PAINWEEK®

Acute Care for Patients Admitted to the Hospital with Opioid Use Disorder

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Disclosure

- Nothing to disclose

Learning Objectives

- Describe the diagnostic criteria for opioid use disorder (OUD) as a chronic medical condition
- Discuss the importance of obtaining a patient's history and performing medication reconciliation
- Recognize how to optimize a pain management regimen by providing multimodal analgesia and management of Medication to treat opioid use disorder (MOUD)
- Cite the value of integrated coordination of care and treatment planning to include the patient and providers
- Summarize best practices in caring for patients with OUD while hospitalized, planning for discharge, harm reduction

A Healthcare Crisis

- Approximately 1.4 million people in the United States had a substance use disorder related to prescription opioids in 2019.
- In that same year nearly 50,000 people died related from opioid-involved overdoses.
- At the time, only about one quarter of those with Opioid Use Disorder (OUD) received treatment.

- Sadly, the opioid overdose crisis is heading in the wrong direction, with over 81,000 drug overdose deaths in the United States in the 12 months ending in May 2020.
- According to recent provisional data from the Centers for Disease Control and Prevention, that's the highest number of overdose deaths ever recorded in a 12-month period.

We now know that opioid OD deaths increased by 30 percent in 2020 to a record 93,000 people who've lost their lives (that we know of).

Ahmad FB, Rossen LM, Sutton P. Provisional drug overdose death counts.
National Center for Health Statistics. 2021.

A Healthcare Crisis

- Measures have been implemented to reduce barriers in treatment for OUD:
  - Restrictions relaxed on the dispensing of methadone by allowing longer “take homes”
  - Eliminating buprenorphine prescribing education requirements could lead to more clinicians offering this medication to their patients
- The expanded role of telemedicine in the care of patients with OUD has expanded access for patients living in remote areas/transportation difficulties/stigma reduction
- Healthcare providers will want to familiarize themselves with MOUD as more patients are likely to be prescribed them.
- Patients coming to the hospital for emergent or planned procedures, or with an acute pain condition may present unique challenges for the medical team.
- Managing MOUD while hospitalized for any condition will be important for patient satisfaction, safety, and continuity of care.
- The patient will likely be hyperalgesic, have increased opioid tolerance, and occasionally behavioral issues.
- In order to mitigate complications, it’s important to include discussion with the patient and set clear treatment plans and goals.

Understand Addiction as a disease

- "Addiction…
  - is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences.
  - People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences."

- Chronic, relapsing, treatable disease of the brain
  - It's often the driver of the admission; don't miss an opportunity to intervene.
  - Treatment can decrease LOS and readmissions, as well as mortality.
  - We treat all diseases, care for all patients without stigma/bias or withholding treatment.

American Society of Addiction Medicine 11400 Rockville Pike, Suite 200, Rockville, MD 20852
https://www.asam.org/docs/default-source/quality-science/asam's-2019-definition-of-addiction-(1).pdf?sfvrsn=b8b64fc2_2

“Addiction is not a weakness of willpower or a moral failing- it is a medical issue”

https://www.drugabuse.gov/news-events/nida-in-news/nida-director-dr-nora-volkow-discusses-addiction-pbs-nova

Diagnosis

- **Opioid Use Disorder (OUD):**
  - The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) uses 11 criteria to diagnose opioid use disorder as:
  - Mild (2-3 symptoms)
  - Moderate (4-5 symptoms)
  - Severe (6 or more symptoms).

- Must exhibit 2 or more criteria in preceding 12- month period.

American Psychiatric Association. (2013). Opioid Use Disorder. In *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Diagnostic Criteria

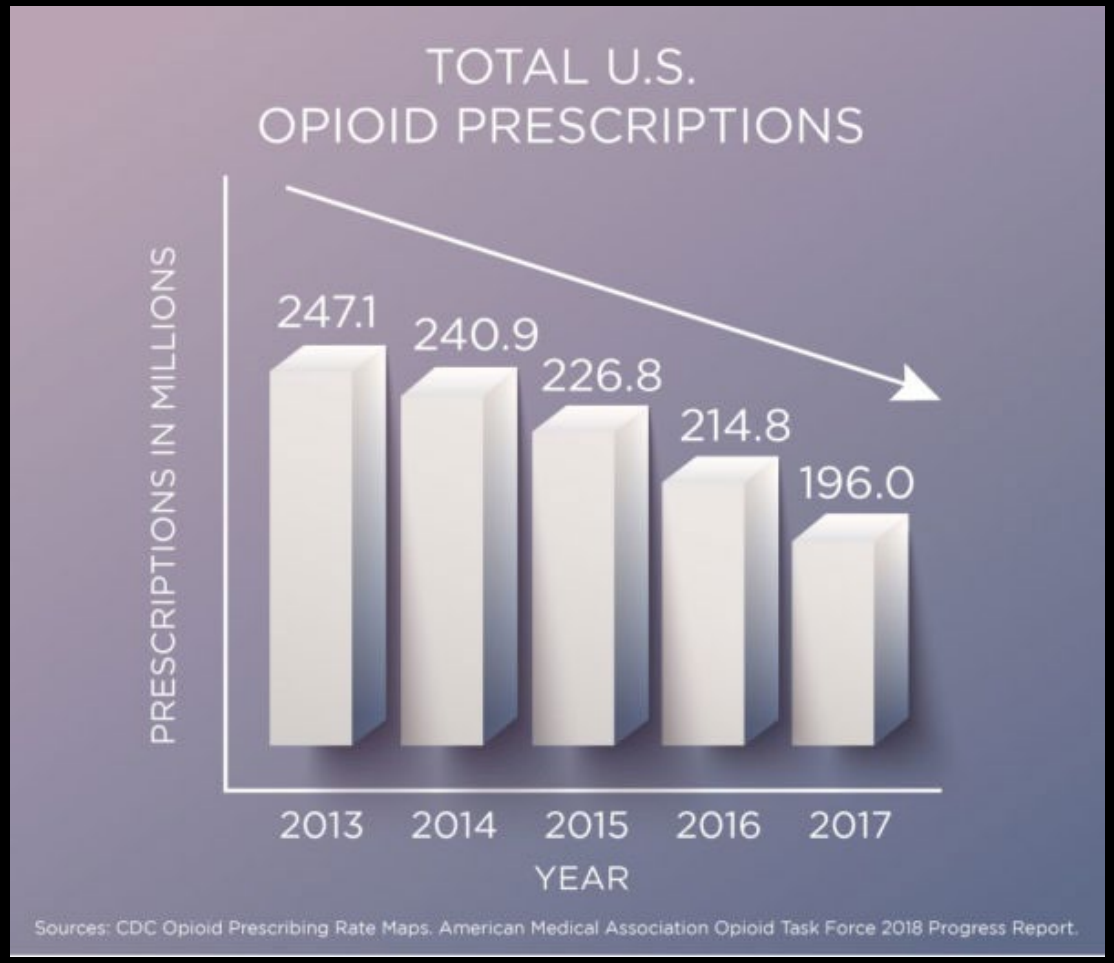
- Loss of Control
  - Substance taken in larger amounts or for a longer time than intended
  - Persistent desire or unsuccessful effort to cut down or control use of a substance
  - Great deal of time spent obtaining, using, or recovering from substance use
  - Craving (a strong desire or urge) to use opioids
- Social Problems
  - Continued opioid use that causes failures to fulfill major obligations at work, school, or home
  - Continued opioid use despite causing recurrent social or personal problems
  - Important social, occupational, or recreational activities are reduced because of opioid use
- Risky Use
  - Recurrent opioid use in dangerous situations
  - Continued opioid use despite related physical or psychological problems
- Pharmacological Problems
  - Tolerance
  - Withdrawal

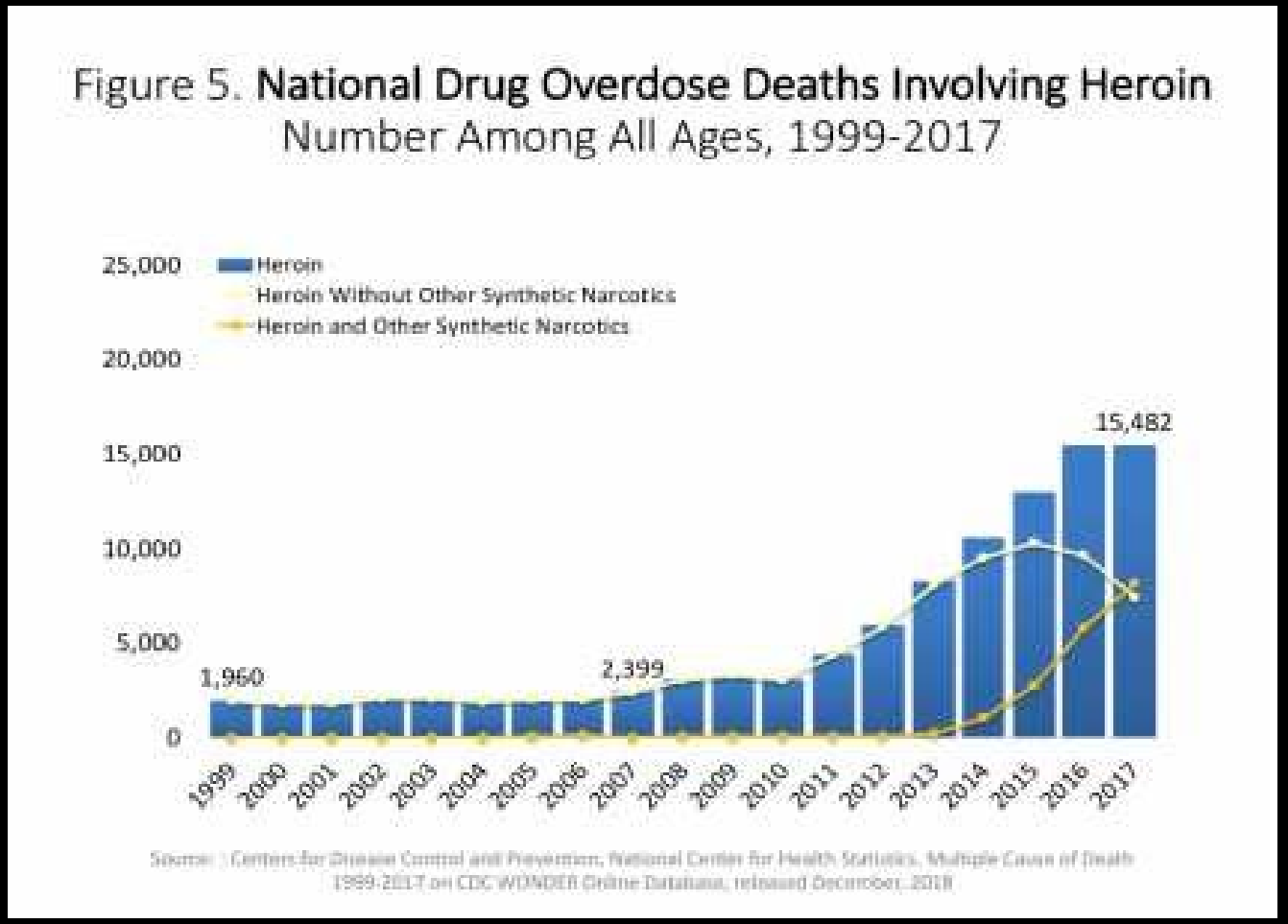
American Psychiatric Association. (2013). Opioid Use Disorder. In *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Now That OUD Has Been Diagnosed

- Don’t miss this opportunity; it may be one of the only times this has been discussed with the patient. Offer MOUD and other services.
- Honest, open, safe discussion. Establish rapport, present findings, ask open ended questions.
- Consult Social Work for further assessment, support, and coordination of care.
- Addiction Team if patient interested, service available.

