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FAST FACTS AND CONCEPTS #103

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Introduction Oral transmucosal fentanyl citrate (OTFC, Actiq™) is a solid formulation of fentanyl that resembles a lozenge on a handle. It is intended for oral transmucosal administration. Fentanyl is also available as an oravescent buccal tablet (Fentora™) – *this product is dosed differently than OTFC and should not be used interchangeably with it.* This Fast Fact only discusses OTFC (Actiq™).

Indications OTFC is indicated for *breakthrough cancer pain in patients already receiving and who are tolerant (receiving at least equivalent of 60 mg oral morphine per 24 hours) to opioid therapy for underlying persistent cancer pain.*

Pharmacology Compared to morphine and hydromorphone fentanyl is a lipid-soluble opioid and, when placed in saliva under normal conditions of the mouth, is 80% non-ionized making it the only opioid suitable for transmucosal absorption. Fentanyl is ~ 100 times more potent than morphine. However, bioavailability of OTFC depends on the fraction of the dose that is absorbed through the oral mucosa (~25%) and the fraction that is swallowed (~75%; but swallowed dose is only partially bioavailable). OTFC can produce a rapid onset of analgesia, even during unit consumption (fentanyl begins to cross the blood-brain barrier in as little as 3-5 minutes), with peak effect at 20-40 minutes after the start of administration. Total duration of activity is 2 to 3 hours. The amount of fentanyl absorbed from each single dose remains stable over multiple administrations. This fact, combined with fentanyl's short half-life, reduces the risk of a cumulative increase in serum level with repetitive doses.

Prescribing Information

- OTFC is available in 200, 400, 600, 800, 1200, & 1600 mcg dosage strengths.
- Do not substitute ACTIQ™ on a mcg per mcg basis for other oral fentanyl products including the oravescent buccal tablet (Fentora™).
- OTFC should always be started at 200 mcg dose and then individually titrated based on patient response; there is no correlation/conversion factor for OTFC and the patient's existing opioid requirement.
- If the first 200 mcg dose is inadequate, the patient should wait for 15 minutes (30 minutes after start of first unit) and take a second unit. If pain is relieved after the second dose of 200 mcg, the dose to use for the next episode of breakthrough pain would be 400 mcg. The patient should be instructed not to take more than two units per pain episode during the initial titration period.
- OTFC has typical opioid dose-related side effects: somnolence, nausea, and dizziness.

Patient Information Consumption Technique and Storage Place unit next to buccal mucosa, between cheek and gum, moving the unit gently side to side. 15 minutes is the ideal amount of time to consume a unit to achieve the desired onset and peak effect. OTFC units are designed for one time administration. Patients should be instructed to remove the unit from their mouth if excessive opioid-related side effects develop. The following factors will decrease transmucosal absorption:

- Reduced saliva.
- Use of liquids that reduce oral pH prior to OTFC administration (coffee, cola, fruit juices).
- Placement of OTFC on tongue or gums (lowered absorption at these sites).

- Chewing OTFC.

Instruct patients to utilize the manufacturer's safety containers to store the dosage units, and discard any unused portion of the OTFC by dissolving it under hot tap water. Partially used units should not be stored and re-used. The drug should be stored at room temperature, and not be frozen. The Average Wholesale Price is \$564 for thirty 200 mcg lozenges.

This Fast Fact was adapted with permission from the University of Wisconsin Hospital & Clinics, Madison, WI Pain Patient Care Team 'Pain Management Fast Facts – 5 Minute Inservice' series.

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