

Definitions: Misuse and Abuse

- **Misuse:** Intentional or unintentional use of medication for medical purpose other than as directed.
- **Abuse:** Use of illegal drug or intentional self-administration of medication for nonmedical purpose.

American College of Preventive Medicine.
<http://www.acpm.org/?UseAbuseRxClinRef#Prevalence>. Passik SE, et al. Palliative Care and Supportive Oncology. 2002

Definitions associated with opioid use

Addiction

Primary, chronic, neurobiologic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. May be characterized by impaired control over drug use, compulsive use, continued use despite harm, and craving.

Pseudoaddiction

Syndrome resulting from undertreatment of pain that is misidentified by the clinician as inappropriate drug-seeking behavior. Behavior ceases when adequate pain relief is provided. Not a diagnosis; rather, a description of a clinical interaction.

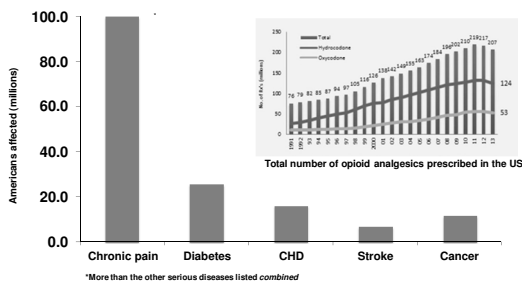
Physical dependence

State of adaptation manifested by a drug class specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug, and administration of an antagonist.

Tolerance

State of adaptation in which exposure to a given drug dose induces biologic change resulting in diminution of one or more of the drug's effects over time. Alternatively, escalating doses of a drug are required over time to maintain a given level of effect.

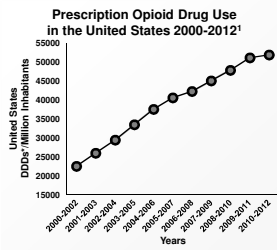
The number of pain medication prescriptions correlates well with the prevalence of chronic pain



*AAPM at http://www.painmed.org/patientcenter/facts_on_pain.asp#incidence.
 †Vasopoulou C and Lema M. *British Journal of Anaesthesia*. 2010;105:469-485.
 Inset figure: <http://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/americas-addiction-to-oxioids-heroin-prescription-drug-abuse>.

The U.S. opioid overdose epidemic – a top public health challenge

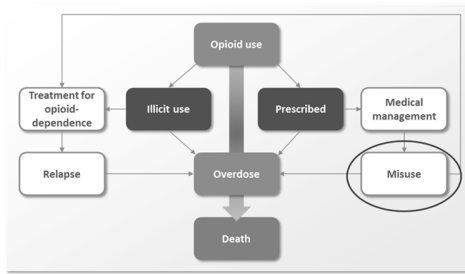
- Use of opioid analgesics has increased steadily from 2000 through 2012¹
- Trend driven by expanded use of opioid analgesics for chronic non-cancer pain
- During the same time frame, overdose deaths involving opioid analgesics have nearly quadrupled²
- 207 million prescriptions for the three most commonly prescribed opioid analgesics were dispensed in US pharmacies in 2013³



¹International Narcotics Control Board. *Narcotic Drugs—Annual Technical Reports (2009-2013)*.
²Kolodny et al. *Annu Rev Public Health*. 2015;36:559-74.
³HMS Health, National Prescription Audit, years 1997-2013.

Opioid harm is not limited to non-medical users: the Opioid Continuum

- Misuse can include use with other CNS depressant drugs, dosing errors, or use for non-pain-related purposes (ie, abuse)



Deaths associated with prescription opioid analgesics have been plateauing; heroin deaths continue to rise

- Although many deaths are associated with drug abuse, some result from "therapeutic misadventures" with opioid analgesics prescribed for pain¹

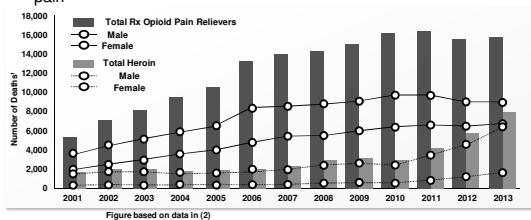


Figure based on data in (2)

Between 2001–2013, more overdose deaths involving prescription opioid analgesics were estimated to have occurred each year than deaths from heroin and cocaine combined; heroin-related deaths have been increasing²

¹Wernmelting et al. *Drug Deliv Transl Res*. 2013; 3(1): 63-74.
²National Center for Health Statistics, CDC Wonder. <http://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates>.