Not All OUD Started Recreationally….





When Opioids Are Stopped….

https://johntalmadge.com/blog/files/category-painkillers.html

Medication Assisted Treatment

(MAT or MOUD) (or, Medication)

- Naltrexone
- Methadone
- Buprenorphine

Naltrexone

- Opioid antagonist
- “Opioid receptor blocker”
- 30 days duration injection (follow up important).
- Not to be used until opioids clear
- Acute pain management will be challenging but not impossible. Use adjuncts, interventional procedures.
- PO Naltrexone used for AUD; be aware when admitted

Methadone

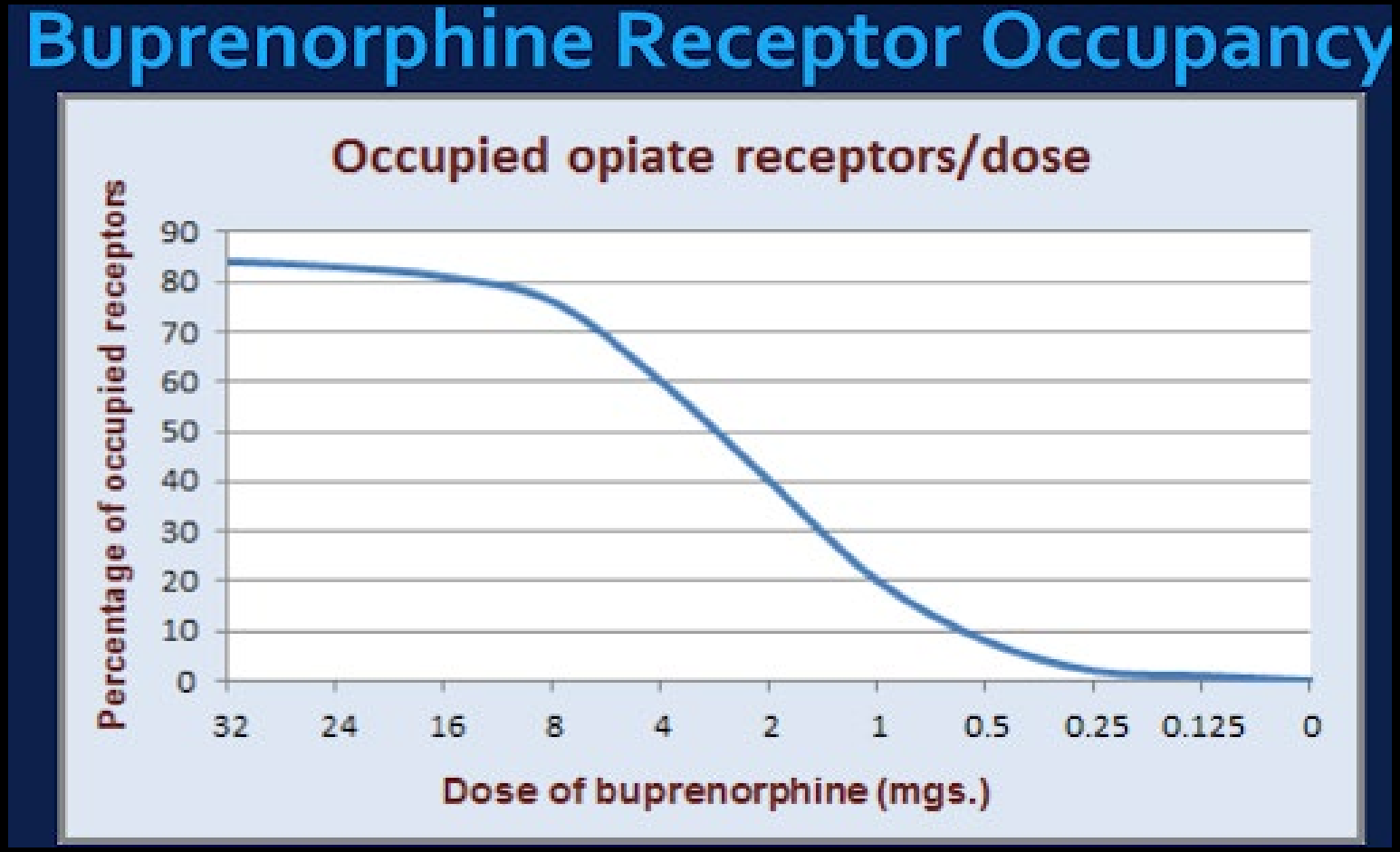
- Opioid agonist. Long and variable duration of action.
- Dispensed via OTP's, Dosed daily (and "take homes")
- Not on PDMP, verify with OTP
- Continue without interruption, similar to all PTA meds
- (Unless clinically contraindicated)
- Can divide dose while admitted for analgesic benefit
- For acute pain, use multi-modal analgesia including short acting opioids prn
- If NPO refer to guidelines and administer IV when possible
- Dose usually very 30-250mg/day, Dispensed as solution
- Many drug interactions, prolonged QTc
- Cannot be initiated in the hospital for treatment of OUD, but CAN be given for withdrawal (up to 72 hours, usually 30mg)
- When prescribed for pain management; tablets are at a much lower dose and WILL show on PDMP

Buprenorphine

- Analgesic, Opioid; Analgesic, Opioid Partial Agonist (Partial opioid agonist/antagonist)
- Buprenorphine exerts its analgesic effect via high-affinity binding to mu opiate receptors in the CNS; displays partial mu agonist and weak kappa antagonist activity.
- As a partial mu agonist, its analgesic effects plateau at higher doses and it then behaves like an antagonist
- In lower doses (2-4mg) it provides excellent analgesia.
- At higher doses (8mg+) it occupies more receptors and relieves withdrawal/opioid cravings.
- “Ceiling effect” so rare respiratory depression or euphoria in opioid tolerant people.

https://www.uptodate.com/contents/buprenorphine-drug-information?search=buprenorphine&source=panel_search_result&selectedTitle=1~149&usage_type=panel&kp_tab=drug_general&display_rank=1#F14301

Buprenorphine

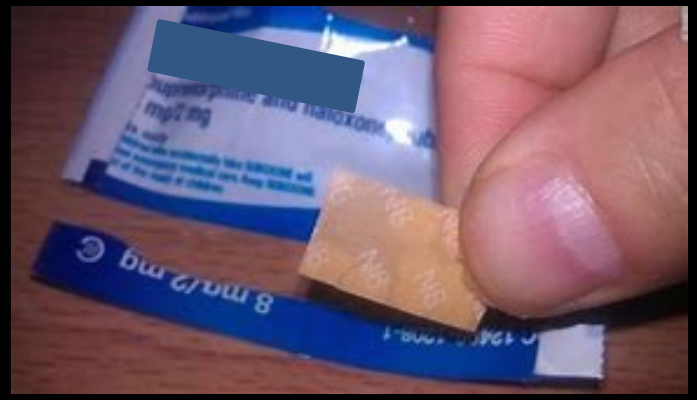


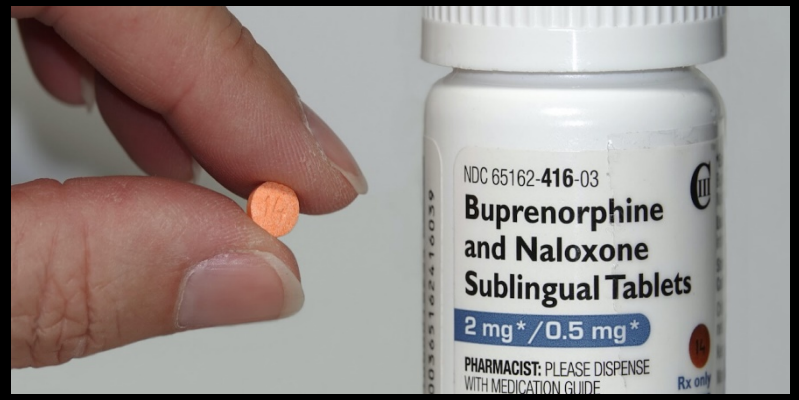
http://accurateclinic.com/accurate-education-pain-medications-buprenorphine

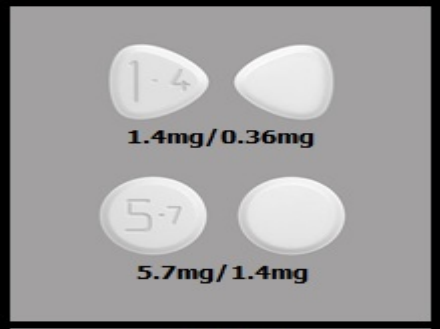
Buprenorphine

- Must obtain waiver to prescribe; has restrictions.
- Can and should be continued in hospital without waiver.
- Verify on PDMP and ask patient; important.
- Can use for opioid withdrawal without waiver, with caution.
- Educate on risk for precipitated withdrawal
- Usual doses 8-24mg/day
- Sublingual; Continue without interruption, including when NPO.
- Important to coordinate care when discharge planning; ensure patient has medication at home, follow up appointment. May collaborate with their outpatient MOUD provider.

