

## 1. PACKAGE INSERT

**OXYIR®**                      **CII**  
(oxycodone hydrochloride)  
**Immediate-Release Oral Capsules**  
**5 mg**

**OXYFAST®**                      **CII**  
(oxycodone hydrochloride)  
**Oral CONCENTRATE Solution\***  
**20 mg/1 mL**

**\*This product contains dry natural rubber**

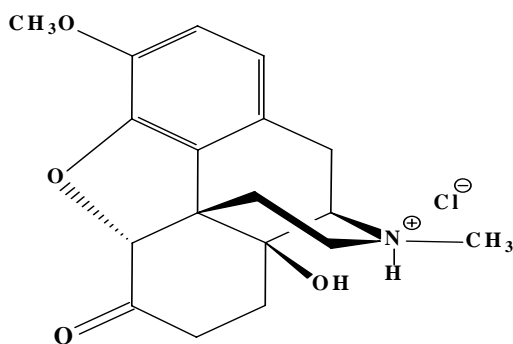
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### DESCRIPTION

Oxycodone is 14-hydroxydihydrocodeinone, a white odorless crystalline powder which is derived from the opium alkaloid, thebaine, and may be represented by the following structural formula:



## **OxyIR® Oral Capsules**

Each 5 mg of OxyIR Capsules contains:

Oxycodone hydrochloride.....5 mg

Inactive ingredients: FD&C blue No. 2, FD&C yellow No. 6, gelatin, hypromellose, maize starch, polyethylene glycol, polysorbate 80, red iron oxide, silicon dioxide, sodium laurel sulfate, sucrose, titanium dioxide, and yellow iron oxide.

## **OXYFAST® Oral CONCENTRATE Solution**

Each 1 mL of OXYFAST Concentrate Solution contains:

Oxycodone hydrochloride.....20 mg

Inactive ingredients: citric acid, D&C yellow No. 10, sodium benzoate, sodium citrate, sodium saccharine, and water.

## **ACTIONS**

The analgesic ingredient, oxycodone, is a semisynthetic narcotic with multiple actions qualitatively similar to those of morphine; the most prominent of these involve the central nervous system and organs composed of smooth muscle. The principal actions of therapeutic value of oxycodone are analgesia and sedation.

## **CLINICAL PHARMACOLOGY**

### **Central Nervous System**

Oxycodone is a pure agonist opioid whose principal therapeutic action is analgesia. Other therapeutic effects of oxycodone include anxiolysis, euphoria, and feelings of relaxation. Like all pure opioid agonists, there is no ceiling effect to analgesia, such as is seen with partial agonists or non-opioid analgesics.

The precise mechanism of the analgesic action is unknown. However, specific CNS opioid receptors for endogenous compounds with opioid-like activity have been identified throughout the brain and spinal cord and play a role in the analgesic effects of this drug.

Oxycodone produces respiratory depression by direct action on brain stem respiratory centers. The respiratory depression involves both a reduction in the responsiveness of the brain stem respiratory centers to increases in carbon dioxide tension and to electrical stimulation.

Oxycodone depresses the cough reflex by direct effect on the cough center in the medulla. Antitussive effects may occur with doses lower than those usually required for analgesia.

Oxycodone causes miosis, even in total darkness. Pinpoint pupils are a sign of opioid overdose but are not pathognomonic. Marked mydriasis rather than miosis may be seen due to hypoxia in overdose situations.

### **Gastrointestinal Tract and Other Smooth Muscle**

Oxycodone causes a reduction in motility associated with an increase in smooth muscle tone in the antrum of the stomach and duodenum. Digestion of food in the small intestine is delayed and propulsive contractions are decreased. Propulsive peristaltic waves in the colon are decreased, while tone may be increased to the point of spasm resulting in constipation. Other opioid-induced effects may include a reduction in gastric, biliary, and pancreatic secretions, spasm of sphincter of Oddi, and transient elevations in serum amylase.

