OPIOID USE GUIDELINES

NHHPCO New Hampshire Hospice and Palliative Care Organization

Table 1: Equianalgesic Dosing

Drug	Initial (IR) Dose PO	Peds Dosing: (IR)/Initial/kg PO	PO:IV	PO MS : Drug PO	Drug PO : PO MS
Morphine (MS)	2.5 to 15 mg	0.1 - 0.3 mg/kg	3 : 1	1 : 1	1 : 1
Hydromorphone (HM)	1, 2 or 4mg	0.04 - 0.06 mg/kg	4 : 1	1 : 0.25	1 : 4
Oxycodone (Oxy)	2.5, 5 or 10mg	0.2 mg/kg	n/a	1 : 0.66	1 : 1.5
Oxymorphone**	2.5, 5 or 10 mg	n/a	10 : 1	1 : 0.33	1 : 3
Methadone (Me)	2.5 or 5mg	0.1 mg/kg	2 : 1	See over	See over

Transdermal Fentanyl (TDF) @ = SC/IV. Equianalgesic dosing: see over OR 1:300 to PO MS.
TDF for chronic stable pain; absorption has slow onset + is erratic with cachexia or fever.
Buccal/SL fentanyl for B/T pain *NOT* proportionate. Start low. Opioid tolerant patients only.

* Patients on codeine and hydrocodone can be treated as opioid naïve.
** Oxymorphone levels increase @ 50% when taken with food and erratically with alcohol use.

Steps to Rotate or Change Opioids

1. Calculate 24 hr dose of current drug.
2. Translate that to equianalgesic 24 hr dose of oral morphine.
3. Calculate 24 hr equianalgesic dose of new drug and ***reduce dose*** to 50-75% of calculated dose if pain is well controlled; use 100% otherwise.
4. Divide to attain appropriate interval and dose for new drug.
5. Always have breakthrough dosing available while making changes.

Breakthrough Dosing (immediate release (IR) / short acting meds only) 50-150% of IV basal dose q15 minutes OR 10-20% of 24 hr oral dose q1hr.

Changing Basal Rates (due to inadequate baseline pain control)
Increase rate by 50-100% of basal po dose q24-48 hr or IV rate q15-60 minutes.
Give a breakthrough dose each time basal rate is increased.

Ceiling Effect = uncontrollable pain with appropriate increases in dose OR side effects such as neuroexcitation, myoclonus, or protracted central effects.

a) Rotate to another opioid as above.
b) Dose reduce opioid by 25-50% with addition of other treatment for pain.
c) Treat side effect +/- dose reduce.

Partial Reversal with Naloxone: *ONLY* for overdose in rare cases:
→ mix 0.4 mg amp with saline to make 10cc + administer 0.5 -1 ml (0.02-0.04 mg) IV/SC q2-5 minutes until response; naloxone effect shorter in duration than long acting opioids and close monitoring +/- repeat doses sometimes necessary.

Table 2: MS : Me

One Way Rotation from PO Morphine (MS) to PO Methadone (Me)	
4 : 1 for up to 100mg MS	15 : 1 for 501 - 1000 mg MS
8 : 1 for 101 - 300 mg MS	20 : 1 for > 1000 mg MS
12 : 1 for 301 - 500 mg MS	

Rotation to Methadone

Day 1: Calculate dose (above). Give @ 33% methadone dose + @ 66% of present drug.
Day 2: Give @ 66% methadone dose + @ 33% present drug.
Day 3: Give 100% methadone dose.

Rotation from Methadone

CAUTION: Ratios above do not necessarily apply – **consult an expert.**

METHADONE: CAUTION: Use only with experience or training in pain mgt.

- Dosing interval is titrated for analgesic effect q4-12h; start with q8h.
- Delayed side effects @ Day 4 after initiation: highly lipid soluble with potential delayed and prolonged side effects that outlast analgesic efficacy.
- Prolonged QT esp at high dose > 200 mg/day; interactions at CYP450 **(esp 2D6, 3A4)**
- Some common drugs that increase methadone effect: SSRI's (fluoxetine), TCA's (amitriptyline), macrolides, metronidazole, antifungals, grapefruit juice.
- Decrease methadone effect: many HIV drugs, carbamazepine, rifampin, phenytoin.

Rotating to and from Transdermal Fentanyl (TDF)

SHORTCUT: Transdermal Fentanyl (mcg/hr) X 2 = approx 24 hr dose of MS PO (mg).
From TDF: Start new drug @ 50% dose for 6-24 hrs after removal of TDF.
To TDF: Continue old drug @ 50% dose for 6-24 hrs after starting TDF.

Bowel Regimen: All patients on opioids should be on a stepped BOWEL REGIMEN:

1. → Senna + docusate (Senokot S) 1-2 tabs twice daily or
   → MOM 30-60 cc twice to three times daily or
   → Lactulose 30-60 cc twice to three times daily or
   → PEG solution (Miralax) 1-4 T daily
2. Double dose or high dose stimulant + osmotic
3. Methylnatrexone (Relistor) for unresponsive opioid bowel while continuing conventional bowel management preparations (this is normally a short-term intervention).
   a. Methylnatrexone is a Mu opioid antagonist that does NOT cross BBB
   b. Dosing: 8 mg (81-135lb); 12 mg (> 135 lb) or 0.15 mg/kg sc every other day or as needed not to exceed q24hr

Always treat impaction with enemas/suppositories

NOTE: This card was produced as a guide ONLY. All doses and recommendations should be checked and verified by an experienced provider prior to use. The authors assume no responsibility for its use. References available upon request or at **www.nhhpco.org/opioid.htm**. © NHHPCO **2006** (rev. 2010)