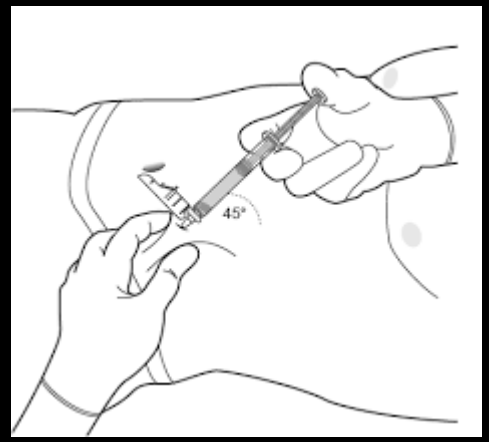
Buprenorphine *The Naloxone in combo products is NOT bioavailable using SL route. It's a misuse deterrent*







Zubsolv
Buprenorphine/Naloxone
(Sublingual)
Orexo



White, uncoated, biconvex round tablet debossed with an "8" on one side and an "→" on the other.

https://www.sublocade.com/Content/pdf/prescribing-information.pdf

https://www.opiateaddictionresource.com/news/11-06-2013-FDA-approves-generic-Suboxone/

https://www.bicyclehealth.com/blog/whats-the-difference-between-subutex-and-suboxone

Have a DEA License to Prescribe Controlled Substances? Get Your Buprenorphine Waiver!

- Should MOUD be continued when the patient has come to the hospital?
- If they've returned to active use, or using other drugs/alcohol?
- Substance Abuse and Mental Health Services Administration (SAMHSA) released treatment protocols that encouraged a more flexible approach:
  - *It is "not sound medical practice" to withhold addiction medications any more than doctors should withhold insulin from diabetic patients who struggle to change their diet or exercise habits".*
- Important to keep baseline opioid requirement fulfilled (unless clinical reason not to, such as OD, encephalopathy, etc..)

Lawrence A Haber, MD, Triveni DeFries, MD, MPH, Marlene Martin, MD, Things We Do for No Reason™: Discontinuing Buprenorphine When Treating Acute Pain. J. Hosp. Med 2019;10;633-635. Published online first August 21, 2019. doi:10.12788/jhm.3265

Your Patient Has Arrived…

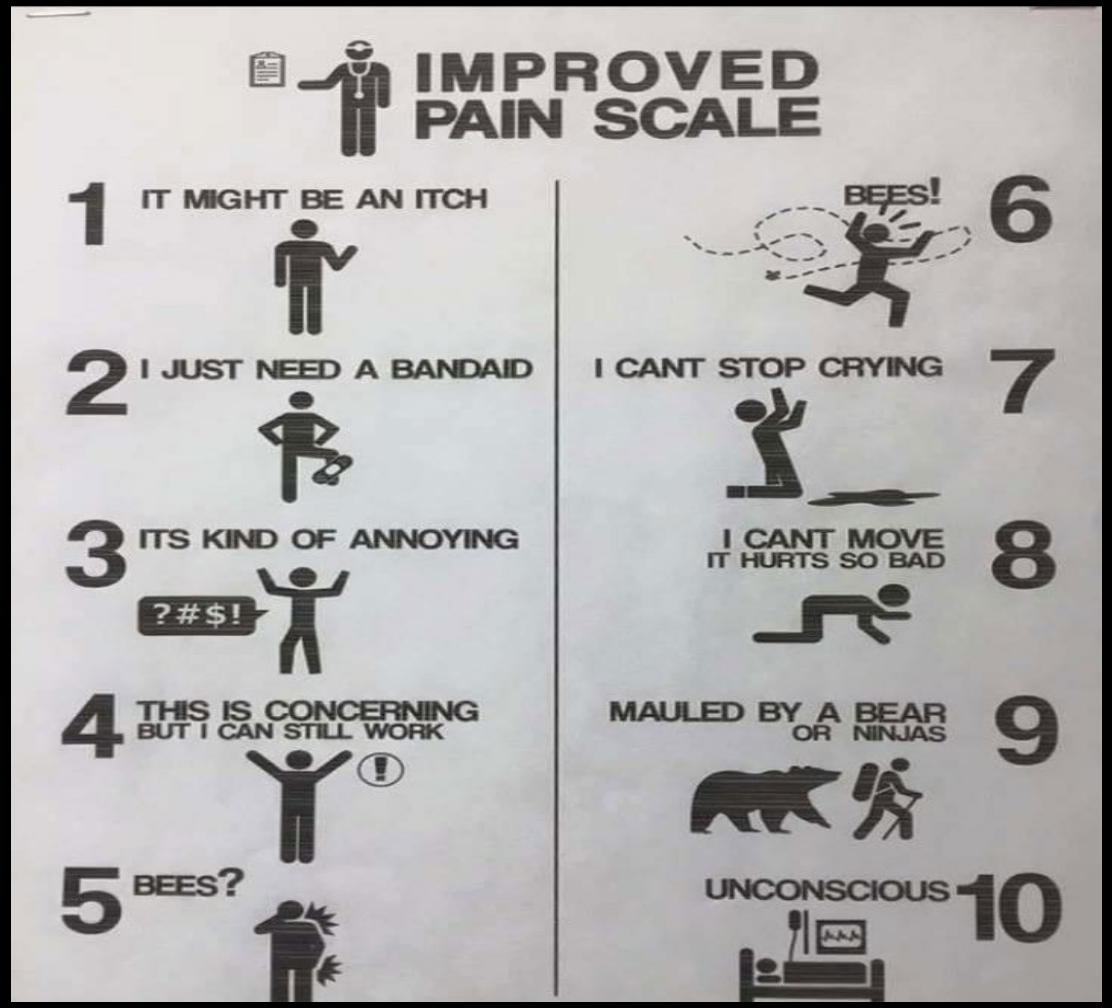
- Scenario #1:

- Your patient comes in and says they've been taking their buprenorphine. (continue it after verifying)
  - Scenario #2
- Your patient has been receiving/using opioids and no buprenorphine. (will have to wait to resume buprenorphine)
  - Scenario #3
- Your patient has been receiving opioids and buprenorphine. (can continue and titrate each)

Help Patient Set Realistic Pain Relief Goals

- Pain is often what drives patients to seek healthcare services.
- Pain management can be challenging for patients AND providers, nursing.
- Consider the pain driver and guidelines for treating the specific condition, and patient.
- Educate patient and staff and document rationale. (the reason IV opioid won't be given for cellulitis, etc..)
- For elective surgeries, conversation can (and should!) begin during elective surgery planning.
- Collaborate with Outpatient provider/PAT/Surgeon/Patient (what're their goals, reasonable expectations, follow up plan)
- Ask about prescribed opioids and illicit opioid. Check PDMP but ASK patient if taking
- Work together to help keep it tolerable, manageable (not usually zero).
- Consider the discharge plan; weaning, who will prescribe, etc..

Please Use an Appropriate, Validated Pain Scale



https://paindoctor.com/pain-scales/

Please Use an Appropriate, Validated Pain Scale

- **FUNCTIONAL PAIN SCALE**
- Rate…Description
- 0…… No pain
- 2…..Tolerable (and does not prevent activities)
- 4…..Tolerable (but does prevent some activities)
- 6……Intolerable (but can use phone, watch TV, read, eat)
- 8…..Intolerable (can’t use phone, watch TV, read, eat)
- 10….Intolerable (unable to verbally communicate because of pain)

Gloth FM 3rd, Scheve AA, Stober CV, Chow S, Prosser J. The Functional Pain Scale: reliability, validity, and responsiveness in an elderly population. J Am Med Dir Assoc. 2001 May-Jun;2(3):110-4. PMID: 12812581.

Pain Management

- Opioid Tolerant patients will usually require higher doses of opioid pain medication.
- Always use Multi-Modal Regimen whenever possible.
- Avoid opioid pain medication when possible (consider the pain driver!).

- Opioid Tolerant:
- The FDA defines a patient as *opioid tolerant* if for at least 1 week they have been receiving :
- ~oral morphine 60 mg/day;
- ~transdermal fentanyl 25 mcg/hour;
- ~oral oxycodone 30 mg/day;
- ~oral hydromorphone 8 mg/day;
- ~equianalgesic dose of any other opioid (illicit opioids such as diacetylmorphine; aka heroin)

FDA.gov

Dose Equivalents

Roughly equivalent daily doses of various opioids

Buprenorphine Doses	Oxycodone	Morphine	Heroin	Methadone
2 mg	30 mg	60 mg	1-2 bags	10 mg
4 mg	60 mg	120 mg	3 bags	20 mg
6 mg	90 mg	180 mg	4 bags	30 mg
8 mg	120 mg	240 mg	6 bags	40 mg
12 mg	180 mg	360 mg	8 bags	60 mg
16 mg	240 mg	480 mg	10 bags	80 mg

From: Vermont Buprenorphine Practice Guidelines
http://contentmanager.med.uvm.edu/docs/default-source/vchip-documents/vchip_2buprenorphine_guidelines.pdf?sfvrsn=2

