

Table

Benzodiazepine and z-drugs half-life and conversion table

Drug	Approximate half-life (hours)	Dose of oral benzodiazepine approximately equivalent to diazepam 5 mg
Short- to intermediate-acting benzodiazepines		
Triazolam	1–3	0.25 mg
Oxazepam	4–15	15 mg
Temazepam	5–15	10 mg
Lorazepam	12–16	1 mg
Bromazepam	20	3 mg
Alprazolam	6–25	0.5 mg
Flunitrazepam	20–30	0.5 mg
Nitrazepam	16–48	5 mg
Clobazam	17–49	10 mg

Long-acting benzodiazepines (includes effects of active metabolites)

Clonazepam	22–54	0.5 mg
Diazepam	20–80	5 mg

Z-drugs

Zolpidem	2.4	10 mg
Zopiclone	5.2	7.5 mg

Class	Brand/Generic Name	Strengths	Morphine Milligram Equivalent Conversion Factor ¹	Dosage Form ²	Dose Interval	Alcohol Dose Dumping Effect ³	Abuse-Deterrent Formulation ⁴	Scored	Amount of Medication Equal to 50 Morphine Milligram Equivalents (MME) ¹	
SYNTHETIC	FENTANYL⁵, C-II									
	Fentanyl	12 mcg/hr, 25 mcg/hr, 37.5 mcg/hr, 50 mcg/hr, 62.5 mcg/hr, 75 mcg/hr, 87.5 mcg/hr, 100 mcg/hr	7.2^{8,9} (computes MME for entire contents of patch)	transdermal patch	72 hours	-	-	-	- ¹⁰	
	MEPERIDINE⁵, C-II									
	Meperidine HCl	50 mg	0.1	IR tablet	3-4 hours	-	-	-	500 mg PO meperidine = 50 MME	
	Meperidine HCl	50 mg/5 mL		oral liquid		-	-	-		
	TAPENTADOL, C-II									
	Nucynta [®]	50 mg, 75 mg, 100 mg	0.4	IR tablet	4-6 hours	-	-	-	125 mg PO tapentadol = 50 MME	
	Nucynta [®] ER	50 mg, 100 mg, 150 mg, 200 mg, 250 mg		ER tablet	12 hours	-	-	200 mg, 250 mg		
	TRAMADOL⁵, C-IV									
	Tramadol HCl	25 mg, 50 mg, 100 mg	0.1	IR tablet	4-6 hours	-	-	-	500 mg PO tramadol = 50 MME	
	Tramadol HCl ER	100 mg, 200 mg, 300 mg		ER tablet		24 hours	-	-		-
	Tramadol HCl ER	100 mg, 200 mg, 300 mg		ER capsule			-	-		-
	ConZip [®]	100 mg (25 mg IR/75 mg ER), 200 mg (50 mg IR/150 mg ER), 300 mg (50 mg IR/250 mg ER)		IR/ER capsule	-	-	-	-		
	Synapym [™] FusePaq [™]	10 mg/mL		suspension	4-6 hours	-	-	-		
	Qdolo [™]	5 mg/mL		solution		-	-	-		
	Tramadol HCl	5 mg/mL				-	-	-		
	Tramadol/Acetaminophen Products									
	Tramadol/APAP	37.5/325 mg	0.1	IR tablet	4-6 hours	-	-	-		
	Tramadol/Celecoxib Products									
	Seglentis [®]	56/44 mg	0.1	IR tablet	12 hours	-	-	-		
	METHADONE⁵, C-II									
	Methadone	5 mg, 10 mg	dose dependent ¹¹	ER tablet	8-12 hours	-	-	√	dose dependent ¹¹	
	BUPRENORPHINE, C-III X-waiver is no longer required to prescribe buprenorphine for opioid use disorder									
	Belbuca [™]	75 mcg, 150 mcg, 300 mcg, 450 mcg, 600 mcg, 750 mcg, 900 mcg	0.03 ⁸	buccal film	12-24 hours	-	-	-	1.7 mg buprenorphine = 50 MME	
	Buprenorphine HCl ¹²	2 mg, 8 mg	- ¹²	sublingual tablet	24 hours	-	-	-	- ¹²	
	Butrans [®]	5 mcg/hr, 7.5 mcg/hr, 10 mcg/hr, 15 mcg/hr, 20 mcg/hr	12.6 ^{8,9} (computes MME for entire contents of patch)	transdermal patch	applied every 7 days	-	-	-	- ¹⁰	
	Buprenorphine					-	-	-		
	Buprenorphine/Naloxone Products¹²									
Zubsolv [®]	0.7/0.18 mg, 1.4/0.36 mg, 2.9/0.71 mg, 5.7/1.4 mg, 8.6/2.1 mg, 11.4/2.9 mg	- ¹²	sublingual tablet	24 hours	-	-	-	- ¹²		
Buprenorphine HCl/Naloxone HCl	2/0.5 mg, 8/2 mg				-	-	-			
Suboxone [®]	2/0.5 mg, 4/1 mg, 8/2 mg, 12/3 mg		sublingual film		-	-	-			
Buprenorphine HCl/Naloxone HCl					-	-	-			

