# Journal club

*Draft Report on Pain Management Best Practices: Updates, Gaps, Inconsistencies, and Recommendations*

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# Outline

- **Medication**
  - Non-opioid
  - Opioid
- **Risk Assessment**
  - Prescription Drug Monitoring Programs
  - Screening and Monitoring
  - Overdose Prevention Education and Naloxone
- **Medication Shortage**
- **Conclusion & Discussion**

# Medication

- Patient-centered, multidisciplinary, multimodal, integrated approach that may include pharmacotherapy
  - Opioids
  - Non-opioid classes of medications.

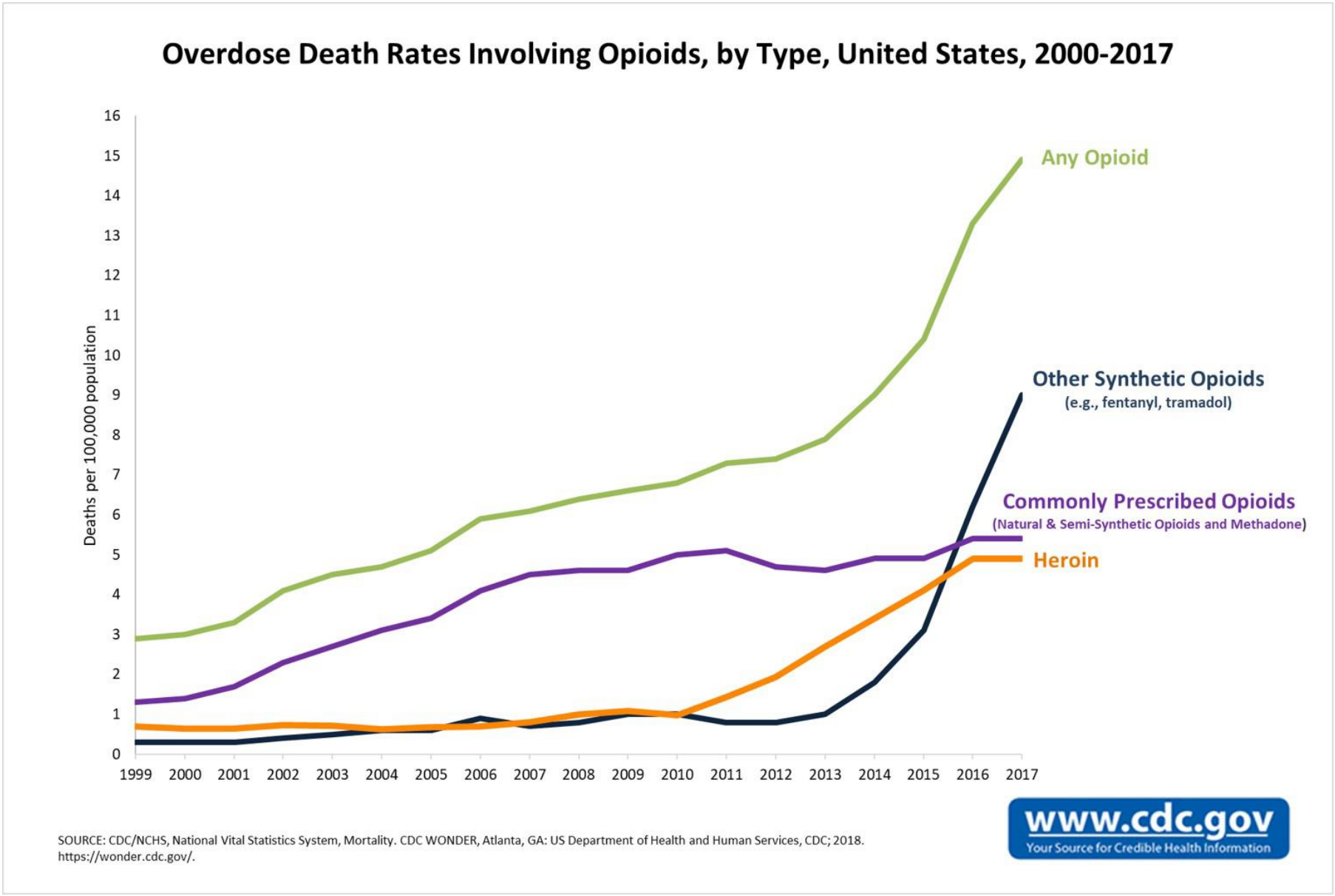
# Medication

- Non-opioid medications :
  - Acetaminophen
  - Nonsteroidal anti-inflammatory drugs
  - Antidepressants Anticonvulsants
  - Musculoskeletal agents
  - Anxiolytics