https://emcrit.org/ibcc/buprenorphine/

Multi-Modal Analgesia

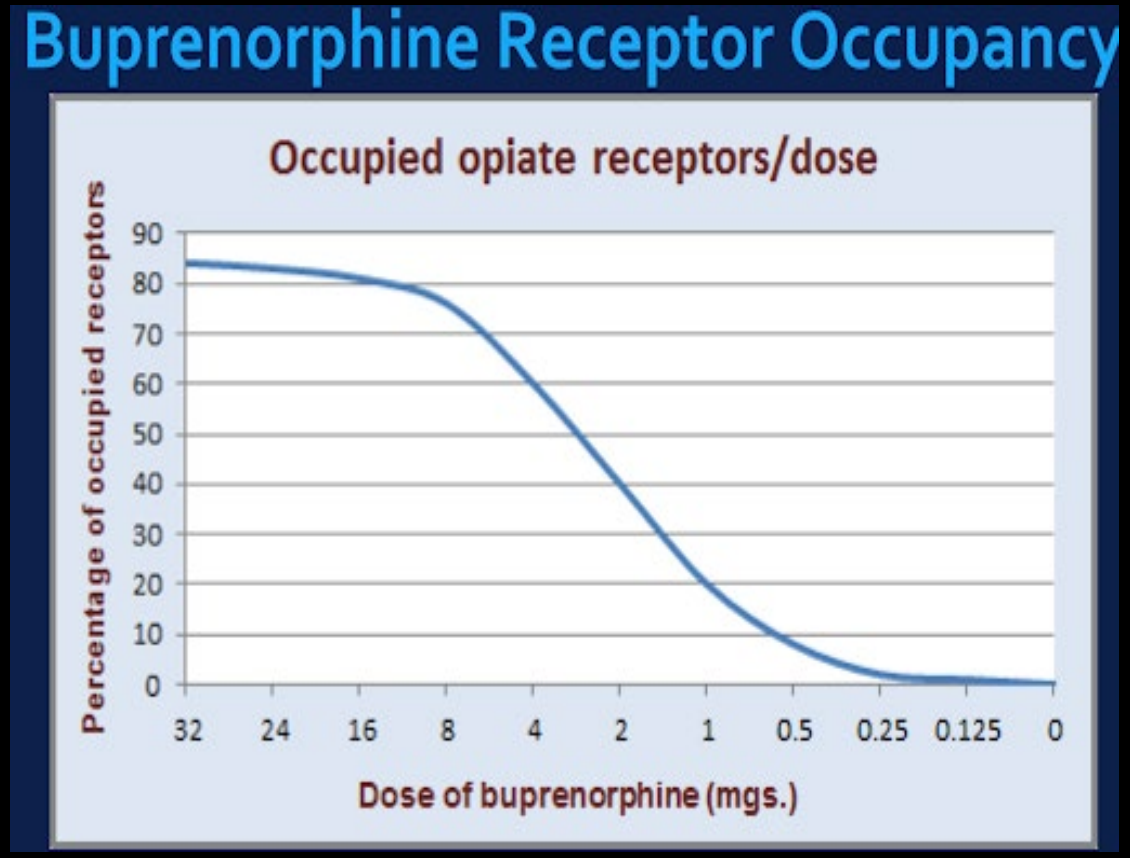
- Treat the patient and the pain driver (usual standard of care tx's, patient hx)
  - Continue home medications as clinically appropriate
  - Include patient and educate on available options and rationale

- Encourage non-pharmacologic methods throughout

- Start with/include Adjunct medications as appropriate:
  - NSAIDS- scheduled if not contraindicated
  - Acetaminophen- scheduled if not contraindicated
  - Muscle Relaxer
  - Topical agents
  - Interventional procedures

- *PRN versus scheduled; individualize treatment per patient and condition*
- *Pain Management does NOT = Opioids. A variety of options/interventions!*

Continue Buprenorphine Whenever Possible



- Dose for optimal analgesia.
- Can allow additional mu-opioids to be used (if necessary).
- Tell your patient!

http://accurateclinic.com/accurate-education-pain-medications-buprenorphine

Evidence Supports Continuing MOUD

- Interrupting buprenorphine introduces unnecessary complexity to a hospitalization, increases risk of exacerbation of pain, opioid withdrawal, and return to use and overdose if not resumed before hospital discharge.
- Despite buprenorphine's high affinity at the mu receptor, additional receptors remain available for full opioid agonists to bind and activate, providing effective pain relief.
- Patients physically dependent on opioid agonists, including buprenorphine, must be maintained on a daily equivalent opioid dose to avoid experiencing withdrawal. This maintenance requirement must be met before any analgesic effect for acute pain is obtained with additional opioids.

Lawrence A Haber, MD, Triveni DeFries, MD, MPH, Marlene Martin, MD, Things We Do for No Reason™: Discontinuing Buprenorphine When Treating Acute Pain. J. Hosp. Med 2019;10;633-635. Published online first August 21, 2019. doi:10.12788/jhm.3265

Let's Mention Gabapentin

- **Gabapentin**
  - Pharmacologic Category: Anticonvulsant, Miscellaneous; GABA Analog
- **FDA approved for:**
  - **Post-herpatic neuralgia, Seizures**
- **Off label used for:**
  - **AUD and alcohol withdrawal**
  - **fibromyalgia**
  - **social anxiety**
  - **Hiccups**
  - **chronic cough**
  - **neuropathic pain**
  - **Pruritis**
  - **RLS**
  - **menopausal vasomotor symptoms**

https://www.uptodate.com/contents/gabapentin-drug-information?search=gabapentin&source=panel_search_result&selectedTitle=1~149&usage_type=panel&kp_tab=drug_general&display_rank=1#F175068

Current Evidence on Misuse of Gabapentinoids

- The gabapentinoids, pregabalin and gabapentin, are abused and misused particularly by those with a history of drug abuse.
- Those with OUD seem to be more prone to misuse gabapentinoids than patients with other substance use disorders.
- Gabapentinoids are widely used in conditions where they are not approved and in higher doses than recommended.
- ***Most often, the gabapentinoids are obtained from healthcare providers.***
- Physicians and healthcare providers have to find methods to avoid prescriptions of gabapentinoids to patients with a risk of abusing drugs.

Hägg, S., Jönsson, A.K. & Ahlner, J. Current Evidence on Abuse and Misuse of Gabapentinoids. Drug Saf 43, 1235–1254 (2020). https://doi.org/10.1007/s40264-020-00985-6
https://rdcu.be/ci2E1

My Patient Wasn't Continued on Buprenorphine, is Taking Opioid Pain Medications. It's Now POD#11.

- It's time to resume buprenorphine:
  - Discuss with patient; formulate plan
  - Stop all opioids; order symptom management medications
  - Re-induct on buprenorphine when clinically ready

Should the Patient Take Buprenorphine Right Now? They Say They're in Opioid Withdrawal

- Since Buprenorphine is partial opioid agonist/antagonist and has a high affinity for the opioid receptor, it will displace mu-opioid agonists from the receptor, causing ***intolerable*** precipitated withdrawal.
- If patient has had NO interruption in buprenorphine, may continue without incident (and dose for analgesia).
- If patient has stopped buprenorphine, and has used opioid agonists (morphine, heroin, etc..) cannot resume yet.
- ***Must*** wait until opioid clears before giving buprenorphine. Patient must go into opioid withdrawal.
- Symptom management ***can and should*** occur at any time.
- Be aware of somatic complaints and educate on ***waiting as long as possible before taking buprenorphine.***
- ***Patients never forget the experience of precipitated withdrawal happening to them!***

https://www.uptodate.com/contents/buprenorphine-drug-information?search=buprenorphine&source=panel_search_result&selectedTitle=1~149&usage_type=panel&kp_tab=drug_general&display_rank=1#F143019

Opioid Withdrawal

- Patients report of symptoms

- Time of last opioid used

Clinical Opioid Withdrawal Scale

Appendix E. Clinical Opiate Withdrawal Scale (COWS)[56] (Used with permission).

Patient's Name:_____ Date and Time ___/___/___:_____

Reason for this assessment:_____

Resting Pulse Rate: _____beats/minute *Measured after patient is sitting or lying for one minute* 0 pulse rate 80 or below 1 pulse rate 81-100 2 pulse rate 101-120 4 pulse rate greater than 120	**GI Upset**: *over last 1/2 hour* 0 no GI symptoms 1 stomach cramps 2 nausea or loose stool 3 vomiting or diarrhea 5 multiple episodes of diarrhea or vomiting
Sweating: *over past 1/2 hour not accounted for by room temperature or patient activity.* 0 no report of chills or flushing 1 subjective report of chills or flushing 2 flushed or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face	**Tremor** *observation of outstretched hands* 0 no tremor 1 tremor can be felt, but not observed 2 slight tremor observable 4 gross tremor or muscle twitching
Restlessness *Observation during assessment* 0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/arms 5 unable to sit still for more than a few seconds	**Yawning** *Observation during assessment* 0 no yawning 1 yawning once or twice during assessment 2 yawning three or more times during assessment 4 yawning several times/minute
Pupil size 0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible	**Anxiety or Irritability** 0 none 1 patient reports increasing irritability or anxiousness 2 patient obviously irritable or anxious 4 patient so irritable or anxious that participation in the assessment is difficult
Bone or Joint aches *If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored* 0 not present 1 mild diffuse discomfort 2 patient reports severe diffuse aching of joints/muscles 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort	**Gooseflesh skin** 0 skin is smooth 3 piloerrection of skin can be felt or hairs standing up on arms 5 prominent piloerrection
Runny nose or tearing *Not accounted for by cold symptoms or allergies* 0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks	Total Score _____ The total score is the sum of all 11 items Initials of person completing assessment: _____

Score: 5-12 = mild; 13-24 = moderate; 25-36 = moderately severe; more than 36 = severe withdrawal

Clinical Policy: Critical Issues Related to Opioids in Adult Patients Presenting to the Emergency Department
Wolf, Stephen J.Hatten, Benjamin W. et al.
Annals of Emergency Medicine, Volume 76, Issue 3, e13 - e39

Is COWS the Same as CIWA?

- ***COWS***- Clinical *Opioid* Withdrawal Scale.
  - Score from 0 (no active withdrawal) ->36 (severe withdrawal)

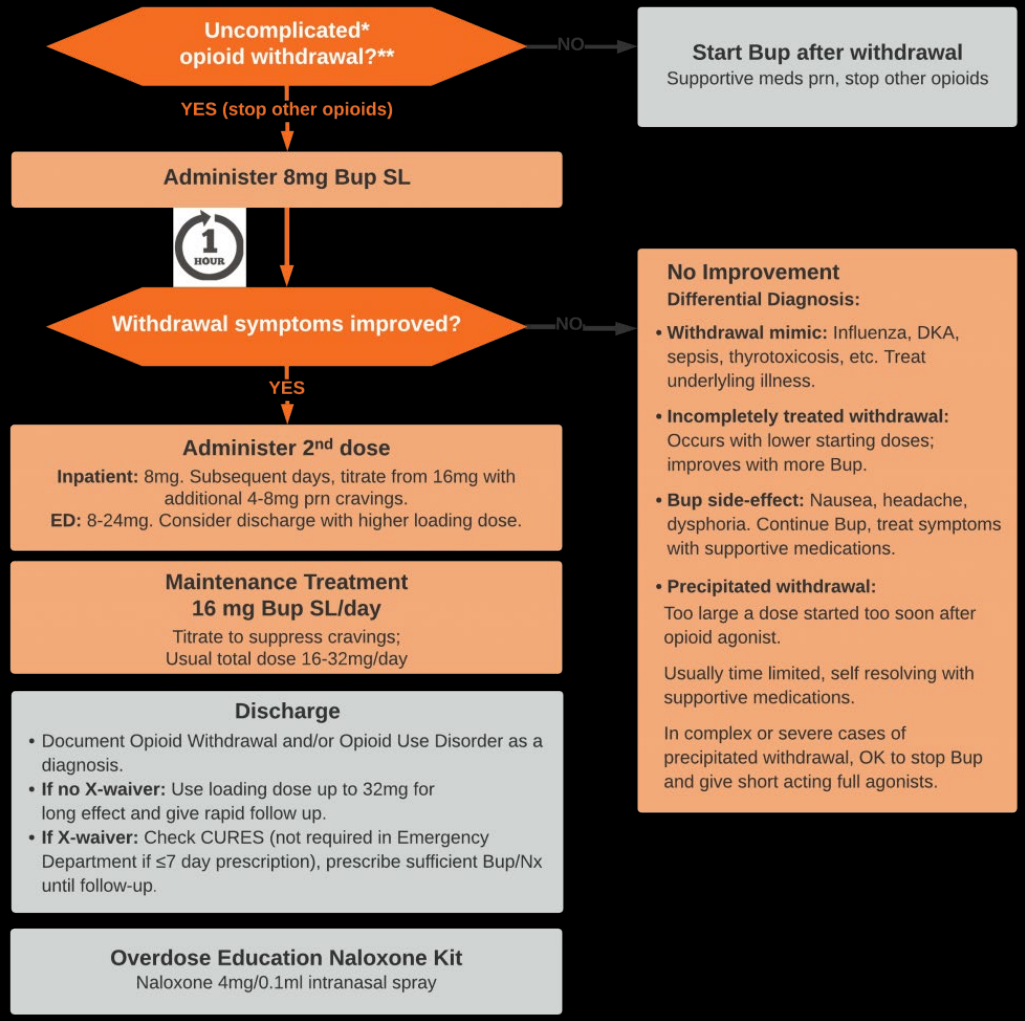
- ***CIWA***- Clinical Institute for Withdrawal Assessment *Alcohol*.

