

HOW TO MANAGE CHRONIC PAIN IN THE MIDDLE OF AN OPIOID EPIDEMIC

Kelsey Morgan, MPH, PharmD., BCPS

Assistant Professor, Department of Pharmacy Practice

Shenandoah University Bernard J. Dunn School of Pharmacy

OBJECTIVES

- Review policies and action plans to combat the opioid crisis
- Determine our role in the opioid epidemic
- Analyze the current literature to determine best practices for chronic pain treatment

DISCLOSURES

I have no financial relationships or conflicts of interest to disclose

176 Americans died each day
from an opioid overdose in 2016

40% of opioid overdoses involve a
prescription opioid



More than 2 million
Americans have an
addiction to
prescription or illicit
opioids

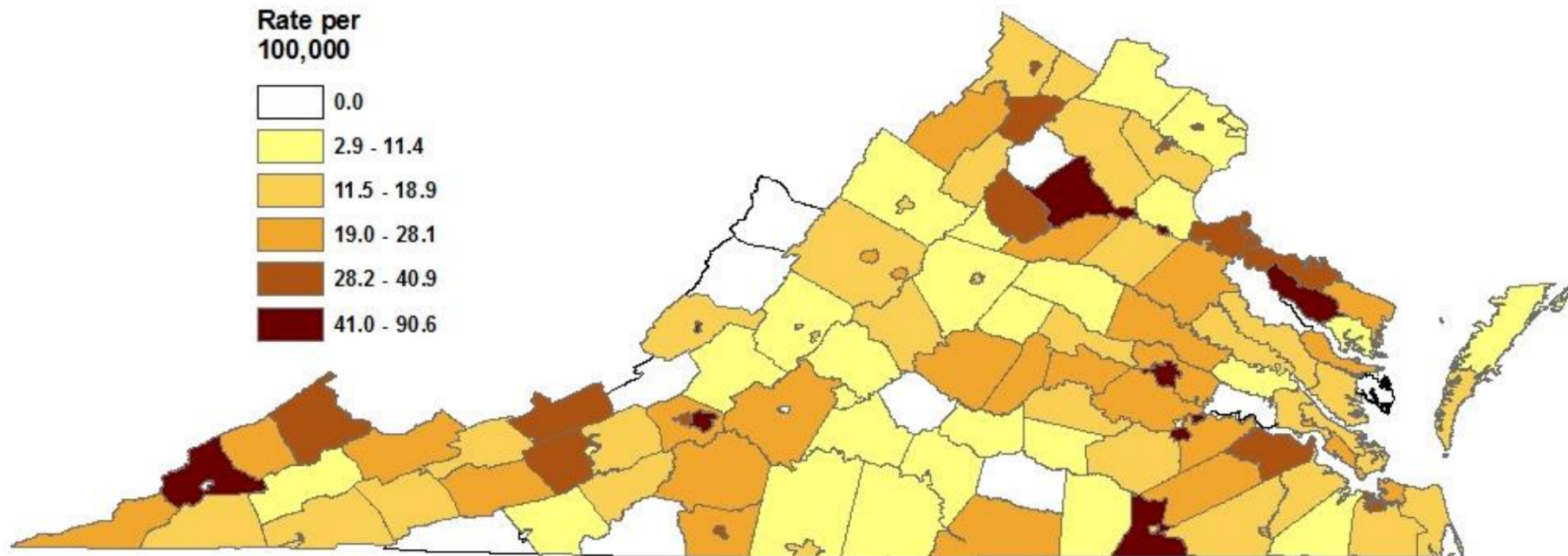
Since 2000, there have been
over 300,000 opioid-related
deaths

**States with the
highest rates of
opioid-related
deaths**

- West Virginia
- Ohio
- New Hampshire
- District of Columbia
- Pennsylvania

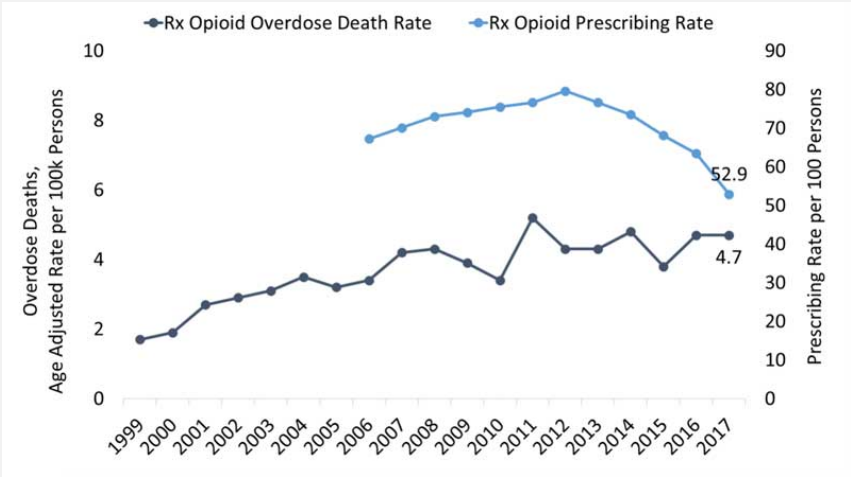
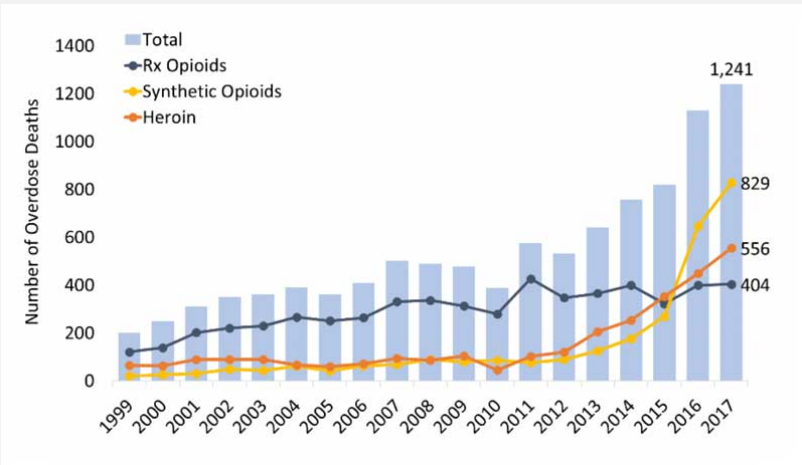
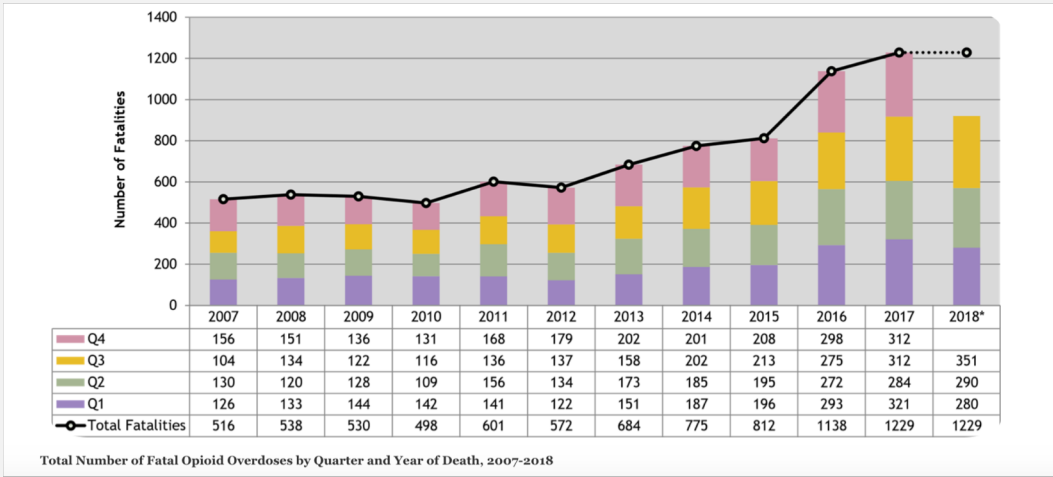
WHAT DOES THE OPIOID CRISIS LOOK LIKE IN VIRGINIA?

