OPIATE/ HEROIN WORKING GROUP

FINAL REPORT
United States Attorney’s Offices
For the Southern and Northern Districts of Mississippi
February 28, 2017
**HEROIN/OPIATE WORKING GROUP FINAL REPORT**

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The United States Attorney’s Offices for the Northern and Southern Districts of Mississippi convened an Opiate/Heroin Working Group in June 2016. At the initial meeting at the Mississippi Bureau of Narcotics (“MBN”) Headquarters, representatives from the medical, pharmaceutical, mental health, law enforcement, judiciary and many other specialties attended a full day symposium to begin the discussion about a comprehensive approach to the opiate and heroin crisis in the nation and in our state. Among other presenters, the group heard from the United States Attorney for the Northern District of Alabama, Joyce Vance, about the approach taken in Birmingham. That presentation was followed by a lengthy discussion of a number of initiatives being tried in other parts of the country.

The Working Group followed that initial meeting with three meetings on December 13, 14 and 15 broken into a Law Enforcement Group, a Medical Issues Group and a Treatment and Overdose Prevention Group.

The following are a series of recommendations that came from those three days of discussions. Prior to publication, the recommendations were disseminated to the attendees for comment, correction or dissent.

**Law Enforcement and Data Group**

**Recommendation No. 1: Implement a comprehensive data collection and dissemination program**

The law enforcement and data group heard a presentation from an Indiana based organization (KSM Consulting) about the collection and utilization of a comprehensive data collection and dissemination program. At the June Working Group meeting, the New Jersey Drug Monitoring Initiative (DMI) was presented. Both the in house and third party models would accomplish the same goals. They would combine data in new ways to gain insights into trends; conduct studies to better understand reasons for the state’s drug abuse crisis; and visualize issues and use prediction to understand drug use over time. In doing this they would improve insight into drug abuse trends finding drug use types that were on the rise and predicting where hot spots could arise; identify trends allowing State
employees and officials to visually see the drug abuse problem and help find ways to provide targeted help where it is most needed; and uncover other crime factors that escape notice such as a growing trend in pharmacy burglaries, for example. Through the use of data collection and analysis state and private organizations can target responses including optimizing treatment centers, Narcan dissemination and law enforcement resources. We recommend a comprehensive review of what data we have from varied sources, what data we need and a determination of how to integrate and disseminate it.

**Recommendation No. 2: Heroin (Opiate) Involved Death Investigation Task Force**

The group discussed the Cleveland, Ohio model for a Heroin Involved Death Investigation (HIDI) squad in which a group is trained to respond to any overdose situation to insure proper investigation of the scene. It is generally acknowledged that opiate overdose scenes are not, but should be, treated as crime scenes in which valuable information can be obtained that can lead to both the prosecution of individuals supplying the drugs and information about lethal substances (e.g. fentanyl laced heroin) that are available in a certain locale.

After reviewing the Cleveland model for a HIDI squad, the general consensus was that there were two obstacles to effective implementation in Mississippi. First, unlike Cleveland, the geographic area to be covered in Mississippi would make implementation of a specific squad difficult. Second, as discussed below in Recommendation No. 4, reporting by coroners and other first responders that a scene is an overdose scene has not been optimal.

In order to overcome these two obstacles, we recommend that sheriff’s deputies in each sheriff’s office, and police officers in each police department, be trained in overdose response investigations. We recommend at least two such HIDI certified officers for each office (see attachment 1 and 2).

**Recommendation No. 3: Greater distribution and training on use of Naloxone**

The Gulf Coast HIDTA is currently providing overdose and reversal training which includes use of naloxone. The Mississippi National Guard Counterdrug Program is encouraged to begin offering similar training to first responders.
The state of Mississippi has a statute permitting the liberal prescribing and dispensing of naloxone (Miss. Code Ann. §41-29-319). We recommend actions that would educate the public, prescribers and pharmacists about this legislation.

**Recommendation No. 4: Mandate greater reporting of overdoses and naloxone administration**

The state of Mississippi currently requires coroners to report overdose deaths within 24 hours. There is no penalty attached to a coroner’s failure to comply.