1. Not to be used to determine dosage for converting one opioid to another or for converting between fentanyl products; for computing Morphine Milligram Equivalents (MME) in pain management.
2. Immediate-release (IR) formulations shaded blue; extended-release (ER) formulations shaded orange; IR/ER biphasic formulation shaded green - do not crush, dissolve, split, or chew ER or IR/ER formulations. **3.** Rapid release of opioid (dose dump) in a short period of time when exposed to alcohol. **4.** FDA labeling for abuse-deterrent formulation. **5.** Product list is not exhaustive. **6.** Manufacturer reports abuse-deterrent properties/technologies. **7.** Use Oxycodone HCl equivalent for MME calculation. **8.** Converts mcg to mg when computing MME. **9.** Divide by number of days (dosage interval) for MME per day. **10.** Reference value not listed due to risk of interpretation error. **11.** Conversion factor to compute MME/day depends on total daily dose of methadone [1-20 mg/day = 4; 21-40 mg/day = 8; 41-60 mg/day = 10; 61-80 mg/day = 12]. **12. FDA approved only for the treatment of opioid dependence.**

OPIOID Products: Characteristics and Conversion Factors

Class	Brand/Generic Name	Strengths	Morphine Milligram Equivalent Conversion Factor ¹	Dosage Form ²	Dose Interval	Alcohol Dose Dumping Effect ³	Abuse-Deterrent Formulation ⁴	Scored	Amount of Medication Equal to 50 Morphine Milligram Equivalents (MME) ¹	
NATURAL	MORPHINE, C-II									
	Morphine Sulfate	15 mg, 30 mg	1	IR tablet	4 hours	-	-	√	50 mg PO morphine = 50 MME	
	Morphine Sulfate ER	15 mg, 30 mg, 60 mg, 100 mg, 200 mg		ER tablet	8-12 hours	√	-	-		
	MS Contin [®]	15 mg, 30 mg, 60 mg, 100 mg, 200 mg		ER capsule	12-24 hours	√	-	-		
	Morphine Sulfate ER	10 mg, 20 mg, 30 mg, 45 mg, 50 mg, 60 mg, 75 mg, 80 mg, 90 mg, 100 mg, 120 mg		solution	4 hours	-	-	-		
	Morphine Sulfate	10 mg/0.5mL, 20 mg/mL, 100 mg/5 mL		concentrate solution		-	-	-		
Morphine Sulfate	100 mg/5 mL									
SEMI-SYNTHETIC	HYDROCODONE, C-II									
	Hydrocodone Bitartrate ER	20 mg, 30 mg, 40 mg, 60 mg, 80 mg, 100 mg, 120 mg	1	ER tablet	24 hours	-	√	-	50 mg PO hydrocodone = 50 MME	
	Hysingla [™] ER	20 mg, 30 mg, 40 mg, 60 mg, 80 mg, 100 mg, 120 mg		ER capsule	12 hours	√	-	-		