Rate of All Fatal Drug Overdoses by Locality of Overdose, 2017

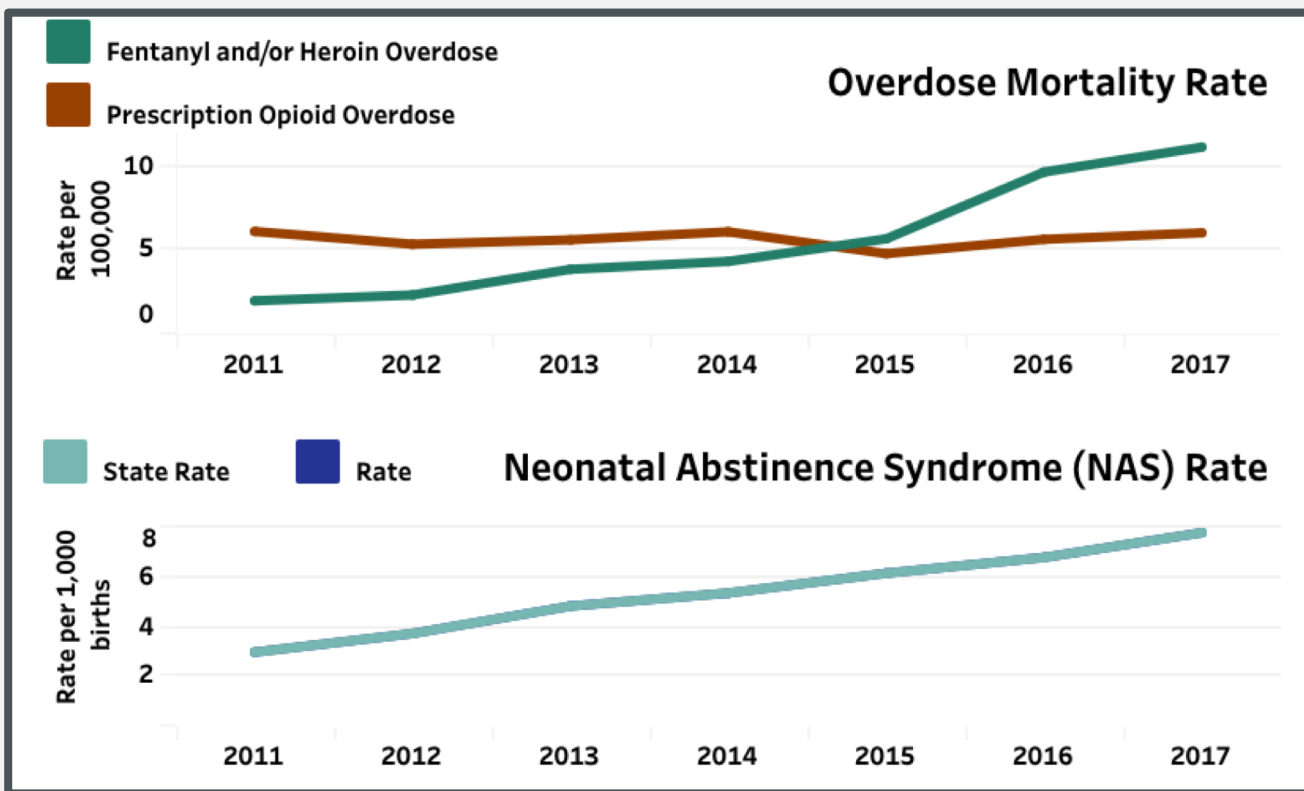


Source: Virginia Department of Health, Office of the Chief Medical Examiner

WHAT DOES THE OPIOID CRISIS LOOK LIKE IN VIRGINIA?



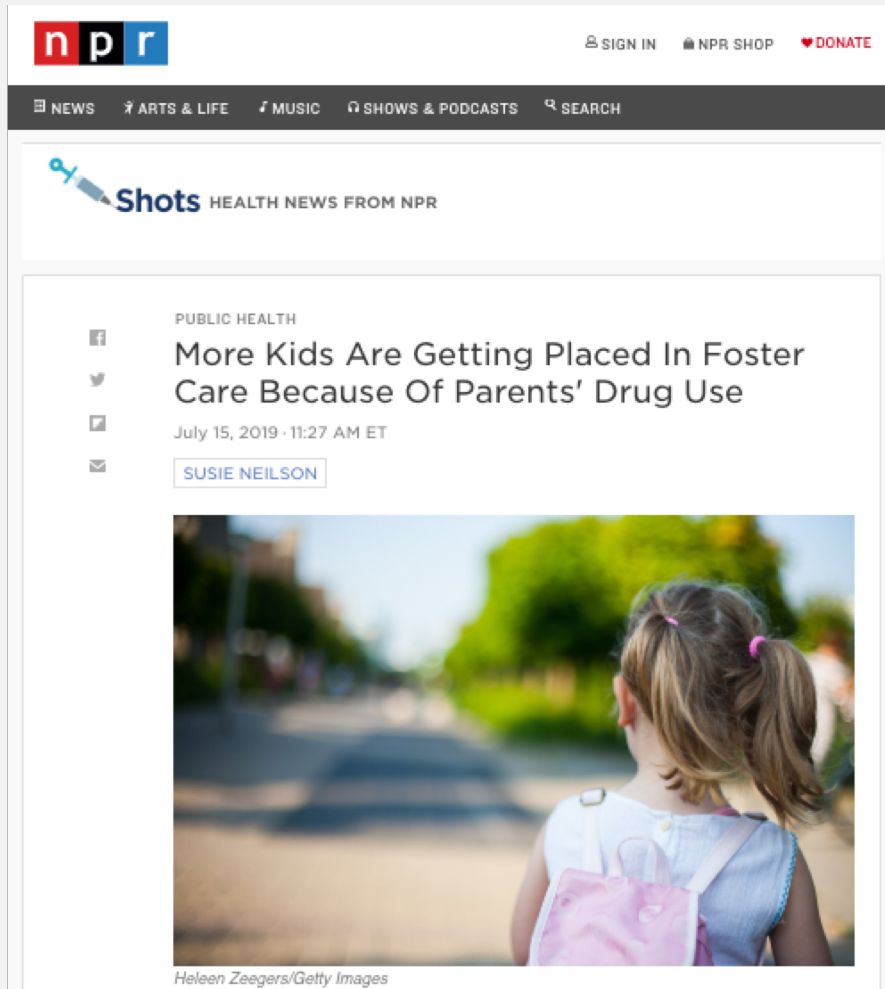
WHAT DOES THE OPIOID CRISIS LOOK LIKE IN VIRGINIA?



2018 Virginia Summary

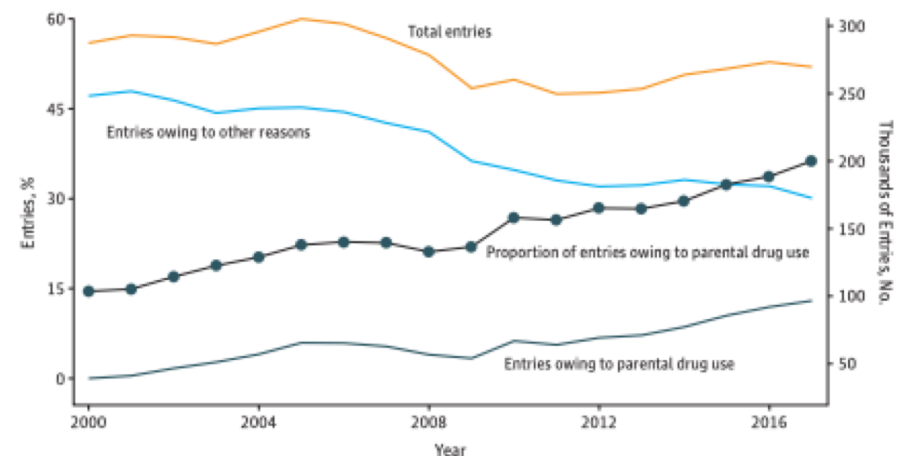
| ED Heroin Overdose | ED Opioid Overdose | EMS Narcan |
|--------------------|--------------------|---------------------|
| Visits | Visits | Administrations |
| 1,301 | 7,323 | 7,775 |
| Visit Rate | Visit Rate | Administration Rate |
| 15.4 | 86.5 | 89.5 |

