance) or as intermittent posters placed in visible locations for staff (conference room, bathroom).

- *Fast Facts and Concepts* can be a creative method to educate when pulling together staff for in-services is difficult. You can find a large number of pain-related *Fast Facts and Concepts* at http://www.mypcnow.org/fast-facts/ .
- Pain content from Module 2 can be provided at ONS chapter meetings; excerpts may be included in chapter newsletters.
- For oncology nurses with more expertise, host a panel with an "Ask the Experts" type approach. They can field questions related to assessment in cognitively impaired, use of specific agents such as methadone, or converting to continuous subcutaneous infusions when patients are unable to swallow.

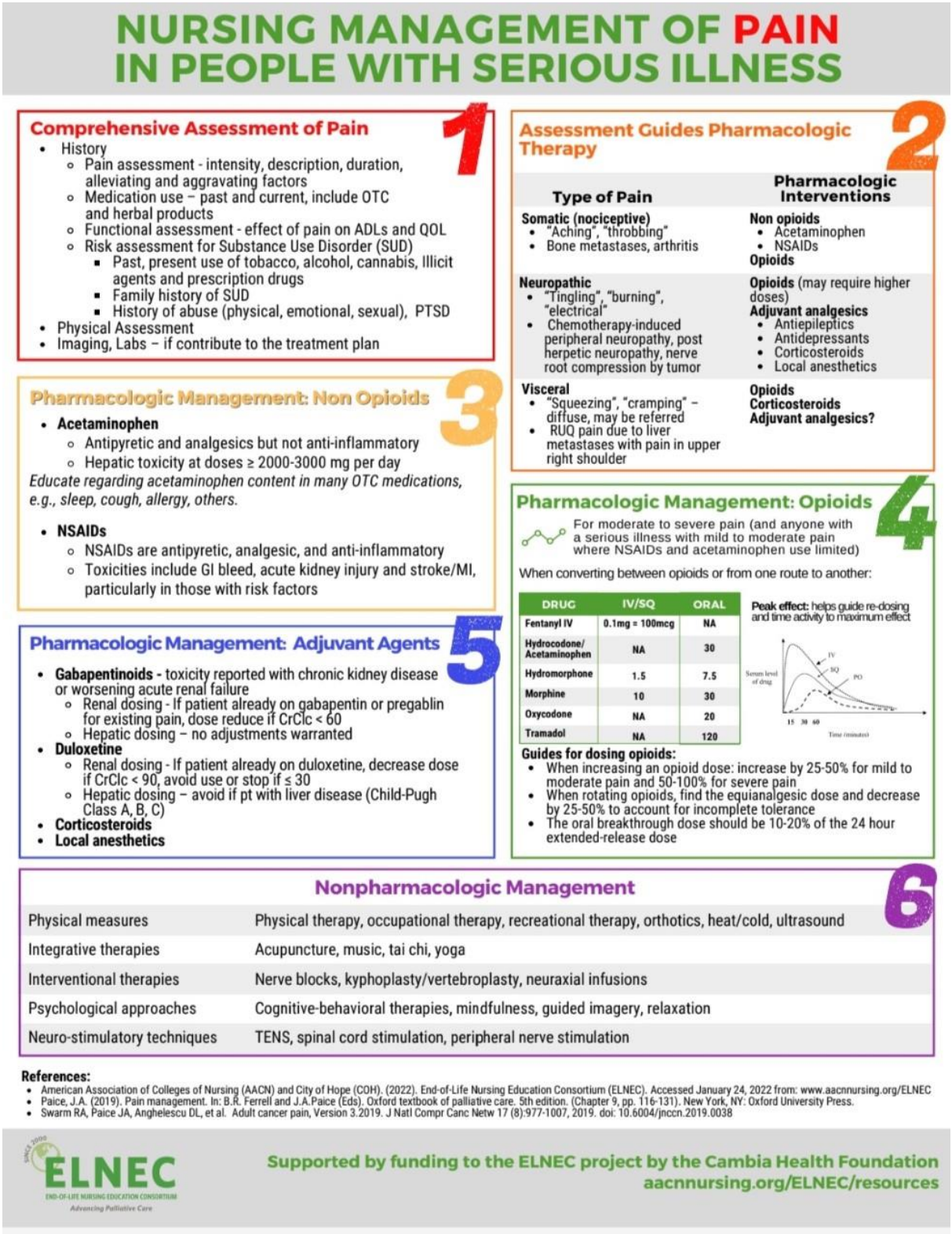
If you are a continuing education provider/staff development educator:

- Use cases throughout the lecture to highlight key points.
- Ask nurses to share their experiences with pain.
  - Talk about pain in the media; this may include images of people in pain as well as the use of opioids and SUD.
    - Examples include the limited series "Dopesick" or the book "Empire of Pain"
  - Have the nurse process the way they have seen patients assessed and treated; discuss biases that may have come through from other staff members and/or the patient
- Clinical conferences should be devoted to pain during a variety of rotations.
- Take supplemental materials, such as the dermatome chart, and use them during different activities (physical assessment in a patient with shingles).
- Have nurses role play educating a patient/family about the appropriate use of an analgesic regimen.

If you are a hospice/palliative care nurse educator:

- Ask staff to identify the obstacles they face in managing pain, as well as the strengths they (or their program and colleagues) bring to the clinical setting. Plan in-services/educational materials based upon these areas of need. List the strengths on a small poster to provide encouragement – "Our Strengths in Pain Control!"
- Divide the module into discrete parts (e.g., assessment of pain, pharmacologic [nonopioids, opioids, adjuvants], nonpharmacologic) and provide short in-services.
- *Fast Facts and Concepts* can be a creative method to educate when pulling together staff for in-services is difficult. You can find a large number of pain-related *Fast Facts and Concepts* at https://www.mypcnow.org/fast-facts . Or you can use the ELNEC slides to fashion a *Fast Fact* that can be displayed in a prominent place – expand the slide based upon the individual needs of your team.
- Use case conferences involving pain issues to highlight content from Module 2.
- For one month, devote a few minutes (3-5) at the end each IDT to a new pain fact – you may even formulate this time like a game show ("What is the peak effect of oral morphine? How do you calculate the appropriate breakthrough dose of an oral opioid?") You may wish to use questions from the HPNA *Study Guide for the Generalist Hospice and Palliative Nurse*.
- Present Module 2 Pain content at a local HPNA chapter meetings; excerpts may be included in chapter newsletters.

Module 2
Figure 7: Nursing Management of Pain in People



Can be accessed online at: [ELNEC Resources (aacnnursing.org)]