HALF-LIFE (hours)	DURATION (hours)	Relative Cost (30 day supply of equianalgesic dose) $ - <$50 $$ - $50-$100 $$$ - $100-$400 $$$$ - >$400
1.5 - 2	3-7	$ (IR tablet) $$ (Solution) $$ (SR generic) $$$$ (SR brand)
3 – 4	4-6	$$ (IR tablet) $$ (Comb. w/ APAP) $$$ (Solution) $$$$ (SR brand)
2-3	4-5	$ (Tablet)
15-190 (N.B. Huge Variation)	6-12	$ (Tablet) $ (Solution)
3–4 (IV) 12 (transdermal)	1-2 (IV) 48-72 (transdermal)	$$ (Transdermal) $$$$ (Lollipop or buccal)
3-4	2-4	$$ (Tablet)
3	4-6	$$ (Comb. w/ APAP) $$$ (Tablet)
3.3 – 4.5	4-6	$ (Comb. w/ APAP) $$ (Comb. w/ IBU)
6-12	4-6	$ (Capsule) $ (Comb. w/ APAP)

GUIDELINES

1. Evaluate pain on all patients using a 0 -10 scale
   A. Mild pain: 1 – 3
   B. Moderate pain: 4 – 7
   C. Severe pain: 8 – 10
2. For chronic moderate or severe pain:
   A. Give baseline medication around the clock
   B. Order 10% total daily dose as a PRN given q 1-2h for oral and q 30-60 min for SC/IV
   C. For continuous infusion, PRN can be either the hourly rate q 15 minutes or 10% of total daily dose q 30-60 minutes.
   D. Adjust baseline upward daily in amount roughly equivalent to total amount of PRN
   E. Negotiate with patient target level of relief, but usually at least achieving level <4.
3. In general, oral route is preferable, then trans-cutaneous > subcutaneous > intravenous.
4. When converting from one opioid to another, some experts recommend reducing the equianalgesic dose by 1/3 to 1/2, then titrate as in #2 above.
5. Elderly patients, or those with severe renal or liver disease, should start on half the usual starting dose.
6. If parenteral medication is needed for mild to moderate pain, use half the usual starting dose of morphine or equivalent.
7. Refer to PDR for additional fentanyl guidelines.
8. Naloxone (Narcan) should only be used in emergencies:
   Dilute naloxone 0.4 mg with 9 ml NS
   Give 0.1mg (2.5 ml) slow IVP until effect
   Monitor patient q15 minutes
   May need to repeat naloxone again in 30-60 minutes
9. Short-acting preparations should be used acutely & post-op. Switch to long-acting preparations when pain is chronic and the total daily dose is determined.

Information adapted from *Facts and Comparisons 2008* and *APS Principles of Analgesic Use in the Treatment of Acute Pain and Cancer Pain* (4th Ed.) 1999.

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EQUIANALGESIC TABLE for ADULTS

HALF-LIFE, DURATION, COSTS and GUIDELINES

The 5th Vital Sign Pain ©

Community Principles of Pain Management

Developed by ViaHealth Pain Initiative
Revised by Strong Health Palliative Care 11/01
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Revised by Palliative Care Programs at University of Rochester Medical Center, Rochester General Hospital, Unity Health, Hospice & Palliative Care Associates (CNY), Faxton-St. Luke's, St. Elizabeth's (Utica), Center for Hospice & Palliative Care (WNY), Kaleida Health (WNY), and Univera.
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Revised 9/08