FOSTER CARE SYSTEM



- 8% increase in the number of children entering the foster care system between 2012 – 2017
- “Parental Drug Use” was the reason in:
 - 14.5% of cases in 2000
 - 36% of cases in 2017
- Other causes (such as abuse) have decreased and policy changes confound these results

Figure. National Trends in Foster Care Entries Attributable to Parental Drug Use, 2000 to 2017

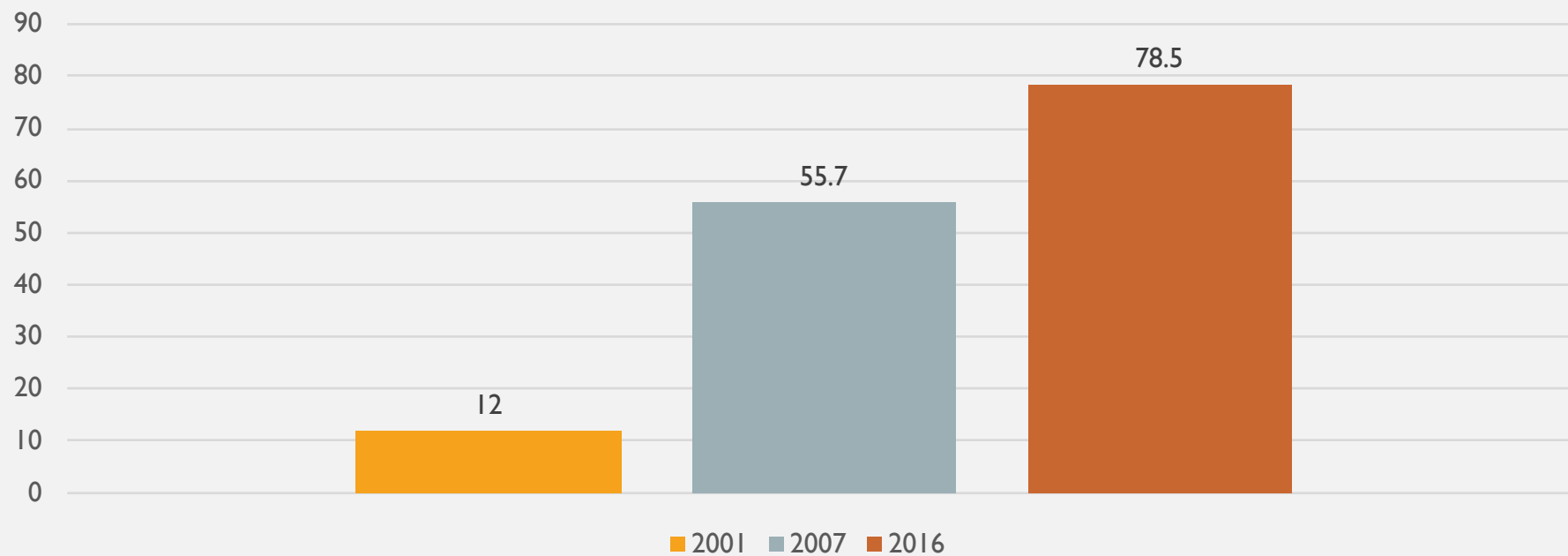


<https://www.npr.org/sections/health-shots/2019/07/15/741790195/more-kids-are-getting-placed-in-foster-care-because-of-parents-drug-use>

JAMA Pediatr. 2019;173(9):881-883

FINANCIAL IMPACT

Societal Costs (in billions)



VIRGINIA'S RESPONSE

Encourage
appropriate
prescribing

Increase
education and
awareness

Expand access to
treatment and
harm-reduction
services

Respond to
Overdoses

Penalties for
traffickers

Civil litigation

PHYSICIAN DIRECTED STRATEGIES

- VA Board of Medicine increased regulations on the prescribing of opioids
- Last revised August 2018
- Provides regulations for the management of acute pain, chronic pain, and buprenorphine for addiction management
- Chronic Pain requirements listed by:
 - Prior to initiating
 - Initiating
 - Monitoring and treatment plan

PHYSICIAN DIRECTED STRATEGIES

Prior to initiating

- Drug Screen
- Query the prescription drug monitoring program
- Patient history and assessment of risk
- Discuss risks and benefits with the patient

Initiating

- Non-opioid and non-pharmacologic treatments are first line
- If a patient requires > 50 MME/day, reason must be recorded
- Prescribe naloxone when indicated
- Document rationale to continued treatment every 3 months
- Document if co-prescribing with other opioids, benzodiazepines, sedatives, carisoprodol, and tramadol
- Regular evaluation for opioid use disorder

Monitoring and treatment plan

- Medical record shall include a treatment plan
- Review the treatment plan every at least every three months
- Query the Prescription Monitoring Program at least every three months
- Review urine drug screen or medication levels at least once a year

*This list is NOT an exhaustive list. Please consult the Board of Medicine or Board of pharmacy for a complete list of regulations

VIRGINIA OPIOID PRESCRIBING REQUIREMENTS

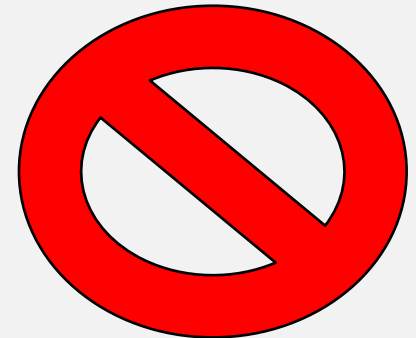
Clinical DO's

- Co-prescribe naloxone based on specific risk factors
 - Prior overdose
 - Substance abuse
 - Dose in excess of 120 MME/day
 - Concomitant benzodiazepine use



Clinical DON'Ts

- Don't co-prescribe an opioid with the following medications
 - Benzodiazepines
 - Sedative hypnotics
 - Carisoprodol
 - Tramadol
- Can be allowed in extenuating circumstances but documentation and tapering plan is required





Virginia Department of
Health Professions
Prescription Monitoring Program

Support: 855-482-4767

PRESCRIPTION DRUG MONITORING

- Online program
- Report shows the following information for each patients
 - Fill history of controlled substance prescriptions (CII – CIV, CV if RX required)
 - Who prescribed
 - Who dispensed
- Health Care providers have ability and responsibility to look up this information for each patient that they prescribe or dispense controlled substances

RxSearch > Patient Request

PMP DEMO
Awarxe™
Presented by Awarxe™
Support: 1-866-Appress

Patient Request

1 Patient Rx Request Tutorial
Can't view the file? Get Adobe Acrobat Reader
* Indicates Required Field

Patient Info

First Name* Last Name*

Partial Spelling Partial Spelling

Date of Birth*

MM/DD/YYYY

Prescription Fill Dates

No earlier than 2 years and 6 months from today

My Dashboard

Patient Alerts

PATIENT ALERTS

| Patient Full Name | DOB | Alert Date | Alert Letter |
|-------------------|------------|------------|------------------------------|
| DAVE PATIENT | 01/01/1985 | 11/08/2017 | Download PDF |

Recent Requests

RECENT REQUESTS

| Patient Name | DOB | Status | Request Date | Delegate |
|-----------------|------------|----------|--------------------|-----------------|
| test one | 01/01/1901 | Complete | 11/28/2017 6:08 PM | Jordan Delegate |
| DAVE PATIENT | 01/01/1985 | Complete | 11/27/2017 4:15 PM | |
| test patient | 01/01/1900 | Complete | 10/31/2017 2:23 PM | James Delegate |
| bob testpatient | 01/01/1900 | Complete | 10/31/2017 2:10 PM | |
| mic_jor | 01/05/1941 | Complete | 10/27/2017 2:08 PM | |

[View Requests History](#)

Delegates

DELEGATES

| Delegate Name | Status | Request Date |
|-----------------|----------|--------------|
| James Delegate | pending | 12/01/2017 |
| Jordan Delegate | approved | 04/25/2017 |