We recommend amending the requirement to make reporting of suspected overdoses mandatory that would include a penalty provision and that reporting should include not only statistical data to MBN but also reporting to the local police department and sheriff’s office for HIDI response immediately.

We also recommend a reporting requirement for naloxone administration by first responders and medical personnel through an online form similar to the one used by New Jersey’s DMI program (see attachment 3).

**Recommendation No. 5: Expand and advertise availability of the dropbox program**

In some areas of the state, dropboxes are readily available. But even in those areas it is generally agreed that the availability of dropboxes for excess controlled substance medications is not well known by the general public. We recommend that the dropbox program be expanded and that a public service campaign be initiated to inform the public.

**Medical Issues Group**

**Recommendation No. 1: Adopt CDC Guidelines**

In March 2016, the Centers for Disease Control and Prevention (“CDC”) issued a set of guidelines for prescribing opioids for chronic pain (see attachments 4 and 5). The Working Group consensus was to recommend that the Medical Board adopt the CDC guidelines.
The American Dental Association also adopted a multi-tiered approach to the use of opioids and we recommend involving the Mississippi State Board of Dental Examiners in creating solutions for their members.

**Recommendation No. 2: Continuing Medical Education**

The Medical Licensure Board now requires its licensees to take continuing medical education on prescribing opioids. Compliance with this requirement has not been complete. We recommend enforcing this requirement.

We also recommend making it a requirement for nurses, dentists, veterinarians and pharmacists.

**Recommendation No. 3: Upgrades to the Prescription Monitoring Program (“PMP”)**

It was generally agreed that the PMP is an extremely useful tool and that its ease of use has increased tremendously over the last several years. Working Group members suggested some upgrades. Specific recommendations include an ability to segregate data based on prescriber rather than facility for institutions such as UMMC and the ability to link e-records and the PMP. We recommend a task force to explore potential upgrades to the PMP that would improve access and useability while safeguarding privacy concerns. We also recommend continuing to improve links to other states’ PMPs.

**Recommendation No. 4: Addiction Treatment Education**

One of the concerns addressed was inadequate addiction treatment training and personnel. We recommend that addiction training be part of the medical school curriculum.

**Recommendation No. 5: Review Funding Issues for Alternative Treatments**

New, alternative approaches to chronic pain issues are being explored on a national level. There is some concern that these alternative approaches are not accepted by public and private insurers. We recommend a review of alternative methods and funding of the same.

**Recommendation No. 6: Limitations on Prescriptions**
During the course of discussions, the Group discussed New York’s recent law limiting acute pain prescriptions to a seven (7) day supply and that Medicaid now limits prescriptions to two 7 day supplies. Other proposals included a 14-day limitation. There was no consensus on the amount of the limitation but there was consensus that some limitation should be included in the Medical Board’s regulations.

**Recommendation No. 7: Mandate increased use of PMP**

We recommend a requirement that a PMP screen must be used and documented on an initial visit in which opioids will be part of the course of treatment and that it must be used and documented on every third visit involving opioid treatment for chronic pain.

**Recommendation No. 8: Change the definition of Pain Management Clinic**

The group was advised by the Medical Board that they were contemplating changing the definition of a pain management clinic from 50% of patients to 30% of patients receiving chronic pain management. We endorse that change.

**Recommendation No. 9: IDs for Controlled Substance Prescriptions**

Many pharmacists require IDs and sign-ins in order for individuals to receive controlled substances. We recommend a uniform requirement implemented by the Pharmacy Board.
Treatment and Overdose Prevention Group

The Treatment and Overdose Prevention Group met on December 15, 2016 and several of the preliminary suggestions overlapped with recommendations from the other groups. For example, we recommend greater naloxone distribution and training; finding methods to change doctor’s prescription writing habits; and integrating data that is useful for law enforcement but also treatment options. The Group also discussed additional areas not addressed by the other groups.

Recommendation No. 1: More Funding for Treatment

Overwhelmingly, the Treatment and Overdose Prevention Group decried the lack of funding for private, public and prison treatment facilities. As one member put it: “we are already paying for it in a lot of ways.”