### **Cardiovascular System**

Oxycodone may produce release of histamine with or without associated peripheral vasodilation. Manifestations of histamine release and/or peripheral vasodilation may include pruritus, flushing, red eyes, sweating, and/or orthostatic hypotension.

### **Concentration - Effect Relationships (PHARMACODYNAMICS)**

Studies in normal volunteers and patients reveal predictable relationships between oxycodone dosage and plasma oxycodone concentrations, as well as between concentration and certain expected opioid effects. In normal volunteers these include pupillary constriction, sedation, and overall "drug effect" and in patients, analgesia and feelings of "relaxation." In non-tolerant patients, analgesia is not usually seen at a plasma oxycodone concentration of less than 5-10 ng/mL.

As with all opioids, the minimum effective plasma concentration for analgesia will vary widely among patients, especially among patients who have been previously treated with potent agonist opioids. As a result, patients need to be treated with individualized titration of dosage to the desired effect. The minimum effective analgesic concentration of oxycodone for any individual patient may increase with repeated dosing due to an increase in pain and/or the development of tolerance.

### **Concentration - Adverse Experience Relationships**

OxyIR Capsules and OXYFAST **CONCENTRATE** Solution are associated with typical opioid-related adverse experiences similar to those seen with all opioids. There is a general relationship between increasing oxycodone plasma concentration and increasing frequency of dose-related opioid adverse experiences such as nausea, vomiting, CNS effects, and respiratory depression. In opioid-tolerant patients, the situation is altered by the development of tolerance to opioid-related side effects, and the relationship is poorly understood.

As with all opioids, the dose must be individualized (see **DOSAGE AND ADMINISTRATION**), because the effective analgesic dose for some patients will be too high to be tolerated by other patients.

## **INDICATIONS AND USAGE**

For the relief of moderate to moderately severe pain.

## **CONTRAINDICATIONS**

OxyIR and OXYFAST are contraindicated in patients with known hypersensitivity to oxycodone, or in any situation where opioids are contraindicated. This includes patients with significant respiratory depression (in unmonitored settings or the absence of resuscitative equipment), and patients with acute or severe bronchial asthma or hypercarbia. OxyIR and OXYFAST are contraindicated in any patient who has or is suspected of having paralytic ileus.

## **WARNINGS**

### **Respiratory Depression**

Respiratory depression is the chief hazard from all opioid agonist preparations. Respiratory depression occurs most frequently in elderly or debilitated patients, usually following large initial doses in non-tolerant patients, or when opioids are given in conjunction with other agents that depress respiration.

Oxycodone should be used with extreme caution in patients with significant chronic obstructive pulmonary disease or cor pulmonale, and in patients having a substantially decreased respiratory reserve, hypoxia, hypercapnia, or pre-existing respiratory depression. In such patients, even usual therapeutic doses of oxycodone may decrease respiratory drive to the point of apnea. In these patients alternative non-opioid analgesics should be considered, and opioids should be employed only under careful medical supervision at the lowest effective dose.

### **Hypotensive Effect**

OxyIR® Capsules and OXYFAST® **CONCENTRATE** Solution, like all opioid analgesics, may cause severe hypotension in an individual whose ability to maintain blood pressure has been compromised by a depleted blood volume, or after concurrent administration with drugs such as phenothiazines or other agents which compromise vasomotor tone. OxyIR and OXYFAST may produce orthostatic hypotension in ambulatory patients. OxyIR and OXYFAST, like all opioid analgesics, should be administered with caution to patients in circulatory shock, since vasodilation produced by the drug may further reduce cardiac output and blood pressure.

## **Drug Dependence**

Oxycodone can produce drug dependence of the morphine type, and therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug, and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral narcotic-containing medications. Like other narcotic-containing medications, this drug is subject to the Federal Controlled Substances Act.

## **Usage in Ambulatory Patients**

Oxycodone may impair the mental and/or physical abilities required for the performance of potential hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

## **Interaction with Other Central Nervous System Depressants**

Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with oxycodone hydrochloride may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

## **Usage in Pregnancy**

Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, this drug should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

## **Usage in Children**

This drug should not be administered to children.

