

Clinician Guide to the ER/LA Opioid Analgesics

Specific Drug Information for ER/LA Opioid Analgesic Products

Module VI

Jeffrey A. Gudin, MD

Director

Pain Management and Palliative Care Englewood Hospital and Medical Center Englewood, New Jersey

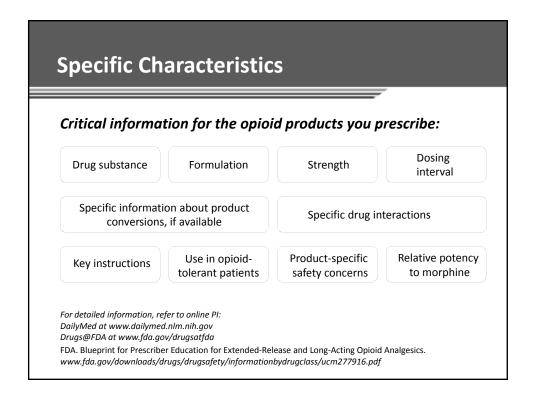
Overall Program Learning Objectives

Upon completion of this initiative, prescribers will be better able to:

- Identify and define how to assess patients for treatment with ER/LA opioid analgesics
- Demonstrate how to initiate therapy, modify dose and discontinue use of ER/LA opioid analgesics
- Recognize how to manage ongoing therapy with ER/LA opioid analgesics
- Employ patient and caregiver counseling about the safe use of ER/LA opioid analgesics, including proper storage and disposal
- Recall general and product-specific drug information concerning ER/LA opioid analgesics

Key Learning Points

- Specific characteristics of ER/LA opioid analgesic products; including the drug substance, formulation, strength, and dosing interval
- Key instructions on conversion information and specific drug interactions
- Initiating therapy; a review of opioid-tolerant patients, product-specific safety concerns of ER/LA opioid analgesics





Specific Characteristics: Tablets

Methadone Hydrochloride Tablets (Dolophine)

Dosing interval	Every 8 to 12 hours
Key instructions	Initial dose in opioid non-tolerant patients: 2.5 to 10 mg Conversion of opioid-tolerant patients using equianalgesic tables can result in overdose and death. Use low doses according to table in full PI High inter-patient variability in absorption, metabolism, and relative analgesic potency Opioid detoxification or maintenance treatment only provided in a federally certified opioid (addiction) treatment program (CFR, Title 42, Sec 8)
Drug interactions	Pharmacokinetic drug-drug interactions with methadone are complex CYP 450 inducers may decrease methadone levels CYP 450 inhibitors may increase methadone levels Anti-retroviral agents have mixed effects on methadone levels Potentially arrhythmogenic agents may increase risk for QTc prolongation and torsade de pointe Benzodiazepines may increase respiratory depression

Methadone Hydrochloride Tablets (Dolophine)

Opioid-tolerant	Deaths have occurred in opioid-tolerant patients during conversion to methadone Refer to full PI
Drug-specific safety concerns	 QTc prolongation and torsade de pointe Peak respiratory depression occurs later and persists longer than analgesic effect Clearance may increase during pregnancy False-positive UDT possible Major hazards include respiratory depression, systemic hypotension, respiratory arrest, cardiac arrest, and death
Relative potency: oral morphine	Varies depending on patient's prior opioid experience

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Hydromorphone Hydrochloride ER Tablets (Exalgo)

Dosing interval	Once a day
Key instructions	Use conversion ratios in individual PI Start patients with moderate hepatic impairment on 25% dose prescribed for patient with normal hepatic function Start patients with moderate renal impairment on 50% and patients with severe renal impairment on 25% dose prescribed for patient with normal renal function Titrate using a minimum of 3 to 4 d intervals Swallow tablets whole (do not chew, crush, or dissolve) Do not use in patients with sulfite allergy (contains sodium metabisulfite)
Drug interactions	 Mixed agonist/antagonist opioid analgesics, MAOIs, CNS depressants, anticholinergics
Opioid-tolerant	All doses are indicated for opioid-tolerant patients only
Product-specific adverse reactions	Allergic manifestations to sulfite component
Relative potency: oral morphine	• ~5:1 oral morphine to hydromorphone oral dose ratio, use conversion recommendations in individual product information