Pain Management Goal: Define most appropriate treatment regimen for each person in pain, which could include opioids



Fine PG, et al. *J Support Oncol*. 2004;2(suppl 4):5-22.
Portenoy RK, et al. In: Lowinson JH, et al, eds. *Substance Abuse: A Comprehensive Textbook*. 4th ed. Philadelphia, PA: Lippincott, Williams & Wilkins; 2005:863-903.

Rational use of opioid analgesics for chronic cancer and non-cancer pain

- Dichotomy of “pro-opioid” and “anti-opioid” is false, and does not serve healthcare professionals, patients, or society well
 - Ethical healthcare providers are “pro-health” and make treatment decisions within that context
- Clinicians must
 - Learn how to select patients for opioid therapy, when indicated
 - Manage patients on opioid therapy as safely and effectively as possible

Opioid Receptors

- Administered opioids bind to the same three receptor subtypes that normally bind endogenous opioid peptides¹
 - μ (MOP): Analgesia, sedation, respiratory depression, bradycardia, nausea, vomiting, reduced gastric motility
 - δ (DOP): Spinal/supraspinal analgesia, reduced gastric motility
 - κ (KOP): Spinal analgesia, diuresis, dysphoria
- Opioids can be classified according to their effect at opioid receptors¹
 - Agonists: act at a receptor to produce maximal receptor-mediated responses; eg, morphine and analgesia
 - Antagonists: bind to a receptor but do not cause a functional response; binding prevents an agonist from binding to that receptor, however, eg, naloxone
 - Partial agonists: can bind to a receptor but result in only partial functional response, independent of the amount of drug administered, eg, buprenorphine
- Most clinically administered opioid analgesics bind to μ (MOP)

¹Patlan H and Williams J. *British Journal of Pain*. 2012; 6(1):11-16.

Opioids have benefits for many patients with chronic pain

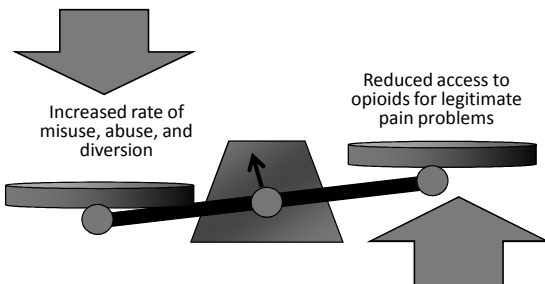
- Not all patients become dependent or addicted
- Most patients do not experience overdose and death
- Many patients respond well if not at first to one opioid, then to an alternative opioid(s) and at doses within recommended ranges¹
- But not all types of chronic pain are optimally treated with opioid therapy
 - Headache
 - Fibromyalgia
 - Chronic abdominal pain
- However, there may be more than one pain type in a given patient

Drug	Approximate equianalgesic dose ¹
Morphine (reference)	30 mg
Fentanyl transdermal	12.5 μ g/h
Hydrocodone	30
Hydromorphone	7.5
Oxycodone	20
Oxymorphone	10
Codeine	200

¹oral and transdermal
Table adapted from (1)

¹90-120 mg/day, MED, in Franklin G. *Neurology*. 2014. 83:1277-1284.

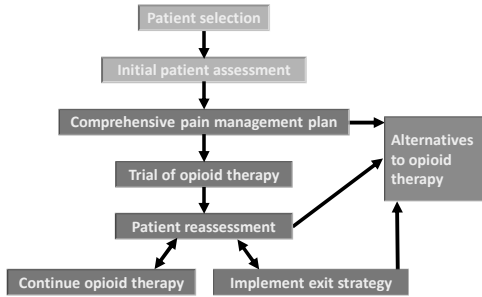
Need to balance access to pain medications with misuse and abuse prevention



Kuehn BM. *JAMA*. 2007;297(3):249-251.

What can we clinicians do?

Proposed critical thinking model for chronic opioid therapy



Goals of clinical assessment

- Achieve diagnosis of pain
- Identify and treat underlying causes of pain
- Identify and treat comorbid conditions
- Evaluate psychosocial factors
- Evaluate functional status (activity levels)
- Set goals
- Develop a targeted treatment plan
- Determine whether a consultation is needed

Evaluation of the patient

- Medical history
- Physical exam including pain assessment
- Review of prior work up, diagnostic tests, prior treatment
- Document the nature, intensity, location of pain, effect of pain on physical and psychological function
- History of substance abuse

Risk stratification

10 Principles of universal precautions

1. Diagnosis with appropriate differential
2. Psychological assessment including risk of addictive disorders
3. Informed consent (verbal or written/signed)
4. Treatment agreement (verbal or written/signed)
5. Pre-/post-intervention assessment of pain level and function
6. Appropriate trial of opioid therapy adjunctive medication
7. Reassessment of pain score and level of function
8. Regularly assess the "Four A's" of pain medicine: *Analgesia, Activity, Adverse Reactions, and Aberrant Behavior*
9. Periodically review pain and comorbidity diagnoses, including addictive disorders
10. Documentation

Gourlay DL, Heit HA. *Pain Med.* 2009;10(Suppl 2):S115-123.
 Gourlay DL, et al. *Pain Med.* 2005;6(2):107-112.

