

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	√	-	-		
	Arymo™ ER	15 mg, 30 mg, 60 mg				√	√	-		
	MS Contin®	15 mg, 30 mg, 60 mg, 100 mg, 200 mg		-	-	-	-			
	MorphaBond™ ER	15 mg, 30 mg, 60 mg, 100 mg		-	√	-	-			
	Morphine Sulfate ER	10 mg, 20 mg, 30 mg, 40 mg, 45 mg, 50 mg, 60 mg, 75 mg, 80 mg, 90 mg, 100 mg, 120 mg		√	-	-	-			
	Kadian ^{®5}	10 mg, 20 mg, 30 mg, 40 mg, 50 mg, 60 mg, 80 mg, 100 mg, 200 mg		ER capsule	12-24 hours	√	-	-		
	Embeda ^{®5} Morphine Sulfate/ Naloxone Hydrochloride (HCl)	20/0.8 mg, 30/1.2 mg, 50/2 mg, 60/2.4 mg, 80/3.2 mg, 100/4 mg				√	√	-		
	Morphine Sulfate	10 mg/mL, 20 mg/5 mL				solution	4 hours	-		-
Morphine Sulfate	20 mg/mL, 100 mg/5 mL	concentrate solution		4 hours	-	-	-			
SEMI-SYNTHETIC	HYDROCODONE, C-II									
	Hysingla™ 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	
	Zohydro® ER	10 mg, 15 mg, 20 mg, 30 mg, 40 mg, 50 mg		ER capsule	12 hours	√	- ⁷	-		
	Hydrocodone/Acetaminophen (APAP) Products									
	Hydrocodone/APAP	2.5/325 mg, 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	-	-	√		
	Norco®, Lorcet®	5/325 mg, 7.5/325 mg, 10/325 mg				-	-	√		
	Vicodin®, Vicodin ES®, Vicodin HP®	5/300 mg, 7.5/300 mg, 10/300 mg				-	-	√		
	Xodol®	7.5/300 mg, 10/300 mg				-	-	√		
	Verdrocet	2.5/325 mg				-	-	-		
	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		
	Ibudone®	5/200 mg, 10/200 mg				-	-	√		
	HYDROMORPHONE⁶, 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®			-	-	8 mg					
Hydromorphone HCl ER	8 mg, 12 mg, 16 mg, 32 mg		ER tablet	24 hours	-	-	-			
Exalgo®					-	- ⁷	-			
Dilaudid® Oral Liquid					5 mg/5 mL	oral liquid	4-6 hours		-	-
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®	5 mg, 15 mg, 30 mg				-	-	√			
Roxybond™	5 mg, 15 mg, 30 mg				-	√	-			
Oxaydo®	5 mg, 7.5 mg				-	- ⁷	-			
Oxycodone HCl CR	10 mg, 15 mg, 20 mg, 30 mg, 40 mg, 60 mg, 80 mg		ER tablet		12 hours	-	-		-	
OxyContin®						-	√		-	
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] ⁸		ER capsule		-	√	-			
Oxycodone HCl	5 mg/5 mL		solution		-	-	-			
Oxycodone HCl	100 mg/5 mL		concentrate		-	-	-			
Oxycodone/Aspirin	4.835/325 mg [Equivalent to 5 mg Oxycodone HCl] ⁸		IR tablet		4-6 hours	-	-		√	
Oxycodone HCl/Ibuprofen	5/400 mg					-	-		√	

