



WV SEMP Guidelines

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West Virginia
Safe & Effective Management of Pain
(SEMP) Guidelines

WV Expert Pain Management Panel

West Virginia (WV) has the highest drug overdose death rate of 35 per 100,000 (Age Adjusted), with a large margin over the next closest state of New Mexico having a rate of 27, while the national average is 14. A geographically and professionally diverse expert panel of West Virginia professionals was formed with intention of creating guidelines for the safe and effective overall management of pain, which build upon the CDC Chronic Pain Opioid Guidelines of 2016. The guidance, included herein, aims to first provide a risk reduction strategy for the appropriate use of all pain treatments, and secondly, to develop pain management clinical treatment algorithms.

Risk Reduction Strategy

A major concern of healthcare professionals and patients alike is the question of what is the “gold standard” approach to managing pain, particularly chronic pain. Previously, pain management strategies have been largely based upon subjective evaluation methods versus more objective assessments. The risk reduction strategy contained herein, aims to minimize patient risk and reduce healthcare professional anxiety in the overall management of chronic pain, which is paramount for ensuring the safest and most effective management of pain.

Clinical Treatment Algorithms

Safe and effective clinical pain management algorithms based on best practices, clinical experience, and evidence-based literature addressing the three main classification of pain: nociceptive, neuropathic, and mixed.

Nociceptive Pain

Pain arising from noxious stimuli affecting thermal, mechanical, or chemical receptors (nociceptors) in normal tissues

Neuropathic Pain

Abnormal processing of sensory input by the Central and/or Peripheral Nervous Systems (CNS/PNS)