Recommendation No. 2: Youth/Juvenile Detention Systems

Several issues were raised concerning the youth/juvenile detention system. First, the system needs to address the substance abuse problem in this group. Second, there need to be more pre-adjudication options available to youth courts. We recommend a task force to address this vital area, to determine the roadblocks and to recommend changes.

Recommendation No. 3: Expand the availability and use of Vivitrol

Vivitrol is an exciting treatment option for opiate addiction. We recommend looking into and removing whatever funding roadblocks there are to the use of vivitrol.

Recommendation No. 4: Drug Courts and Rentry programs

Drug Courts and Rentry Programs have been a successful addition to the arsenal attacking the opiate crisis. We recommend a task force that would evaluate the current programs and recommend uniform best practices in dealing with offenders with substance abuse issues.

Recommendation No. 5: Public Education and Awareness

The opiate/heroin epidemic begins for most people because of a lack of information. Lack of information by doctors who have not yet recognized the
dangers of over-prescribing; of legitimate users concerning the dangers of addiction even through prescribed use; of recreational users about the added danger of addiction derived from their behavior. The U.S. Attorney’s Office has begun a series of school presentations entitled “Pills, Needles and Designer Drugs” which is available to all middle and high schools. But this is slow going, one school at a time. We recommend a full campaign of public service announcements, billboards, town hall meetings and school presentations.
“DEATH RESULTING” INVESTIGATION CHECKLIST

- Investigative reports
  - Sufficiently detailed
  - Accurate
  - Complete list of evidence items seized (including locations)
  - Include all supplemental reports where possible (or indicate they are forthcoming)
  - Document and seize any and all prescription drugs and prescription drug containers

- Witness list
  - Full names, identifiers, addresses, and telephone numbers
  - Include next-of-kin or family representative (will be redacted)
  - Telephone numbers for family representative (will be redacted)
  - Criminal histories

- Witness interviews
  - On scene or same day/night
  - Recorded where possible
  - Corroborated to greatest extent possible
    - Hotel/motel information records?
    - Video surveillance? (gas stations, convenience stores, etc.)
  - Cooperation must be immediate to be effective (record everything)
  - Telephone numbers for all co-conspirators
  - Physical descriptions of all co-conspirators (photo line-ups or photo confirmation where possible)
  - Meet locations, vehicle descriptions, etc.

- Suspect interview
  - Lock into a story, no matter what it is
  - Recorded where at all possible
  - Even small admissions are helpful
  - Provably false lies are sometimes better
- Confirm phone numbers and social media as to suspect and others
- Admission to distribution
  - Quantity?
  - Purity?
  - Source?
  - Victim vulnerability?
  - History with victim?
  - Knowledge of dangers/overdoses? (even generally?)

- Suspect criminal history
  - Prior drug convictions?
  - Probation/parole? (if yes, make appropriate notification)
  - “Other bad acts” or “404(b)” evidence? (what else do you know about this suspect?)

- Electronic evidence
  - Cell phones seized and preserved (protect against remote wiping)
  - Search warrants and/or signed consent form (including passwords)
  - Request for cell site information (next business day where possible)
  - Subscriber information for all known numbers
  - Precision Location Warrant request? (must be supported by P/C)
  - Pen register/trap and trace device (less helpful but only need articulable facts)
  - Social media (Facebook, Instagram, etc.)

- Photographs
  - Deceased (where possible)
  - Drugs, paraphernalia, etc.
  - Cell phone
  - Witnesses

- Report of post-mortem examination
  - Cause and manner of death (“accident” vs. “homicide”)
  - “But for” causation – especially important in mixed drug intoxication deaths
In response to the rapid increase in drug overdose incidents, the following procedures shall be followed by members at the scene of a suspected drug overdose:

I. **Fatal** Suspected Drug Overdose:

A. Members shall notify a supervisor who shall respond. If the supervisor suspects the D.O.A to be a drug overdose, the supervisor shall contact the Communications Control Section (CCS) to initiate the Heroin Involved Death Investigation (HIDI) response request.

B. When a supervisor requests a HIDI detective response CCS shall contact the designated Narcotics Unit supervisor on-call for these incidents. If warranted the Narcotics Unit supervisor will have CCS contact the on-call HIDI investigator(s) to start an immediate investigation at the scene.

