Opioid Dispensing Policy

Mike Hertz, RPh; Jessi Cahoon, PharmD, BCPS

National Opioid Trends

1. Overdoses
    A. Approximately 46 people die every day from overdoses involving prescription opioids
    B. Most common medications involved in prescription opioid overdose deaths: methadone, oxycodone, hydrocodone
    C. Overdose rates are highest among people aged 25-54 years old.
    D. As many as 1 in 4 people receiving prescription opioids long term for non-cancer pain in primary care settings struggles with addiction.
2. Prescribing
    A. The overall national opioid prescribing rate declined from 2012 to 2017. In 2017 the prescribing rate was the lowest in 10 years at 58.7 prescriptions per 100 persons.
    B. Prescribing rates for opioids vary widely across different states and counties. In 2017, health care providers in the highest-prescribing counties wrote 7 times as many opioid prescriptions as the national average.
    C. One in five patients with non-cancer pain or pain-related diagnosis are prescribed opioids in office-based settings.
3. Sources of Prescription Opioids
    A. Most people who abuse prescription opioids get them for free from a friend or relative.
    B. People at highest risk of overdose are about four times more likely than the average user to buy the drugs from a dealer or other stranger.

1. Opioid Overdose (n.d.). Centers of Disease Control and Prevention Web site. https://www.cdc.gov/drugoverdose/. Accessed October 30, 2018.
2. Physicians are leading source of prescription opioids for the highest-risk users (04/10/2014). Centers of Disease Control and Prevention Web site. Accessed October 30, 2018. Available at: https://www.cdc.gov/media/releases/2014/p0303-prescription-opioids.html.
3. Guy GP, Zhang K, Bohm MK, et al. Vital signs: changes in opioid prescribing in the United States, 2006-2015. MMWR 2017;66(26):697-704.

Institutional Prescribing Practices

1. Total Prescriptions: Tribal Health vs. nearby states (2017)

Opioid** Prescriptions Per 100 People	
Idaho	70.3
Oregon	66.1
Wyoming	64.8
Montana	61.1
Tribal Health*	60.7
Washington	57.2

*Active patients (n=12,500)
** "Opioid" defined as codeine, fentanyl, hydrocodone, hydromorphone, meperidine, methadone, morphine, oxycodone, tramadol
Source: Source: U.S. county prescribing, 2017 (07/31/2017). Centers of Disease Control and Prevention Web site. Accessed October 20, 2018. Available at: https://www.cdc.gov/drugoverdose/maps/rxcounty2017.html.

2. Total Prescriptions: Tribal Health vs nearby counties (2017)

Opioid** Prescriptions Per 100 People	
Flathead	77.6
Sanders	69.5
Lake	62.0
Missoula	62.0
Tribal Health*	60.7

*Active patients (n=12,500)
** "Opioid" defined as codeine, fentanyl, hydrocodone, hydromorphone, meperidine, methadone, morphine, oxycodone, tramadol
Source: U.S. county prescribing, 2017 (07/31/2017). Centers of Disease Control and Prevention Web site. Accessed October 20, 2018. Available at: https://www.cdc.gov/drugoverdose/maps/rxcounty2017.html.

3. Tribal Health Dispensing for C-II Opioids (2017)

	Prescriptions	Total Dispensed	Tablet/Rx	MME/day
C-II Opioids**	5995	401459	67	26.9
Hydrocodone	4129	273960	66	19.3
Oxycodone	1325	102237	77	34.7
Fentanyl*	213	1967	9*	41.6
Morphine	195	10158	52	53

	Prescriptions	Total Dispensed	Tablet/Rx	MME/day
Methadone	93	11128	120	170.9
Hydromorphone	33	1727	52	14.9
Meperidine	7	282	40	7.2

*Patches
**C-II opioids defined as hydrocodone, oxycodone, morphine, fentanyl, hydromorphone, methadone, meperidine

Opioid Conversion

1. Morphine milligram equivalent (MME) determines a patient's cumulative intake of any drugs in the opioid class over 24 hours.