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SEMI-SYNTHETIC	Oxycodone Hydrochloride/Acetaminophen (APAP) Products								
	Oxycodone/APAP	2.5/325 mg, 5/325 mg, 7.5/325 mg, 10/325 mg	1.5	IR tablet	4-6 hours	-	-	5/325 mg	33 mg PO oxycodone = 50 MME
	Endocet [®] , Percocet [®]	2.5/325 mg, 5/325 mg, 7.5/325 mg, 10/325 mg				-	-	5/325 mg	
	Primlev [™]	5/300 mg, 7.5/300 mg, 10/300 mg				-	-	5/300 mg	
	Xartemis [™] XR	7.5/325 mg		ER tablet	8-12 hours	-	-	-	
	Oxycodone/APAP	5/325 mg per 5 mL		solution	4-6 hours	-	-	-	
	OXYMORPHONE, C-II								
	Oxymorphone HCl	5 mg, 10 mg	3	IR tablet	4-6 hours	√	-	-	17 mg PO oxymorphone = 50 MME
	Opana [®]			ER tablet	12 hours	√	-.7	-	
	Oxymorphone HCl ER	5 mg, 7.5 mg, 10 mg, 15 mg, 20 mg, 30 mg, 40 mg		ER tablet	12 hours	√	-	-	
FENTANYL⁶, C-II									
Duragesic [®]	12 mcg/hr, 25 mcg/hr, 50 mcg/hr, 75 mcg/hr, 100 mcg/hr	7.2 ^{9,10} (computes MME for entire contents of patch)	transdermal patch	72 hours	-	-	-	.11	
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				-	-	-		
MEPERIDINE⁶, C-II									
Meperidine HCl	50 mg, 100 mg	0.1	IR tablet	3-4 hours	-	-	-	500 mg PO meperidine = 50 MME	
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		
TRAMADOL⁶, C-IV									
Tramadol HCl	50 mg	0.1	IR tablet	4-6 hours	-	-	-	500 mg PO tramadol = 50 MME	
Ultram [®]	50 mg		ER tablet	24 hours	-	-	√		
Tramadol HCl ER	100 mg, 200 mg, 300 mg		ER capsule	24 hours	-	-	-		
Tramadol HCl ER	100 mg, 150 mg, 200 mg, 300 mg		suspension	4-6 hours	-	-	-		
ConZip [®]	100 mg, 200 mg, 300 mg		-	-	-	-	-		
Synapryn [™] FusePaq [™]	10 mg/mL		-	-	-	-	-		
Tramadol/Acetaminophen Products									
Tramadol/APAP	37.5/325 mg	0.1	IR tablet	4-6 hours	-	-	-	500 mg PO tramadol = 50 MME	
Ultracet [®]			ER tablet	12 hours	-	-	-		
METHADONE⁶, C-II									
Methadone	5 mg, 10 mg	dose dependent ¹²	ER tablet	8-12 hours	-	-	√	dose dependent ¹²	
Dolophine [®]					-	-	√		
BUPRENORPHINE, C-III Physicians can qualify for a waiver to prescribe and dispense buprenorphine for medication-assisted opioid dependency treatment upon completion of an eight-hour training									
Belbuca [™]	75 mcg, 150 mcg, 300 mcg, 450 mcg, 600 mcg, 750 mcg, 900 mcg	0.03 ⁹	buccal film	12-24 hours	-	-	-	1.7 mg buprenorphine = 50 MME	
Buprenorphine HCl ¹³	2 mg, 8 mg	.13	sublingual tablet	24 hours	-	-	-	.13	
Butrans [®]	5 mcg/hr, 7.5 mcg/hr, 10 mcg/hr, 15 mcg/hr, 20 mcg/hr	12.6 ^{9,10} (computes MME for entire contents of patch)	transdermal patch	applied every 7 days	-	-	-	.11	
Buprenorphine/Naloxone Products¹³									
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	.13	sublingual tablet	24 hours	-	-	-	.13	
Buprenorphine HCl/Naloxone HCl	2/0.5 mg, 8/2 mg		sublingual film		-	-	-		
Suboxone [®]	2/0.5 mg, 4/1 mg, 8/2 mg, 12/3 mg		buccal film		-	-	-		
Bunavail [™]	2.1/0.3 mg, 4.2/0.7 mg, 6.3/1 mg		-		-	-	-		

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 - do not crush, dissolve, split, or chew. **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.** May be opened and sprinkled on apple sauce if used immediately. **6.** Product list is not exhaustive. **7.** Manufacturer reports abuse-deterrent properties/technologies. **8.** Use Oxycodone HCl equivalent for MME calculation. **9.** Converts mcg to mg when computing MME. **10.** Divide by number of days (dosage interval) for MME per day. **11.** Reference value not listed due to risk of interpretation error. **12.** 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]. **13. FDA approved only for the treatment of opioid dependence.**