Mixed Pain

Combination of both Nociceptive and Neuropathic Pains

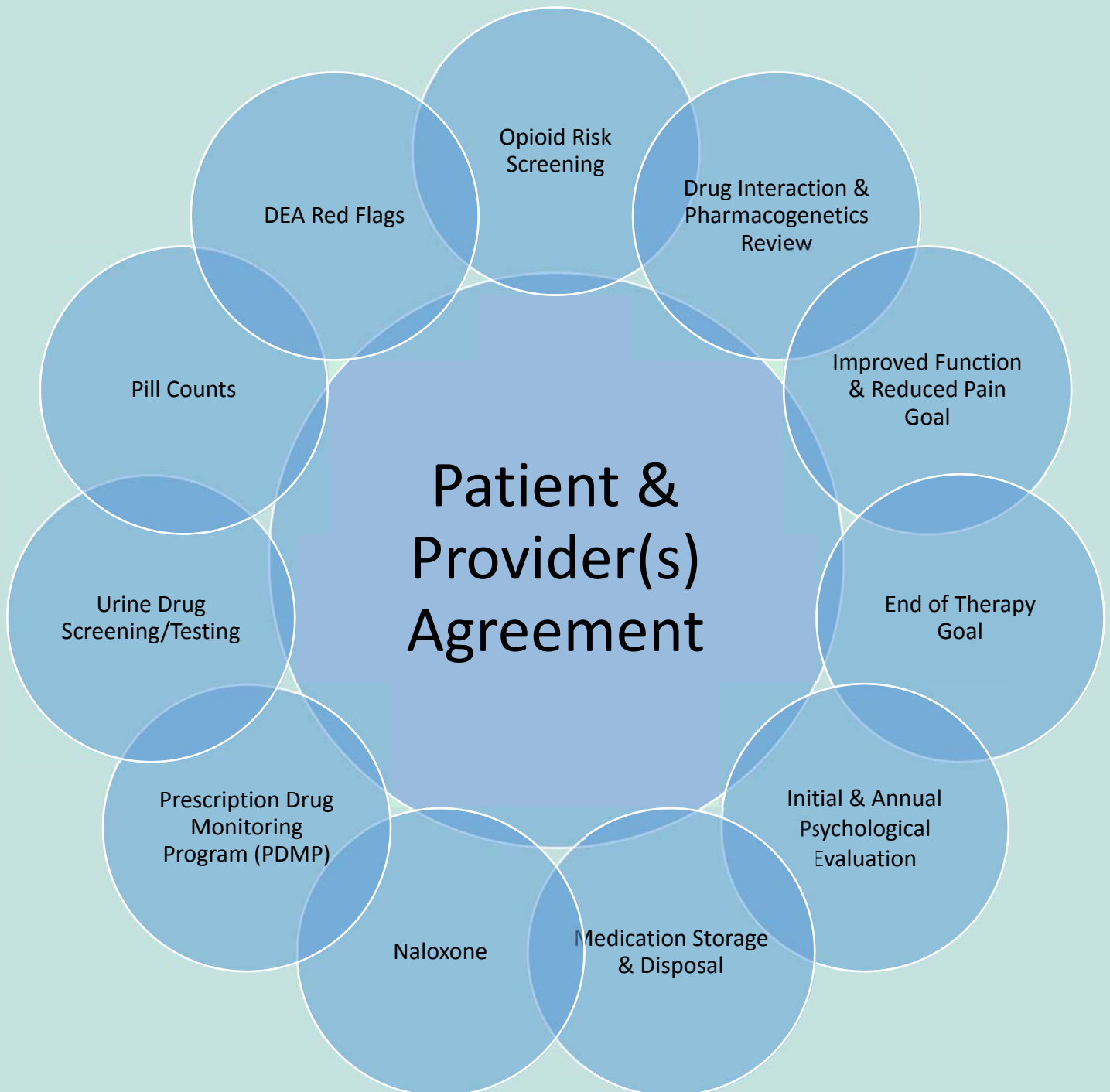


Risk Reduction Strategy

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Clinical Treatment Algorithms

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Nociceptive Pain

Neuropathic Pain

Mixed Pain

	Nociceptive Pain	Neuropathic Pain	Mixed Pain
1st Line	<p>Non-Pharmacological (Active & Passive)</p> <p>APAP then +/-NSAID*</p> <p>Topical Agent (NSAID, Lidocaine, Capsaicin)</p>	<p>Non-Pharmacological (Active & Passive)</p> <p>Acute Trial of NSAID*/APAP</p> <p>Add on Topical Agent (NSAID, Lidocaine, Capsaicin)</p> <p>Gabapentinoids**</p> <p>Serotonin-Norepinephrine Reuptake Inhibitor (SNRI)</p> <p>Tricyclic Antidepressant (TCA)</p>	<p>Non-Pharmacological (Active & Passive)</p> <p>Acute Trial of NSAID*/APAP</p> <p>Topical Agent (NSAID, Lidocaine, Capsaicin)</p>
2nd Line	<p>Serotonin-Norepinephrine Reuptake Inhibitor (SNRI)</p> <p>Tricyclic Antidepressant (TCA)</p> <p>Controlled Substance Class IV</p> <p>Consider Referral to Specialist</p>	<p>Anti-Epileptic Drugs (AEDs)</p> <p>Controlled Substance Class IV</p> <p>Consider Referral to Specialist</p>	<p>Gabapentinoids**</p> <p>Serotonin-Norepinephrine Reuptake Inhibitor (SNRI)</p> <p>Tricyclic Antidepressant (TCA)</p> <p>Controlled Substance Class IV</p> <p>Consider Referral to Specialist</p>
3rd Line	<p>Combination 1st & 2nd Line Agents</p> <p>Acute Add-On Muscle Relaxer**</p> <p>Controlled Substance Class III</p> <p>Interventional Therapy</p> <p>Controlled Substance Class II (IR)</p> <p>Referral to Specialist Needed</p>	<p>Combination 1st & 2nd Line Agents</p> <p>Acute Add-On Muscle Relaxer***</p> <p>Controlled Substance Class III</p> <p>Interventional Therapy</p> <p>Controlled Substance Class II (IR)</p> <p>Referral to Specialist Needed</p>	<p>Combination 1st & 2nd Line Agents</p> <p>Acute Add-On Muscle Relaxer***</p> <p>Controlled Substance Class III</p> <p>Interventional Therapy</p> <p>Controlled Substance Class II (IR)</p> <p>Referral to Specialist Needed</p>
4th Line	<p>Spinal Cord/Dorsal Root Ganglion Stimulation</p> <p>Controlled Substance Class II (ER)</p> <p>Implantable/Intrathecal (IT) Morphine/Baclofen/Ziconotide</p> <p>Consider Clinical Trial</p>	<p>Spinal Cord/Dorsal Root Ganglion Stimulation</p> <p>Controlled Substance Class II (ER)</p> <p>Implantable/Intrathecal (IT) Morphine/Baclofen/Ziconotide</p> <p>Botox Injection****</p> <p>Consider Clinical Trial</p>	<p>Spinal Cord/Dorsal Root Ganglion Stimulation</p> <p>Controlled Substance Class II (ER)</p> <p>Implantable/Intrathecal (IT) Morphine/Baclofen/Ziconotide</p> <p>Consider Clinical Trial</p>