# Non-opioid medications

| Pain | class | Medication |
|---|---|---|
| **Bone pain** | Corticosteroids | Dexamethasone, prednisolone |
| | Bisphosphonate | Pamidronate |
| | RANKL inhibitor | Denosumab |
| **Musculoskeletal pain** | Muscle relaxants | Chlorzoxazone, baclofen, clonazepam |
| | NSAIDs | Diclofenac, Etoricoxib……etc. |
| | Alpha-2 agonist | Clonidine |
| **Neuropathic pain** | TCA | Imipramine |
| | SNRI | Duloxetine, venlafaxine |
| | anticonvulsants | Pregabalin, gabapentin |
| | Corticosteroids | Dexamethasone, prednisolone |
| **Inflammation** | NSAIDs | Diclofenac, Etoricoxib……etc. |
| | Corticosteroids | Dexamethasone, prednisolone |

- **Acetaminophen for mild to moderate pain.**
- **Anxiolytics For anxiety and stress associated with chronic pain.**




Data Overview. Drug Overdose. Centers for Disease Control and Prevention 2017.

# Opioids

- **Opioids alone**
  - Not superior to treatment with trials of **various combinations of nonopioid medications** for improving pain-related function over 12 months
  - Not support initiation of opioid therapy for moderate to severe **chronic back pain or hip or knee osteoarthritis pain**.

JAMA. 2018 Mar 6;319(9):872-882

# Opioids

- Pain relief for a wide variety of conditions.
- **Adverse effect**
  - Constipation
  - Sedation
  - Nausea, vomiting
  - Irritability
  - Pruritus
  - Respiratory depression

# Opioids

## Buprenorphine

- **Partial agonist** at the mu opioid receptor
  - Reduced potency for respiratory depression
  - Safer than full agonists such as morphine, hydrocodone, and oxycodone.
- Antagonist at the kappa receptor
  - Reduce anxiety, depression, and the unpleasantness of opioid withdrawal.

# Gap 1:

- Clinical policies tend to treat the large population of patients with multiple conditions causing chronic pain with simple medication rules.
- **Guidelines for medication use for specific populations** of patients with chronic pain.

# Gap 1

**Recommendation 1a:**

- **Develop condition-specific treatment algorithms**
- A multidisciplinary approach that integrates the biopsychosocial model is recommended.

**Recommendation 1b:**

- Early consultation with the pain medicine team and other specialists for the assessment of patients with complex pain

**Recommendation 1c:**

- Develop a collaborative, multimodal treatment plan among the **referring physician, the pain medicine team**, and the patient.

# Gap 2:

- Opioids are often used early in pain treatment.
- There has been **minimal pain education in medical school and residency programs**, and little guidance for primary care providers on appropriate pain treatment approaches.

# Gap 2:

**Recommendation 2a:**

- Use of non-opioid medications, with non-pharmacologic treatments, should be used as **first-line** therapy whenever possible in the in-patient and out-patient settings.

**Recommendation 2b:**

- If an opioid is being considered, physicians and other health care providers should use evidence-informed guidelines.

# Gap 3:

- **Lack of understanding and education**
  - Regarding the clinical indication and effective use of non-opioid medications as part of a multimodal and multidisciplinary approach to acute and chronic pain management.
- Chronic pain is often ineffectively managed, which can in part be the result of a variety of factors, **including physician training, patient access, and other barriers to care**.

# Gap3

## Recommendation 3a:

- **For managing different components of pain syndromes**
  - Should understand the use of non-opioid medication and their mechanism-based pharmacology.

## Recommendation 3b:

- For **neuropathic pain**
  - Consider TCAs, anticonvulsants, SNRIs, and topical analgesics.