C. The location shall be treated as a crime scene as described in GPO 4.1.03. A crime scene log will be completed by the assigned zone car and turned over to the HIDI detectives. Potential witnesses, suspects, associates, or relatives of the victim will be detained on scene until the arrival of the HIDI detectives.

D. Evidence related to the death investigation (e.g. drugs, needles, electronic communications devices etc.) will be collected by the HIDI detectives at the scene. Responding members shall protect evidence in place at the scene, unless weather conditions, safety, or scene integrity dictate the need for members to secure the evidence. If it is necessary to secure evidence, members shall use plastic evidence gloves, and observe all precautions relative to the collection of evidence that will be DNA tested (this includes small drug baggies). Members shall not open, search or scroll through any electronic media device, as a search warrant may be needed to conduct such a search.

E. A zone car shall remain on the scene of a fatal suspected drug overdose to assist the HIDI detectives as needed.

F. Members shall complete a RMS report and include “**Suspected Drug O.D.**” in the title (e.g. Dead Body/Suspected Drug O.D.) Members shall not use “VSDL” in report title unless drug evidence is seized or a suspect is arrested with
probable cause for this charge. Members shall continue to use titles such as contraband seized, arrest, confinement etc. as needed.

G. Members shall complete and fax the RMS report following current established procedures and shall also fax the report to the Heroin Involved Death Investigation (HIDI) detectives at 623-5477 (Put “Attention: HIDI Detectives” in the upper margin of RMS report.)

H. HIDI detectives shall follow-up on suspected drug overdose deaths up to and including charging and prosecuting for involuntary manslaughter or related charges. Drug overdose deaths that were intentionally perpetrated to cause death shall immediately be turned over to the Homicide Unit. In this case, HIDI detectives may work with the Homicide Unit as requested by the Homicide Unit Officer-in-Charge.

II. **Non-Fatal** Suspected Drug Overdose:  *SUSPENDED use section I directives*

A. Members shall secure/collect any evidence/contraband related to the overdose.

B. Members shall complete a RMS report and include “Suspected Drug O.D.” in the title (e.g. Sudden Illness/Suspected Drug O.D.) Members shall not use “VSDL” in report title unless drug evidence is seized or a suspect is arrested with probable cause for this charge. Members shall continue to use titles such as contraband seized, arrest, confinement etc. as needed.

C. Members shall complete and fax the RMS report following current established procedures and shall also fax the report to the HIDI detectives at 623-5477 (Put “Attention: HIDI Detectives” in the upper margin of RMS report.)

D. District Vice Unit detectives will review each RMS report of a non-fatal suspected drug overdose occurring in their district and follow-up on any leads or charging as dictated by the evidence.

E. HIDI detectives may elect to handle non-fatal suspected drug overdose cases that may be connected to a suspected drug overdose death or other drug investigation they are investigating.

This policy does not include obvious suicides involving drugs. Current policy will be followed in these cases.

Members shall refer to General Police Order (GPO) 6.2.03 Dead Body Investigations for further directives related to death investigations. GPO 6.2.03 will be revised in the near future to reflect these changes.

CDW/jsb Policy & Procedures Unit
### Naloxone Deployment Reporting Form

**NEW JERSEY ATTORNEY GENERAL'S HEROIN & OPIATES TASK FORCE**

**Naloxone Deployment Reporting Form**

<table>
<thead>
<tr>
<th>NJSP CAD NUMBER</th>
<th>COUNTY OF INCIDENT</th>
<th>DATE OF OVERDOSE</th>
<th>TIME OF OVERDOSE</th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LOCATION WHERE OVERDOSE OCCURRED (Number & Street, City)**

**ADDRESS OF VICTIM (Number & Street, City)**

<table>
<thead>
<tr>
<th>GENDER OF THE VICTIM</th>
<th>AGE</th>
<th>RACE/ETHNICITY OF THE VICTIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Male</td>
<td></td>
<td>□ White</td>
</tr>
<tr>
<td>□ Female</td>
<td></td>
<td>□ Black</td>
</tr>
<tr>
<td>□ Unk.</td>
<td></td>
<td>□ Hispanic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Asian/Indian</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Native American</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Pacific Islander</td>
</tr>
</tbody>
</table>