## **PRECAUTIONS**

### **Special Precautions Regarding OXYFAST Oral CONCENTRATE 20 mg/1 mL Solution**

**OXYFAST 20 mg/1 mL solution is a highly concentrated solution. Care should be taken in the prescription and dispensing of this solution strength. Patients should be instructed against use by individuals other than the patient, as inappropriate use may cause acute overdose.**

### **General**

Opioid analgesics given on a fixed-dosage schedule have a narrow therapeutic index in certain patient populations, especially when combined with other drugs, and should be

reserved for cases where the benefits of opioid analgesia outweigh the known risks of respiratory depression, altered mental state, and postural hypotension.

Use of OxyIR® and OXYFAST® is associated with increased potential risks and should be used only with caution in the following conditions: acute alcoholism; adrenocortical insufficiency (e.g., Addison's disease); CNS depression or coma; delirium tremens; debilitated patients; kyphoscoliosis associated with respiratory depression; myxedema or hypothyroidism; prostatic hypertrophy or urethral stricture; severe impairment of hepatic, pulmonary or renal function; and toxic psychosis.

The administration of oxycodone, like all opioid analgesics, may obscure the diagnosis or clinical course in patients with acute abdominal conditions. Oxycodone may aggravate convulsions in patients with convulsive disorders, and all opioids may induce or aggravate seizures in some clinical settings.

### **Interactions with Mixed Agonist/Antagonist Opioid Analgesics**

Agonist/antagonist and partial agonist analgesics (i.e., pentazocine, nalbuphine, butorphanol, and buprenorphine) should be administered with caution to a patient who has received or is receiving a course of therapy with a pure opioid agonist analgesic such as oxycodone. In this situation, mixed agonist/antagonist and partial agonist analgesics may reduce the analgesic effect of oxycodone and/or may precipitate withdrawal symptoms in these patients.

### **Use in Pancreatic/Biliary Tract Disease**

Oxycodone may cause spasm of the sphincter of Oddi and should be used with caution in patients with biliary tract disease, including acute pancreatitis. Opioids like oxycodone may cause increases in the serum amylase level.

### **Head Injury and Increased Intracranial Pressure**

The respiratory depressant effects of opioids and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions, or a pre-existing increase in intracranial pressure. Furthermore, opioids produce adverse reactions which may obscure the clinical course of patients with head injuries.

### **Acute Abdominal Conditions**

The administration of this drug or other opioids may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

### **Information for Patients/Caregivers**

If clinically advisable, patients receiving OxyIR (immediate-release) Capsules or OXYFAST **CONCENTRATE** Solution or their caregivers should be given the following information by the physician, nurse, pharmacist, or caregiver:

1. Patients should be advised not to adjust the dose of this drug without consulting the prescribing professional.

2. Patients should be advised that this drug may impair mental and/or physical ability required for the performance of potentially hazardous tasks (e.g., driving, operating heavy machinery).
3. Patients should not combine this drug with alcohol or other central nervous system depressants (sleep aids, tranquilizers) except by the orders of the prescribing physician, because additive effects may occur.
4. Women of childbearing potential who become, or are planning to become, pregnant should be advised to consult their physician regarding the effects of analgesics and other drug use during pregnancy on themselves and their unborn child.
5. Patients should be advised that this drug is a potential drug of abuse. They should protect it from theft, and it should never be given to anyone other than the individual for whom it was prescribed.
6. Patients should be advised that if they have been receiving treatment with this drug for more than a few weeks and cessation of therapy is indicated, it may be appropriate to taper this drug dose, rather than abruptly discontinue it, due to the risk of precipitating withdrawal symptoms. Their physician can provide a dose schedule to accomplish a gradual discontinuation of the medication.

### **Laboratory Monitoring**

Due to the broad range of plasma concentrations seen in clinical populations, the varying degrees of pain, and the development of tolerance, plasma oxycodone measurements are usually not helpful in clinical management. Plasma concentrations of the active drug substance may be of value in selected, unusual, or complex cases.