How to Induct or Re-induct on Buprenorphine

- Huge variability in providers practice, patients experiences, best practice evidence, and institutional guidelines.
- Inductions at home, inpatient SUD facility, witnessed in office, etc..
- Low-dose inductions vs high dose inductions
- My Method:
  - Discuss with patient and primary team, nursing
  - Stop all opioids, usually qhs, order symptom management meds
  - COWS monitoring
  - Order buprenorphine 4mg SL dependent on patient condition (q2h prn x3 doses, q6h prn for analgesic benefit, etc..)

CA Bridge Guideline

Buprenorphine Hospital Quick Start Protocol



https://cabridge.org/tools/on-shift/

PAINWEEK

How to Induct or Re-induct on Buprenorphine

- Coming soon: Use of microdosing for induction of buprenorphine treatment with overlapping full opioid agonist use: the Bernese method
- Overlapping induction of buprenorphine maintenance treatment with full μ-opioid receptor agonist use is feasible and may be associated with better tolerability and acceptability in some patients compared to the conventional method of induction.

Day	Buprenorphine (sl)	Street heroin (sniffed)
1	0.2 mg	2.5 g
2	0.2 mg	2 g
3	0.8+2 mg	0.5 g
4	2+2.5 mg	1.5 g
5	2.5+2.5 mg	0.5 g
6	2.5+4 mg	0
7	4+4 mg	0
8	4+4 mg	0
9	8+4 mg	0

Hämmig, R., Kemter, A., Strasser, J., von Bardeleben, U., Gugger, B., Walter, M., Dürsteler, K. M., & Vogel, M. (2016). Use of microdoses for induction of buprenorphine treatment with overlapping full opioid agonist use: the Bernese method. Substance abuse and rehabilitation, 7, 99–105. https://doi.org/10.2147/SAR.S109919

The Patient has Opioid Withdrawal and Isn't Interested in Stopping Opioid Use

- We respect their right to autonomy.
- We provide education and resources, as well as option to start MOUD if applicable
- We treat their symptoms of withdrawal along with the reason for admission.
  - Anxiety and insomnia of withdrawal: Clonidine 0.1mg PO, q6hours prn (check BP).
  - Anxiety: Hydroxyzine 25mg PO tid prn
  - Insomnia & or depression: Trazodone 50-100mg PO qhs prn.
  - GI complaints: Loperamide 4mg PO qid prn {careful!}, Ondansetron 4mg prn
  - MSK aches: NSAIDS, Acetaminophen prn (can also use methocarbamol 750-1000mg qid prn)
  - IV hydration prn
  - Non-pharmacologic symptom management
- Avoid Benzodiazepines when possible.

https://www.uptodate.com/contents/opioid-withdrawal-in-adults-clinical-manifestations-course-assessment-and-diagnosis?search=opioid%20withdrawal&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

Provide Discharge Instructions on How to Take and Stop Taking Their Prescribed Medications

- Prescribe the minimum anticipated needed; patient to call for continued pain.
- Patients should be educated on medication safety:
  - following the directions as explained on the label or by the pharmacist
  - being aware of potential interactions with other drugs as well as alcohol
  - never stopping or changing a dosing regimen without first discussing it with the doctor
  - never using another person's prescription and never giving their prescription medications to others
  - storing prescription stimulants, sedatives, and opioids safely
  - Importantly inform patients on proper disposal of unused or expired medications (FDA guidelines or DEA collection sites)

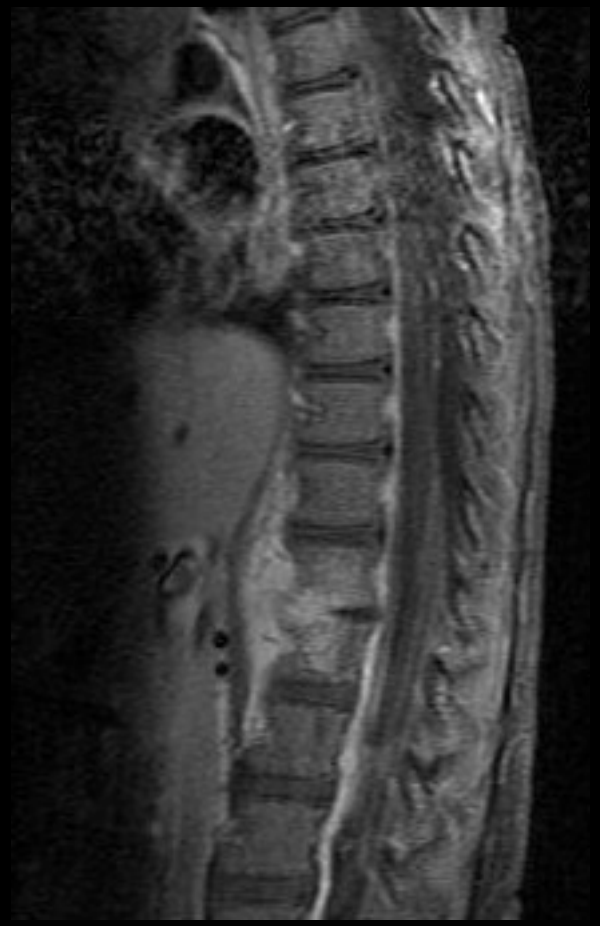
NIDA. 2021, June 13. How can prescription drug misuse be prevented?. Retrieved from https://www.drugabuse.gov/publications/research-reports/misuse-prescription-drugs/how-can-prescription-drug-misuse-be-prevented on 2021, August 20

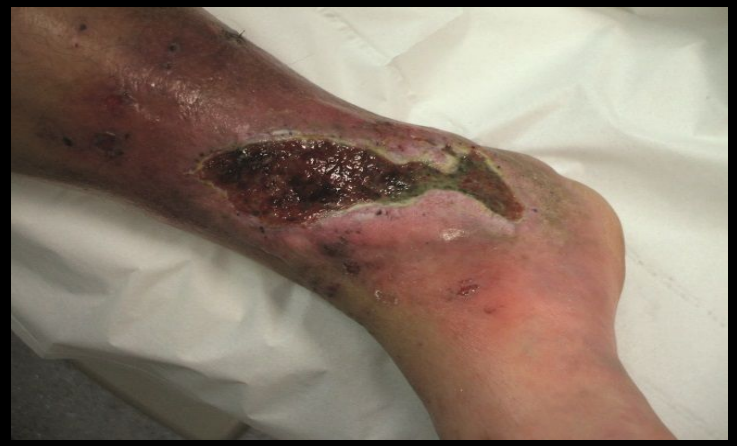
Why Do We Treat Substance Use Disorders

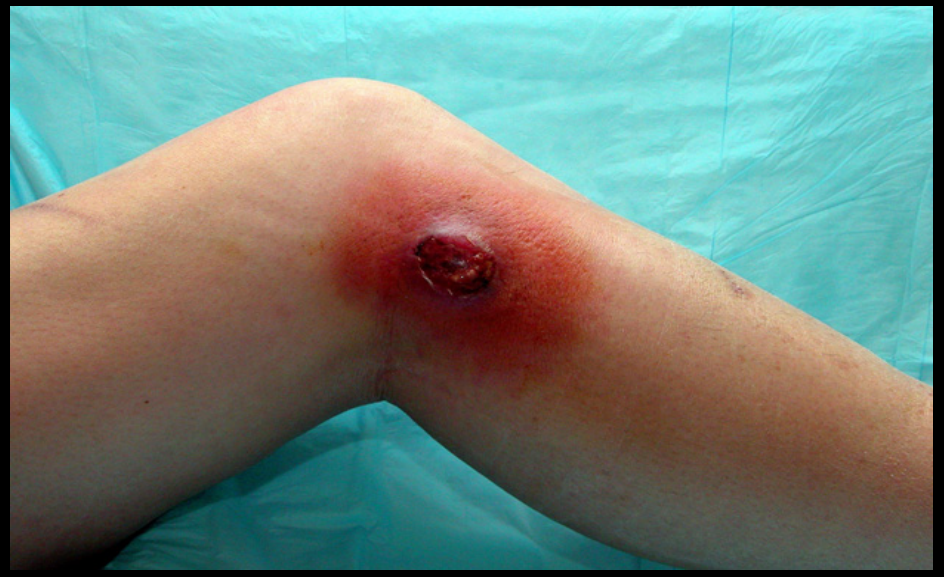
- Overdose, Death. High Mortality if untreated.
- Serious medical complications; Hepatitis, HIV, Skin and Soft Tissue Infections (SSTI), Blood Stream Infections (BSI) and sequalae
- Loss of livelihood, family systems, quality of life, co-occurring MH disorders (substance induced disorders vs self-medicating?)
- Financial cost, as with all other chronic medical conditions, especially un- or undertreated.

