**BUTYRAL, ACETAMINOPHEN, CAFFEINE, AND CODEINE PHOSPHATE CAPSULES**

**Re: Absorption**

**Effects of Food**

The rate of absorption of butyral is not affected by the presence of food. However, the rate of absorption of acetaminophen, caffeine, and codeine phosphate is influenced by the presence of food. Food delays the absorption of these drugs, resulting in a slower and less complete absorption. The peak plasma concentrations of butyral, acetaminophen, caffeine, and codeine phosphate are achieved later and are lower than those observed under fasting conditions.

**Maximal Absorption**

The maximal absorption of butyral, acetaminophen, caffeine, and codeine phosphate for patients who are fasting is achieved within 1-2 hours after administration. For patients who eat within 1 hour of administration, the maximal absorption is delayed to 2-3 hours or more.

**PHARMACODYNAMICS**

**Analgesic Activity**

Butyral is a non-steroidal anti-inflammatory drug (NSAID) with analgesic, antipyretic, and anti-inflammatory properties. It is used to relieve pain and reduce fever.

**Antipyretic Activity**

Butyral has a weak antipyretic effect, reducing fever by blocking the release of prostaglandins from the hypothalamus.

**Additional Effects**

Butyral may also have a weak anti-inflammatory effect, reducing swelling and pain associated with various inflammatory conditions.

**Contraindications**

Butyral is contraindicated in patients with a history of aspirin or other NSAID intolerance, those with known sensitivity to the drug, and in patients with active bleeding or ulcer disease.

**Warnings**

Butyral is a drug that should be used with caution in patients with a history of gastrointestinal bleeding or ulcers. It should also be used with caution in the elderly or in patients with renal impairment.

**Interactions**

Butyral may interact with other drugs that affect platelet function or increase the risk of bleeding, such as anticoagulants, antiplatelet drugs, and thrombolytics.

**Dosage and Administration**

The usual dose of butyral is 650 mg every 4-6 hours as needed for pain relief or fever reduction. The maximum daily dose should not exceed 3 grams.

**Precautions**

Butyral should be used with caution in patients with a history of gastrointestinal bleeding or ulcers, in those with renal impairment, and in the elderly.

**Adverse Effects**

Butyral may cause gastrointestinal side effects such as nausea, vomiting, and abdominal pain. It may also cause dizziness, drowsiness, and headache.

**Overdosage**

In case of overdose, butyral should be administered in accordance with the specific antidotes and supportive care outlined in the Summary for Healthcare Providers.

**Summary for Healthcare Providers**

Butyral is a prescription drug that should be used with caution. It is important to follow the recommended dosages and monitor patients closely for adverse effects. If overdose occurs, the specific antidotes and supportive care should be administered.