    A. Determine the total daily amount of each opioid the patient takes.

    B. Multiply the dose of each opioid by the conversion factor to determine the dose in MMEs.

    C. Add all converted MMEs together.

Example: Oxycodone 5 mg x 6 tablets per day = 30 mg oxycodone = 45 mg morphine

Hydrocodone 10 mg x 4 tablets per day = 40 mg hydrocodone = 40 mg morphine

Cumulative dose 45 mg + 40 mg = 85 mg morphine = 85 MME/day

Morphine milligram equivalent (MME) doses for commonly prescribed opioids				
Brand Name	Generic Name	Conversion Factor	50 MME	90 MME
Tylenol #3	Codeine	0.15	333 mg	600 mg
Duragesic	Fentanyl transdermal (mcg/hr)	2.4	21 mcg/hr	38 mcg/hr
Norco, Vicodin	Hydrocodone	1	50 mg	90 mg
Dilaudid	Hydromorphone	4	13 mg	23 mg
Dolophine	Methadone			
	1-20 mg/day	4	13 mg	23 mg
	21-40 mg/day	8	6 mg	11 mg
	41-60 mg/day	10	5 mg	9 mg
	≧ 61-80 mg/day	12	4 mg	8 mg

Morphine milligram equivalent (MME) doses for commonly prescribed opioids				
Brand Name	Generic Name	Conversion Factor	50 MME	90 MME
Astramorph	Morphine	1	50 mg	90 mg
Percocet, OxyContin	Oxycodone	1.5	33 mg	60 mg
Opana	Oxymorphone	3	17 mg	30 mg
Nucynta	Tapentadol	0.4	125 mg	225 mg
Ultram	Tramadol	0.1	500 mg	900 mg

1. Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain — United States, 2016. MMWR Recomm Rep 2016;65(1):1-50.

CDC Guidelines

The CDC guidelines do not cover chronic pain treatment for active cancer, palliative and end-of-life care.

1. Nonpharmacologic therapy and non-opioid pharmacologic therapy are preferred for chronic pain.

    A. No evidence shows a long-term benefit of opioids in pain and function versus no opioids for chronic pain with outcomes examined for at least 1 year. Extensive evidence suggests some benefit from nonpharmacologic and non-opioid pharmacologic treatments compared with long-term opioid therapy, with less harm.

2. When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting opioids.

    A. Evidence shows a higher risk for overdose in patients receiving extended-release/long-acting opioids. These same medications were not found to be more effective or safer than intermittent use of immediate-release opioids.

3. Upon starting opioids, clinicians should prescribe the lowest effective dose.

    A. Individual patient benefits and risks should be evaluated when increasing dosage to ≧50 MME/day and should avoid increasing dosage to ≧90 MME/day or carefully justify a decision to titrate dosage to ≧90 MME/day.

    B. Clinical evidence reviews found that opioid overdose risk increases in a dose-response manner, that dosages of 50 to <100 MME/day have been found to increase risks of opioid overdose by factors of 1.9-4.6 as compared with dosages of 1 to <20 MME/day, and that dosages ≧100 MME/day are associated with a risk of overdose 2.0-8.9 times the risk at 1 to <20 MME/day.

C. Veterans Health Administration found that for patients with chronic pain who were prescribed opioids, the mean prescribed opioid dosage among patients who died from opioid overdose was 98 MME (median 60 MME) compared with mean prescribed opioid dosage of 48 MME (median 25 MME) among patients not experiencing fatal overdose.

D. A contextual evidence review found that holding dosages <50 MME/day would likely reduce risk among a large proportion of patients who would experience a fatal overdose at higher prescribed dosages. However, no single dose threshold for safe opioid use could be identified. Experts agreed that increasing opioid dosages ≧50 MME/day increases overdose risk without necessarily adding benefits for pain control or function.

4. 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.

5. Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or 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.

    A. Clinical evidence review found that continuing opioid therapy for 3 months substantially increase risk for opioid use disorder.

6. 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 them at a 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.