# Gap3

## Recommendation 3c:

- For **non-neuropathic, non-cancer pain**
  - Use NSAIDs and acetaminophen as first-line classes of medications
  - Include an indication for muscle relaxants and topical agents in addition to other multimodal approaches.
  - SNRIs for chronic musculoskeletal pain.

# Gap 4:

Barriers, such as lack of coverage and reimbursement and understanding of proper usage, limit access to buprenorphine treatment for chronic pain.

# Gap4

## Recommendation 4a:

- Buprenorphine treatment
  - For chronic pain available for specific groups of patients
  - Include oral buprenorphine for third-party payors with hospital formularies.

## Recommendation 4b:

- Provide coverage and reimbursement for buprenorphine treatment approaches.

# *Guideline suggestion*

1. **Patient-centered, multidisciplinary, multimodal pain management**
2. **Guidelines for different population**
   - **Education**
   - **Opioids should use evidence-informed guidelines**
   - **Non-opioids medication for different pain syndromes.**
3. **Buprenorphine treatment for chronic pain**

# Prescription Drug Monitoring Programs

- Electronic databases of **controlled substances dispensed (typically schedule II – IV)**
  - Reported by community-based pharmacies.
  - **making referrals to mental health or substance abuse treatment**.
- For prescribers
  - **Allowing them to identify patients with multiple provider episodes or potentially overlapping prescriptions** that place them at risk.
  - Monitor use by patients, monitor prescribing practices by practitioners, and check population-level drug use trends.
- **Clinicians should review PDMP data when starting patients on opioid** therapy for chronic pain and periodically during opioid therapy for chronic pain.

**Gap 1:**

- PDMP use varies greatly across the United States, with variability in PDMP design; the state's health information technology infrastructure; and current regulations on prescriber registration, access, and use.

# Gap 1

**Recommendation 1a:**

- Check PDMPs, in conjunction with other risk stratification tools, upon initiation of opioid therapy, with periodic reevaluation.

**Recommendation 1b:**

- **Provide clinician training on accessing and interpreting PDMP data**.

**Recommendation 1c:**

- Physicians and other health care providers should engage patients to discuss their PDMP data **rather than making a judgment** that may result in the patient not receiving appropriate care.

**Recommendation 1d:**

- **The health care provider team should determine when to use PDMP data**.
- PDMP use should not be mandated without proper clinical indications to avoid unnecessary burden in the inpatient setting.

# *Guideline suggestion*

1. **Prescription Drug Monitoring Programs**
   - **Set criteria**

# Screening and Monitoring

- Reduce the risk of **substance misuse, abuse, and overdose as well as improve overall patient care**.

- **Urine drug testing(UDT)** seek to enable providers to identify **high-risk patients** so that they can consider substance misuse and mental health interventions, ADFs, and education materials to mitigate opioid misuse.

- There should also be screening tools to address the long-term use **of non-opioids and potential for overuse.**

# Screening and Monitoring

- To mitigate the risks of prescription opioid misuse, medical societies, with state and federal regulatory agencies, have recommended specific risk-reduction strategies, including written **“treatment agreements” for patients with chronic pain who are prescribed opioids**.

## APPENDIX 3

# SAMPLE OPIOID TREATMENT AGREEMENT

Patient Name:_____ Date:_____

Opioid (narcotic) treatment for chronic pain is used to reduce pain and improve what you are able to do each day. Along with opioid treatment, other medical care may be prescribed to help improve your ability to do daily activities. This may include exercise, use of non-narcotic analgesics, physical therapy, psychological counseling or other therapies or treatment. Vocational counseling may be provided to assist in your return to work effort.

*To the doctor: Keep signed originals in your file; give a photocopy to the patient. Renew at least every 6 months.*

I, _____, understand that compliance with the following guidelines is important in continuing pain treatment with Dr. _____.