My Favorites

RxSearch - Patient Request

PMP Announcements

Message for Physicians 10/13/2017
Test announcement

Exciting changes are coming to AWARXE! 09/20/2017
We are pleased to announce that later this year, we will be performing a systemwide update on AWARXE.
When you log in to AWARXE, [more](#)

[View all Announcements](#)

Quick Links

[PMP Support](#)

NALOXONE

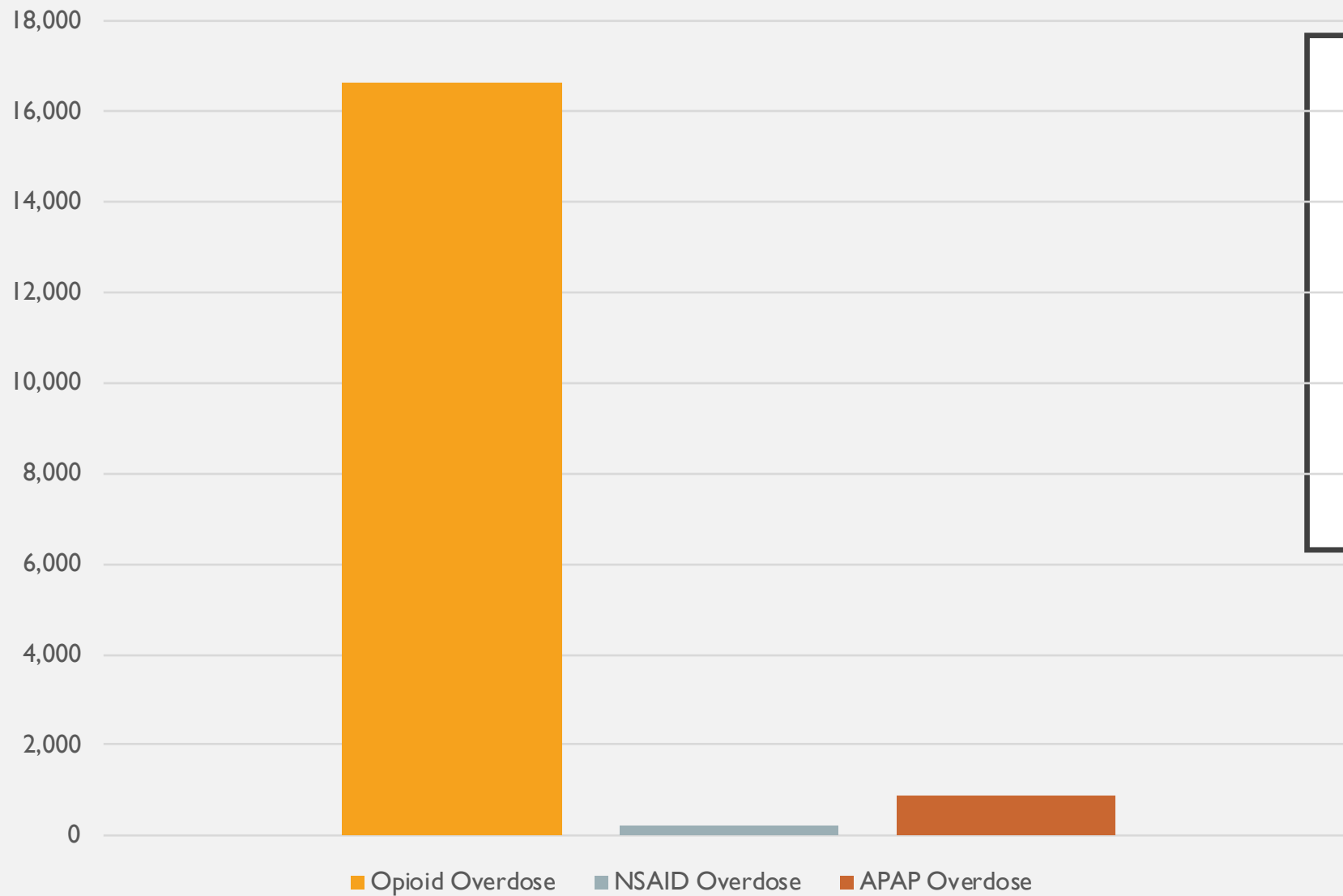
- **Virginia Standing order for Naloxone**
 - Allows pharmacists to dispense Naloxone to those they believe are at risk of opioid overdose
- **REVIVE!**
 - Virginia's opioid overdose and naloxone education program
 - Train's individuals, most often laypersons, to recognize signs of opioid overdose and treat with naloxone
 - Provides educational documents

OPIOID BASED PAIN MANAGEMENT

OPIOID-BASED PAIN MANAGEMENT

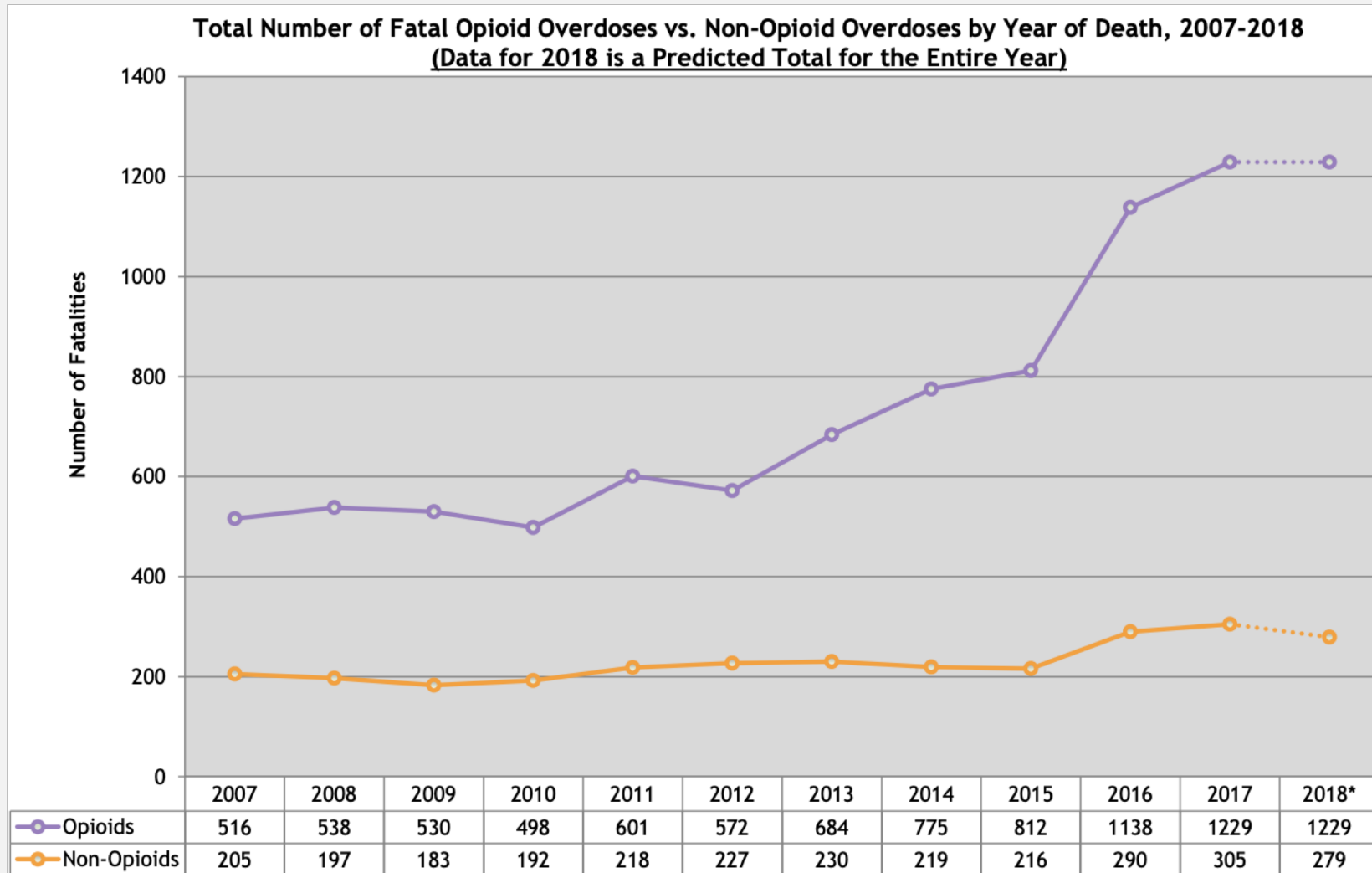
“We know of no other medication routinely used for a nonfatal condition that kills patients so frequently.”

