



Pain Management at Ground Zero

Mark Garofoli, PharmD, MBA, BCGP, CPE

Faculty

- Mark Garofoli, PharmD, MBA, BCGP, CPE
 - Experiential Learning Director & Clinical Assistant Professor, WVU School of Pharmacy
 - Clinical Pain Management Pharmacist, WVU Medicine Integrative Pain Center
 - Coordinator, WV Pain Management Expert Panel (SEMP Guidelines)
 - WV PDMP Advisory Panel Member
 - CDC Grant Reviewer



Disclosures

- Consultant/Independent Contractor: Daiichi Sankyo, Clinical Pharmacists Advisory Panel, Member

This presentation was not a part of the presenter's official duties at the WVU and does not represent the opinion of WVU



Learning Objectives

- Discuss the 2016 CDC Chronic Pain Opioid Guidelines directly into clinical practice.
- Describe the best practices within pain management with particular attention to risk reduction strategies.
- Recall multi-modal pain management treatment plan options.



US Opioid Prescribing & Heroin Distribution



<https://www.cdc.gov/drugopoids/heroincounties2016.html>
<https://laborworn.com/2015/04/27/alternative-metrics-of-american-distilled-economy-3/>

US Drug Overdose Deaths



<http://www.healthweek.com/feature/epidemiology/2016-08/Drug-overdose-deaths-in-the-us-14532438477-main495-0.png>
<http://www.wired.com/wired/2015/04/the-biggest-drug-overdose-problem-150915/>
 Holly H. et al. Drug Overdose Deaths in the United States, 1999–2016. NCHS Data Brief No. 294, December 2017.

Ground Zero Transcending to the Entire Nation...

HEALTH INC.
Drug Distributors Penalized For Turning Blind Eye In Opioid Epidemic
 JANUARY 27, 2017 - 9:00 AM ET
 CHARLES ORNSTEIN FROM

Charleston Gazette-Mail
1100 MARKET STREET, CHARLESTON, WV 25301
 A Few Clouds 64.8 °
 HOME NEWS BUSINESS OPINION SPORTS LIFE AGE OUTDOORS BLOGS DISTANCE MULTIMEDIA WEATHER


WV Supreme Court says addicts can sue doctors and pharmacists
 Photo: Staff Writer Mar 15, 2015

PainWeek

2016 Murder Conviction

Dr. Hsiu-Ying "Lisa" Tseng guilty of second-degree murder (30 years to life)


First time a doctor had been convicted of murder in the United States for overprescribing drugs





PainWeek

<http://www.latimes.com/local/obituaries/la-me-ln-doctor-murder-overdose-drugs-sentencing-20160925-story.html>

63,400 US Drug Overdose Deaths (2016)



8 minutes

Heart icon

Age-adjusted Drug Overdose Death Rates (per 100K)	
West Virginia	52
New Hampshire, Ohio, & D.C.	39
Pennsylvania	38

PainWeek

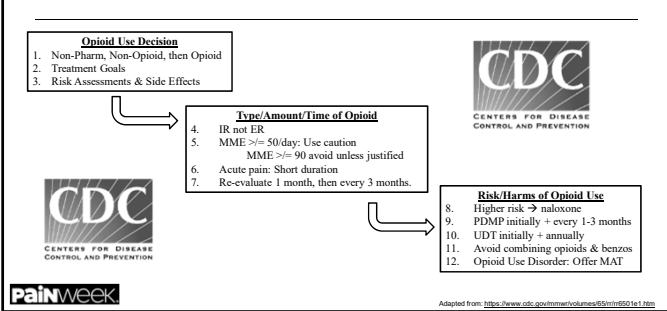
Holly H. et al. Drug Overdose Deaths in the United States, 1999-2016. NCHS Data Brief No. 294, December 2017