1. I understand that I have the following responsibilities:
   a. I will take medications only at the dose and frequency prescribed.
   b. I will not increase or change medications without the approval of this doctor.
   c. I will actively participate in RTW efforts and in any program designed to improve function (including social, physical, psychological and daily or work activities).
   d. I will not request opioids or any other pain medicine from physicians other than from this doctor. This doctor will approve or prescribe all other mind and mood altering drugs.
   e. I will inform this doctor of all other medications that I am taking.
   f. I will obtain all medications from one pharmacy, when possible known to this doctor with full consent to talk with the pharmacist given by signing this agreement.
   g. I will protect my prescriptions and medications. Only one lost prescription or medication will be replaced in a single calendar year. I will keep all medications from children.
   h. I agree to participate in psychiatric or psychological assessments, if necessary.
   i. If I have an addiction problem, I will not use illegal or street drugs or alcohol. This doctor may ask me to follow through with a program to address this issue. Such programs may include the following:
      - ■ 12-step program and securing a sponsor
      - ■ Individual counseling
      - ■ Inpatient or outpatient treatment
      - ■ Other: _____
2. I understand that in the event of an emergency, this doctor should be contacted and the problem will be discussed with the emergency room or other treating physician. I am responsible for signing a consent to request record transfer to this doctor. No more than 3 days of medications may be prescribed by the emergency room or other physician without this doctor's approval.
3. I understand that I will consent to random drug screening. A drug screen is a laboratory test in which a sample of my urine or blood is checked to see what drugs I have been taking.
4. I will keep my scheduled appointments and/or cancel my appointment a minimum of 24 hours prior to the appointment.
5. I understand that this doctor may stop prescribing opioids or change the treatment plan if:
   a. I do not show any improvement in pain from opioids or my physical activity has not improved.
   b. My behavior is inconsistent with the responsibilities outlined in #1 above.
   c. I give, sell or misuse the opioid medications.
   d. I develop rapid tolerance or loss of improvement from the treatment.
   e. I obtain opioids from other than this doctor.
   f. I refuse to cooperate when asked to get a drug screen.
   g. If an addiction problem is identified as a result of prescribed treatment or any other addictive substance.
   h. If I am unable to keep follow-up appointments.

_____ _____

Patient Signature Date Physician Signature Date

# Screening and Monitoring

- Monitoring approaches should be applied transparently and consistently in a manner that **emphasizes safety** so that **miscommunication** and **accidental stigmatization** is minimized.

- Clinicians should also screen for factors that predict risk for poor outcomes and substance abuse, such as sleep disturbance, mood disorder, and stress, either by using a pain rating scale such as the Defense and Veterans Pain Rating Scale, which includes brief questions, or by **routinely asking about these factors on clinical examination**.

**1. What number best describes your pain on average in the past week:**

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| No pain | | | | | | | | | | Pain as bad as you can imagin |