Risk factors for aberrant behaviors/harm

Biological	Psychiatric	Social
Age ≤ 45 years Gender Family history of prescription drug or alcohol abuse Cigarette smoking	Substance use disorder Preadolescent sexual abuse (in women) Major psychiatric disorder (eg, personality disorder, anxiety or depressive disorder, bipolar disorder)	Prior legal problems History of motor vehicle accidents Poor family support Involvement in a problematic subculture

Katz NP, et al. *Clin J Pain.* 2007;23(2):103-118. Manchikanti L, et al. *J Opioid Manag.* 2007;3(2): 89-100. Webster LR, Webster RM. *Pain Med.* 2005;6(6):432-442.

Opioid risk assessment and guidance

- Questionnaires
 - Current Opioid Misuse Measure (COMM)
 - Diagnosis, Intractability, Risk, and Efficacy (DIRE)
 - Opioid Risk Tool (ORT)
 - Screener and Opioid Assessment for Patients in Pain—Revised (SOAPP-R)
 - Screening Instrument for Substance Abuse Potential (SISAP)
- Opioid treatment agreement
- Reviewing PDMP information
- Urine drug testing (UDT)
- Abuse deterrent opioid formulations
- Ongoing patient monitoring

Butler SF, et al. *J Pain*. 2008;9(4):360-372. Katz NP, et al. *Clin J Pain*. 2007;23(2):103-118. Webster LR, Webster RM. *Pain Med*. 2005;6(6):432-442. Manchikanti L, et al. *J Opioid Manag*. 2007;3(2):89-100.

Opioid Risk Tool

Mark each box that applies

	Female	Male
1. Family history of substance abuse		
Alcohol	<input type="checkbox"/> 1	<input type="checkbox"/> 3
Illegal drugs	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Prescription drugs	<input type="checkbox"/> 4	<input type="checkbox"/> 4
2. Personal history of substance abuse		
Alcohol	<input type="checkbox"/> 3	<input type="checkbox"/> 3
Illegal drugs	<input type="checkbox"/> 4	<input type="checkbox"/> 4
Prescription drugs	<input type="checkbox"/> 5	<input type="checkbox"/> 5
3. Age (mark box if between 16 and 45 years)	<input type="checkbox"/> 1	<input type="checkbox"/> 1
4. History of preadolescent sexual abuse	<input type="checkbox"/> 3	<input type="checkbox"/> 0
5. Psychological disease		
ADD, OCD, bipolar, schizophrenia	<input type="checkbox"/> 2	<input type="checkbox"/> 2
Depression	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Scoring totals	—	—

Administration

- Initial visit
- Prior to opioid therapy

Scoring

- 0-3 (6%): low risk
- 4-7 (28%): moderate risk
- ≥8 (91%): high risk

Percentages indicate proportion of classified patients who exhibited an aberrant behavior

ADD, attention-deficit disorder; OCD, obsessive-compulsive disorder. Webster LR, Webster RM. *Pain Med*. 2005;6(6):432-442.

Screener and Opioid Assessment for Patients with Pain (SOAPP®) Short Form

Please answer the questions below using the following scale:

0 = Never, 1 = Seldom, 2 = Sometimes, 3 = Often, 4 = Very Often

- How often do you have mood swings? 0 1 2 3 4
- How often do you smoke a cigarette within an hour after you wake up? 0 1 2 3 4
- How often have you taken medication other than the way that it was prescribed? 0 1 2 3 4
- How often have you used illegal drugs (for example, marijuana, cocaine, etc.) in the past five years? 0 1 2 3 4
- How often, in your lifetime, have you had legal problems or been arrested? 0 1 2 3 4

Please include any additional information you wish about the above answers. Thank you.