### **Use in Drug and Alcohol Addiction**

OxyIR and OXYFAST are opioids with no approved use in the management of addictive disorders. Its proper usage in individuals with drug or alcohol dependence, either active or in remission, is for the management of pain requiring opioid analgesia.

### **Drug-Drug Interactions**

The CNS depressant effects of oxycodone hydrochloride may be additive with that of other CNS depressants. See **WARNINGS**.

Opioid analgesics, including OxyIR and OXYFAST, may enhance the neuromuscular blocking action of skeletal muscle relaxants and produce an increased degree of respiratory depression.

Oxycodone is metabolized in part to oxymorphone via CYP2D6. While this pathway may be blocked by a variety of drugs (e.g., certain cardiovascular drugs and antidepressants), such blockade has not yet been shown to be of clinical significance with this agent. Clinicians should be aware of this possible interaction, however.

## **Mutagenicity/Carcinogenicity**

Oxycodone was not mutagenic in the following assays: Ames Salmonella and E. Coli test with and without metabolic activation at doses of up to 5000 µg, chromosomal aberration test in human lymphocytes in the absence of metabolic activation at doses of up to 1500 µg/mL and with activation 48 hours after exposure at doses of up to 5000 µg/mL, and in the in vivo bone marrow micronucleus test in mice (at plasma levels of up to 48 µg/mL). Mutagenic results occurred in the presence of metabolic activation in the human chromosomal aberration test (at greater than or equal to 1250 µg/mL) at 24 but not 48 hours of exposure and in the mouse lymphoma assay at doses of 50 µg/mL or greater with metabolic activation and at 400 µg/mL or greater without metabolic activation. The data from these tests indicate that the genotoxic risk to humans may be considered low.

Studies of oxycodone in animals to evaluate its carcinogenic potential have not been conducted owing to the length of clinical experience with the drug substance.

## **Pregnancy**

### **Teratogenic Effects - Category B**

Reproduction studies have been performed in rats and rabbits by oral administration at doses up to 8 mg/kg (48 mg/m<sup>2</sup>) and 125 mg/kg (1375 mg/m<sup>2</sup>), respectively. These doses are 3 and 47 times a human dose of 160 mg/day (90 mg/m<sup>2</sup>), based on mg/kg of a 60 kg adult (0.5 and 15 times this human dose based upon mg/m<sup>2</sup>). The results did not reveal evidence of harm to the fetus due to oxycodone. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

### **Nonteratogenic Effects**

Neonates whose mothers have been taking oxycodone chronically may exhibit respiratory depression and/or withdrawal symptoms, either at birth and/or in the nursery.

### **Labor and Delivery**

OxyIR® and OXYFAST® are not recommended for use in women during and immediately prior to labor and delivery because oral opioids may cause respiratory depression in the newborn.

### **Nursing Mothers**

Low concentrations of oxycodone have been detected in breast milk. Withdrawal symptoms can occur in breast-feeding infants when maternal administration of an opioid analgesic is stopped. Ordinarily, nursing should not be undertaken while a patient is receiving OxyIR or OXYFAST since oxycodone may be excreted in the milk.

## **Pediatric Use**

Safety and effectiveness in pediatric patients have not been established.

## **Special Risk Patients**

This drug should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease and prostatic hypertrophy, or urethral stricture.

## **ADVERSE REACTIONS**

The most frequently observed reactions include lightheadedness, dizziness, sedation, nausea, and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients, and some of these adverse reactions may be alleviated if the patient lies down. Many of these adverse events will cease or decrease in intensity as oxycodone therapy is continued and some degree of tolerance is developed.

Other adverse reactions include euphoria, dysphoria, constipation, skin rash, and pruritus.

## **DRUG ABUSE AND DEPENDENCE (Addiction)**

Oxycodone products are common targets for both drug abusers and drug addicts.