**2. What number best describes how, during the past week, pain has interfered with your enjoyment of life?**

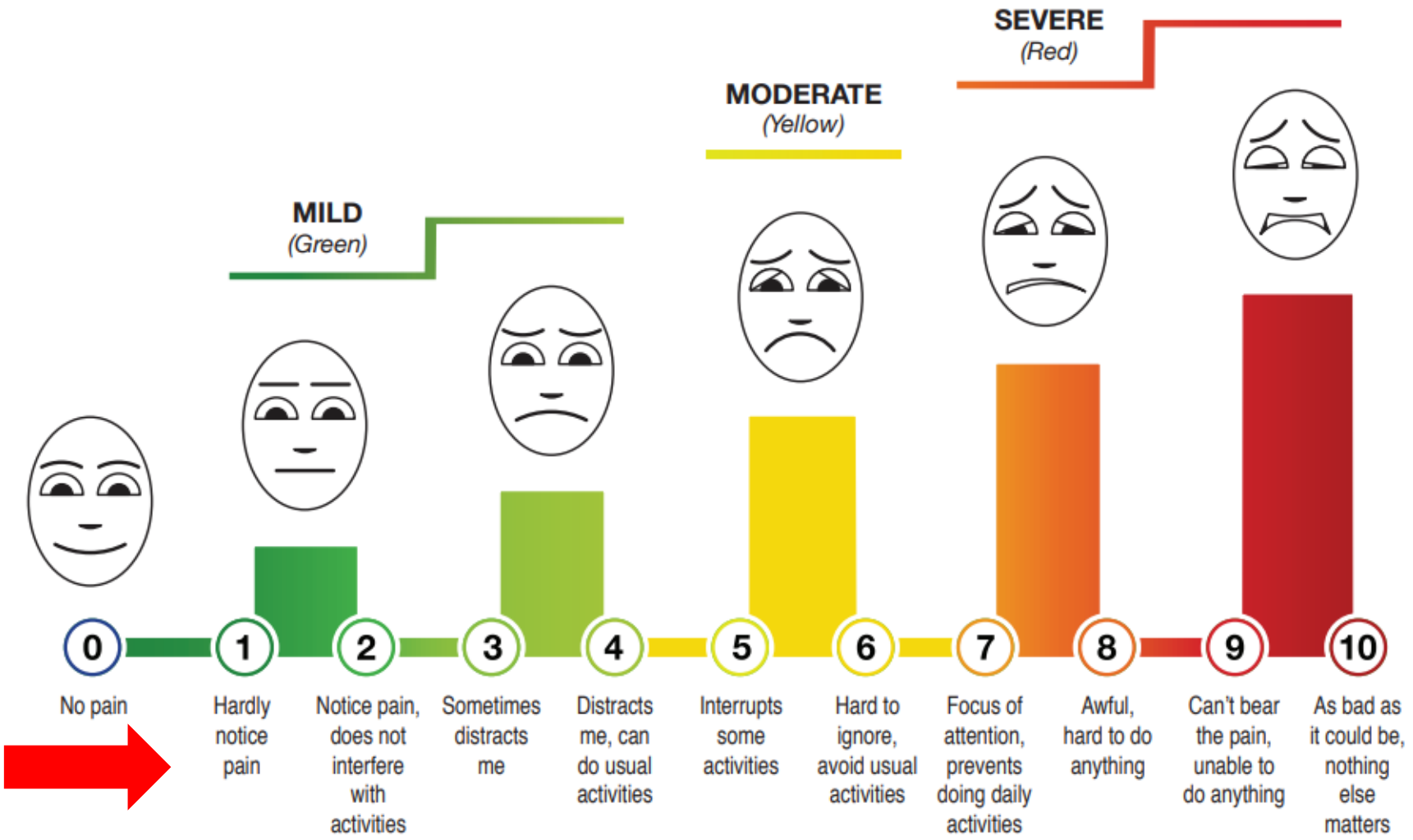
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Does not interfere | | | | | | | | | | Completely interferes |

**3. What number best describes how, during the past week, pain has interfered with your general activity?**

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Does not interfere | | | | | | | | | | Completely interferes |

**Three-item "Pain average, interference with Enjoyment of life, and interference with General activity" Assessment Scale**

# Defense and Veterans Pain Rating Scale



# Gap 1:

- Comprehensive screening and risk assessment of patients is time-consuming but vital for proper evaluation of their chronic pain conditions.
- **Lack of sufficient compensation for time and payment for services** have contributed to barriers in best practices for opioid therapy.

# Gap 1

**Recommendation 1a:**

- **Provide sufficient compensation for time and payment for services** to implement the various screening measures.
- (e.g., extensive history taking, review of medical records, PDMP query, urine toxicology screenings).
- These are vital aspects of risk assessment and stratification for patients on opioids and other medications.

**Recommendation 1b:**

- **Consider referral to pain and other specialists when high-risk patients are identified**.

# Gap 2:

- **Urine drug testing(UDTs)** are not consistently used as part of the routine risk assessment for patients on opioids.

# Gap 2:

**Recommendation 2a:**

- Use UDTs as part of the risk assessment tools **prior to the initiation of opioid therapy** and as a tool for reevaluating risk, using the clinical judgment of the treatment team.

**Recommendation 2b:**

- Physicians and other health care providers should **educate patients on the use of UDTs** and their role in identifying both potential inappropriate use and appropriate use.

# Gap 3:

- There is variability in what is included in opioid treatment and opioid agreements.

# Gap 3:

**Recommendation 3a:**

- Conduct studies to evaluate the effectiveness of the different components of opioid treatment agreements.
- Treatment agreements should include the responsibilities of both the patient and the provider.

**Recommendation 3b:**

- Use opioid treatment discussions as an educational tool between providers and patients to inform the risks and benefits of and alternatives to chronic opioid therapy.

# *Guideline suggestion*

1. **Comprehensive screening and risk assessment**
   - **Some scales**
   - **Urine drug testing**
   - **Opioid treatment agreements**

# Overdose Prevention Education and Naloxone

- Widespread, rapid availability of bystander and **take-home naloxone rescue kits**, coupled with enhanced education on naloxone's proper use, is essential, particularly in cases where higher doses of opioids are to be prescribed or there is evidence of underlying OUD.