Non-Pharmacological Treatments

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Active

Cardio Exercise
Resistance Exercise
Aquatic Exercise
Walking Aids
Yoga, Tai Chi, & Qigong
Meditation or Hypnosis
Relaxation
Cognitive Behavioral Therapy
Acceptance & Commitment Therapy
Biofeedback
Graded Motor Imagery
Occupational/Physical Therapy

Passive

Nutrition
Heat or Cold
TENS/EMS Devices
Hyperbaric Oxygen
Spinal Manipulation
(Chiropractor)
Massage
Ultrasound
Paraffin Wax
Infrared Light
Spinal Traction
Acupuncture



Morphine Milligram Equivalents MMEs

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Medication	MME Factor	MME Relative Doses
Tramadol	0.1	300mg
Meperidine	0.1	300mg
Codeine	0.15	200mg
Dihydrocodeine	0.25	120mg
Pentazocine	0.37	~100mg
Tapentadol	0.4	75mg
MORPHINE	1	30mg
Hydrocodone	1	30mg
Opium	1	30mg
Oxycodone	1.5	20mg
Oxymorphone	3	10mg
Heroin (SC Diacetylmorphine)	3	10mg
Hydromorphone	4	7.5mg
Methadone 1-20 mg/day	4	7.5mg
21-40 mg/day	8	3.75mg
41-60 mg/day	10	3mg
>/=61 mg/day	12	2.5mg
Levorphanol	11	~3mg (2mg Available)
Fentanyl Transdermal (TD) Patch	7.2 (Divide By Days)	12.5mcg/hr Patch
Buprenorphine TD Patch	12.6 (Divide By Days)	15mcg/hr Patch
Buprenorphine SL & Buccal	0.03 (for mcg)	1000mcg (900mcg Available)

Using the MME Factor

Multiply the mg or mcg respectively of the chosen opioid by the MME Factor to calculate the MME of the chosen opioid.

Using the MME Relative Doses

Comparative doses of opioids to 30mg of oral morphine



Prescription Drug Monitoring Programs (PDMPs)

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West Virginia PDMP or Controlled Substance Monitoring Program

- To Register, Delegate Access, or Log-In:
<https://www.csapp.wv.gov/Account/Login.aspx>
- All licensed prescribers must check the PDMP at the initiation of opioid therapy and at a minimum of every year thereafter.
- A physician working in a pain management clinic must check the PDMP at the initiation of the controlled substance therapy and at a minimum of every 90 days thereafter.
- All licensees who dispense Schedule II, III, and IV controlled substances to residents of WV must provide the dispensing information to the WV Board of Pharmacy (BOP) at least every 24 hours.



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Guidelines

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Opioid Drug-Drug Interactions

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Opioid	CYP450 Enzyme	Common Interacting Medications(s)	Result	Comments
codeine	2D6	celecoxib, duloxetine, bupropion, fluoxetine, & paroxetine	Inhibit conversion to active metabolite	Decreased Analgesia
	n/a	SSRIs/SNRIs	Increased central serotonin levels	Monitor for Serotonin Syndrome
fentanyl	3A4	clarithromycin, diltiazem, verapamil, & erythromycin	Increased fentanyl concentration	Adjust fentanyl dose
meperidine	n/a	acyclovir	Increased meperidine concentration	n/a
	3A4	phenytoin, carbamazepine, & phenobarbital	Decreased meperidine concentration	n/a
	n/a	SSRIs/SNRIs	Increased central serotonin levels	Monitor for Serotonin Syndrome
	n/a	cimetidine	Increased meperidine concentration	Choose alternative H2RA
morphine	n/a	rifampin & ranitidine	Decreased morphine concentration & conversion to active metabolite	May result in decreased analgesia
methadone	2D6	celecoxib, duloxetine, bupropion, fluoxetine, & paroxetine	Increased methadone concentration	Reduce dose of methadone
	3A4	phenytoin, carbamazepine, & phenobarbital	Decreased methadone concentration	May precipitate opioid withdrawal
	3A4	clarithromycin, diltiazem, verapamil, & erythromycin	Increased methadone concentration	Reduce dose of methadone
tramadol	2C9	carbamazepine	Increases tramadol metabolism	Avoid combination
	2D6	celecoxib, duloxetine, bupropion, fluoxetine, & paroxetine	Inhibit conversion to active metabolite	Decreased Analgesia
	n/a	SSRIs/SNRIs	Increased central serotonin levels	Monitor for Serotonin Syndrome
hydrocodone	2D6	celecoxib, duloxetine, bupropion, fluoxetine, & paroxetine	Inhibit conversion to active metabolite	Decreased Analgesia
	3A4	clarithromycin, diltiazem, verapamil, & erythromycin	Increased hydrocodone levels	Adjust hydrocodone dose
oxycodone	2D6	celecoxib, duloxetine, bupropion, fluoxetine, & paroxetine	Increased oxycodone levels, but decreased oxymorphone (metabolite) levels	n/a
	3A4	phenytoin, carbamazepine, & phenobarbital	Decreased oxycodone concentration	Decreased Analgesia
	3A4	clarithromycin, diltiazem, verapamil, & erythromycin	Increased oxycodone levels	Adjust oxycodone dose