Morphine Sulfate CR Tablets (MS Contin)

Dosing interval	Every 8 hours or every 12 hours
Key instructions	 Product information recommends not using as first opioid Titrate using a minimum of 1 to 2 day intervals Swallow tablets whole (do not chew, crush, or dissolve)
Drug interactions	CNS depressants (including alcohol) can increase the risk of respiratory depression, hypotension, profound sedation or coma PGP inhibitors (eg, quinidine) may increase absorption/exposure of morphine by ~2-fold
Opioid-tolerant	100 mg and 200 mg tablet strengths for use in opioid-tolerant patients only
Product-specific safety concerns	• None

FDA. Blueprint for Prescriber Education for Extended-Release and Long-Acting Opioid Analgesics. www.fda.gov/downloads/drugs/drugsafety/informationbydrugclass/ucm277916.pdf

Tapentadol ER Tablets (Nucynta ER)

Dosing interval	Every 12 hours
Key instructions	50 mg every 12 hours is initial dose in opioid non-tolerant patients Titrate by 50 mg increments using minimum of 3-day intervals MDD: 500 mg Swallow tablets whole (do not chew, crush, or dissolve) Take 1 tablet at a time with enough water to ensure complete swallowing immediately after placing in mouth Initiate dose using 50 mg once/day in moderate hepatic impairment (100 mg/day max) Avoid use in severe hepatic and renal impairment
Drug interactions	Alcoholic beverages or medications with alcohol may result in rapid release and absorption of a potentially fatal dose of tapentadol Contraindicated in patients taking MAOIs Monitor for signs of serotonin syndrome when using with SSRIs, SNRIs, tricyclic antidepressants and triptans
Opioid-tolerant	No product-specific considerations
Product-specific safety concerns	Risk of serotonin syndrome Contraindicated with hypersensitivity (eg, angio-edema, anaphylaxis) to tapentadol or other ingredients
Relative potency: oral morphine	Equipotency to oral morphine has not been established

Oxymorphone Hydrochloride ER Tablets (Opana ER)

Dosing interval	Every 12 hour dosing, some may benefit from asymmetric (different dose given in AM than in PM) dosing
Key instructions	Use 5 mg every 12 hours as initial dose in opioid non-tolerant patients and patients with mild hepatic impairment and renal impairment (creatinine clearance <50 mL/min) and patients >65 years Swallow tablets whole (do not chew, crush, or dissolve) Take 1 tablet at a time, with enough water to ensure complete swallowing immediately after placing in mouth Titrate using a minimum of 2-day intervals Contraindicated in moderate and severe hepatic impairment Administer on an empty stomach at least 1 hour prior to or 2 hours after eating
Drug interactions	Alcoholic beverages or medications with alcohol may result in absorption of a potentially fatal dose of oxymorphone
Opioid-tolerant	No product-specific considerations
Product-specific safety concerns	• None
Relative potency: oral morphine	Approximately 3:1 oral morphine to oxymorphone oral dose ratio

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Oxycodone Hydrochloride CR Tablets (OxyContin)

Dosing interval	Every 12 hours
Key instructions	 Opioid-naïve patients: initiate treatment with 10 mg every 12 hours Titrate using a minimum of 1 to 2 day intervals Hepatic impairment: start with ½ to ½ usual dosage followed by careful titration Renal impairment (creatinine clearance <60 mL/min): follow a conservative approach to dose initiation and adjust accordingly Consider other analgesics in patients with difficulty swallowing or underlying GI disorders that predispose to obstruction. Swallow tablets whole (do not chew, crush, or dissolve) Take 1 tablet at a time, with enough water to ensure complete swallowing immediately after placing in mouth
Drug interactions	CYP3A4 inhibitors may increase oxycodone exposure CYP3A4 inducers may decrease oxycodone exposure
Opioid-tolerant	Single dose >40 mg or total daily dose >80 mg for use in opioid-tolerant patients only
Product-specific safety concerns	Choking, gagging, regurgitation, tablets stuck in throat, difficulty swallowing tablet Contraindicated in patients with GI obstruction
Relative potency: oral morphine	Approximately 2:1 oral morphine to oxycodone oral dose ratio