MOUTH TO MOUTH RESUSCITATION DEVICE
QUICKSAVER
Clear airways of any obstructions.
BY SKILLED PERSONS IN MOUTH TO MOUTH RESUSCITATION
Tilt patient's head backward.
Insert "Quicksaver" mouth piece between patient's teeth
Pinch patient's nostrils. Breathe into patient's mouth through the valve and control if the chest rises.
Let patient exhale. Repeat immediately 3 times, then every 4 seconds until patient gets to normal conditions.
NALOXONE
5 STEPS TO RESPOND TO AN OPIOID OVERDOSE
STEP 1 SHOUT & SHAKE
STEP 2 CALL 9-1-1
STEP 3 GIVE NALOXONE:
STEP 4 PERFORM RESCUE BREATHING AND/OR CHEST COMPRESSIONS.
STEP 5 IS IT WORKING?
RECOVERY POSITION
SIGNS OF OPIOID OVERDOSE
PEEL HERE
3mL
25G x 1"
(0.50mm x 25mm)
REF 10391
VanishPoint® syringe
STERILE EO
RETRACTABLE TECHNOLOGIES
Medium - Moyen
TAMPON ALCOOLISÉ ISOPROPYLIQUE ANTISEPTIQUE
LORIS
ANTISEPTIC ISOPROPYL ALCOHOL PAD
Manufactured by:/Fabriqué par:
LERNAPHARM
Medium - Moyen
TAMPON ALCOOLISÉ ISOPROPYLIQUE ANTISEPTIQUE
LORIS
ANTISEPTIC ISOPROPYL ALCOHOL PAD
Manufactured by:/Fabriqué par:
LERNAPHARM

# Gap 1:

- Bystander/take-home naloxone distribution is associated with a cost-effective reduction in mortality as well as improved connection to OUD; however, **distribution is not widely available**.

# Gap 1:

**Recommendation 1a:**

- Provide naloxone co-prescription/dispensing and education for patients and family members when the patient is on long-term opioids.

**Recommendation 1b:**

- **Increase** naloxone distribution programs and education for first responders.

**Recommendation 1c:**

- Research the potential risks and benefits of making naloxone available over the counter.

# *Guideline suggestion*

1. **Naloxone for opioid overdose rescue.**

# Medication Shortage

- Appropriate treatment can be delayed or denied because of unavailability and, in other cases, **result in the use of second-line, less effective alternatives**, which may further affect patient care.
- **Medication errors** are more likely to occur **during times of shortages** because of the increased prescribing of less familiar pharmacologic agents.

| | |
|---|---|
| Diazepam Injection | Ketamine Injection |
| Fentanyl Citrate | Lorazepam Injection |
| Flurazepam Hydrochloride Capsules | Methadone Hydrochloride Injection |

**FDA Drug Shortages access on 2019.04.02**

# Gap 1:

- Recurrent shortages in opioid and non-opioid medications have created barriers to the **proper continuity of treatment** in acute and chronic pain patients.
- This creates the unintended consequence of poor patient care.

# Gap 1:

- **Recommendation 1a:** The FDA should monitor, report, and prioritize the availability of key opioid and non-opioid medications, including injectable such as local anesthetic agents.
- **Recommendation 1b:** The FDA should make available **alternative sources** for these medications when critical shortages occur (e.g., stop-gap measures such as obtaining these medications from other countries, compound pharmacies).
- **Recommendation 1c:** Support the Agency Drug Shortages Task Force in its endeavors to find solutions to the critical challenges of drug shortages.