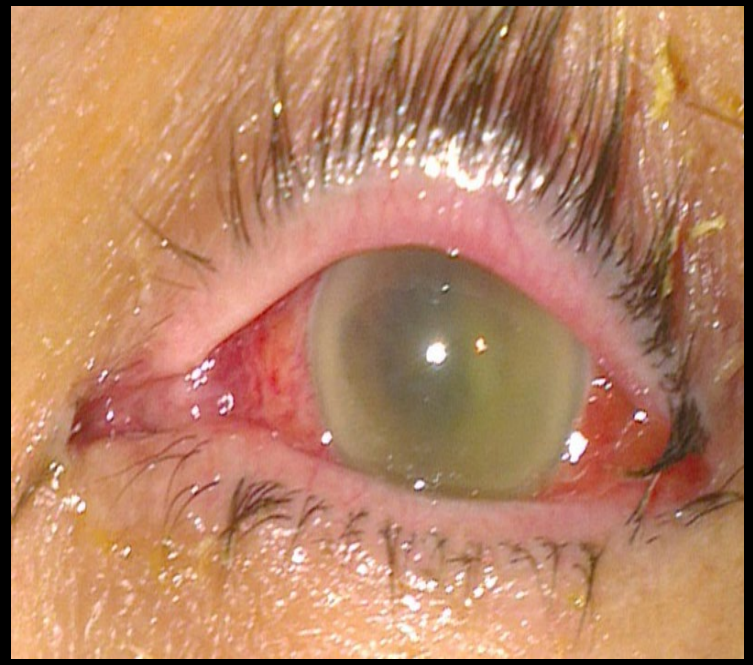
- Some conditions we're seeing in the hospital:

Medical Complications of Intravenous Drug Users (IVDU)



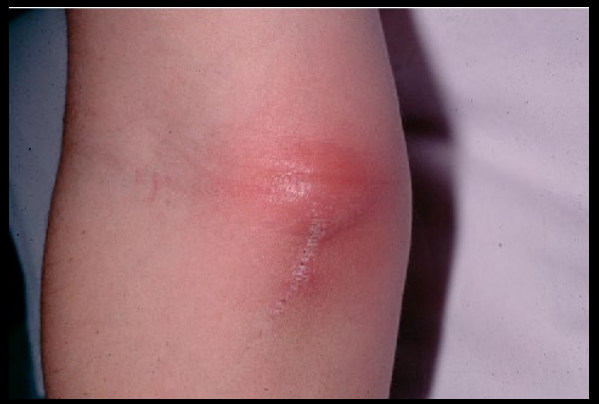


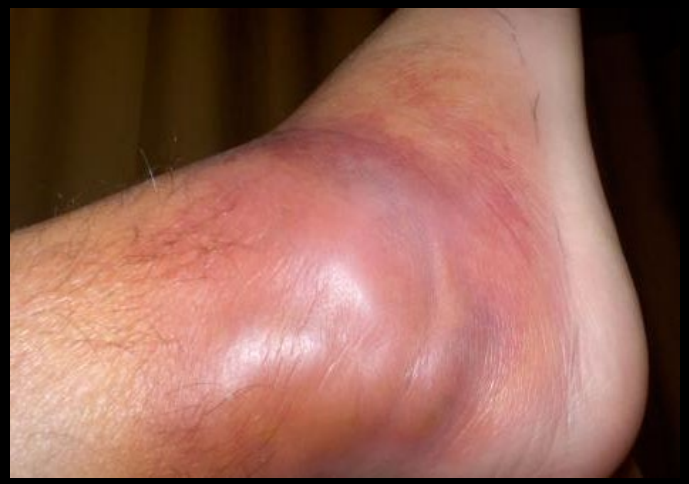


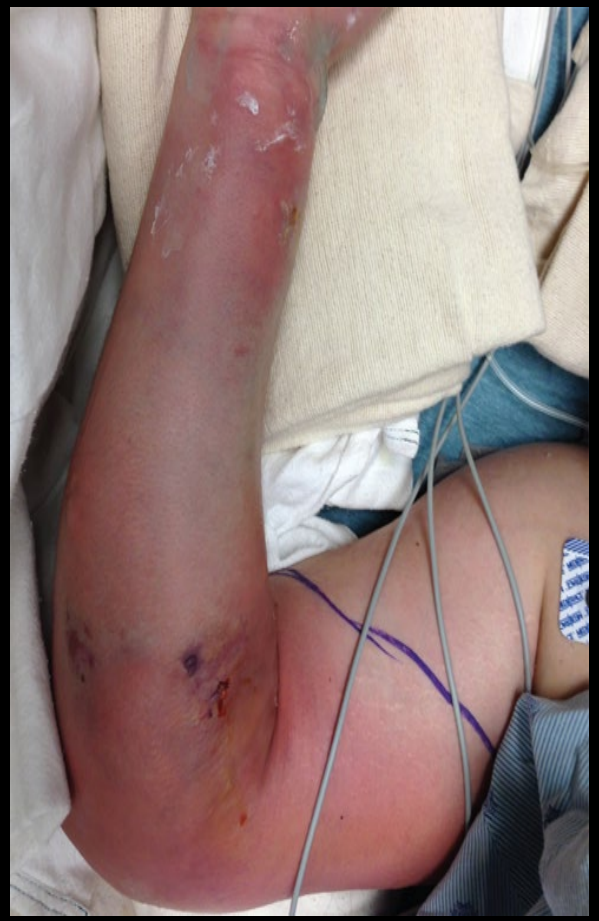


Endogenous endophthalmitis

Medical Complications of IVDU

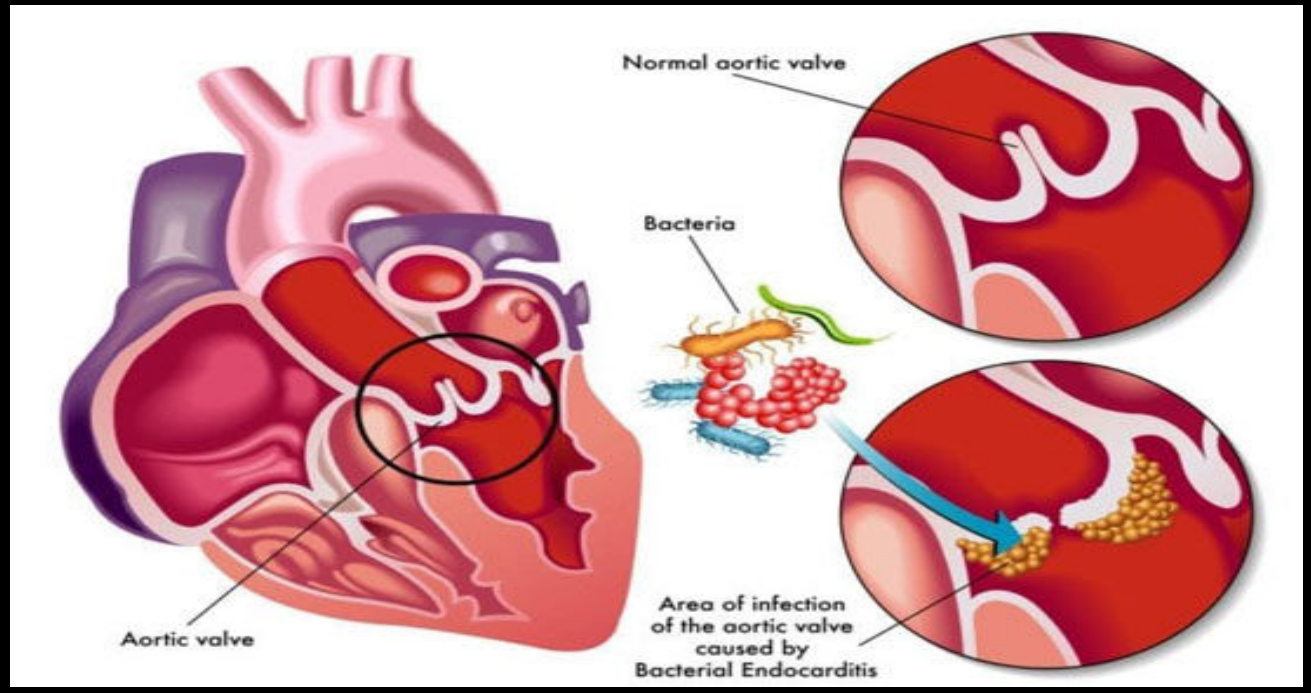


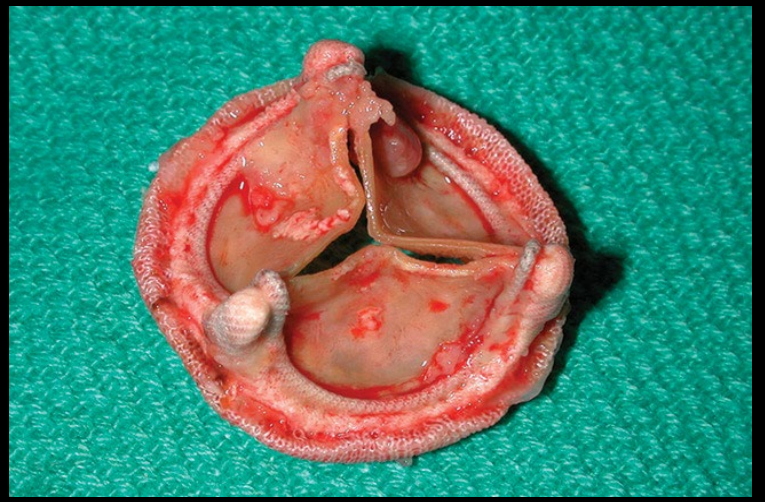


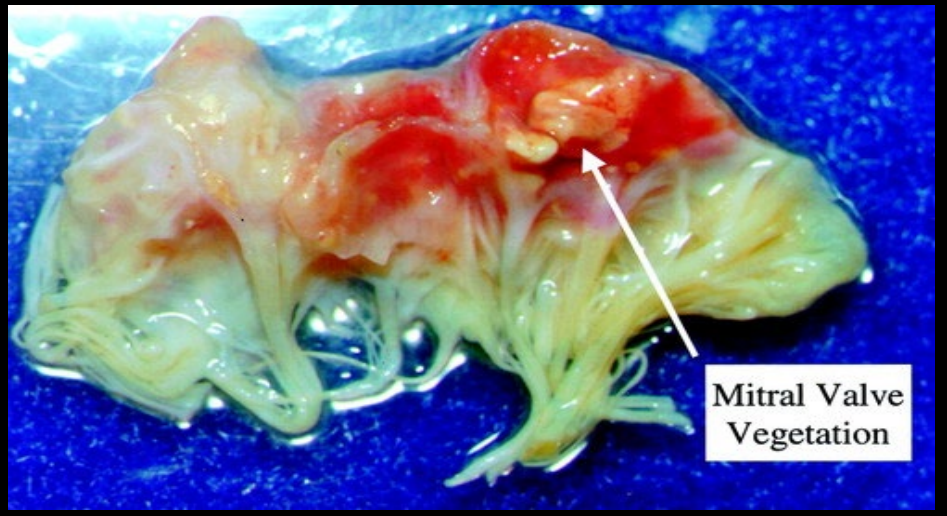


Knoop K.J., & Stack L.B., & Storrow A.B., & Thurman R(Eds.), (2016). The Atlas of Emergency Medicine, 4e. McGraw Hill. https://accessmedicine.mhmedical.com/content.aspx?bookid=1763&sectionid=117695249

