FENTORA

Michelle Vierra
Jessi Luebbering
• Active compound is fentanyl
• N-[(1-Phenethyl-4-piperidyl) propionanilide citrate
• Distributed by Cephalon, INC.
• Typical starting dosage is 100 mcg
• Price ranges from around $475 for 28 pills of 100 micrograms to around $1400 for 28 pills of 800 micrograms
USES

• **Only** used to treat breakthrough pain in cancer patients who are opioid tolerant
• And who are already receiving around-the-clock opioid medication (such as morphine or oxycodon)
• Buccal tablet taken by placing it between your back tooth and gum.
• Half of it is absorbed through your mouth and goes to your bloodstream
• Other half is swallowed like medicine in a pill.

http://www.fentora.com
SIDE EFFECTS

- Sores at application site
- Lowered blood pressure
- Physical dependence
- Dizziness
- Headache
- Nausea/vomiting
- Shortness of breath
- Addiction
- Fatal (wrong dosage, not tolerant, or in children)

http://www.fentora.com
• Class 2 federally controlled substance
• Different forms of fentanyl
  – Fentanyl buccal
  – Fentanyl patches
  – Fentanyl lollipops
• 100 times more potent than morphine
• Serves as a direct substitute for heroin
• First used in the 1960s as an intravenous anesthetic under the name Sublimaze
• Can cause hiccups

http://www.deadiversion.usdoj.gov/drugs_concern/fentanyl.htm
SYNTHESIS OF FENTANYL

- 4 step synthesis
- 4-piperidinone reacted with phenethyl bromide to give NPP
- react NPP with aniline to give imine derivative
- reduce imine derivative with sodium borohydride to get ANPP
- react ANPP with popionyl chloride to form fentanyl

1H NMR (400 MHz, CDCl3): δ = 0.99 (t, 3H, -CH3), 1.3–1.4 (m, 2H, Ph-CH2), 1.7–1.8 (m, 2H, -N-CH2), 1.85 (q, 2H), 2.05–2.15 (m, 2H), 2.45 (dd, 2H), 2.65 (dd, 2H), 2.9–3.0 (m, 2H), 4.58–4.67 (m, 1H), 7.00–7.35 (m, 10 × Ar-H).

American Chemical Society. SciFinder. IR Absorption Spectrum.
• The active ingredient in Fentora is fentanyl
• Fentanyl can be taken in several different ways
• Can be fatal if given incorrect dosage or not opioid-tolerant
• Only used in cancer patients experiencing intense pain not controlled by other medications
• If you run out of heroin, fentanyl is the perfect substitute