“Opioid Epidemic” Literature



2016 CDC Chronic Pain Opioid Guidelines

CDC Chronic Pain Opioid Guidelines



www.sempguidelines.org

	Nociocptive Pain	Neuropathic Pain	Mixed Pain
1st Line	Non-Pharmacological (Active & Passive) ATAP then NSAID	Non-Pharmacological (Active & Passive) Aid on Top of Age Sedative/Anxiolytic Relaxant Anticholinergic Respiratory Stimulant Sedative/Anxiolytic Respiratory Stimulant Sedative/Anxiolytic Respiratory Stimulant	Non-Pharmacological (Active & Passive) Aid on Top of Age Sedative/Anxiolytic Relaxant Anticholinergic Respiratory Stimulant Sedative/Anxiolytic Respiratory Stimulant Sedative/Anxiolytic Respiratory Stimulant
2nd Line	Opioid/Non-Opioid Tricyclic Antidepressant (TCA) Gabapentin/Pregabalin Consider Referral to Specialist	Anti-Epileptic Drugs (AEDs) Consider Referral to Specialist	gabapentin Sedative/Anxiolytic Respiratory Stimulant TCA Consider Referral to Specialist
3rd Line	Combination Opioid/Non-Opioid Anticholinergic Consider Referral to Specialist	Combination Opioid/Non-Opioid Anticholinergic Consider Referral to Specialist	Combination Opioid/Non-Opioid Anticholinergic Consider Referral to Specialist
4th Line	Special Consideration Consider Referral to Specialist	Special Consideration Consider Referral to Specialist	Special Consideration Consider Referral to Specialist

Painweek

Risk Reduction Strategy

Painweek

www.sempguidelines.org

Risk Reduction Strategy

Painweek

Patient & Provider Agreement Items

- Function & Time Goals
- Function, Pain, Risk, & Psychological Assessments
- Adverse effects of opioids
 - Higher MMEs and/or Other Sedatives
- PDMP
- Urine Drug Screening/Testing
- Naloxone Education/Supply
- Storage & Disposal
- Risks to others if shared
- Co-Manager if needed

PainWeek

www.sempainlines.org

Pain Reduction & Function Improvement Goal

Pain = 5th Vital Sign ???

Analgesic ???

The goal is NOT necessarily to eliminate pain

➤ The goal is to Improve Function & Reduce Pain

PainWeek

www.sempainlines.org

PEG Scale

PEG Pain Screening Tool

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 imagine

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

To compute the PEG score, add the three responses to the questions above, then divide by three to get a final score out of 10.
 The final PEG score can mean very different things to different patients. The PEG score, like most other screening instruments, is most useful to tracking changes over time. The PEG score should decrease over time after therapy has begun.

PEG Scale
 Pain intensity (P)
 Interference with Enjoyment of life (E)
 Interference with General activity (G)



PainWeek

Krebs E, et al. Development and Initial Validation of the PEG, a Three-Item Scale Assessing Pain Intensity and Interference. J Gen Intern Med 2016;733-8

Proper Medication Storage



Bathroom Medicine Cabinets → NO

- Humidity
- Unsecure
- Typically accessed at “groggy” times of day (AM/PM)

Lockable Safe Boxes → YES


- Away from children and pets
- Secure
- Still must incorporate into daily routine

PainWeek www.sempoidelines.org

Proper Medication Disposal EPA

1st Choice



Drug Take-Back Event

2ND CHOICE: HOUSEHOLD DISPOSAL STEPS*


1. Take your prescription drugs out of their original containers.
2. Mix drugs with an undesirable substance, such as cat litter or used coffee grounds.
3. Put the mixture into a disposable container with a lid, such as an empty margarine tub, or into a sealable bag.
4. Conceal or remove any personal information, including Rx number, on the empty containers by covering it with permanent marker or duct tape, or by scratching it off.
5. The sealed container with the drug mixture, and the empty drug containers, can now be placed in the trash.