Infective Endocarditis

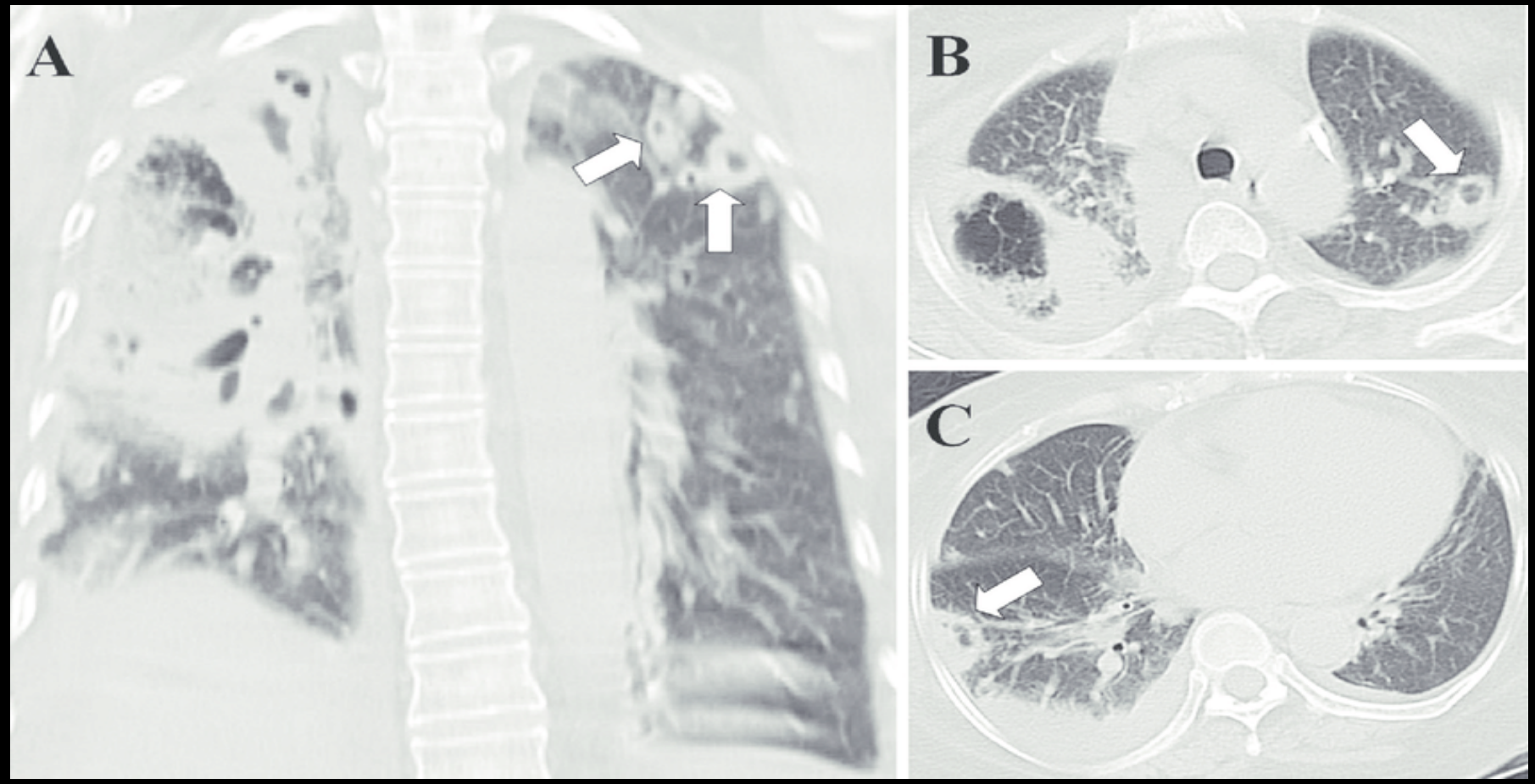






https://www.ahajournals.org/doi/10.1161/01.CIR.0000071082.36561.F1

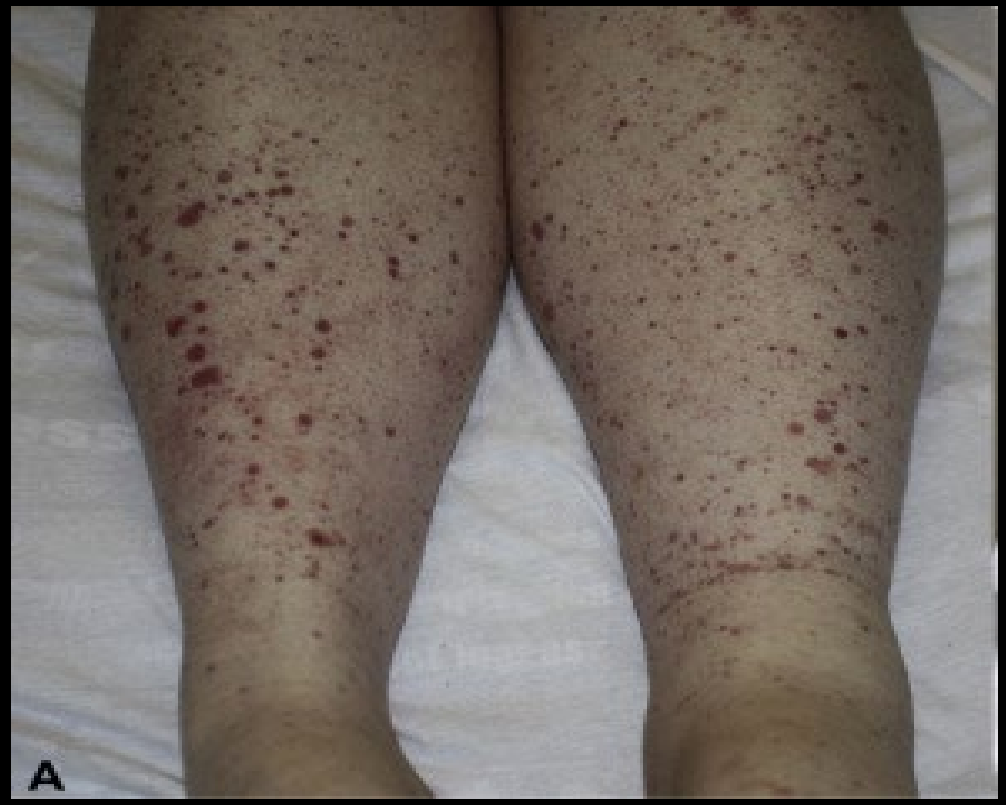
Septic Pulmonary Emboli, Necrotizing Pneumonia



Septic Pulmonary Embolism Requiring Critical Care: Clinicoradiological Spectrum, Causative Pathogens and Outcomes DOI:10.6061/clinics/2016(10)02
https://www.researchgate.net/publication/309528842_Septic_Pulmonary_Embolism_Requiring_Critical_Care_Clinicoradiological_Spectrum_Causative_Pathogens_and_Outcomes

Medical Complications of IVDU

- A:Petechiae and palpable purpura

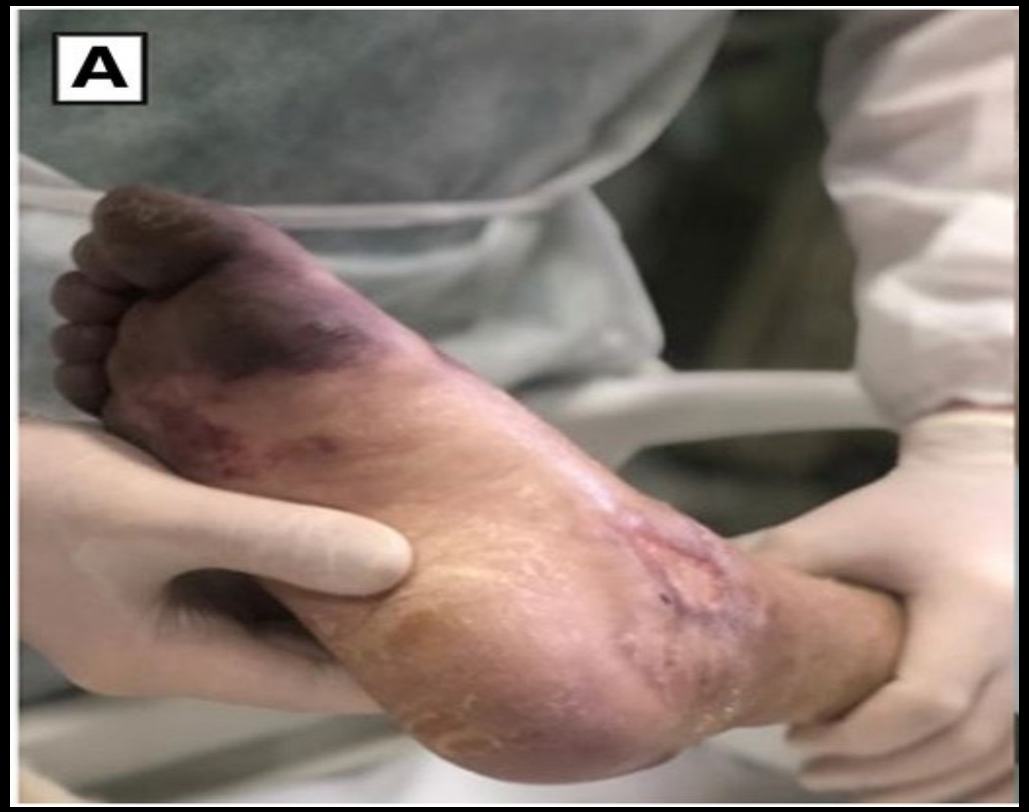


- B:Palpable purpura with central hemorrhagic crust of the lower extremities

Endocarditis-associated IgA vasculitis: Two subtle presentations of endocarditis caused by Candida parapsilosis and Cardiobacterium hominis Jake X. Wang, MD,a Sara Perkins, MD,a Mariam Totonchy, MD,b Christopher Stamey, MD,c Lauren L. Levy, MD, FAAD,d,e Suguru Imaeda, MD,a Shawn E. Cowper, MD,a,f and Alicia J. Little, MD, PhD
https://www.jaadcasereports.org/action/showPdf?pii=S2352-5126%2820%2930028-X

Medical complications of IVDU

- A: Extensive distal infiltrated purpura with necrotic aspect.