**Signs of Overdose Present (Check all that apply.)**

- [ ] Unresponsive
- [ ] Breathing Slowly
- [ ] Not Breathing
- [ ] Blue Lips
- [ ] Slow Pulse
- [ ] No Pulse
- [ ] Other (specify) ___

**Suspected Overdose on What Drugs? (Check all that apply.)**

- [ ] Heroin
- [ ] Benzos/Barbituates
- [ ] Cocaine/Crack
- [ ] Suboxone
- [ ] Any Other Opioid
- [ ] Alcohol
- [ ] Methadone
- [ ] Don't Know
- [ ] Other (specify) ___

**Evidence**

- [ ] Evidence Secured
- [ ] Drugs
- [ ] Paraphernalia

#### Evidence

- [ ] Heroin
  - Stamp (Text/Color): __________
  - Desc. Image: __________

- [ ] Opiate Pills
  - Pill Type: __________
  - Dr.’s Name: __________

**Details of Naloxone Deployment**

<table>
<thead>
<tr>
<th>NUMBER DOSES USED</th>
<th>DID NALOXONE WORK?</th>
<th>IF YES, HOW LONG DID IT TAKE TO WORK?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Yes</td>
<td>□ &lt;1 Min.</td>
</tr>
<tr>
<td></td>
<td>□ No</td>
<td>□ 1-3 Min.</td>
</tr>
<tr>
<td></td>
<td>□ Not Sure</td>
<td>□ 3-5 Min.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ &gt;5 Min.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Don’t Know</td>
</tr>
</tbody>
</table>

**PATIENT’S RESPONSE TO NALOXONE**

- [ ] Responsive and Alert
- [ ] Responsive but Sedated
- [ ] No Response to Naloxone

**POST-NALOXONE WITHDRAWAL SYMPTOMS (Check all that apply.)**

- [ ] None
- [ ] Irritable or Angry
- [ ] Dope Sick (e.g., nauseated, muscle aches, runny nose, and/or watery eyes)
- [ ] Vomiting
- [ ] Physically Combative
- [ ] Other (specify) ___

**OTHER ACTIONS TAKEN (Check all that apply.)**

- [ ] Sternal Rub
- [ ] Recovery Position
- [ ] Rescue Breathing
- [ ] Chest Compressions
- [ ] Automatic Defibrillator
- [ ] Yelled
- [ ] Shook the Person
- [ ] Oxygen
- [ ] EMS Naloxone
- [ ] Bystander Naloxone
- [ ] Other (specify) ___

**NALOXONE INFORMATION**

- NALOXONE LOT #
- EXPIRATION DATE

**Notes/Comments**

- 

**Email this form to the NJ ROIC at roicadmin@gw.njsp.org, or fax to (609) 530-3650.**
CDC’s Guideline for Prescribing Opioids for Chronic Pain is intended to improve communication between providers and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder and overdose. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

1. Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.

2. Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.

3. Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

CLINICAL REMINDERS

- Opioids are not first-line or routine therapy for chronic pain
- Establish and measure goals for pain and function
- Discuss benefits and risks and availability of nonopioid therapies with patient
When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.

When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.

Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.

Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present.

Clinicians should review the patient’s history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.

When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.

Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

<table>
<thead>
<tr>
<th>OBSERVATIONS</th>
<th>CLINICAL REMINDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use immediate-release opioids when starting</td>
<td>Evaluate risk factors for opioid-related harms</td>
</tr>
<tr>
<td>Start low and go slow</td>
<td>Check PDMP for high dosages and prescriptions from other providers</td>
</tr>
<tr>
<td>When opioids are needed for acute pain, prescribe no more than needed</td>
<td>Use urine drug testing to identify prescribed substances and undisclosed use</td>
</tr>
<tr>
<td>Do not prescribe ER/LA opioids for acute pain</td>
<td>Avoid concurrent benzodiazepine and opioid prescribing</td>
</tr>
<tr>
<td>Follow-up and re-evaluate risk of harm; reduce dose or taper and discontinue if needed</td>
<td>Arrange treatment for opioid use disorder if needed</td>
</tr>
</tbody>
</table>

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
Higher Dosage, Higher Risk.