* Drug Disposal Guidelines, Office of National Drug Control Policy, October 2009


PainWeek <https://www.epa.gov/sites/production/files/2015-09/documents/how-to-dispose-medicines.pdf>

Proper Medication Disposal FDA


1. DEA Sponsored Take-Back Programs (*Same as EPA*)
2. Household Trash (*Same as EPA*)
3. DEA Authorized Collector
 - Pharmacies can Register
 - https://apps.deadiversion.usdoj.gov/webforms2/spring/disposal_login2execution.e2s1
4. Flushing a list of ~40 CII's
 - Drugs enter water systems through human excretion
 - No sign of environmental damage from flushing drugs yet




1
Mix with an undesirable substance



2
Place in a sealable container



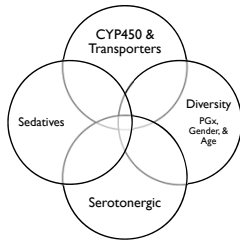
3
Throw into household trash



4
Scratch off personal information

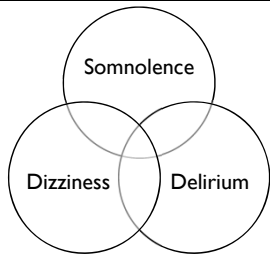
PainWeek <https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm101653.html#top>
<https://www.fda.gov/Drugs/ResearchandDevelopment/DrugSafety/DrugSafety4/ucm146140/medication-disposal/medication-disposal-781187.htm>

Opioid Medication Interactions



Painweek

Opioids, Benzos, "Relaxants", & Hypnotics Overlapping Sedative Side Effects...



Painweek

Opioid-Sedative Interactions "Name Game"

Drug-Drug Interaction	Proposed Name
Opioid + Benzodiazepine Sedative	"Bozo"
Opioid + "Muscle Relaxant" Sedative	"Relaxoid"
Opioid + Sedative Hypnotic	"Hypoid"
Opioid + One Other Sedative	"Deadly Duo"
Opioid + Two Other Sedatives	"Unholy Trinity"
Opioid + Three Other Sedatives	"Quattro Killer"
Benzodiazepine & Sedative Hypnotic	"Hypzo"
Benzodiazepine & "Muscle Relaxant" Sedative	"Relaxzo"

Painweek

Naloxone Products

Product	Generic Injectable	Generic Intranasal	Narcan® Nasal Spray	Evzio® Auto-Injector
Dose	0.4mg IM	1mg in each nostril	4mg in one nostril	0.4mg/2mg IM/SQ
Dosing	Inject 1mL in shoulder/hip, may repeat in 2-3min. Use 3mL 23G syringe & 1" needle	Spray 1mL (half of syringe) in each nostril with atomizer, may repeat in 2-3 min	Spray 0.1mL into one nostril; may repeat in 2-3 min with 2nd device in alternate nostril	Press black side firmly onto outer thigh through clothing, hold 5 seconds, may repeat in 2-3 min
Availability	0.4mg/mL, 4mg/10mL	2mL prefilled Luers-jet syringe + Atomizer (Item # MAD-301)	0.4mg/0.1mL	0.4mg/0.4mL, 2mg/0.4mL
Manufacturer	Pfizer, West-Ward, & Mylan	IMS/Amphastar	Adapt	Kaleco
Cost	\$	\$\$	\$\$	\$\$\$\$\$
NDC	00409-1215-01 00409-1215-01 67457-0292-01 00641-6132-25	76229-3369-01	69547-0353-02	60842-0030-01 60842-0051-01
Picture				



Adapted from: Toderka Y, Williams S. Naloxone for Opioid Overdose and the Role of the Pharmacist. Consult Pharm. 2018 Feb 13(2):98-104.

Naloxone Candidates

Any patient receiving \geq 50mg MME	Opioid Rotation	Recent Opioid Overdose	Opioid Use Disorder	Personal/Family History Substance Abuse
Respiratory Condition COPD/Asthma Sleep Apnea Smoking of Anything	Heavy Alcohol Use	Benzodiazepine or Other Sedatives	Difficult Access to EMT (Rural)	Voluntary Request (Patient/Caregiver)



<https://www.santitas.gov/handout/for-possible-3rd-month-the-overdose>

Opioid Overdose Symptoms

Death Rattle Gargled, Slow, Absent Breathing	Unconscious and Unarousable	Pinpoint Pupils	Pale Clammy Skin
Hypoxia Blue Lips & Nails	Hypotension	Slow or No Heartbeat	