– CDC DIRECTOR TOM FRIEDEN



**PAIN-RELATED
OVERDOSE
DEATHS IN 2010**

OVERDOSE-RELATED DEATHS IN VIRGINIA



CHRONIC PAIN

- Often combination of nociceptive, neuropathic, and centralized pain
- Can present with symptoms similar to acute pain but does not occur in temporal relation with noxious stimuli
- Long-term experience that is often more subjective than objective
- Often exists with other co-morbid conditions such as diabetes or history of stroke

TERMINOLOGY

Opiate

- Derived from the opium poppy, *papaver somniferum*
- Natural plant alkaloids
 - Morphine
 - Codeine

Opioid

- Has functional and pharmacologic properties of an opiate

OPIOID RECEPTORS

- What
 - Mu (μ), Kappa (κ), & Delta (Δ) opioid receptors
 - All are G-Protein Coupled Receptors
- Where
 - Throughout the central and peripheral nervous system on neuronal cells
 - Are also located on macrophage cell types, astrocytes, and in the enteric nervous system of the GI tract
- Agonists vs Partial Agonist vs Antagonist
 - Agonists: Highly selective for opioid receptors, particularly Mu Opioid Receptors
 - Partial Agonist: bind specifically to opioid receptors but have limited activity

OPIOID RECEPTORS

| Opioid Receptor | Effects | Medications |
|--------------------|--|---|
| Mu (μ) | Mu ₁ – Euphoria, supraspinal analgesia, confusion, dizziness, nausea | Fentanyl***, Hydromorphone***, Methadone***, Morphine***, Sufentanil*** |
| | Mu ₂ – Respiratory depression, cardiovascular and GI effects, miosis, urinary retention | Naloxone --- |
| Delta (Δ) | Spinal analgesia, cardiovascular depression, decreased brain and myocardial oxygen demand | Sufentanil* Naloxone --- |
| Kappa (κ) | Spinal analgesia, dysphoria, psychomimetic effects, feedback inhibition of endorphin system | Hydromorphone*, Morphine*, Sufentanil* Naloxone --- |

In potency: * < ** < *** Antagonist: (-) Agonist: *

OPIOID SIDE EFFECTS

- Antitussive
 - Inhibits cough reflex
- Nausea & vomiting
 - Impact on medulla
- Impaired stress response and reduced libido
 - Inhibits the release of several pituitary hormones
 - This reduces the level of cortisol and sex hormones
 - Increased prolactin (reduces sex drive in males)
- Respiratory depression
 - Brainstem becomes insensitive to increases in carbon dioxide
 - All patients should be co-prescribed naloxone
- Reduces gut motility
 - Causes nausea, constipation, and anorexia with weight loss
 - Can cause severe constipation and toxic megacolon
 - All patients should be co-prescribed stool softener and/or stimulant
- Orthostatic Hypotension
 - Due to histamine release and peripheral blood vessel dilation
- Sedation and slowed mentation
- Urinary Retention

OPIOID SIDE EFFECTS

- Antitussive
 - Inhibits cough reflex
- Nausea & vomiting
 - Impact on medulla
- Impaired stress response and reduced libido
 - Inhibits the release of several pituitary hormones
 - This reduces the level of cortisol and sex hormones
 - Increased prolactin (reduces sex drive in males)
- Respiratory depression
 - Brainstem becomes insensitive to increases in carbon dioxide
 - **All patients should be co-prescribed naloxone**
- Reduces gut motility
 - Causes nausea, constipation, and anorexia with weight loss
 - Can cause severe constipation and toxic megacolon
 - **All patients should be co-prescribed stool softener and/or stimulant**
- Orthostatic Hypotension
 - Due to histamine release and peripheral blood vessel dilation
- Sedation and slowed mentation
- Urinary Retention

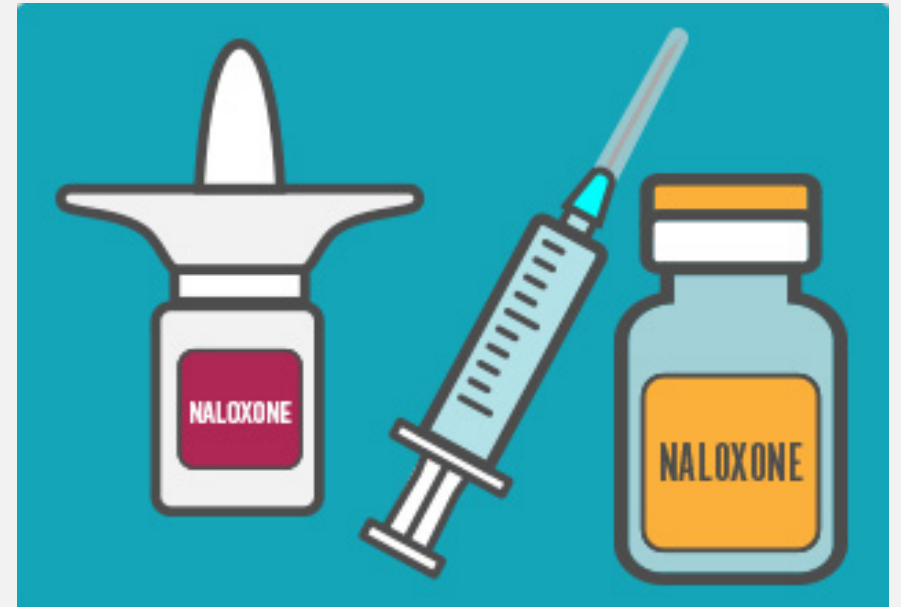
OPIOID OVERDOSE

Signs & Symptoms of Overdose

- Shallow, slow respirations
- Pupillary miosis
- Bradycardia
- Hypothermia
- Stupor/coma/unresponsiveness



Reverse opioid overdose with Naloxone

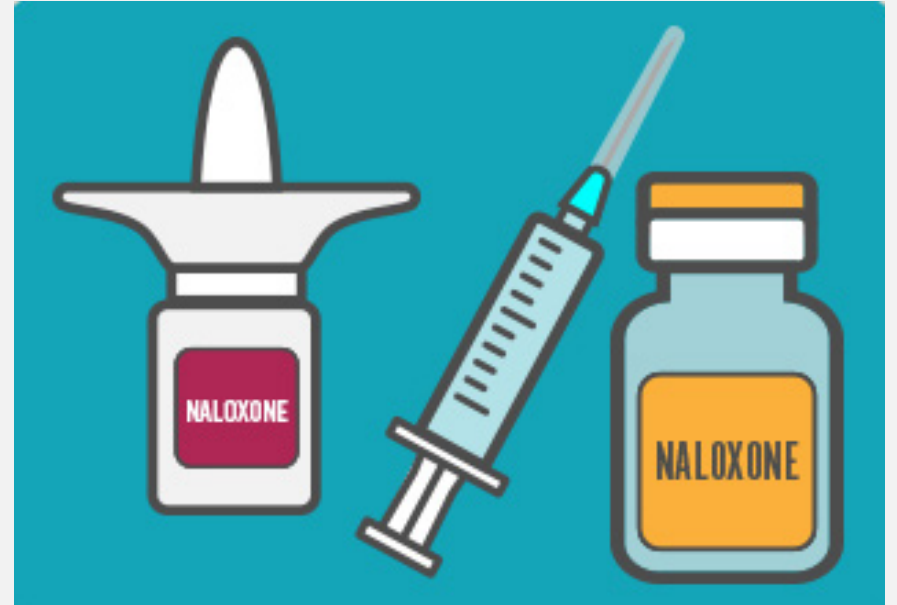


OPIOID OVERDOSE

Reverse opioid overdose with Naloxone

Naloxone is...