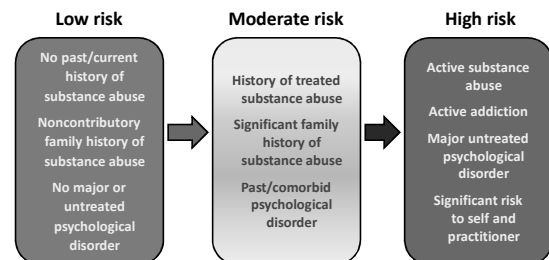
Multiple versions of the SOAPP are available at PainEDU.org

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To score the SOAPP-SF, add ratings of all questions. A score of 4 or higher on this 5-question version of the SOAPP-SF is considered high risk.

Score = 3

Stratify risk



Webster LR, Webster RM. *Pain Med*. 2005;6(6):432-442.

Principles for responsible prescribing

- I have resolved key points before initiating opioid therapy
 - Diagnosis established and opioid treatment plan developed
 - Established level of risk
 - I can treat this patient alone/I need to enlist other consultants to co-manage this patient (pain or addiction specialists)
- I have considered nonopioid modalities
 - Pain rehabilitation program
 - Behavioral strategies
 - Non-invasive and interventional techniques

Patient background and personal history influences risk of death from overdose with prescription opioid analgesics

Category	Risk Factor
Demographics ¹	<ul style="list-style-type: none"> Gender (male?) Between the ages of 45-54 years White or Native American
Socioeconomics ¹	<ul style="list-style-type: none"> Residing in a rural area Low income Covered by Medicaid
Substance abuse ²	<ul style="list-style-type: none"> Alcohol consumption Long-term opioid use Recent medical care for opioid poisoning or intoxication Recent released prison or from a mandatory abstinence or drug detox program History of substance abuse²
Prescription drug use	<ul style="list-style-type: none"> Filling of multiple prescriptions (doctor shopping)¹ Concomitant use of CNS depressants such as benzodiazepines and tricyclic antidepressants³
Other	<ul style="list-style-type: none"> Military veteran⁴ Mental health problem¹

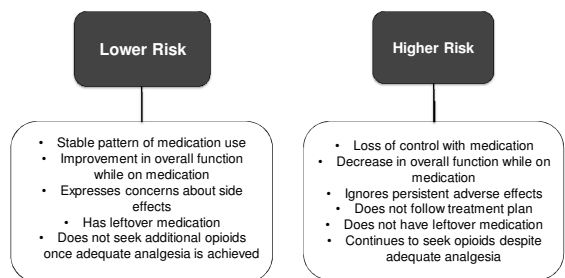
¹CDC policy document: Overdose and ER Interventions Payors. ²SAMHSA Opioid Overdose Toolkit. HHS Publication No. (SMA) 13-4742. Rockville, MD: SAMHSA, 2013. ³Webster LR, et al. *Pain Med*. 2011;12 Suppl 2:S26-S25. ⁴Reul KH, et al. *J Am Med Assoc*. 2015;307:940-947.

Medical history influences risk of overdose

- The diagnosis of any of the following medical conditions increases the risk of overdose¹
 - Sleep apnea
 - Chronic obstructive pulmonary disease
 - Asthma
 - Chronic kidney disease
 - Liver function abnormalities
 - HIV infection²
- Risk is also influenced by
 - Post traumatic stress syndrome
 - Other psychological or psychiatric conditions

¹Zedler B et al. *Pain Med.* 2014;15:1911-28.
²Seal KH, et al. *J Am Med Assoc.* 2012;307:940-947.

Risk of opioid use disorder based on patient behaviors



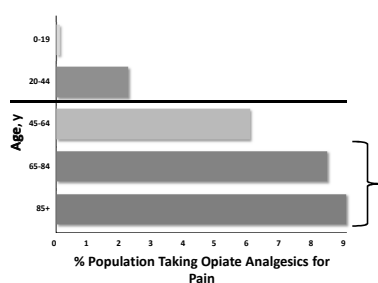
¹Gunderson EW et al. *Subst Abuse.* 2009;30(3):253-260.

Risk of overdose for bystanders: children and teenagers

- Young children and teenagers are exposed to prescription opioids that are prescribed for others, most commonly at home¹
- A RADARS[®] study (2003–2006) found that nearly all exposures to prescription opioids in children <6 years old involved ingestion (99%) and occurred in the home (92%)¹
 - In 9,179 children, exposures were associated with 8 deaths
- A 10-year study of pediatric poisonings compared against adult prescriptions found adult medications significantly associated with exposures and poisonings in children of all ages with the strongest association for opioids²
 - Across medications, the greatest risk was among children <5 years old, then 13–19 year-olds
 - Rates of ED visits were highest for hypoglycemics (60.1%) but serious injuries and hospitalizations occurred most frequently with opioids (26.8%, 35.2%, respectively)
- Every day, 2,500 US adolescents, aged 12–17, abuse a prescription pain reliever for the first time³
 - Past-month non-medical use of opioid pain relievers highest in 15–24 year-olds⁴