<https://www.santitas.gov/handout/for-possible-3rd-month-the-overdose>

Naloxone Administration

SAMHSA Guidelines

1. Check for signs of opioid overdose
2. Call EMS to access immediate medical attention*
3. Administer naloxone (rescue position)*
4. Rescue breathe if patient not breathing*
5. Stay with the person and monitor their response until emergency medical assistance arrives. After 2-5 minutes, repeat the naloxone dose if person is not awakening or breathing well enough (10 or more breaths per minute)



*Order depending on the source of guidance



<https://www.samhsa.gov/medication-assisted-treatment/treatment/naloxone>

Pill Counts

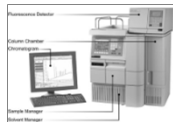
- Randomized or Scheduled
- Goals
 - Improve proper medication adherence
 - Prevent and/or detect medication diversion
- Recommend not to have support staff perform
- Use a counting tray
- Realize Pills can be rented/borrowed (online/street)



Visconti CM, et al. Pill counts and pill rental: unintended entrepreneurial opportunities. The Clinical Journal of Pain 28(7):623-624, July 2013

Urine Drug Screening/Testing

- Randomized or Scheduled
- Goals
 - Improve proper medication adherence
 - Prevent and/or detect medication diversion
- Witnessed or private
- Realize Urine can be purchased online or shared
 - www.thewhizzinator.com



www.samhsa.gov

Urine Drug Screening/Testing



Painweek

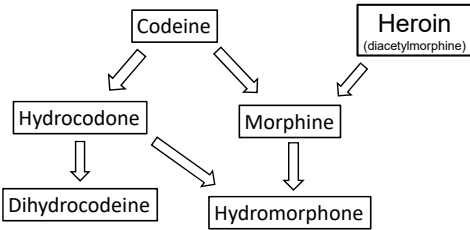
Urine Drug Screening versus Testing

Urine Drug Screening (UDS)	Urine Drug Testing (UDT)
Immunoassay screen (i.e. Cup)	GC-MS or LC-MS/MS
In-office, point-of-care, or lab-based	Laboratory, highly specific & sensitive
Results within minutes	Results in hours or days
Detects a few legal & illicit medications by structural class	Measures concentrations of all drugs & metabolites
Guidance for preliminary treatment decisions	Definitive identification & analysis
Cross-reactivity common: more false positives	False-positive results are rare
Higher cutoff levels: more false negatives	False-negative results are rare
\$	\$\$\$

Painweek

Adapted from the WV SEMP Guidelines: www.sempguidelines.org

Opioid Metabolism Active Metabolites



Painweek

Adapted from the WV SEMP Guidelines: www.sempguidelines.org

Urine Drug Screening Panels



Urine Drug Screening Panels			
7 Panel	Marijuana (THC) Cocaine	Methadone Propoxyphene Quaaludes	Ecstasy & Oxycodone
10 Panel	Opiates/Derivatives PCP		
12 Panel	Amphetamines Benzodiazepines Barbiturates		
Pain 13 Panel			Fentanyl & Meperidine



<http://www.mobilehealth.net/screening/urug-screening/5-panel-the-different-drug-panels/>

Opioid Structural Classes

Phenanthrenes	Benzomorphans	Phenylpiperidines	Dipheylheptanes	Phenylpropylamines
5 Rings	4 Rings	3 Rings	2 Rings	2 Rings
Buprenorphine Codeine Diacetylmorphine Hydrocodone Naloxone Oxycodone Oxymorphone	Butorphanol Levorphanol	Diphenoxylate Loperamide Pentazocine	Fentanyl Meperidine	Methadone Propoxyphene



Adapted from Volkow ND, McLellan AT. *N Engl J Med*. 2016; 374(12):121-131.