Specific Characteristics: Capsules

Morphine Sulfate ER-Naltrexone Capsules (Embeda)*

Dosing interval	Once a day or every 12 hours
	Initial dose as first opioid: 20 mg/0.8 mg
	Titrate using a minimum of 3-day intervals
	Swallow capsules whole (do not chew, crush, or dissolve)
Key instructions	 Crushing or chewing will release morphine, possibly resulting in fatal overdose, and naltrexone, possibly resulting in withdrawal symptoms
	 May open capsule and sprinkle pellets on applesauce for patients who can reliably swallow without chewing, use immediately
Drug	 Alcoholic beverages or medications with alcohol may result in rapid release and absorption of potentially fatal dose
interactions	 PGP inhibitors (eg, quinidine) may increase absorption/exposure of morphine by ~2-fold
Opioid-tolerant	100 mg/4 mg capsule for use in opioid-tolerant patients only
Product-specific safety concerns	• None

^{*}In March 2011, all dosage forms of EMBEDA* were voluntarily recalled by Pfizer; product availability expected in 2nd quarter 2014.

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Morphine Sulfate ER Capsules (Avinza)

Dosing interval	Once a day
Key instructions	 Initial dose in opioid non-tolerant patients is 30 mg Titrate using a minimum of 3-day intervals Swallow capsule whole (do not chew, crush, or dissolve) May open capsule and sprinkle pellets on applesauce for patients who can reliably swallow without chewing; use immediately MDD*: 1600 mg (renal toxicity of excipient, fumaric acid)
Drug interactions	 Alcoholic beverages or medications with alcohol may result in rapid release and absorption of potentially fatal dose PGP[†] inhibitors (eg, quinidine) may increase absorption/exposure of morphine by ~2-fold
Opioid-tolerant	90 mg and 120 mg capsules for use in opioid-tolerant patients only
Product-specific safety concerns	• None

^{*}MDD=maximum daily dose; †PGP=P-glycoprotein

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Morphine Sulfate ER Capsules (Kadian)

Dosing interval	Once a day or every 12 hours
Key instructions	 PI recommends not using as first opioid Titrate using minimum of 1 to 2 day intervals Swallow capsules whole (do not chew, crush, or dissolve) May open capsule and sprinkle pellets on applesauce for patients who can reliably swallow without chewing, use immediately Contents of capsules may be administered through a 16 French gastrostomy tube
Drug interactions	Alcoholic beverages or medications with alcohol may result in rapid release and absorption of potentially fatal dose of morphine PGP inhibitors (eg, quinidine) may increase absorption/exposure of morphine by ~2-fold
Opioid-tolerant	100 mg, 130 mg, 150 mg and 200 mg capsules for use in opioid-tolerant patients only
Product-specific safety concerns	• None

Hydrocodone Bitartrate ER Capsules (Zohydro ER)*

Dosing interval	Every 12 hours
Key instructions	Opioid-naïve patients: initiate treatment with 10 mg every 12 hours Titrate using a minimum of 2 to 4 day intervals Severe hepatic impairment: start with the lowest dose, 10 mg, and monitor closely for respiratory depression and sedation Renal impairment: initiate therapy with a low initial dose and monitor closely for respiratory depression and sedation Take 1 capsule at a time, with enough water to ensure complete swallowing immediately after placing in mouth Swallow capsules whole (do not chew, crush, or dissolve)
Drug interactions	CYP3A4 inhibitors may increase hydrocodone exposure CYP3A4 inducers may decrease hydrocodone exposure Alcohol may result in increased plasma levels and a potentially fatal overdose of hydrocodone
Opioid-tolerant	Single dose >40 mg or total daily dose >80 mg for use in opioid-tolerant patients only
Product-specific safety concerns	Orthostatic hypotension and syncope
Relative potency: oral morphine	Use conversion recommendations in individual product information