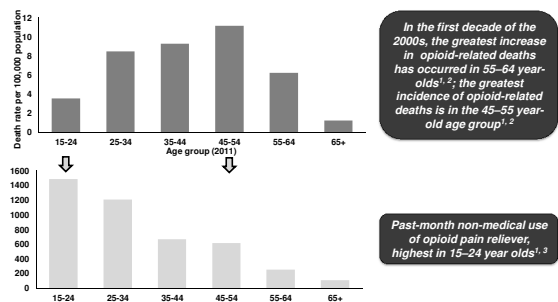
¹Bailey JL, et al. *Am. Emerg Med.* 2009;53:419-34.
²Burghead, et al. *Pediatrics.* 2013;132:18-27.
³<http://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf>
⁴Kolodny A, et al. *Ann Rev Public Health* 2015. 36:559-74.

Chronic use of prescription opioid analgesics is most common in older age groups



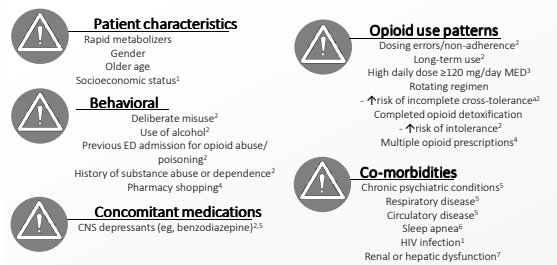
Express Scripts Report. A nation in pain. Accessed June 9, 2015.

Demographics of unintentional opioid analgesic-related deaths



Figures adapted from ¹Kolodny, et al. *Ann Rev Pub Health.* 2015; 36:559-74.
²Chen LH, et al. *NCHS Data Brief* No. 166. 2014. Hyattsville, MD: Natl. Cent. Health Stat.
³SAMHSA. *NSDUJ Rep* 2009. Rockville, MD: SAMHSA.

Key risk factors for overdose in patients using prescription opioids for pain management



¹Loss of tolerance can result in overdose due to increased effect from lower dose.
²WHO. *Community management of opioid overdose.* http://www.who.int/substance_abuse/publications/management_opioid_overdose/en/
³SAMHSA *Opioid Overdose Toolkit.* HHS Publication No. (SMA) 13-4742. Rockville, MD: SAMHSA; 2013. 7 Franklin. *Neurology.* 2014. 83:1277-1284.
⁴Yang Z, et al. *J Pain.* 2015;16(5):461-476.
⁵Yoshida MA, et al. *AMA Intern Med.* 2014;174(12):2019-2027.
⁶Webster LR, et al. *Pain Med.* 2011;12 Suppl 2:S26-S35.
⁷Johnson SJ. *Pain Treatment Topics.* June 2007. <http://paincommunity.org/ibp/wp-content/uploads/Opioids-Renal-Hepatic-Dysfunction.pdf>. Accessed Jan 2, 2015.

Most opioid analgesic prescriptions in the US are for short-acting opioid analgesics (SAOAs)

- More than 50% of opioid analgesic users are taking SAOAs¹
 - Long-acting opioid analgesics (LAOAs) have a longer duration of analgesic action, but a potentially longer onset of action, or both²
- SAOAs available in combination with acetaminophen or an NSAID have a limited maximum daily dose²
 - Due to risk of liver and gastrointestinal toxicity mediated by non-opioid component
 - This may prevent titration of opioid to adequate dose
- SAOAs and LAOAs can be effective for chronic pain²
 - Direct comparisons in efficacy and safety are scarce
- The increase in SAOA use is in part driven by changes in how they are used: in the 5 years prior to 2013¹
 - The number of prescriptions per patient increased
 - The number of days SAOs were prescribed increased

Drug	Market Share, ¹ %
Vicodin® (hydrocodone with acetaminophen)	46.1
Ultram® (tramadol)	14.7
Percocet® (oxycodone with acetaminophen)	13.6
OxyContin® (oxycodone)	8.3
Tylenol® with codeine (acetaminophen with codeine)	3.8

Table adapted from (1)