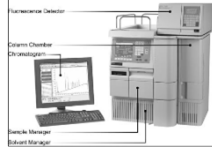
Urine Drug Screening Cross-Reactants

Chemical	Cross-Reactant
Cannabinoids	NSAIDs, dronabinol, promethazine, & pantoprazole
Opioids	poppy seeds, chlorpromazine, rifampin, dextromethorphan, quinolones, diphenhydramine, & quinine
Amphetamines	methylphenidate, trazodone, bupropion, amantadine, propranolol, labetalol, ranitidine, & menthol
PCP	ibuprofen, tramadol, chlorpromazine, venlafaxine, thioridazine, meperidine, dextromethorphan, diphenhydramine, & doxylamine
Benzodiazepines	oxaprozin, sertraline, & some herbals
Alcohol	asthma inhalers
Methadone	quetiapine



Adapted from WV SEMPMP Guidelines www.wvsempmp.org

Urine Drug Screening/Testing



Conversation Starters

Conversation Leaders



Prescription Drug Monitoring Programs PDMPs



www.pdmpassist.org

State	PDMP Legislation	PDMP Operational	State	PDMP Legislation	PDMP Operational
California	1939	1939	North Carolina	2005	2007
Hawaii	1943	1943	Connecticut	2006	2008
Idaho	1967	1967	Arizona	2007	2008
Illinois	1961	1968	Louisiana	2006	2008
New York	1972	1973	South Carolina	2006	2008
Pennsylvania	1972	1973	Vermont	2006	2009
Rhode Island	1978	1979	Iowa	2006	2009
Texas	1981	1982	Minnesota	2007	2010
Michigan	1988	1989	New Jersey	2008	2011
Oklahoma	1990	1991	Alaska	2008	2011
Massachusetts	1992	1994	Oregon	2009	2011
West Virginia	1995	1995	Washington	2007	2011
Utah	1995	1996	Kansas	2008	2011
Nevada	1995	1997	South Dakota	2010	2011
Indiana	1997	1998	Florida	2009	2011
Kentucky	1998	1999	Nebraska	2011	2011
Virginia	2002	2003	Delaware	2010	2012
Maine	2003	2004	Montana	2011	2012
Wyoming	2004	2004	Guam	1998	2013
New Mexico	2004	2005	Wisconsin	2010	2013
Mississippi	2005	2005	Arkansas	2011	2013
Ohio	2005	2006	Georgia	2011	2013
Alabama	2004	2006	Maryland	2011	2013
Tennessee	2003	2006	New Hampshire	2012	2014
Colorado	2005	2007	District of Columbia	2014	2016
North Dakota	2005	2007	Missouri	2016	2017



www.pdmpassist.org

Verifying Identification Cards Magnetic Strip Swipe

- States with Magnetic Stripes

AL, AZ, AR, CA, CO, FL, KS, LA, MI, MN,
MS, NH, NM, OH, PA, SC, TX, & VT

- Fast Scanning: 1 second for response

- ~\$500 Device Cost



<http://www.kdsccamer.com/products/magnetic-stripe-id-swiper/>



Verifying Identification Cards Barcode Reader

- Process via smartphones/pads

- Link directly to state ID databases



<https://www.barandclustats.com/collections/id-scanner>
http://www.netorale.com/scanr-app/#from=shopify_3140



DEA Red Flags Prescribers

- Cash only patients and/or no acceptance of worker's compensation or insurance
- Prescribing of the same combination of highly-abused drugs
- Prescribing the same (high) quantities of pain drugs to most/every patient
- High number of prescriptions issued per day
- Out-of-area patient population



➤ NABP "Red Flags" Video (<https://nabp.pharmacy/initiatives/aware/pharmacist-resources/>)



<https://nabp.pharmacy/initiatives/aware/pharmacist-resources/>

DEA Red Flags Dispensers

- Dispensing a high percentage controlled to non-controlled drugs
- Dispensing high volumes of controlled substances generally
- Dispensing the same drugs & quantities prescribed by the same prescriber
- Dispensing to out-of area or out-of-state patients
- Dispensing to multiple patients with the same last name or address
- Sequential prescription #s for highly diverted drugs from the same prescriber
- Dispensing for patients of controlled substances from multiple practitioners
- Dispensing for patients seeking early prescription fills



➤ NABP "Red Flags" Video (<https://nabp.pharmacy/initiatives/aware/pharmacist-resources/>)



<https://nabp.pharmacy/initiatives/aware/pharmacist-resources/>

When Drug Seeking or Diversion is Suspected

- Eliminate personal or judgmental biases
- Calm, collected, knowledgeable, and well researched approach
 - "Never pick up a phone until you've completed research"
- Conversation with other respective healthcare professionals
 - May not even be aware of the use of his/her name
- Conversation with respective patient
 - "There's two sides to every coin"
 - "False positives"

??? Responsibility ???