	Hydrocodone Bitartrate ER	10 mg, 15 mg, 20 mg, 30 mg, 40 mg, 50 mg								
	Hydrocodone/Acetaminophen (APAP) Products									
	Hydrocodone/APAP	5/325 mg, 7.5/325 mg, 10/325 mg, 5/300 mg, 7.5/300 mg, 10/300 mg	1	IR tablet	4-6 hours	-	-	√		
	Hydrocodone/APAP	7.5/325 mg per 15 mL		solution		-	-	-		
	Lortab [®]	10/300 mg per 15 mL		elixir		-	-	-		
	Hydrocodone/Ibuprofen Products									
	Hydrocodone/Ibuprofen	5/200 mg, 7.5/200 mg, 10/200 mg	1	IR tablet	4-6 hours	-	-	5/200 mg, 10/200 mg		
	HYDROMORPHONE⁵, C-II									
	Hydromorphone HCl	2 mg, 4 mg, 8 mg	4	IR tablet	4-6 hours	-	-	8 mg	12.5 mg PO hydromorphone = 50 MME	
	Dilaudid [®]			ER tablet	24 hours	-	-	8 mg		
	Hydromorphone HCl ER	8 mg, 12 mg, 16 mg, 32 mg		oral liquid	4-6 hours	-	-	-		
	Dilaudid [®] Oral Liquid	5 mg/5 mL								
Hydromorphone HCl										
OXYCODONE, C-II										
Oxycodone HCl	5 mg	1.5	IR capsule	4-6 hours	-	-	-	33 mg PO oxycodone = 50 MME		
Oxycodone HCl	5 mg, 10 mg, 15 mg, 20 mg, 30 mg		IR tablet		-	-	√			
Roxicodone [®]	15 mg, 30 mg		IR tablet		-	-	√			
Oxaydo [®]	5 mg, 7.5 mg		IR tablet		-	-	-			
Roxybond [™]	5 mg, 15 mg, 30 mg		IR tablet		-	√	-			
Oxycodone HCl CR	10 mg, 20 mg, 40 mg, 80 mg		ER tablet	12 hours	-	√	-			
OxyContin [®]	10 mg, 15 mg, 20 mg, 30 mg, 40 mg, 60 mg, 80 mg		ER capsule	12 hours	-	√	-			
Xtampza [®] ER	9 mg, 13.5 mg, 18 mg, 27 mg, 36 mg [Equivalent to 10, 15, 20, 30, and 40 mg Oxycodone HCl, respectively] ⁷		solution	4-6 hours	-	-	-			
Oxycodone HCl	5 mg/5 mL		concentrate		-	-	-			
Oxycodone HCl	100 mg/5 mL									
Oxycodone Hydrochloride/Acetaminophen (APAP) Products										
Oxycodone/APAP	2.5/325 mg, 5/325 mg, 7.5/300 mg, 10/325 mg	1.5	IR tablet	4-6 hours	-	-	5/325 mg			
Endocet [®] , Percocet [®]	2.5/325 mg, 5/325 mg, 7.5/325 mg, 10/325 mg				-	-	5/325 mg			
Nalocet	2.5/300 mg				-	-	-			
Prolate [™]	5/300mg, 7.5/300 mg, 10/300 mg			6 hours	-	-	5/300 mg			
Oxycodone HCl/APAP Solution	10/300 mg per 5 mL			solution	-	-	-			
Prolate			-		-	-				
OXYMORPHONE, C-II										
Oxymorphone HCl	5 mg, 10 mg	3	IR tablet	4-6 hours	√	-	-	17 mg PO oxymorphone = 50 MME		
Oxymorphone HCl ER	5 mg, 7.5 mg, 10 mg, 15 mg, 20 mg, 30 mg, 40 mg		ER tablet	12 hours	√	-	-			