¹Market share is for the brand, not the generic

²Eggen S, Silverstein D. *Mayo Clin Proc.* 2009;84(7):602-612

Most patients prefer SAOAs

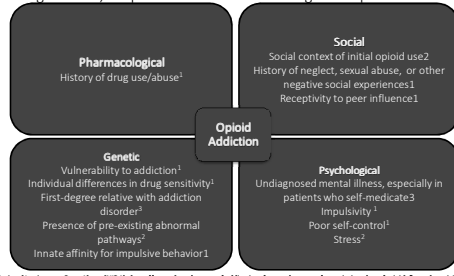


- Preference for SAOA is *vis a vis* analgesia
- They use less opioid – but more often – when SAOA alone is used compared with both a LAOA plus SAOA¹
- The trend for longer-term use of short-acting prescription opioids is concerning, as extended use of these agents can lead to an increase in drug tolerance and subsequent dependence²

¹Argoff CE, Silverstein DI. *Mayo Clin Proc.* 2009;84(7):602-612

Dependence (physical) is not addiction

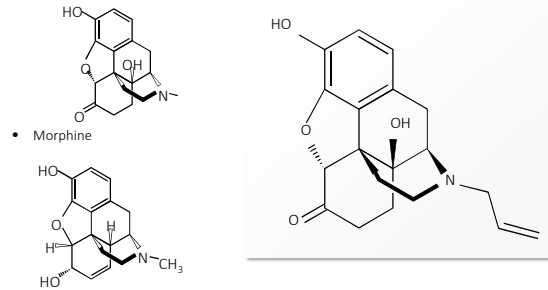
- Addiction* can include dependence but is distinguished by compulsive drug seeking and use, despite sometimes devastating consequences



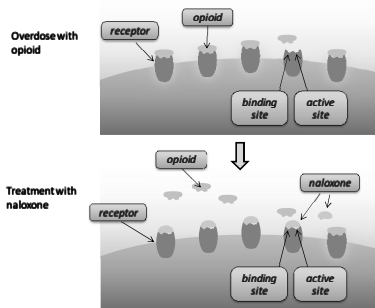
*According to National Institute on Drug Abuse (NIDA) <http://www.drugabuse.gov/publications/research-reports/psychiatry-drug-addiction/how-do-opioids-affect-brain-body>; <http://www.futureofpainbeach.com/drug-abuse/contributing-factors/>; Koesten T et al. *Science & Practice Perspectives* 2002;13-20; <http://www.mtrngs.com/opioids/-effects-signs-symptoms>

Naloxone hydrochloride

- Synthetic congener of oxymorphone



Naloxone mechanism of action^{1, 2, 3}



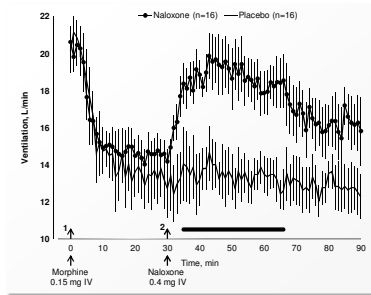
- Potent μ opioid receptor antagonist
 - Non-selective, competitive
- Binds to opioid receptor and blocks opioid effects
 - No significant effects in patients not using opioids
- In persons using opioids, reverses the effects of opioid overdose including respiratory depression, sedation, and hypotension
 - Precipitates withdrawal syndrome

¹Naloxone Prescribing Information. <http://www.drugs.com/pro/naloxone.html>

²Dahan A, et al. *Anesthesiology* 2010;112(1):226-238.

³Patton H and Williams J. *British Journal of Pain* 2012; 4(1):11-16.

Reversal of morphine-induced respiratory depression by IV naloxone in healthy volunteers¹



¹Figure adapted from (1)

¹Dahan A, et al. *Anesthesiology* 2010;112(1):226-238.

Considerations for opioid analgesics in pain management: implications for risk of overdose

- Variability in dose requirements
- Variation in susceptibility to side effects
- Varying potency among opioids (opioid equivalence)
 - Can result in differences in side effect profiles
 - These differences can be genetic in origin
- Presence of co-morbidities
 - Depression, may be underdiagnosed
 - Insomnia, very common in patients with chronic pain
- Dose regimens and tolerance
- Variability in outcomes (starting pain intensity and degree of relief with opioid) measurements

Interpatient variability

Nadeau S. *Neurology*. 2015; 85:646-65

Naloxone in clinical practice

Naloxone has been approved in the US for reversal of the effects of opioid overdose since 1971

Injection indicated for complete or partial reversal of opioid depression¹

Dosing initiated at 0.4-2 mg and repeated at 2-3 min intervals until patient responds with adequate spontaneous breathing.¹

Rapidly distributed throughout the body¹:

C_{max} : 1.07 ng/mL²
 T_{max} : 20 min²

Duration of effect 30-90 min; further doses may be required if patient has taken long-acting opioids.
 $t_{1/2}$: 30-81 min¹