# *Guideline suggestion*

1. **Patient-centered, multidisciplinary, multimodal pain management**
2. **Guidelines for different population**
   - **Education**
   - **Opioids should use evidence-informed guidelines**
   - **Non-opioids medication for different pain syndromes.**
3. **Buprenorphine treatment for chronic pain**
4. **Prescription Drug Monitoring Programs**
   - **Set criteria**
5. **Comprehensive screening and risk assessment**
   - **Some scales**
   - **Urine drug testing**
   - **Opioid treatment agreements**
6. **Naloxone for opioid overdose rescue.**

# *Guideline suggestion*

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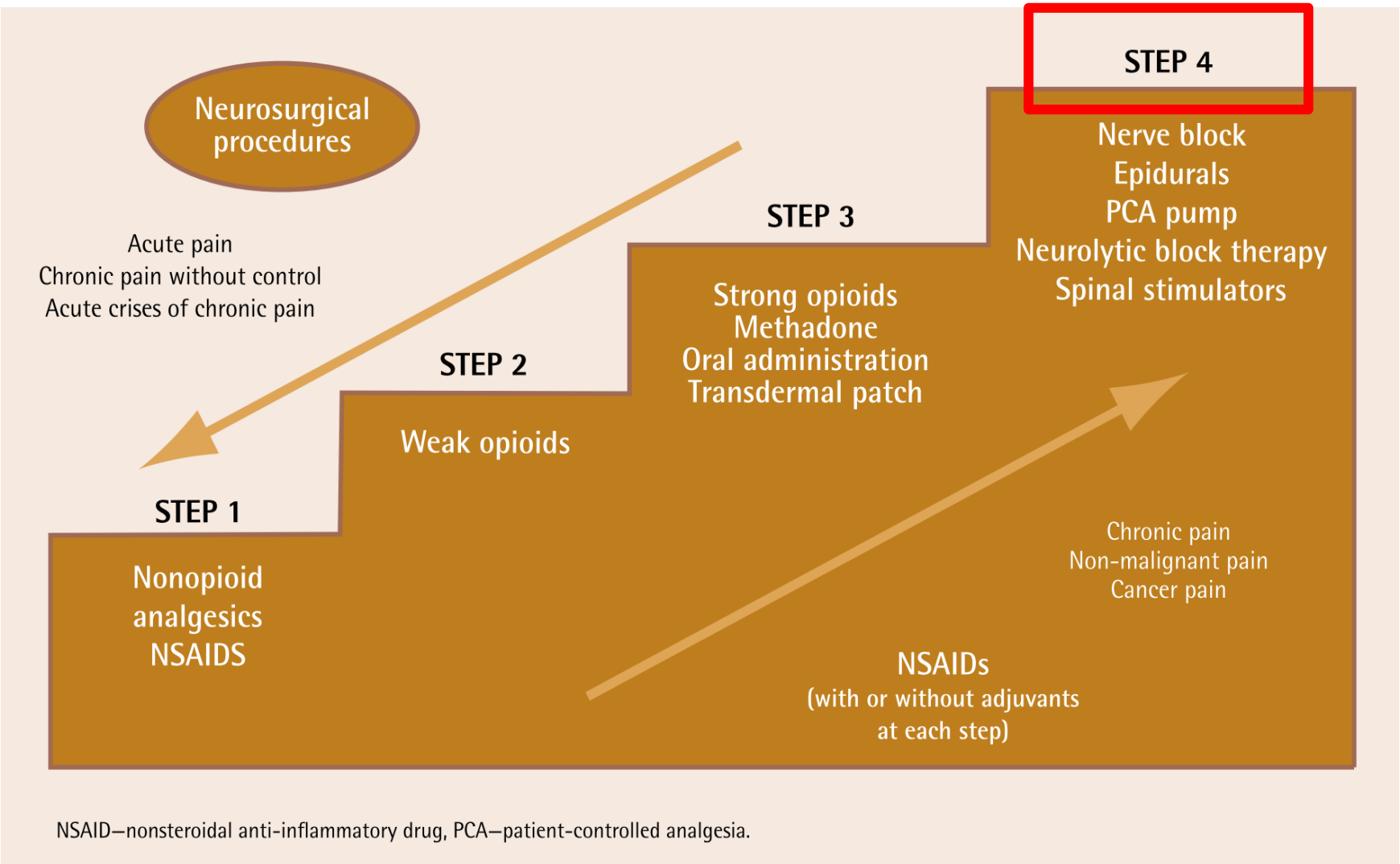
3. **Buprenorphine treatment for chronic pain**
4. **Prescription Drug Monitoring Programs**
   - **Set criteria for 雲端藥歷**
5. **Comprehensive screening and risk assessment**
   - **Some scales or asking about these factors on clinics**
   - **Urine drug testing**
   - **Opioid treatment agreements**
6. **Naloxone for opioid overdose rescue.**