*October 2013, Zohydro ER, manufactured by Zogenix, was FDA approved; Zohydro ER will be available March 2014. FDA. Blueprint for Prescriber Education for Extended-Release and Long-Acting Opioid Analgesics. www.fda.gov/downloads/drugs/drugsafety/informationbydrugclass/ucm277916.pdf



Specific Characteristics: Transdermal Systems

Fentanyl Transdermal System (Duragesic)

Dosing interval	Every 72 hours (3 days)
Key instructions	Use product-specific information for dose conversion from prior opioid
	Hepatic or renal impairment: use 50% of dose if mild/moderate, avoid use if severe
	Application Apply to intact/non-irritated/non-irradiated skin on a flat surface Prep skin by clipping hair, washing site with water only Rotate site of application Titrate using no less than 72 hour intervals Do not cut
	Avoid exposing the application site to direct external heat sources due to potential overdose and death
	 Avoid accidental contact when holding or caring for children
	Dispose of used/unused patches: fold adhesive side together and flush down toilet

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Fentanyl Transdermal System (Duragesic)

Key instructions	Specific contraindications:
	Patients who are not opioid-tolerant
	Management of
	 Acute or intermittent pain, or patients who require opioid analgesia for a short period of time
	 Postoperative pain, outpatient, or day surgery Mild pain
Drug interactions	CYP3A4 inhibitors may increase fentanyl exposure
	CYP3A4 inducers may decrease fentanyl exposure
Opioid-tolerant	All doses indicated for opioid-tolerant patients only
Drug-specific safety concerns	Accidental exposure due to secondary exposure to unwashed/unclothed application site or inappropriate disposal
	Increased drug exposure with increased core body temp or fever
	Bradycardia
	Application site skin reactions
Relative potency: oral morphine	See individual PI for conversion recommendations from prior opioid

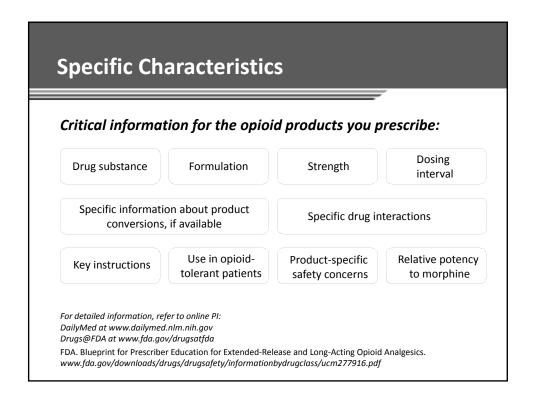
Buprenorphine Transdermal System (Butrans)

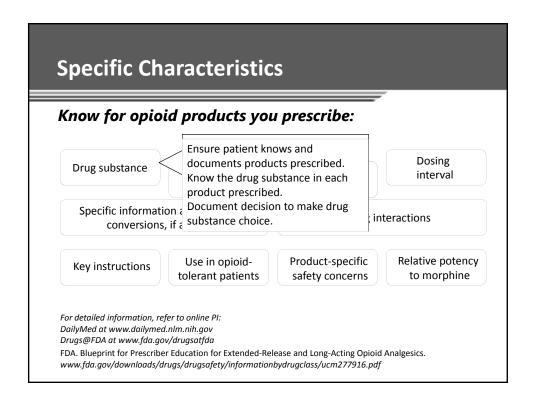
Dosing interval	One transdermal system every 7 days
Key instructions	 Initial dose in opioid non-tolerant patients on <30 mg morphine equivalents and in mild-moderate hepatic impairment: 5 mcg/hour When converting from 30 mg to 80 mg morphine equivalents, first taper to 30 mg morphine equivalent, then initiate with 10 mcg/hour Titrate after a minimum of 72 hours prior to dose adjustment Maximum dose: 20 mcg/hour due to risk of QTc prolongation Application Apply only to sites indicated in PI Apply to intact/non-irritated skin Prep skin by clipping hair; wash site with water only Rotate application site (minimum 3 weeks before reapply to same site) Do not cut Avoid exposure to heat Dispose of patches: fold adhesive side together and flush down toilet or use product-specific Patch Disposal Unit