Well tolerated but can precipitate opioid withdrawal syndrome in patients with opioid dependence

Body aches

- Diarrhea
- Fever
- Irritability
- Increased blood pressure
- Nausea/vomiting
- Piloerection
- Runny nose
- Shaking
- Sneezing
- Sweating
- Tachycardia
- Yawning
- Weakness

¹Naloxone Prescribing Information <http://www.drugs.com/pro/naloxone.html>
²Epidio Prescribing Information

Clinical interface between pain and addiction

- Pain and addiction are complex; both have strong behavioral components¹
- Both the addiction and pain systems are dependent on opioid agonist activity at the mu-receptor²
- Both the treatment of pain with opioid analgesics and abuse of opioids interact at the brain-reward center in the limbic system, which leads to feelings of pleasure or reward³
- Genetic data suggest that pain, opioid analgesia, and opioid addiction may share similar patterns of gene expression¹
- The goals of pain treatment are to reduce pain and suffering, enhance quality of life, and increase the ability to function, which requires achieving a balance between treating the pain and avoiding diversion and abuse⁴
- Developing and following a treatment plan, and monitoring behaviors of patients treated with opioid analgesics can help achieve treatment goals^{4,5}

¹ASAM *Essentials of Addiction Medicine*. 2015. (Chapter 9):535-540.
²Frescol AM, et al. *Pain Physician*. 2008;11:5133-5133.
³Genovese S, Kooch GF. *Future Neuro*. 2010;15(3):353-351.
⁴Pasnik SD, Kirish K.L. *Exp Clin Psychopharm*. 2008;16(3):400-404.
⁵Dunderson EW et al. *Subst Abuse*. 2009;20:253-260.

Criteria for substance use disorder diagnosis:¹ patient must meet at least 2 criteria

- Continuing to use opioids despite negative personal consequences
- Repeatedly unable to carry out major obligations at work, school, or home due to opioid use
- Recurrent use of opioids in physically hazardous situations
- Continued use despite persistent or recurring social or interpersonal problems caused or made worse by opioid use
- Tolerance as defined by either a need for markedly increased amounts to achieve intoxication or desired effect or markedly diminished effect with continued use of the same amount
- Withdrawal manifesting as either characteristic syndrome or the substance is used to avoid withdrawal
- Using greater amounts or using over a longer time period than intended
- Persistent desire or unsuccessful efforts to cut down or control opioid use
- Spending a lot of time obtaining, using, or recovering from using opioids
- Stopping or reducing important social, occupational, or recreational activities due to opioid use
- Consistent use of opioids despite acknowledgment of persistent or recurrent physical or psychological difficulties from using opioids
- Craving or a strong desire to use opioids

2-3 criteria, mild

4-5 criteria, moderate

6-7 criteria, severe

¹American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. Washington, DC: American Psychiatric Association.

Opioid overmedication and potential for overdose¹

OVERMEDICATION

Unusual sleepiness or drowsiness
 Mental confusion
 Slurred speech
 Slow or shallow breathing

Pinpoint pupils (meiosis)
 Slowed heartbeat
 Low blood pressure
 Difficulty waking the person

OVERDOSE

Face clammy and pale
 Body is limp
 Fingernails and lips tinged blue or purple

Vomiting/gurgling noises
 Respiration and/or heartbeat very slow or stopped
 Cannot be awakened
 Death rattle

¹SAMHSA Opioid Overdose Toolkit. HHS Publication No. (SMA) 13-4742. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013.

Strategies for prevention of overdose

- Education of drug users¹
- Family support groups¹
- Motivational post-overdose interviews¹
- Supervised injecting rooms¹
- Provide naloxone for home use¹
- Encourage prescribers to use state Prescription Drug Monitoring Program (PDMPs)²
- Assessment of patient: Obtain history of the patient's past drug use²
- In emergency situations, the physician should prescribe the smallest possible quantity (typically not exceeding 3 days' supply) and arrange for return visit the next day²

¹Sporer KA. *Brit. Med Journal*. 2003; 326:442-444.
²SAMHSA Opioid Overdose Toolkit. HHS Publication No. (SMA) 13-4742. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013.

Mitigation of overdose risk in people with pain

- Risk exists for both people with pain, and people with substance use disorders
 - And, of course, in those with both
- There is a recent trend toward increased prescribing of naloxone for use in case of unintentional overdose
- Much of the focus in this area has been for people without a legitimate medical need for opioids as part of a pain care plan
- When should naloxone prescribing be considered for people with pain who use opioids for pain relief?