- B: Erythematous purpuric macules corresponding to a Janeway lesion.

The American Journal of Tropical Medicine and Hygiene 103, 6; 10.4269/ajtmh.20-1133
https://www.ajtmh.org/view/journals/tpmd/103/6/article-p2160.xml

Harm Reduction

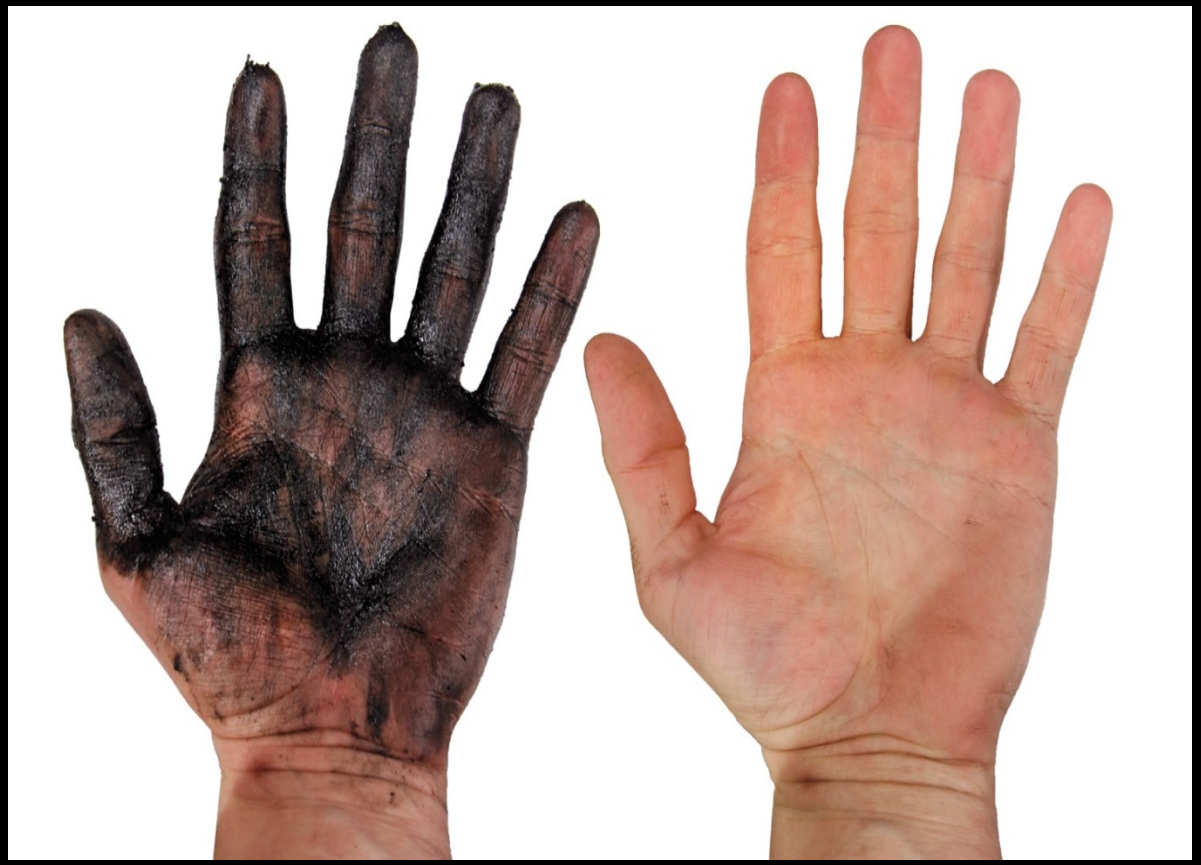
- Universal naloxone prescribing
  - –OUD
  - –Chronic opioids
  - –Stimulants
- Safe injection practices
  - –Clean needles and gear
  - –Avoid injecting alone
  - –Use test doses
  - –Fentanyl test strips

Reduce stigma

- Try: “positive or negative urine screen” and “sober or in active use” as a conversation starter.
- Perceived stigma in hospitals or doctors’ offices can unnecessarily and dangerously discourage people from accessing needed healthcare services.
- Impact on Treatment; Unfortunately, people who experience stigma regarding their drug use are less likely to seek treatment.

Reduce stigma

Dirty vs Clean Human



https://nysam-asam.org/advocacy/addiction-medicine-medical-vocabulary/

Reduce stigma

Slang	Medical
Addict	Person with addiction, Person with substance use disorder, patient with the disease of addiction
Junkie, dope fiend	Patient with opioid use disorder
Clean urine	Urine negative for illicit or non-prescribed drugs
Dirty urine	Urine positive for x,y,or z
Drunk, smashed, bombed	Alcohol addicted, intoxicated
Crack head, pot head	Cocaine addicted, THC abuse
La La Land	Intoxicated
Street addict, hard-core addict	Patient with the disease of addiction
Speed-balling	Using heroin and cocaine together
Meth	Methadone or Methamphetamine
Strung out	Debilitated, intoxicated
Cop/Fix	Obtain, purchase/Dosed, took
Hooked	Addicted
Kicking	Withdrawal Syndrome

https://nysam-asam.org/advocacy/addiction-medicine-medical-vocabulary/

Scenario #1

- You're MAR working Thursday overnight. Patient comes to the ED with pain and cellulitis, admits to IVDU.
- What will you do?
  - Usual cellulitis admission treatment (IV abx, etc..)
- They report intolerable pain and opioid withdrawal.
  - Consider the pain driver and treat accordingly. (opioid sparing when possible- use adjuncts). Validate pain.
  - ***Talk to patient*** and educate on standard treatment for cellulitis
  - Are they on MOUD? Check PDMP and ask patient.
  - Do they have a interest in cutting down or stopping use? Offer MOUD while hospitalized.
  - Reassure they will receive excellent care, including appropriate analgesia as indicated.
  - Validate their concerns, offer withdrawal relief.
  - Social work and Addiction consult prn (might not be ready to discuss while sick)

Scenario #2

- You're on the primary team for a patient with OUD, IVDU who is being evaluated for Infective Endocarditis. They are already taking buprenorphine, and have a TEE in the morning, now NPO.

- Will you continue buprenorphine?
  - Yes!

- Why?
  - It's sublingual and as such can be continued even while NPO (including while intubated!).
  - It's important to avoid an interruption in buprenorphine; it should be continued throughout.
  - Patients can receive moderate sedation while taking buprenorphine (as with all opioid tolerant patients, likely will require higher doses to achieve adequate effect.
  - ***Consider avoiding opioid use during procedures***
    - ***Culture and policy change!***

Scenario #3

- You're the primary team for a patient with chronic pain and long term chronic opioid prescriptions, coming in with worsening pain. They've been found to have septic arthritis of their elbow. Orthopedics plans to take them for washout tomorrow or the next day. They're complaining their pain is intolerable.

- How will you manage their pain complaints?
  - Check PDMP for current prescriptions and doses, and ***Ask the patient if they're been taking as prescribed.***
  - If clinically appropriate continue home medications.
  - Additionally, treat the acute pain as you would for this condition, keeping in mind they're likely opioid tolerant.
  - Use multi-modal analgesia.

Scenario #4

- You're on the primary team for a patient who was brought to the ED s/p opioid overdose, found unresponsive outside. They responded to naloxone and remain intubated. Their urine toxicology screen was positive for opiates and fentanyl.
- How will you manage their sedation while intubated?
  - Per Protocol, but keep in mind this will be challenging. Consider non-opioid for sedation.

- When they wake up and endorse opioid withdrawal symptoms, how will you treat them?
  - Symptom management; if/when appropriate- MOUD can be offered.
  - Social Work and Addiction team.

- Will you give them fentanyl?
  - Fentanyl is lipid soluble and will stay in their adipose.
  - Should we treat opioid withdrawal with the drug of choice?
    - Consider the pain driver when using opioid pain medication.

“We cannot solve our problems with the same thinking we used when we created them.”
—Albert Einstein

Resources

CA BRIDGE
TREATMENT STARTS HERE

The opioid epidemic impacts your patients.

Rates of hospitalizations due to opioid use disorder (OUD) nearly doubled from 2000-2012	Methadone and buprenorphine prevent painful withdrawal and overwhelming cravings in the hospital, which allows the treatment of other medical issues	Starting methadone or buprenorphine can decrease opioid use, HIV, infections, and criminal behavior	Patients with OUD who are not on methadone and buprenorphine have 3x the mortality rate of patients on these medications

We have treatments that can help!

SHOUT
SUPPORT FOR HOSPITAL OPIOID USE TREATMENT

SHOUT is a coalition of hospitalists and pregnancy care providers working to improve care for patients with opioid use disorder. The project offers **free resources and support** to launch buprenorphine and methadone at your hospital.

- TOOLKIT FOR IMPLEMENTATION
- SKILL-BUILDING WEBINAR SERIES
- EVIDENCE-BASED GUIDELINES FOR INDUCTION, MAINTENANCE, AND PAIN MANAGEMENT
- GRAND ROUNDS LED BY AN EXPERT TO BUILD KNOWLEDGE AND MOTIVATION
- COACHING SESSIONS TO GUIDE YOUR TEAM TOWARDS SUCCESS

FOR MORE INFORMATION OR TO JOIN THE COALITION

Acute Pain and Perioperative Management in Opioid Use Disorder:

Pain control in patients on buprenorphine, methadone, or naltrexone

THE NEW YORK STATE PAIN SOCIETY

AMERICAN SOCIETY OF ADDICTION MEDICINE
FOUNDED 1954
ASAM

PCSS Providers Clinical Support System

SCOPE of Pain
Safe and Competent Opioid Prescribing Education

Questions?

theresabaxter@rocketmail.com
315.751.8607