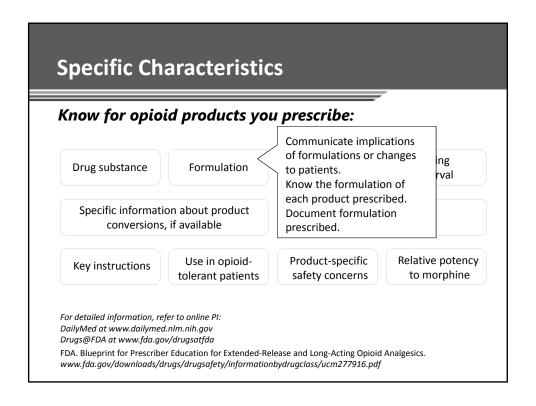
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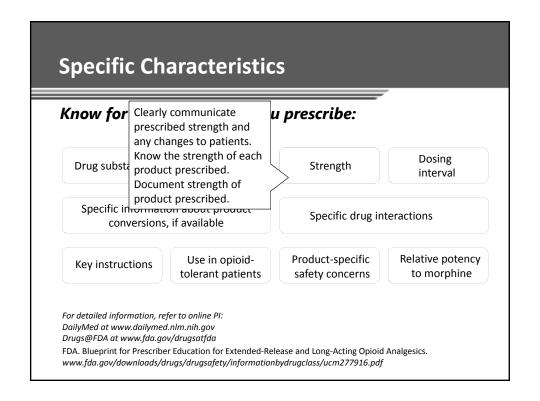
Buprenorphine Transdermal System (Butrans)

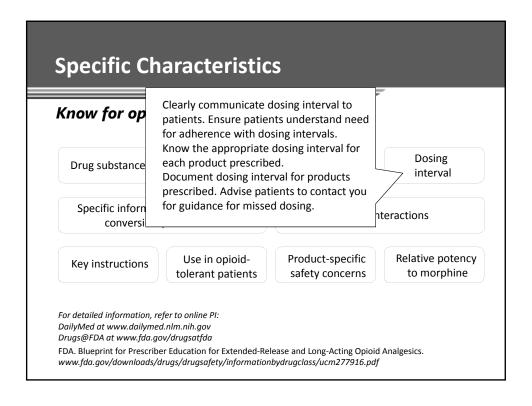
Drug interactions	CYP3A4 inhibitors may increase buprenorphine levels
	CYP3A4 inducers may decrease buprenorphine levels
	Benzodiazepines may increase respiratory depression
	Class IA and III antiarrhythmics, other potentially arrhythmogenic agents, may increase risk of QTc prolongation and torsade de pointe
Opioid-tolerant	10 mcg/hour and 20 mcg/hour for use in opioid-tolerant patients only
Drug-specific safety concerns	QTc prolongation and torsade de pointe
	Hepatotoxicity
	Application site skin reactions
Relative potency: oral morphine	Equipotency to oral morphine not established