??? Comfort Level ???



Once Drug Seeking or Diversion is Confirmed

- Refer to a substance-use disorder (addiction) specialist/program
- Contact law enforcement if concern for the safety of the patient or others exists
- Treatment can continue with alternative therapies (e.g. non-controlled substances)
- Reference the patient and provider agreement/contract
 - Avoid patient abandonment concerns (e.g. provide 30 days of additional treatment)
- Respect all involved while complying with federal and state laws



Reporting to the DEA

<https://apps.dea.diversion.usdoj.gov/rxaoor/spring/main?execution=1&1>

1-877-RX-Abuse (1-877-792-2873)

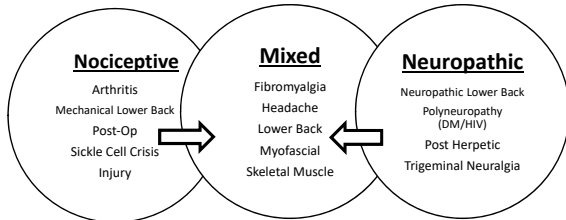


Risk Reduction Strategy



www.sempgojcdelines.org

3 Main Types of Pain



www.sempgojcdelines.org

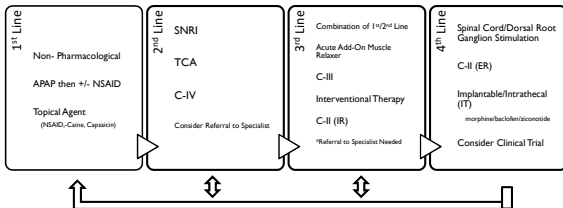
Clinical Treatment Algorithms

	Nociceptive Pain	Neuropathic Pain	Mixed Pain
1 st Line	Non-Pharmacological (Heat & Frost) APAP then +/- NSAID Topical Agent (NSAID, Capsaicin)	Non-Pharmacological (Heat & Frost) Acute Trial of NSAID/APAP +/- Opioid, Gabapap, Serotonin Antidepressant Serotonin-Norepinephrine Reuptake Inhibitor (SNRI) Tricyclic Antidepressant (TCA)	Non-Pharmacological (Heat & Frost) Acute Trial of NSAID/APAP +/- Opioid, Gabapap, Serotonin Antidepressant Topical Agent (NSAID, Capsaicin)
2 nd Line	Gabapentin/Preparalgin Pregabalin Tricyclic Antidepressant (TCA) Controlled Substance Class II Consider Referral to Specialist	Anti-Epileptic Drugs (AEDs) Controlled Substance Class IV Consider Referral to Specialist	Gabapentin/Preparalgin Pregabalin Tricyclic Antidepressant (TCA) Controlled Substance Class II Consider Referral to Specialist
3 rd Line	Combination of 1 & 2 nd Line Agents Acute Add-On Muscle Relaxant Controlled Substance Class III Interventional Therapy Controlled Substance Class II (if) Consider Referral to Specialist	Combination of 1 & 2 nd Line Agents Acute Add-On Muscle Relaxant Controlled Substance Class III Interventional Therapy Controlled Substance Class II (if) Consider Referral to Specialist	Combination of 1 & 2 nd Line Agents Acute Add-On Muscle Relaxant Controlled Substance Class III Interventional Therapy Controlled Substance Class II (if) Consider Referral to Specialist
4 th Line	Spinal Cord/Dorsal Root Ganglion Stimulation C-II (ER) Implantable/Intrathecal (IT) morphine/baclofen/ziconotide Consider Clinical Trial	Spinal Cord/Dorsal Root Ganglion Stimulation C-II (ER) Implantable/Intrathecal (IT) morphine/baclofen/ziconotide Consider Clinical Trial	Spinal Cord/Dorsal Root Ganglion Stimulation C-II (ER) Implantable/Intrathecal (IT) morphine/baclofen/ziconotide Consider Clinical Trial