1. Clinical Pharmacology [Internet database]. Gold Standard, Inc., 2007. Available at: <http://www.clinicalpharmacology.com>. Accessed June 2016.
2. Common Opioid-Drug Interactions: What Clinicians Need to Know. Practical Pain Management, 2012.



Urine Drug Screenings & Tests

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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 and sensitive
Results within minutes	Results in hours or days
Detects a few legal & illicit medications by structural class	Measures concentrations of all medications, illicit substances, & 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
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Target Drug Test	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

Opioid	Opioids Expected in Testing Results (Based on Metabolites)
Morphine	Morphine & hydromorphone*
Hydromorphone	Hydromorphone
Hydrocodone	Hydrocodone & hydromorphone
Codeine	Codeine, hydrocodone*, morphine, & hydromorphone
Oxycodone	Oxycodone & oxymorphone
Oxymorphone	Oxymorphone
Fentanyl	Fentanyl
Tramadol	Tramadol
Methadone	Methadone
Heroin	Heroin, morphine, & hydromorphone

*Minor



Opioid Tapering Tool

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General Considerations

- Determine if the goal is to reduce or discontinue the opioid medication.
- Gradual tapering can take 2 to 6 months (Some may benefit from longer time frame of 18 to 24 months) and is best for avoiding withdrawal symptoms.
- More rapid tapering is possible and sometimes desired, with an emphasis on monitoring for withdrawal symptoms.
- Formulations that offer smaller dose increments are useful for more gradual tapers, especially once in the lower end of the dosage range.
- Consult with pain management specialists as needed.

Tapering Timeline

Initial dose reductions in the range of 10% every 1 to 2+ weeks.



Once 1/3 of original dose is reached, smaller reductions (5% every 2 to 4 weeks) may be useful.



If discontinuing opioid, the final 20-60 MME may require more time.

Opioid Withdrawal Symptoms & Treatments

Pain

NSAID and/or Acetaminophen

Diarrhea

Loperamide

Nausea/Vomiting

Dimenhydrinate

Anxiety

Hydroxyzine

Insomnia

Sleep Hygiene

Tachycardia

Clonidine



Naloxone

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Candidates to Carry Naloxone

- Any patient receiving >50mg Morphine Milligram Equivalent (MME) of opioid treatment
- Respiratory condition
 - COPD, Asthma, Sleep Apnea, or Smoking of marijuana, hooka, tobacco, etc.
- Patients being treated for opioid use disorder (DSM-V)
- Personal or Family history of substance abuse (alcohol or drugs)
- Patients released having experienced an opioid overdose
- Benzodiazepine, Hypnotics, Muscle Relaxers, or other sedative use
- Patients being switched between opioids product formulations
- Those with difficult access to emergency services (rural)
- Heavy alcohol use
- Voluntary request from patient or caregiver

Opioid Overdose Signs/Symptoms

- Slow Gargled Breathing (or No Breathing)
- Blue Lips and/or Nails
- Cold & Clammy Skin
- Unresponsive
- Pin-Point Pupils
- Hypotension

Key Points of Naloxone Administration

- Call 911, Emergency Medical Services EMS
- Clearing of airway and Rescue Breathing
- After naloxone administration, the rescue position can help
 - Laying on Side, one leg extended, other leg bent, & hand under head
- Staying with person at least until EMS arrives.