- Opioid Antagonist
- Administration can precipitate opioid withdrawal
- Available in different formulations
 - Intravenous for in-hospital use
 - Nasal spray for community
- Co-prescribe with opioids if patient is at risk for overdose



OPIOID SIDE EFFECTS

- Desensitization
 - Acute tolerance that occurs at the specific receptor and then disappears when the drug is cleared
- Tolerance
 - Decrease in the apparent effectiveness
 - Occurs with repeated or continuous administration
 - Can occur over days to weeks
 - Tolerance occurs at different rates for different effects
 - CNS effects vs GI effects
- Cross-tolerance
 - Reduced response to another agent of the same class
 - Never complete between opioids
- Dependence
 - When cessation of the drug results in withdrawal

OPIOID SIDE EFFECTS

- Desensitization
 - Acute tolerance that occurs at the specific receptor and then disappears when the drug is cleared
- Tolerance
 - Decrease in the apparent effectiveness
 - Occurs with repeated or continuous administration
 - Can occur over days to weeks
 - Tolerance occurs at different rates for different effects
 - CNS effects vs GI effects
- Cross-tolerance
 - Reduced response to another agent of the same class
 - Never complete between opioids
- Dependence
 - When cessation of the drug results in withdrawal


- Reduced response (pain control, side effects) between agents
- Can use this effect to your patients benefit by switching between agents
- Never transition to equal doses, instead reduce dose by ~50% when transitioning

CONVERTING BETWEEN OPIOIDS

1) Calculate total daily opioid dose



2) Use dosing chart to calculate equivalent total daily opioid dose



3) Reduce dose by 50%



4) Divide daily dose based on drug formulation

CDC RECOMMENDATIONS FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

When to initiate or continue opioids for chronic pain

Opioid selection, dosage, duration, follow-up, and discontinuation

Assessing risk and addressing harm

CDC RECOMMENDATIONS FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

When to initiate or continue opioids for chronic pain

- Opioids are not first line for chronic pain
- Establish and measure goals for pain and function
- Discuss risks, benefits, and nonopioid therapies with patients

Opioid selection, dosage, duration, follow-up, and

- Use immediate-release opioids when initiating
- Start low and go slow
- Start at the lowest effective dose
- Reassess benefit and risk when dosage increases to > 50 MME/day
- Avoid > 90 MME/day - must have careful justification
- Follow-up and re-evaluate risk of harm

Assessing risk and addressing harm

- Evaluate risk factors for opioid-related harm
- Check PDMP
- Use urine drug testing
- Avoid concurrent benzodiazepine and opioid prescribing
- Arrange treatment for opioid use disorder

OPIOIDS ARE NOT FIRST LINE



- Physical Options
 - Physical manipulation
 - Heat or Ice
 - Massage
 - Acupuncture
 - Exercise
- Psychologic Options
 - Biofeedback
 - Cognitive behavioral therapy
 - Relaxation
- Exercise therapy and Physical therapy
 - Immediate and sustained improvement in function
 - Helpful for hip and knee osteoarthritis, low back pain, fibromyalgia
 - Can include aerobic, aquatic, and resistance exercises
- Multimodal therapies
 - Combines physical therapy with psychological therapy
- Transcutaneous electrical nerve stimulation (TENS)



Table 47. Chronic low back pain: effects of nonpharmacological interventions compared with usual care, placebo, sham, attention control, or waitlist

| Intervention | Function Short-Term | Function Intermediate-Term | Function Long-Term | Pain Short-Term | Pain Intermediate-Term | Pain Long-Term |
|---|------------------------|-------------------------------|-----------------------|-----------------------|---------------------------|--------------------|
| | Effect Size SOE | Effect Size SOE | Effect Size SOE | Effect Size SOE | Effect Size SOE | Effect Size SOE |
| Exercise | slight + | none + | none + | slight ++ | moderate + | moderate + |
| Psychological Therapies: CBT primarily | slight ++ | slight ++ | slight ++ | slight ++ | slight ++ | slight ++ |
| Physical Modalities: Short-Wave Diathermy | insufficient evidence | no evidence | no evidence | insufficient evidence | no evidence | no evidence |
| Physical Modalities: Ultrasound | insufficient evidence | no evidence | no evidence | none + | no evidence | no evidence |
| Physical Modalities: Low-Level Laser Therapy | slight + | none + | no evidence | moderate + | none + | no evidence |
| Manual Therapies: Spinal Manipulation | slight + | slight + | no evidence | none + | slight ++ | no evidence |
| Manual Therapies: Massage | slight ++ | none + | no evidence | slight ++ | none + | no evidence |
| Manual Therapies: Traction | none + | no evidence | no evidence | none + | no evidence | no evidence |
| Mindfulness Practices: MBSR | none + | none + | none + | slight ++ | slight + | none + |
| Mind-Body Practices: Yoga | slight ++ | slight + | no evidence | moderate + | moderate ++ | no evidence |
| Acupuncture | slight + | none + | none + | slight ++ | none + | slight + |
| Multidisciplinary Rehabilitation | slight + | slight + | none + | slight ++ | slight ++ | none + |

Short-Term: 1 to <6 months; Intermediate-Term: ≥6 to <12 months; Long-Term: ≥12 months

Effect Size: none, slight/small, moderate, or large improvement

Strength of Evidence: + = low, ++ = moderate, +++ = high

CBT = cognitive-behavioral therapy; MBSR = mindfulness-based stress reduction; none = no effect/no statistically significant effect; SOE = strength of evidence.

EVALUATE FOR RISK

FOR USE IN PATIENTS THAT ARE BEING
CONSIDERED FOR LONG-TERM OPIOID
THERAPY

- ORT: Opioid risk tool
- SOAPP: Screener and opioid assessment for patients with pain
- SISAP: Screening instrument for substance abuse potential
- DIRE: Diagnosis, intractability, risk, and efficacy score
- SBST - Risk with chronic low back pain

FOR USE TO ASSESS MISUSE ONCE
OPIOID TREATMENT IS INITIATED

- PDUQ-p: Prescription drug use questionnaire-patient
- COMM: Current opioid misuse measure
- PMQ: Pain medication questionnaire
- PADT: Pain assessment and documentation tool
- ABD: Addiction behavior Checklist

OPIOID RISK TOOL

| Item Description | Female | Male |
|--|--------|------|
| Family history of substance abuse | | |
| • Alcohol | 1 | 3 |
| • Illegal drugs | 2 | 3 |
| • Rx Drugs | 4 | 4 |
| Personal history of substance abuse | | |
| • Alcohol | 3 | 3 |
| • Illegal drugs | 4 | 4 |
| • Rx Drugs | 5 | 5 |
| Age between 16 – 45 years | 1 | 1 |
| History of preadolescent sexual abuse | 3 | 0 |
| Psychological disease | | |
| • ADD, OCD, Bipolar, Schizophrenia | 2 | 2 |
| • Depression | 1 | 1 |

- Tool to help physicians predict which patients may develop aberrant behaviors related to opioids for chronic pain
- Self-reported assessment
- Validated
 - 95% in the low risk category did not display aberrant behaviors
 - 91% in the high risk category did display aberrant behaviors
 - Good for use in both males in females
 - High specificity and sensitivity
- Scores
 - 0 – 3: Low risk
 - 4 – 7: Moderate risk
 - ≥ 8 : High risk

SCREENER AND OPIOID ASSESSMENT FOR PAIN PATIENTS- REVISED (SOAPP-R)