MEDICATION	EQUIANALGESIC DOSE (for chronic dosing)		USUAL STARTING DOSES Adult > 50KG; for opioid naïve patients (♦1/2 dose for elderly, or severe renal or liver disease)		COMMENTS	PAIN
	IM/IV onset 15-30 min	PO onset 30-60 min	PARENTERAL	PO		
MORPHINE	10 mg	30 mg	2.5-5 mg IV q3-4h *(♦1.25–2.5 mg)*	5-15 mg q3-4h (IR or Oral Solution) *(♦2.5-7.5 mg)*	IR tablets (15, 30 mg) Oral sol. (2 mg/ml, 4 mg/ml) Conc. (20 mg/ml) can give buccally Morphine ER tablets (15, 30, 60, 100, 200 mg) q8-12h Kadian ER pellets (10,20,30,50,60,80,100,200mg) q12-24h Avinza ER pellets (30,60,90,120mg) q24h Rectal suppositories (5, 10, 20, 30 mg) Not recommended in renal failure	MODERATE TO SEVERE
OXYCODONE	Not Available	20 mg	Not Available	5-10 mg q3-4h *(♦2.5 mg)*	OxyIR capsule (5mg); IR tablet (5,10,15,20,30mg); Conc. sol (20mg/ml) Oxycontin (10,15,20,30,40,60,80mg) – Due to high cost and potential for abuse, use only if failure or contraindication to morphine ER Combo – range 2.5–10mg oxycodone combined with 325–650mg APAP Not enough literature regarding dosing in renal failure. Use caution.	
HYDROMORPHONE	1.5 mg	7.5 mg	0.2-0.6 mg IV q2-3h *(♦ 0.2 mg)*	1-2 mg q3-4h *(♦0.5-1 mg)*	Tablet (2,4,8mg); Oral liquid (1mg/ml) **Use carefully in renal failure.**	
METHADONE (see detailed sheet for dosing conversions)	10mg	24 hour oral morphine : Oral morphine: methadone ratio < 30mg : 2:1 31-99mg : 4:1 100-299mg : 8:1 300-499mg : 12:1 500-999mg : 15:1 1000-1200mg : 20:1 > 1200mg : Consider consult	Not recommended 1st line (See separate methadone dosing guidelines) **Practitioners advised to consult with pain or palliative care specialist if unfamiliar with methadone**		Tablet (5,10mg); Solution (1mg/ml, 2mg/ml & Concentrated 10 mg/ml) Usually q12h or q8h; Long variable T½ **Acceptable with renal disease** Small dose change makes big difference in blood level Tends to accumulate with higher doses, always advise "hold for sedation" Because of long half life, do not use methadone prn	
FENTANYL	100 mcg (single dose) 200 mcg (cont infusion)	24 hr oral MS dose : Initial patch dose 45mg : 12.5mcg/hr 90mg : 25mcg/hr 180mg : 50mcg/hr 360mg : 100mcg/hr	25-50 mcg IM/IV q1-3h *(♦12.5-25 mcg)*	Transdermal patch 12.5 mcg/hr q72h *(Use with caution in opioid naïve and in unstable patients because of 12 hour delay in onset and offset)*	Transdermal patch (12.5,25,50,75,100mcg)**; Due to its high potency and potential for overdose and abuse, use only if failure or contraindication to morphine sulfate ER in the primary care setting** Acceptable with renal disease, monitor carefully if using long term IV: very short acting; associated with chest wall rigidity. Oral lollipop and buccal tablet–indicated for breakthrough cancer pain only	
MEPERIDINE	75 -100 mg	300 mg	75 mg SC/IM q2-3h *(♦25-50 mg)* *Generally Not Recommended*	Not Recommended	Not recommended for standard analgesia. May be useful for shivering and procedural analgesia/sedation. Toxic metabolites accumulate with repeated doses, and with renal or hepatic disease. Contraindicated with MAOI's.	
CODEINE	130 mg	200 mg	15-30 mg IM/SC q4h *(♦7.5-15 mg)* *IV Contraindicated*	30-60 mg q3-4h *(♦15-30 mg)*	Tablet (15,30,60mg); Elixir 12mg and 120mg APAP/5ml Tylenol #3 (30mg w/ 300mg APAP); Tylenol #4 (60mg w/ 300mg APAP) Monitor total APAP dose	MILD TO MODERATE
HYDROCODONE	Not Available	30 mg	Not Available	5 mg q3-4h *(♦2.5 mg)*	Tablet – multiple brand and generic strengths ranging from 2.5-10mg combined with 300-750mg APAP Tablet (hydrocodone/ibuprofen: 7.5 /200 mg) Elixir 2.5mg and 167mg APAP/5ml Monitor total acetaminophen dose	
PROPOXYPHENE	Not Available	130 mg (HCl) 200 mg (Napsylate)	Not Available	Not Recommended	Not recommended; relatively ineffective Capsule (propoxyphene HCl 65 mg) Tablet (propoxyphene N w/ APAP 50/325 or100/650 mg) Monitor total acetaminophen dose	