

## Transdermal Fentanyl (Duragesic®)

The following guidelines are for determining the appropriate use of transdermal fentanyl for control of pain. Following these guidelines is essential in providing safe and effective care.

Complete a thorough pain assessment. If a patient is assessed to be appropriate for the fentanyl transdermal system (Duragesic ® patch), documentation should reflect the indications for use in that particular patient.

### Criteria for Use

- Unable to swallow liquids or tablets
- Constant, stable, opioid responsive pain with infrequent episodes of breakthrough pain such that equianalgesic conversion from another opioid will result in maintenance of pain control without necessity of rapid dose titration.
- Currently on an opioid which is equivalent to no less than 45 mg. of oral morphine/day
- Afebrile
- Not diaphoretic
- Not cachectic
- Less than 75 years of age
- No hepatic dysfunction or liver disease
- No renal insufficiency
- Weight > 110 lbs (50 kg)

### Converting to Transdermal Fentanyl

1. Calculate current 24-hour opioid use. Include all scheduled and rescue (prn) medications taken, do not assume that all medications ordered are actually taken by the patient.
2. Convert the 24-hour opioid dose to the oral morphine equivalent using the equianalgesic Opioid Reference Table.
3. Using the recommended guideline for calculating morphine equivalence to transdermal fentanyl, determine appropriate appropriate topical fentanyl dose and obtain order. 45 mg. oral morphine/24 hours = 25 mcg/hour fentanyl transdermal.
4. Calculate prn dose to be used in conjunction with transdermal fentanyl. Short acting morphine or oxycodone should be used. Oral rescue (prn) doses should be 10-15% of the total daily morphine or oxycodone equivalence and administered every 3 hours prn, for breakthrough pain.



**For Example:**

If a patient has a 50 mcg fentanyl patch this is equivalent to approximately 90 mg of morphine/day. The prn dose should be 9-13.5 or 10-15 mg (for ease of dosing) every 3 hours prn for breakthrough pain. Obtain physician order.

5. Educate patient/caregiver on use of transdermal fentanyl:
  - Discontinue any long-acting opioid.
  - After discontinuation of long-acting opioid, apply patch to the upper torso (chest or back) on a clean, non-hairy area. Do not shave an area prior to application.
  - Utilize rescue (prn) medications to maintain comfort until fentanyl begins to be effective (usually 12-18 hours).
  - Continue treating breakthrough pain as described in #4 above.
6. Reassess pain and side effects after 24 hours. Do not titrate upward until the initial patch has been in place for 72 hours. Continue to utilize prn opioids as needed to maintain comfort. Steady State serum concentrations may not be achieved for 48-72 hours.
7. After 72 hours, if patient requires > 3 doses of prn opioids/day, assess pain and evaluate if patient is on appropriate co-analgesic agents such as anti-inflammatory agents. If pain is improved but not optimally controlled, calculate morphine to fentanyl equivalence and titrate upward.
8. Continually monitor patient for signs of opioid accumulation and/or renal or hepatic dysfunction. If signs of accumulation occur, discontinue patch immediately and closely monitor for 24 hours providing short acting prn opioid as needed for pain.
9. If patient is unresponsive with signs and symptoms of respiratory depression, contact a pain resource person to determine need for initiation of narcain therapy. Follow appropriate guidelines for administration.
10. Assessment of pain and documentation of assessment should occur with each patient visit and within 24 hours of any medication adjustment.

**Converting from Transdermal Fentanyl Patch to Another Opioid**

1. Compute equianalgesic dose for oral sustained released opioid (or basal rate of parenteral opioid) and compute appropriate rescue dose. Remember to reduce new opioid dose by 25-50% to account for incomplete cross tolerance. Obtain order.
2. Remove transdermal fentanyl patch. Utilize the appropriate rescue (prn) dose for 12 hours before initiating scheduled opioid therapy. Remember that it takes 12 to 18 hours for fentanyl transdermal to reach steady state, and after removing a patch it will take 12 to 18 hours for the fentanyl to be cleared.
3. Continue appropriate rescue (prn) dose and educate patient/family in correct use/need for continued rescue dosing.



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4. Evaluate patient for pain control/side effects within 24 hours. Titrate or taper dose as needed.