- | |
|--|
| 1. How often do you have mood swings? |
| 2. How often have you felt a need for higher doses of medication to treat your pain? |
| 3. How often have you felt impatient with your doctors? |
| 4. How often have you felt that things are just too overwhelming that you can't handle them? |
| 5. How often is there tension in the home? |
| 6. How often have you counted pain pills to see how many are remaining? |
| 7. How often have you been concerned that people will judge you for taking pain medication? |
| 8. How often do you feel bored? |
| 9. How often have you taken more pain medication than you were supposed to? |
| 10. How often have you worried about being left alone? |
| 11. How often have you felt a craving for medication? |
| 12. How often have others expressed concern over your use of medication? |
| 13. How often have any of your close friends had a problem with alcohol or drugs? |
| 14. How often have others told you that you have a bad temper? |
| 15. How often have you felt consumed by the need to get pain medication? |
| 16. How often have you run out of pain medication early? |
| 17. How often have others kept you from getting what you deserve? |
| 18. How often, in your lifetime, have you had legal problems or been arrested? |
| 19. How often have you attended an AA or NA meeting? |
| 20. How often have you been in an argument that was so out of control that someone got hurt? |
| 21. How often have you been sexually abused? |
| 22. How often have others suggested that you have a drug or alcohol problem? |
| 23. How often have you had to borrow pain medications from your family or friends? |
| 24. How often have you been treated for an alcohol or drug problem? |

- 24 question assessment provided to patients to determine their risk for aberrant medication-related behavior
- Tool has been validated and cross-validated in chronic pain patients
- Questions are ranked 0 (never) to 4 (very often) and the total score is tallied
- A score ≥ 18 is considered positive
- SOAP-R is sensitive, better at identifying those who are at a high risk

EVALUATE

START BACK SCREENING TOOL (SBST)

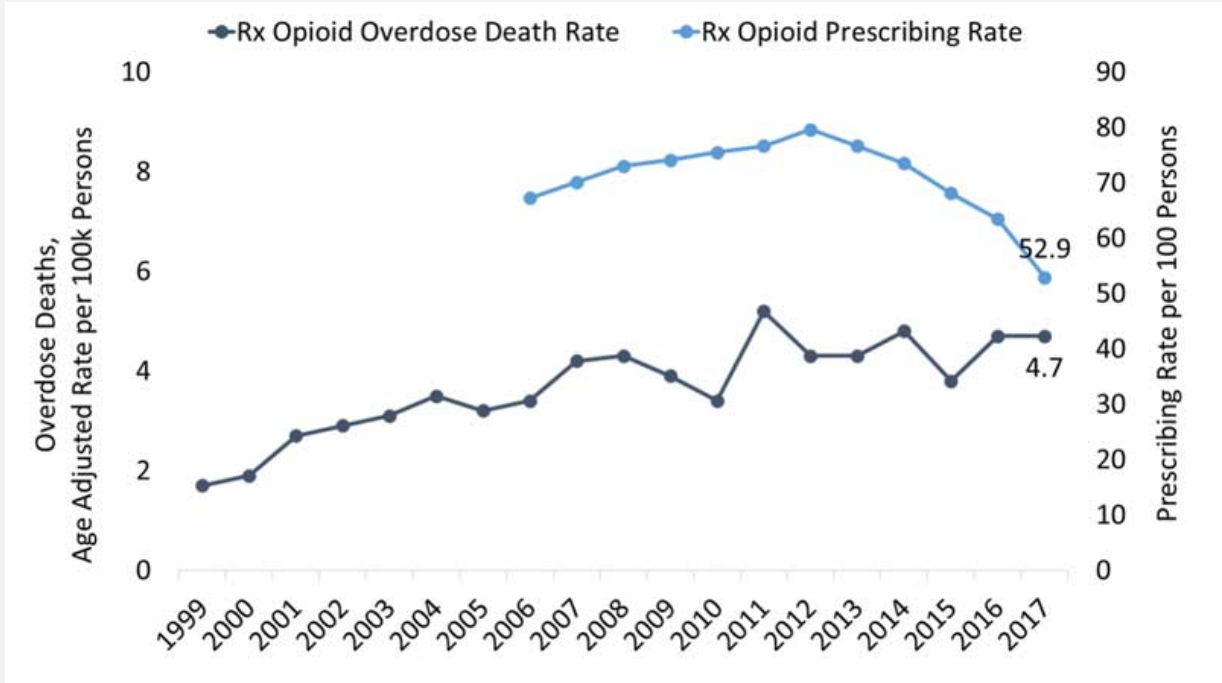
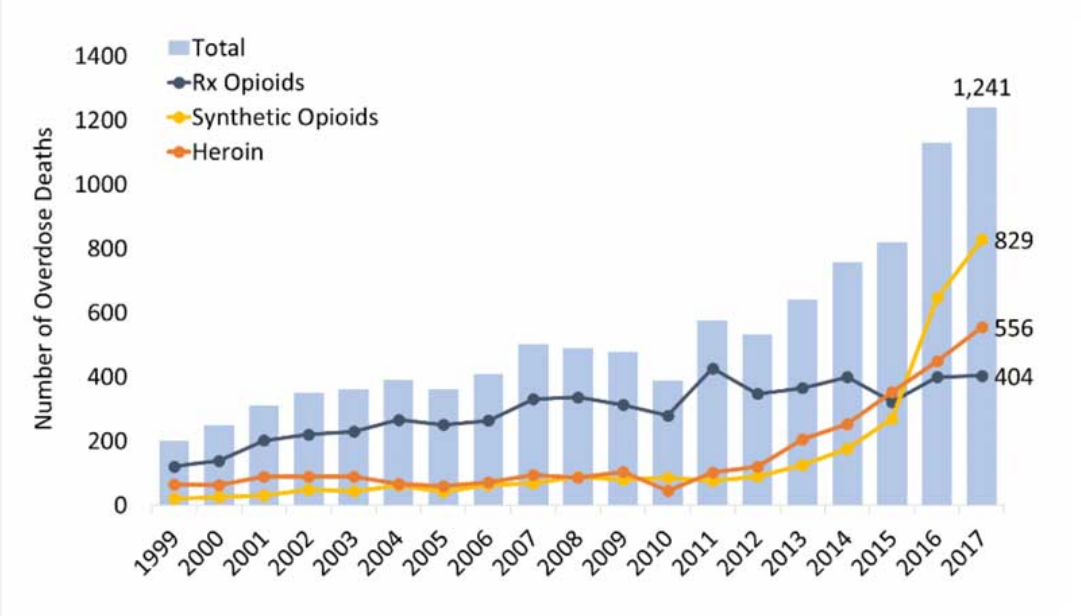
- 9-item questionnaire
- Groups patients into 3 categories of risk of poor outcome defined as persistent, disabling systems
- Scoring
 - 0 – 3: Low risk
 - 4 – 9: Medium risk
 - Distress subscale looks at just the last five items on the scale; Score of 4– 5 represents high risk

ASSESS PAIN AND FUNCTION (PEG SCORE)

- Three questions that are ranked on a scale of 0 – 10
 - *What number from 0 – 10 best describes your **pain** in the past week?*
 - *What number from 0 – 10 describes how, during the past week, pain has interfered with your **enjoyment** of life?*
 - *What number from 0 – 10 describes how, during the past week, pain has interfered with your **general activity**?*
- PEG Score = average of three scores
- 30% reduction in score is considered clinically meaningful
- Used to track improvement

OPIOID WITHDRAWAL & TAPERING

WHAT DOES THE OPIOID CRISIS LOOK LIKE IN VIRGINIA?



SHOULD WE THEN BE HELPING PATIENTS “GET OFF” OPIOIDS?

FDA identifies harm reported from sudden discontinuation of opioid pain medicines and requires label changes to guide prescribers on gradual, individualized tapering

FDA Drug Safety Communication

[f Share](#) [t Tweet](#) [in LinkedIn](#) [✉ Email](#) [🖨 Print](#)

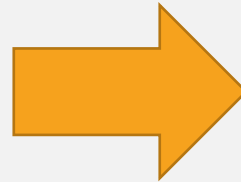
Safety Announcement

[4-9-2019] The U.S. Food and Drug Administration (FDA) has received reports of serious harm in patients who are physically dependent on opioid pain medicines suddenly having these medicines discontinued or the dose rapidly decreased. These include serious withdrawal symptoms, uncontrolled pain, psychological distress, and suicide.