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

    A. Benzodiazepines and opioids both cause central nervous system depression and can decrease respiratory drive, so concurrent use of these agents is likely to put patients at greater risk for potentially fatal overdose.

    B. Contextual evidence found concurrent benzodiazepine prescription with opioid prescription to be associated with a nearly quadrupled risk of overdose death compared with opioid prescription alone.

1. Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain — United States, 2016. MMWR Recomm Rep 2016;65(1):1-50.

Tribal Health Opioid Dispensing Policy

1. Quantity limits of opioids
    A. Dispensing limitation of 90 MME per day
2. Initial prescription duration limits of opioids
    A. Duration limitation of 7 days
3. Patients with prescriptions that exceed these quantity limits can either have the prescription be adjusted, taken to another pharmacy or the prescriber may submit a Controlled Substance Quantity Exemption form to the Tribal Health Pharmacy and Therapeutics (P & T) Committee.
    A. P & T review addresses utilization of non-opioid pharmacologic therapy (NSAIDs, antidepressants), non-pharmacologic adjunctive therapy (physical therapy, cognitive behavior therapy), remediation of known contributors to pain (mental health evaluation, surgical consult) and details of chronic pain history (onset, origin, dose adjustments, notation of effect).
    B. A three-month grace period will be provided, which allows patients to receive prescribed opioid quantity during P & T review and upon denial of a P & T quantity exemption request, which allows for appropriate dose tapering.
    C. Patients with denied P & T requests will be eligible for a pain specialist consult if deemed appropriate by the prescribing clinician.
    D. Patients denied for an opioid quantity exemption can continue to fill prescriptions at Tribal Health pharmacies but quantities cannot exceed those outlined in this policy.
    E. Patients with active cancer, on palliative care or end-of-life care are exempt and will receive immediate approval for quantity exemption through the P & T Committee.
4. Pharmacists will use the Montana Prescription Drug Registry if they are suspicious that a patient is using multiple pharmacies or multiple prescribers. Pharmacists may alert a prescriber of unusual utilization.

Comparable Regulations

1. State legislation limiting opioid prescriptions debuted in early 2016.
    A. As of April 2018, 28 states have implemented regulations with some limit, guidance, or requirements related to opioid prescribing.

B. Initial opioid prescription duration limits range from three to fourteen days, with seven days being the most common.

C. Morphine milligram equivalent limits per prescription range between 30 - 100 MMEs per day (Arizona, Maine, Nevada, Rhode Island).

D. Prescription drug monitoring programs (PDMP) have the most evidence supporting their effectiveness to improve prescribing, so many states have introduced legislation to increase the usage of PDMPs.

2. Private Insurance Regulations

A. Blue Cross Blue Shield of Montana launched an "Appropriate Use of Opioids Program." This program sets initial prescription fill limits at seven days for an opioid naive patient and a hard edit for patients with cumulative 200 MMEs per day.

B. Montana Healthcare Programs set daily dose restrictions at 180 MME and a prior authorization will be required. The hard edit may also reject any prescription claims for a member with greater than five prescribers. This limit is expected to gradually decrease over time, which allows providers the opportunity to develop tapering plans.

3. Community Pharmacy Industry

A. CVS Caremark introduced the following limitations: seven-day duration limit for acute conditions, immediate release opioid is required prior to receiving an extended release formulation, and maximum quantity limits of 90 MMEs per day with option for prior authorization up to 200 MMEs per day.

B. Walmart pharmacy has a new initiative with the following limitations: seven-day duration limit for acute condition and quantity limits up to a 50 MME per day.