# WHO analgesic ladder (3→4)

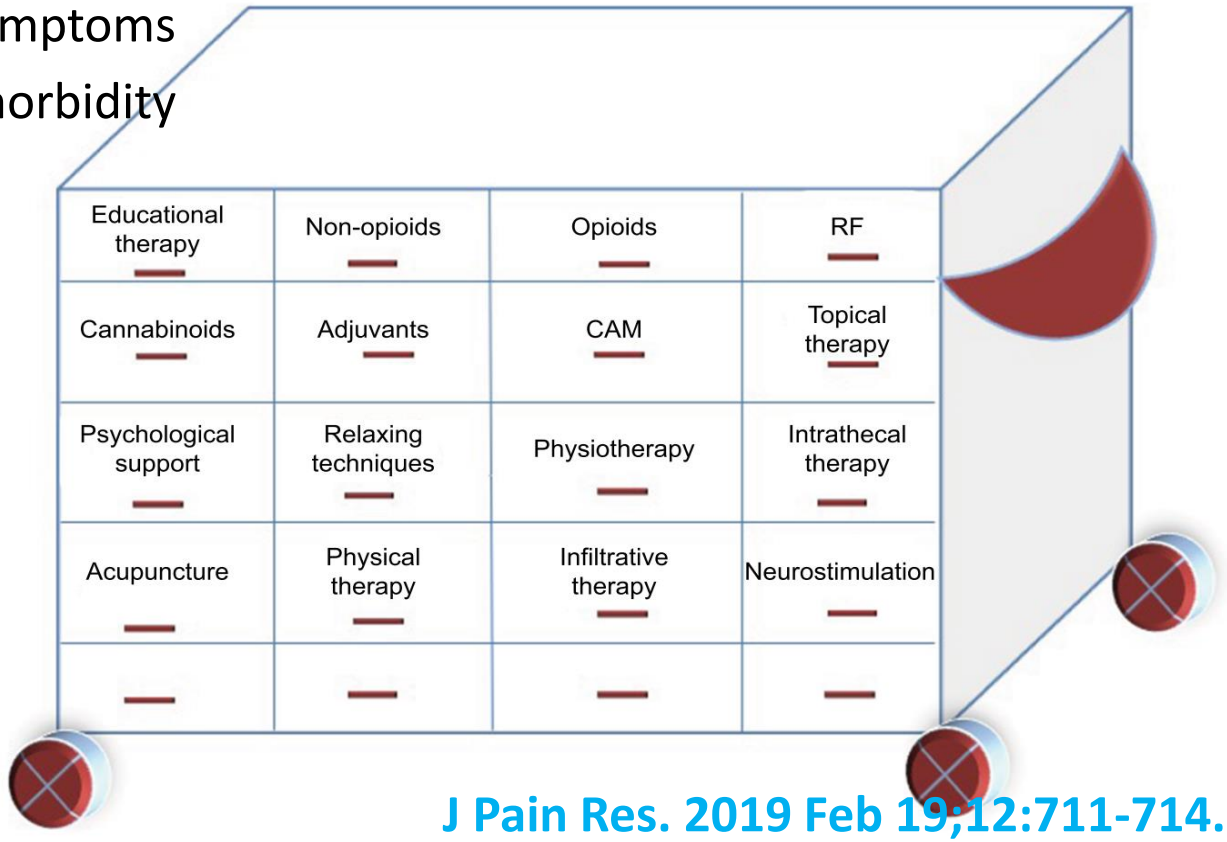



NSAID—nonsteroidal anti-inflammatory drug, PCA—patient-controlled analgesia.

Can Fam Physician. 2010 Jun; 56(6): 514–517.

# The analgesic trolley

- Pain treatments need to follow multimodal approaches (pharmacological and nonpharmacological )
- Considering
  1. The intensity of pain
  2. The pathophysiology of pain
  3. The complexity of symptoms
  4. The presence of comorbidity
  5. The social context
  6. The “time” of illness




J Pain Res. 2019 Feb 19;12:711-714.


邁向無痛醫院
无他相机

Thank you ！