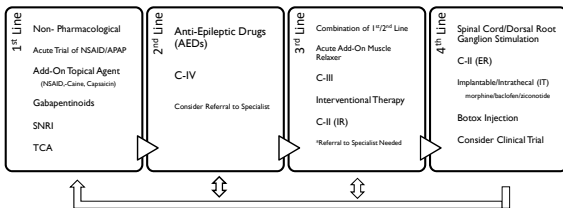
www.sampouzelines.com

Nociceptive Pain Clinical Treatment Algorithm



www.sampouzelines.com

Neuropathic Pain Clinical Treatment Algorithm



www.sampouzelines.com

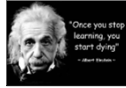
Pain Management Best Practices

People Respect What You Inspect, Not What You Expect

An Ounce of Prevention, is Worth a Pound of Treatment

Never Stop Learning

Hippocratic Oath: Do No Harm



Audience Question #1

After reading headline after headline regarding our nation's opioid crisis, Dr. Payne has decided to begin to mandate patient and provider agreements for all of his patients being prescribed opioid medications. Which of the following would **NOT** be recommended to include in the patient and provider agreement for his office?

- a) Review of the Prescription Drug Monitoring Program (PDMP)
- b) Random Urine Drug Screening and/or Testing
- c) Mandatory cash payments for office visits
- d) Review of the negative effects of utilized medications



Audience Question #1 (ANSWER)

After reading headline after headline regarding our nation's opioid crisis, Dr. Payne has decided to begin to mandate patient and provider agreements for all of his patients being prescribed opioid medications. Which of the following would **NOT** be recommended to include in the patient and provider agreement for his office?

- a) Review of the Prescription Drug Monitoring Program (PDMP)
- b) Random Urine Drug Screening and/or Testing
- c) MANDATORY CASH PAYMENTS FOR OFFICE VISITS
- d) Review of the negative effects of utilized medications



Audience Question #2

Ms. Fay Kinet was recently diagnosed with diabetic peripheral neuropathy, a very common form of neuropathic pain. According to the West Virginia Safe & Effective Management of Pain (SEMP) Guidelines, which of the following medications would be an appropriate first line treatment?

- a) Muscle Relaxant
- b) TCA or SNRI Antidepressant
- c) Mixed Action Opioid
- d) Botox Injection



Audience Question #2 (ANSWER)

Ms. Fay Kinet was recently diagnosed with diabetic peripheral neuropathy, a very common form of neuropathic pain. According to the West Virginia Safe & Effective Management of Pain (SEMP) Guidelines, which of the following medications would be an appropriate first line treatment?

- a) Muscle Relaxant Medication
- b) TCA OR SNRI ANTIDEPRESSANT
- c) Mixed Action Opioid Medication
- d) Botox Injection



Audience Question #3

While at a loud club on Las Vegas Boulevard (i.e. The Strip), your friend is sitting in a VIP area 20 yards away and looks like he may have had too much to drink since he is practically asleep. What you do not know is that he inadvertently added laced Heroin to his beverage when he thought he added a sweetener. What symptom could you notice from afar that would indicate an opioid (Heroin) overdose?

- a) Slow Heart Rate
- b) Pin Point Pupils
- c) The Death Rattle
- d) Hypoxia



Audience Question #3 (ANSWER)

While at a loud club on Las Vegas Boulevard (i.e. The Strip), your friend is sitting in a VIP area 20 yards away and looks like he may have had too much to drink since he is practically asleep. What you do not know is that he inadvertently added laced Heroin to his beverage when he thought he added a sweetener. What symptom could you notice from afar that would indicate an opioid (Heroin) overdose?

- a) Slow Heart Rate
- b) Pin Point Pupils
- c) The Death Rattle
- d) HYPOXIA



63,400 US Drug Overdose Deaths (2016)



8 minutes



Holly H, et al. Drug Overdose Deaths in the United States, 1999–2016. NCHS Data Brief No. 294, December 2017.

Discussion



Mark Garofoli, PharmD, MBA, BCGP, CPE
LinkedIn: Mark Garofoli