Buprenorphine/naloxone (boo-pre-nor/fen/o-lex-one) Suboxone, Zubsolv

**Classification**
Therapeutic: opioid addiction agents
Pharmacologic: opioid agonists/antagonists, opioid antagonists

**Schedule III**

**Pregnancy Category C**

**Indications**
Maintenance treatment of opioid dependence as part of a comprehensive program including counseling and psychological support.

**Action**
- **Buprenorphine**—Binds to opiate receptors in the CNS. Sublingual naloxone—has no pharmacological effect; it is present in the formulation to discourage injection of the product by opioid-dependent patients.

**Therapeutic Effects:**
Suppression of withdrawal symptoms during detoxification and maintenance from opioids.

**Pharmacokinetics**
- **Absorption:** Buprenorphine—Well absorbed following SL administration; naloxone—Negligible absorption follows SL administration.
- **Distribution:** Buprenorphine—Crosses the placenta; enters breast milk. CNS concentration is 15–25% of plasma.
- **Protein Binding:** Buprenorphine—96%.
- **Metabolism and Excretion:** Buprenorphine—Mostly metabolized by the liver mostly via the CYP3A4 enzyme system; one metabolite is active; 70% excreted in feces; 27% excreted in urine.
- **Half-life:** Buprenorphine—33 hr; Naloxone—60–90 min (up to 3 hr in neonates).

**TIME/ACTION PROFILE**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sublingual buprenorphine</td>
<td>unknown</td>
<td>1.5–1.7 hr</td>
<td>24 hr</td>
</tr>
</tbody>
</table>

**Contraindications/Precautions**
- Contraindicated in: Hypersensitivity to buprenorphine or naloxone.
- **Use Cautiously in:**
  - Compromised respiratory function including COPD, cor pulmonale, diminished respiratory reserve, hypoxia, hypoxia or respiratory depressions of other causes; Geri: Elderly or debilitated patients may be more sensitive to drug effects; OB: Buprenorphine crosses the placenta; use during pregnancy only if potential benefit justifies potential risk; Pedi: Children <18 yr (safety not established).

**Adverse Reactions/Side Effects**
- **CNS:** headache, insomnia.
- **CV:** orthostatic hypotension.
- **Resp:** RESPIRATORY DEPRESSION.
- **GI:** constipation, glossodynia, nausea, vomiting, hepatitis.
- **Derm:** hyperhydrosis.
- **F and E:** peripheral edema.
- **Misc:** allergic reactions including ANAPHYLAXIS, physical dependence, psychological dependence, tolerance, withdrawal phenomenon.

**Drug Interactions**
- **Drug-Drug:** Use with extreme caution in patients receiving MAO inhibitors (CNS and respiratory depression and hypotension) and buprenorphine dose by 50%; may need to MAO inhibitor dose. Inhibitors of the CYP3A4 enzyme system including itraconazole, ketoconazole, erythromycin, ritonavir, indinavir, saquinavir, atazanavir, or fosamprenavir may blood levels and effects; may need to buprenorphine dose. Blood levels/effects may be and withdrawal may be initiated by inducers of the CYP3A4 enzyme system including carbamazepine, phenobarbital, phenytoin or rifampicin; dose alterations may be necessary. Risk of CNS depression with other CNS depressants including alcohol, antihistamines, benzodiazepines, phenothiazines, sedative/hypnotics, and some antidepressants, dose adjustments may be necessary.

**Drug-Natural Products:** Concomitant use of kava-kava, valerian, chamomile, or hops may CNS depression.

**Lactation**
- Discontinued.
Route/Dosage

A Zubsolv 1.4/0.36 tablet is equivalent in terms of buprenorphine content to a Suboxone 2/0.5 sublingual tablet. A Zubsolv 5.7/1.4 tablet is equivalent in terms of buprenorphine content to a Suboxone 8/2 sublingual tablet.

SL (Adults):

- **Suboxone**—Taken once daily. Progressively q/adjusted in increments of buprenorphine 2 mg/naloxone 0.5 mg or buprenorphine 4 mg/naloxone 1 mg. Titrate to keep patient engaged in treatment while suppressing opioid withdrawal; usual target dose is buprenorphine 16 mg/naloxone 4 mg once daily;
- **Zubsolv**—Taken once daily. Progressively q/adjusted in increments of buprenorphine 1.4 mg/naloxone 0.36 mg or buprenorphine 2.8 mg/naloxone 0.72 mg. Titrate to keep patient engaged in treatment while suppressing opioid withdrawal; usual target dose is buprenorphine 11.4 mg/naloxone 2.8 mg once daily.

NURSING IMPLICATIONS

Assessment

- During initial therapy, assess patient at least weekly during first month and frequently thereafter for compliance, effectiveness of treatment plan, and overall patient progress. Once a stable dose is achieved, monthly assessment may be used.
- Determine absence of medication toxicity, medical, or behavioral adverse effect; responsible handling of medications by patient; compliance with treatment plan including recovery-oriented activities and psychotherapy or other modalities; abstinence from illicit drug use.

- **Lab Test Considerations:** Monitor liver function test prior to beginning therapy and periodically during treatment.

Potential Nursing Diagnoses

Indications

- Ineffective coping

Implementation

- **Induction of therapy begins with patient being in a moderate state of opioid withdrawal and receiving buprenorphine for 2–3 days. Once the induction phase is complete, maintenance begins with buprenorphine/naloxone titration.
- Patients receiving buprenorphine/naloxone sublingual tablets may be switched to sublingual films of same dose. Dose adjustments may be required. A Zubsolv 1.4/0.36 tablet is equivalent in terms of buprenorphine content to a Suboxone 2/0.5 sublingual tablet. A Zubsolv 5.7/1.4 tablet is equivalent in terms of buprenorphine content to a Suboxone 8/2 sublingual tablet.

- **SL:** Place film under tongue. If additional films are required for dose, place on opposite side of tongue from first film, minimizing overlap. Keep film under tongue until dissolved (5–7 min); do not chew, swallow, or move after placement.
- **Tablets:** Place under tongue up until dissolved, about 5 min. Do not eat, chew, or swallow. Do not cut or discontinue until active is dissolved.

Patient/Family Teaching

- Instruct patient to take medication as directed. Take missed doses as soon as remembered unless almost time for next dose; do not double doses. Do not take more often than prescribed and consult health care professional before stopping; dose should be gradually to prevent withdrawal syndrome. Explain that buprenorphine/naloxone sublingual film may be fatal to children and individuals not tolerant to opioids. Advise patients that selling or giving medication away is illegal. Do not dispose of unused films, remove from foil pouch and drop each film into toilet.
- Caution patient of the danger of taking non-prescribed benzodiazepines or other CNS depressants, including alcohol, during therapy.
- Advise patient to avoid driving and other activities requiring alertness until response to medication is known.
- Advise patient to make position changes slowly to prevent orthostatic hypotension.
- Advise female patients to notify health care professional if pregnancy is planned or suspected, or if breast feeding.

© 2015 F.A. Davis Company
CONTINUED

buprenorphine/naloxone

- Instruct patient to inform family that, in the event of an emergency, treating health care professionals should be informed that patient is physically dependent on an opioid and being treated with buprenorphine/naloxone sublingual film.

Evaluation/Desired Outcomes
- Maintenance treatment of opioid dependency.

Why was this drug prescribed for your patient?