1. Prescribing policies: states confront opioid overdose epidemic (04/05/2018). National Conference of State Legislature Web site. Accessed October 30, 2018. Available at: http://www.ncsl.org/research/health/prescribing-policies-states-confront-opioid-overdose-epidemic.aspx.
2. Appropriate use of opioids program (08/01/2018). Blue Cross Blue Shield of Montana Web site. Accessed October 30, 2018. Available at: https://www.bcbsmt.com/provider/education-and-reference/news?lid=jk6qqk9g.
3. Dosage restrictions for all opioids based on morphine milligram equivalents (MME) (08/27/2018). Montana Department of Health and Human Services. Accessed October 30, 2018. Available at: https://medicaidprovider.mt.gov/Portals/68/docs/providernotices/2018/provnotice192744dosagemorphine07032018.pdf.
4. CVS Caremark opioid quantity limits pharmacy reference guide (09/21/2018). CVS Caremark Web site. Accessed October 30, 2018. Available at: https://www.caremark.com/portal/asset/Opioid_Reference_Guide.pdf.
5. Walmart's opioid stewardship initiative (05/07/2018). Walmart Corporate Web Site. Accessed October 30, 2018. Avaialbe at: https://corporate.walmart.com/media-library/document/opioid-fact-sheet/_proxyDocument?id=00000163-3abc-ded8-ab7f-3ffe314e0000.

Opioid Strength Conversion Table

Morphine Milligram Equivalents (MME)/Day

Level 1: 0-49 MME/Day **Level 2: 50-89 MME/Day** **Level 3: ≥90 MME/Day**

Opioid Class	Opioid Dosage per tablet (mg)	MME per Tablet	Number of Tablets Dispensed (30-day supply) → MME per Day									
			10	20	30	40	60	90	120	180	240	360
Oxycodone	2.5	3.75	1	3	4	5	8	11	15	23	30	45
Oxycontin	5	7.5	3	5	8	10	15	23	30	45	60	90
Percocet	7.5	11.25	4	8	11	15	23	34	45	68	90	135
Endocet	10	15	5	10	15	20	30	45	60	90	120	180
Endodan	15	22.5	8	15	23	30	45	68	90	135	180	270
	20	30	10	20	30	40	60	90	120	180	240	360
	30	45	15	30	45	60	90	135	180	270	360	540
	40	60	20	40	60	80	120	180	240	360	480	720
	60	90	30	60	90	120	180	270	360	540	720	1,080
	80	120	40	80	120	160	240	360	480	720	960	1,440
Codeine	15	2.25	1	2	2	3	5	7	9	14	18	27
Tylenol #3	30	4.5	2	3	5	6	9	14	18	27	36	54
Fioricet	40	6	2	4	6	8	12	18	24	36	48	72
	60	9	3	6	9	12	18	27	36	54	72	108
Hydrocodone	2.5	2.5	1	2	3	3	5	8	10	15	20	30
Vicodin	5	5	2	3	5	7	10	15	20	30	40	60
Lortab	7.5	7.5	3	5	8	10	15	23	30	45	60	90
Norco	10	10	3	7	10	13	20	30	40	60	80	120
Hydromorphone	2	8	3	5	8	11	16	24	32	48	64	96
Dilaudid	4	16	5	11	16	21	32	48	64	96	128	192
	8	32	11	21	32	43	64	96	128	192	256	384
Morphine	15	15	5	10	15	20	30	45	60	90	120	180
Morphine ER	30	30	10	20	30	40	60	90	120	180	240	360
MS Contin	45	45	15	30	45	60	90	135	180	270	360	540
	60	60	20	40	60	80	120	180	240	360	480	720
	100	100	33	67	100	133	200	300	400	600	800	1,200
	200	200	67	133	200	267	400	600	800	1,200	1,600	2,400
Tramadol	37.5	3.75	1	3	4	5	8	11	15	23	30	45
Tramadol ER Ultram Ultracet	50	5	2	3	5	7	10	15	20	30	40	60
	100	10	3	7	10	13	20	30	40	60	80	120

Patches	Mcg/hour	MME/72h patch	Number of Patches Dispensed (30-day supply) → MME per Day						
			5	10	15	20	30	45	60
Fentanyl transdermal *Duragesic*	12.5	90	15	30	45	60	90	135	180
	25	180	30	60	90	120	180	270	360
	50	360	60	120	180	240	360	540	720
	75	540	90	180	270	360	540	810	1,080
	100	720	120	240	360	480	720	1,080	1,440

Source: R. P. Dalal. Developed at NewYork-Presbyterian