GUIDELINE RECOMMENDATIONS FOR STARTING AND INCREASING

FENTANYL PATCHES

Starting Fentanyl Patches

- Is the patient **Opioid Tolerant**?

Patients are considered opioid tolerant if they are taking one of the following medications for at least 1 week

Taking 1 week or longer	
	Morphine 60 mg per day
	TDF 25 mcg per hour
	Oxycodone 30 mg per day
	Hydromorphone 8 mg per day
	Oxymorphone 25 mg per day
	Hydrocodone 60 mg per day
	Equianalgesic dose of another opioid

Increasing Fentanyl Patches

- What is the total **24-hour oral Morphine dose (MMEs)**?
  - Look at use of PRN medications

Oral 24-Hr Morphine (mg/day)	Duragesic Dose (mcg/hr)
60-134	25
135-224	50
225-314	75
315-404	100
405-494	125
495-584	150
585-674	175
675-764	200
765-854	225
855-944	250
945-1034	275
1035-1124	300

Fentanyl is Inappropriate for:

- Opioid naïve patients
- Patients with fever
- Patients with low body weight
- Patients with low albumin

CALCULATING MMES

1. Equianalgesic Opioid Dosing Table

Medication	Parenteral	Oral
Morphine	10	25
Codeine	100	200
Fentanyl	0.15	N/A
Hydrocodone	N/A	25
Hydromorphone	2	5
Meperidine	100	300
Oxycodone	N/A	20
Oxymorphone	1	10
Tapentadol	N/A	100
Tramadol	N/A	120

2. CDC MME Conversion Factor Table

OPIOID (doses in mg/day except where noted)	CONVERSION FACTOR
Codeine	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone	1
Hydromorphone	4
Methadone	
1-20 mg/day	4
21-40 mg/day	8
41-60 mg/day	10
≥ 61-80 mg/day	12
Morphine	1
Oxycodone	1.5
Oxymorphone	3

Example:

Patient receiving the following medications over the last 24 hours:

- Hydromorphone 0.5 mg IV q3 prn severe pain (received 5 doses)
- Oxycodone 10 mg PO q6 prn severe pain (received 2 doses)
- Oxycodone 5 mg PO q6 prn moderate pain (received 1 dose)

How many morphine milligram equivalents (MME) has this patient received?

1. Convert IV to PO using equianalgesic dosing table
   - hydromorphone 0.5 mg x 5 doses = 2.5 mg IV

$$\frac{2.5 \text{ mg IV hydromorphone}}{X \text{ mg PO hydromorphone}} = \frac{2}{5} \qquad x = 6.25 \text{ mg PO hydromorphone}$$

2. Use Conversion Factors
   - Hydromorphone
     - Hydromorphone 6.25 mg PO x 4 = 25 MMEs
   - Oxycodone
     - Oxycodone 10 mg x 2 doses = 20 mg
     - Oxycodone 5 mg x 1 dose = 5 mg
     - 25 mg total x 1.5 = 37.5 MMEs

3. Add total MMEs
   - 25 MMEs + 37.5 MMEs = **62.5 MME**