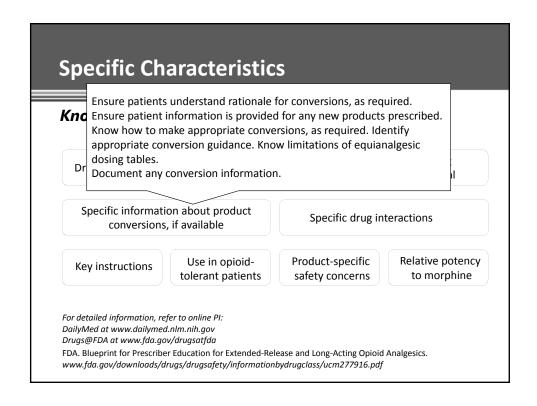


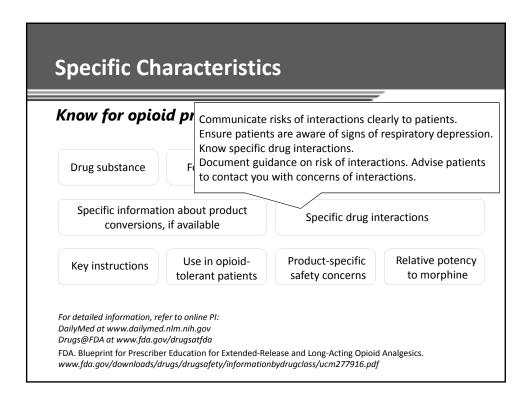


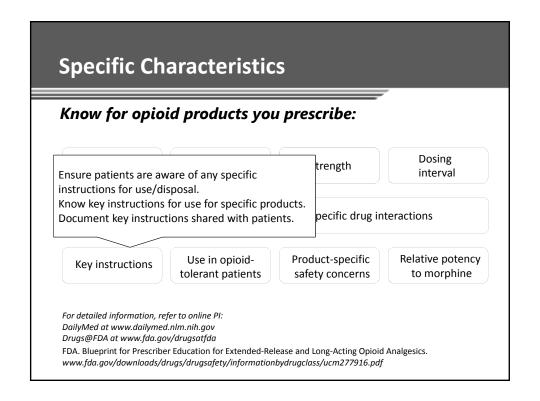


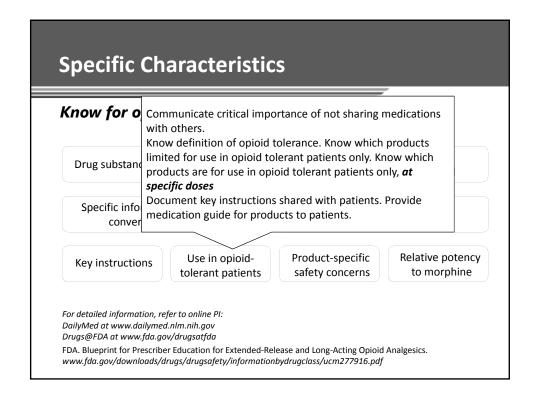


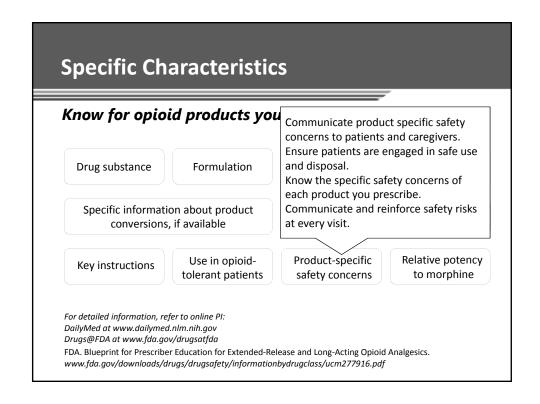


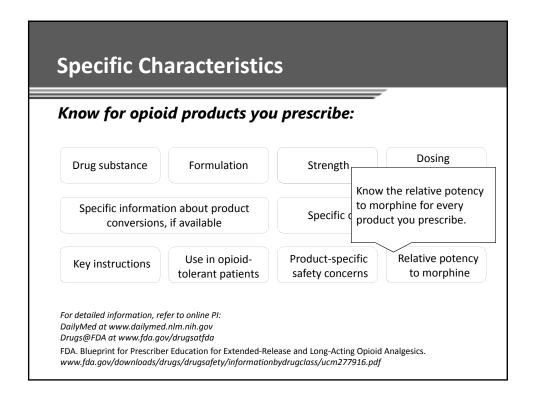












The Age of Responsible Opioid Prescribing

- Increased attention to chronic pain as a major public health problem, accompanied by increased opioid prescribing and prescription opioid abuse, morbidity, and mortality
- FDA mandated availability of prescriber education for long-acting and extended-release opioid analgesics

Novak S, et al. *Pain Med*. 2004;5(1):59-65.; FSMB. Responsible Opioid Prescribing: A Physician's Guide. *www.fsmb.org/pain-model-policy.html*. Accessed February 12, 2014.; Chou R, et al. *J Pain*. 2009:10(2):113-130.; FDA. Risk Evaluation and Mitigation Strategies (REMS) and Opioid Analgesics Webinar. *www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm163655.htm*. Accessed February 12, 2014.

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