INTERVENTIONS IMPLEMENTED IN PATIENTS AT RISK FOR OPIOID²

- Take special precautions with new patients
- Educate patients and obtain informed consent
 - Monitor patient's response to treatment
 - Decide when and whether to end opioid
- Consider prescribing naloxone for patients

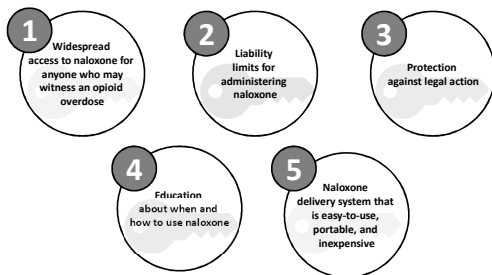
² SAMHSA Opioid Overdose Toolkit. HHS Publication No. (SMA) 13-4742. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2013.

Recommendations for safe and effective use of opioid analgesics for chronic noncancer pain¹

- 1 Opioid analgesic treatment agreement
- 2 Screen for prior or current substance abuse/misuse (alcohol, illicit drugs, heavy tobacco use)
- 3 Screen for depression
- 4 Prudent use of random urine drug screening (diversion, non prescribed drugs)
- 5 Do not use concomitant sedative-hypnotics or benzodiazepines
- 6 Track pain and function to recognize tolerance and track effectiveness
- 7 Track daily MED using an online dosing calculator
- 8 Seek help if MED exceeds 80-120 mg and pain and function have not substantially improved
- 9 Use the state Prescription Drug Monitoring Program to monitor all sources of controlled substances

¹ Franklin GM. Neurology. 2014;83:1277-1284.

Key requirements of a naloxone policy¹



¹ Network for Public Health Law Naloxone Access Report, May 8, 2015. https://www.networkforphl.org/_asset/.../network-naloxone-10-4.pdf. Accessed June 30, 2015.

What is the "Good Samaritan Policy"?



¹ Network for Public Health Law Naloxone Access Report, May 8, 2015. https://www.networkforphl.org/_asset/.../network-naloxone-10-4.pdf. Accessed June 30, 2015.

Putting naloxone into the hands of bystanders (overdose witnesses)

THIRD-PARTY PRESCRIBING

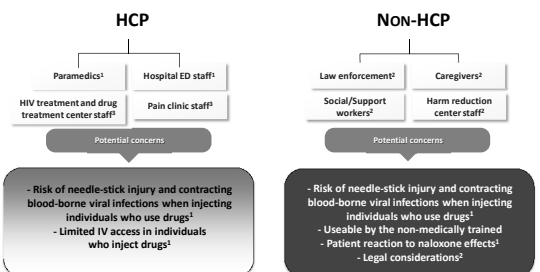
Several states have introduced legislation allowing physicians to prescribe naloxone to a third party who can give naloxone when indicated¹

STANDING ORDER

In some cases, physicians can issue a standing order allowing non-medical personnel to distribute naloxone to those they consider at risk for possible overdose¹

¹ Network for Public Health Law Naloxone Access Report, May 8, 2015. https://www.networkforphl.org/_asset/.../network-naloxone-10-4.pdf. Accessed June 30, 2015.

Potential concerns regarding approved formulations when in position to use naloxone for overdose victim



¹ Wermeling DP. Drug Deliv. Transf. Res. 2013;3:63-74.

² Network for Public Health Law Naloxone Access Report, May 8, 2015. https://www.networkforphl.org/_asset/.../network-naloxone-10-4.pdf. Accessed June 30, 2015.

³ Community Management of Overdose. WHO, 2014. www.who.int/substance_abuse

All Prescribers Play an Active Role in Reducing the Risks Associated With Opioids

- When opioids are being considered as part of a chronic pain treatment plan:
 - Establish diagnosis
 - History and physical
 - Relevant diagnostic tests
 - Complete an appropriate risk assessment PRIOR to prescribing
 - Monitor the patient regularly on an ongoing basis
 - Recognize that all patients are at risk
 - Prescribe opioids as part of a multimodal treatment regimen

McCarberg BH. *Postgrad Med.* 2011;123(2):119-130; Brennan MJ, et al. *PM R.* 2010;2(6):544-558.

Conclusions

- Opioid analgesics remain among the most commonly prescribed medications for people experiencing chronic pain.
- Among the many adverse effects of chronic opioid therapy is the potential for misuse, abuse and unintentional overdose resulting in significant morbidity including death.
- Multiple practical steps can be instituted by the prescriber to help reduce the risk of misuse and abuse as well as reduce the risk of unintentional overdose.