Higher dosages of opioids are associated with higher risk of overdose and death—even relatively low dosages (20-50 morphine milligram equivalents (MME) per day) increase risk. Higher dosages haven’t been shown to reduce pain over the long term. One randomized trial found no difference in pain or function between a more liberal opioid dose escalation strategy (with average final dosage 52 MME) and maintenance of current dosage (average final dosage 40 MME).

Dosages at or above 50 MME/day increase risks for overdose by at least 2x the risk at <20 MME/day.

50 MME/day:
- 50 mg of hydrocodone (10 tablets of hydrocodone/acetaminophen 5/300)
- 33 mg of oxycodone (~2 tablets of oxycodone sustained-release 15 mg)
- 12 mg of methadone (~3 tablets of methadone 5 mg)

90 MME/day:
- 90 mg of hydrocodone (9 tablets of hydrocodone/acetaminophen 10/325)
- 60 mg of oxycodone 12 tablets of hydrocodone/acetaminophen 7.5/300)
- ~20 mg of methadone (4 tablets of methadone 5 mg)

How much is 50 or 90 MME/day for commonly prescribed opioids?

WHY IS IT IMPORTANT TO CALCULATE THE TOTAL DAILY DOSAGE OF OPIOIDS?

Patients prescribed higher opioid dosages are at higher risk of overdose death.

In a national sample of Veterans Health Administration (VHA) patients with chronic pain receiving opioids from 2004–2009, patients who died of opioid overdose were prescribed an average of 98 MME/day, while other patients were prescribed an average of 48 MME/day.

Calculating the total daily dose of opioids helps identify patients who may benefit from closer monitoring, reduction or tapering of opioids, prescribing of naloxone, or other measures to reduce risk of overdose.
HOW SHOULD THE TOTAL DAILY DOSE OF OPIOIDS BE CALCULATED?

1. **DETERMINE** the total daily amount of each opioid the patient takes.

2. **CONVERT** each to MMEs—multiply the dose for each opioid by the conversion factor. (see table)

3. **ADD** them together.

### Calculating morphine milligram equivalents (MME)

<table>
<thead>
<tr>
<th>OPIOID (doses in mg/day except where noted)</th>
<th>CONVERSION FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine</td>
<td>0.15</td>
</tr>
<tr>
<td>Fentanyl transdermal (in mcg/hr)</td>
<td>2.4</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>1</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>4</td>
</tr>
<tr>
<td>Methadone</td>
<td></td>
</tr>
<tr>
<td>1-20 mg/day</td>
<td>4</td>
</tr>
<tr>
<td>21-40 mg/day</td>
<td>8</td>
</tr>
<tr>
<td>41-60 mg/day</td>
<td>10</td>
</tr>
<tr>
<td>≥ 61-80 mg/day</td>
<td>12</td>
</tr>
<tr>
<td>Morphine</td>
<td>1</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>1.5</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>3</td>
</tr>
</tbody>
</table>

*These dose conversions are estimated and cannot account for all individual differences in genetics and pharmacokinetics.*

**CAUTION:**
- Do not use the calculated dose in MMEs to determine dosage for converting one opioid to another—the new opioid should be lower to avoid unintentional overdose caused by incomplete cross-tolerance and individual differences in opioid pharmacokinetics. Consult the medication label.

**USE EXTRA CAUTION:**
- **Methadone:** the conversion factor increases at higher doses
- **Fentanyl:** dosed in mcg/hr instead of mg/day, and absorption is affected by heat and other factors

HOW SHOULD PROVIDERS USE THE TOTAL DAILY OPIOID DOSE IN CLINICAL PRACTICE?

- Use caution when prescribing opioids at any dosage and prescribe the lowest effective dose.
- Use extra precautions when increasing to ≥50 MME per day such as:
  - Monitor and assess pain and function more frequently.
  - Discuss reducing dose or tapering and discontinuing opioids if benefits do not outweigh harms.
  - Consider offering naloxone.
- Avoid or carefully justify increasing dosage to ≥90 MME/day.

**LEARN MORE | [www.cdc.gov/drugoverdose/prescribing/guideline.html](http://www.cdc.gov/drugoverdose/prescribing/guideline.html)**