Drug addiction (drug dependence, psychological dependence) is characterized by a preoccupation with the procurement, hoarding, and abuse of drugs for non-medicinal purposes. Drug dependence is treatable, utilizing a multi-disciplinary approach, but relapse is common. Iatrogenic "addiction" to opioids legitimately used in the management of pain is very rare. "Drug seeking" behavior is very common to addicts. Tolerance and physical dependence in pain patients are not signs of psychological dependence. Preoccupation with achieving adequate pain relief can be appropriate behavior in a patient with poor pain control. Most chronic pain patients limit their intake of opioids to achieve a balance between the benefits of the drug and dose-limiting side effects. Physicians should be aware that psychological dependence may not be accompanied by concurrent tolerance and symptoms of physical dependence in all addicts. In addition, abuse of opioids can occur in the absence of true psychological dependence and is characterized by misuse for non-medical purposes, often in combination with other psychoactive substances.

## **MANAGEMENT OF OVERDOSAGE**

### **Signs and Symptoms**

Serious overdose of oxycodone hydrochloride is characterized by respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, skeletal muscle flaccidity, cold and clammy skin, and sometimes bradycardia and hypotension. In severe overdosage, apnea, circulatory collapse, cardiac arrest, and death may occur.

## **Treatment**

Primary attention should be given to the re-establishment of adequate respiratory exchange through provision of a patent airway and the institution of assisted or controlled ventilation. The narcotic antagonist naloxone is a specific antidote against respiratory depression which may result from overdosage or unusual sensitivity to narcotics, including oxycodone. Therefore, an appropriate dose of naloxone (usual initial adult dose: 0.4 mg) should be administered, preferably by the intravenous route, simultaneously with efforts at respiratory resuscitation. Since the duration of action of oxycodone may exceed that of the antagonist, the patient should be kept under continued surveillance and repeated doses of the antagonist should be administered as needed to maintain adequate respiration. An antagonist should not be administered in the absence of clinically significant respiratory or cardiovascular depression.

Oxygen, intravenous fluids, vasopressors, and other supportive measures should be employed as indicated.

Gastric emptying may be useful in removing unabsorbed drug.

## **DOSAGE AND ADMINISTRATION**

### **Special Precautions Regarding OXYFAST Oral CONCENTRATE 20 mg/1 mL Solution**

**OXYFAST 20 mg/1 mL solution is a highly concentrated solution. Care should be taken in the prescription and dispensing of this solution strength. Patients should be instructed against use by individuals other than the patient, as inappropriate use may cause acute overdosage.**

Dosage should be adjusted to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effects of opioids. This drug is given orally. The usual adult dosage is 5 mg every 6 hours as needed for pain.

### **Nurse/Patient Instructions**

Fill dropper to the level of the prescribed dose (1.0 mL = 20 mg; 0.75 mL = 15 mg; 0.5 mL = 10 mg and 0.25 mL = 5 mg). For ease of administration, add dose to approximately 30 mL (1 Fl Oz) or more of juice or other liquid. May also be added to applesauce, pudding, or other semi-solid foods. The drug-food mixture should be used immediately and not stored for future use.

## **HOW SUPPLIED**

**OxyIR® (oxycodone hydrochloride) Immediate-Release Oral Capsules:**

**5 mg capsules, Cap: Beige Imprinted with O-IR; Body: Orange Imprinted with PF 5mg**

NDC 59011-201-10: Opaque plastic bottle containing 100 capsules

**OXYFAST (oxycodone hydrochloride) Oral CONCENTRATE Solution:  
20 mg per 1 mL clear yellow liquid**

NDC 59011-225-20: Plastic bottle with child-resistant dropper in 30 mL size.

Discard opened bottle of oral solution after 90 days.

Store OXYFAST oral **CONCENTRATE** solutions and OxyIR (oxycodone hydrochloride) capsules at 25°C (77°F); excursions permitted between 15°-30°C (59°-86°F).

**CAUTION**

**DEA Order Form Required.**

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