OPIOID WITHDRAWAL

Initial withdrawal symptoms

- Begins within 8 – 10 hours after last dose depending on medication and formulation
- Acute course has duration of 7 – 10 days



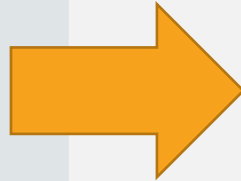
Protracted abstinence side effects

- Duration: 26 - 30 weeks

OPIOID WITHDRAWAL

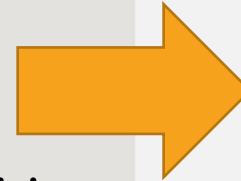
Initial withdrawal symptoms

- Lacrimation
- Rhinorrhea
- Yawning
- Sweating



Symptoms increase to include

- Restless sleep
- Weakness
- Chills
- Gooseflesh
- Nausea and vomiting
- Muscle aches
- Involuntary movements
- Hyperpnea
- Hyperthermia
- Hypertension



Protracted abstinence side effects

- Hypotension
- Bradycardia
- Hypothermia
- Mydriasis
- Decreases responsiveness of respiratory center to carbon dioxide

WHEN TO CONSIDER TAPERING OPIOIDS TO A REDUCED DOSE OF DISCONTINUATION

Patient requests a dose reduction

Patient does not have clinically meaningful improvement in pain and function

Patient is on dosages of ≥ 50 MME/day without benefit

Patient is receiving both opioids and benzodiazepines

Patient displays signs of substance use disorder

Patient experiences an overdose or serious adverse event

Patient shows warning signs or risks for overdose

Adverse effects

- At minimum dose that also produces pain relief
- If opioid rotation not beneficial

Impacts quality of life and daily functioning

- Can be physical, emotional, or social

HOW TO TAPER OPIOIDS



- Decrease by 10% per week
 - May consider slower reduction (10% per month) in patients who have been using opioids for an extended duration
 - Increased risk of overdose if patients quickly return to previously higher dose
- Adjust rate and duration based on patient's response
 - Do not reverse the taper
 - Can pause the taper while managing withdrawal symptoms
 - Can stop the opioids when the dose is the smallest possible and taken less than once a day

HOW TO TAPER OPIOIDS



Support

- Support
 - Patients should received psychosocial support
 - Mental health providers
 - Naloxone for overdose prevention
 - Coordinate with specialists as needed
 - Patients at increased risk of harm should especially have multiple treatment experts on board
 - Pregnant women
 - Patients with opioid use disorder



Encourage

- Encourage
 - Most patients have improved function without worse pain
 - Some patients even have improvement in pain after a taper
 - The pain can get worse briefly first



Consult

OPIOID TAPERING SCHEDULE: THE CASE OF TE

TE had a farming accident 6 months ago that resulted in the loss of his right lower leg (right below-the-knee amputation) in addition to a compound fracture in his left femur.

He has been taking Oxycontin XR 40 mg BID plus Oxycodone IR 10 mg Q6h PRN which he usually takes twice daily between his long-acting tablets. He has expressed a desire to wean off his opioid pain therapy because he worries that it impedes his ability to participate in physical therapy. His pain is currently controlled.

OPIOID TAPERING SCHEDULE: THE CASE OF TE

| Week | Total Daily Dose | Regimen |
|---------|---------------------|--|
| Week 0 | 100 mg of Oxycodone | Oxycontin XR 40 mg BID plus Oxycodone IR 10 mg Q6h PRN (usually takes twice daily) |
| Week 1 | 90 mg of Oxycodone | Oxycontin XR 40 mg BID plus Oxycodone IR 10 mg Q24h PRN |
| Week 2 | 80 mg of Oxycodone | Oxycontin XR 40 mg BID |
| Week 3 | 70 mg of Oxycodone | Oxycontin XR 30 mg qAM and 40 mg qPM |
| Week 4 | 60 mg of Oxycodone | Oxycontin XR 30 mg BID |
| Week 5 | 50 mg of Oxycodone | Oxycontin XR 20 mg qAM and 30 mg qPM |
| Week 6 | 40 mg of Oxycodone | Oxycontin XR 20 mg BID |
| Week 7 | 30 mg of Oxycodone | Oxycontin XR 10 mg qAM and 20 mg qPM |
| Week 8 | 20 mg of Oxycodone | Oxycontin XR 10 mg BID |
| Week 9 | 10 mg of Oxycodone | Oxycontin XR 10 mg QD |
| Week 10 | No Oxycodone | No Oxycodone |

OPIOID TAPERING SCHEDULE: THE CASE OF TE

Week 3 of TE's opioid taper, he presents to your office with symptoms of withdrawal. He states that after he decreased last week, he had trouble sleeping, body aches, and nausea and vomiting. He says that they were starting to improve but then when he went dropped down to the next dose, the symptoms came back but now also include gooseflesh and sweating.

OPIOID TAPERING SCHEDULE: THE CASE OF TE

What options do you have to help TE continue in his taper?

- Do not increase his oxycodone back to a previous dose to increased risk of overdose
 - Can slow the taper to a reduction every 2-4 weeks rather than every week
- Limited data on the usefulness of alpha-2 adrenergic agonists such as clonidine or muscle relaxers such as tizanidine

CONCERNS

Increased Pain

Dropout

Relapse

CONCERNS

Increased Pain

- Hyperalgesia is brief and limited after opioid discontinuation
- Patients reported improved functioning and improved pain

Dropout

Relapse

CONCERNS

Increased Pain

Dropout

- Symptoms of depression is a risk factor for drop out
- An option for opioid maintenance therapy may improve drop out rates
- Mandatory tapering may increase risk of dropout

Relapse

CONCERNS

Increased Pain

Dropout

Relapse

- Depressive symptoms and high pain scores are associated with an increased risk of relapse
- Posttreatment depression increases risk
- Low pain scores at the end of a taper is associated with continued abstinence

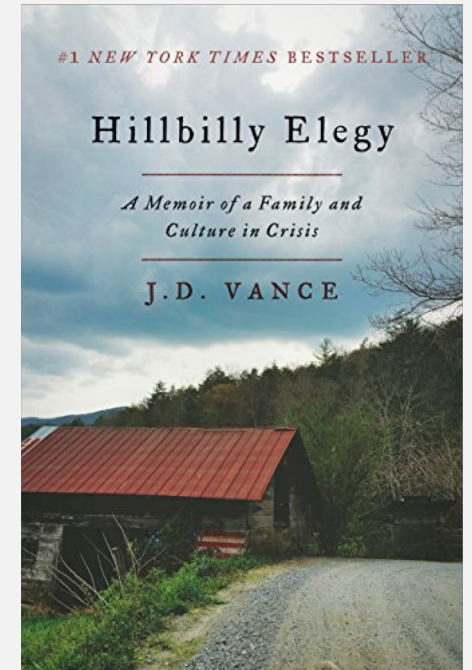
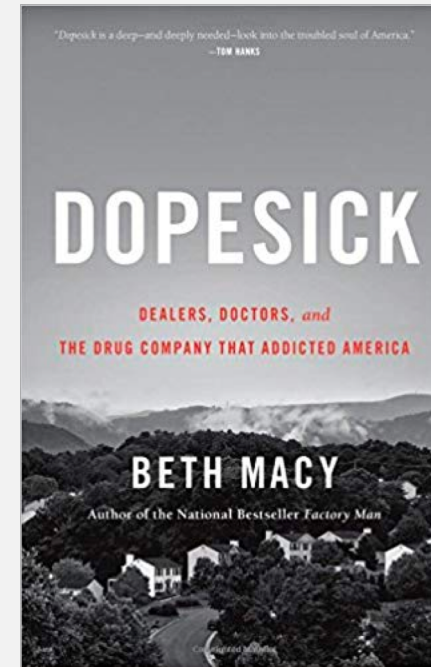
RESOURCES

- **Books**

- Dopesick by Beth Macy
- Hillbilly Elegy by J.D.Vance

- **Documentaries**

- Do No Harm – Media Policy Center and Physicians for responsible opioid prescribing
- Understanding the Opioid Epidemic – PBS
- Warning: This Drug May Kill You – HBO
- Recovery Boys – Netflix



QUESTIONS?

Thank you!

HOW TO MANAGE CHRONIC PAIN IN THE MIDDLE OF AN OPIOID EPIDEMIC

Kelsey Morgan, MPH, PharmD., BCPS

kwoods2@su.edu

Assistant Professor, Department of Pharmacy Practice

Shenandoah University Bernard J. Dunn School of Pharmacy