

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use oxymorphone hydrochloride extended-release tablets safely and effectively. See full prescribing information for oxymorphone hydrochloride extended-release tablets.

OXYMORPHONE hydrochloride extended-release tablets, for oral use, CII
Initial U.S. Approval: 1999

WARNING: ADDICTION, ABUSE, AND MISUSE: LIFE-THREATENING RESPIRATORY DEPRESSION; ACCIDENTAL INGESTION; NEONATAL OPIOID WITHDRAWAL SYNDROME; AND INTERACTION WITH ALCOHOL

See full prescribing information for complete boxed warnings.

- **Oxymorphone hydrochloride extended-release tablets** expose users to risks of addiction, abuse, and misuse, which can lead to overdose and death. Assess each patient's risk before prescribing, and monitor regularly for development of these behaviors or conditions. (5.1)
- **Serious life-threatening or fatal respiratory depression may occur.** Monitor closely, especially upon initiation or following a dose increase. Instruct patients to swallow oxymorphone hydrochloride extended-release tablets whole to avoid exposure to a potentially fatal dose of oxymorphone. (5.2)
- **Accidental ingestion of oxymorphone hydrochloride extended-release, especially in children, can result in fatal overdose of oxymorphone.** (5.2)
- **Prolonged use of oxymorphone hydrochloride extended-release during pregnancy can result in neonatal opioid withdrawal syndrome, which may be life-threatening if not recognized and treated. If opioid use is required for a prolonged period in a pregnant woman, advise the patient of the risk of neonatal opioid withdrawal syndrome and ensure that appropriate treatment will be available.** (5.3)
- **Instruct patients not to consume alcohol or any product containing alcohol while taking oxymorphone hydrochloride extended-release because co-ingestion can result in fatal plasma oxymorphone levels.** (5.4)

RECENT MAJOR CHANGES

Boxed Warning	4/2014
Indications and Usage (1)	4/2014
Dosage and Administration (2)	4/2014
Warnings and Precautions (5)	4/2014

FULL PRESCRIBING INFORMATION: CONTENTS*

WARNING: ADDICTION, ABUSE, AND MISUSE: LIFE-THREATENING RESPIRATORY DEPRESSION; ACCIDENTAL INGESTION; NEONATAL OPIOID WITHDRAWAL SYNDROME; AND INTERACTION WITH ALCOHOL

Boxed Warning

INDICATIONS AND USAGE

2. DOSAGE AND ADMINISTRATION

- Initial Dosing
- Titration and Maintenance of Therapy
- Discontinuation of Oxymorphone Hydrochloride Extended-Release
- Administration of Oxymorphone Hydrochloride Extended-Release Tablets
- Patients with Hepatic Impairment
- Patients with Renal Impairment
- Geriatric Patients

3. DOSAGE FORMS AND STRENGTHS

4. CONTRAINDICATIONS

5. WARNINGS AND PRECAUTIONS

- Addiction, Abuse, and Misuse
- Life-Threatening Respiratory Depression
- Neonatal Opioid Withdrawal Syndrome
- Interaction with Central Nervous System Depressants

FULL PRESCRIBING INFORMATION

WARNING: ADDICTION, ABUSE, AND MISUSE: LIFE-THREATENING RESPIRATORY DEPRESSION; ACCIDENTAL INGESTION; NEONATAL OPIOID WITHDRAWAL SYNDROME; AND INTERACTION WITH ALCOHOL

Addiction, Abuse, and Misuse

Oxymorphone hydrochloride extended-release exposes patients and other users to the risks of opioid addiction, abuse, and misuse, which can lead to overdose and death. Assess each patient's risk prior to prescribing oxymorphone hydrochloride extended-release tablets, and monitor all patients regularly for the development of these behaviors or conditions [see Warnings and Precautions (5.1)].

Life-Threatening Respiratory Depression

Serious, life-threatening, or fatal respiratory depression may occur with use of oxymorphone hydrochloride extended-release. Monitor for respiratory depression, especially during initiation of oxymorphone hydrochloride extended-release or following a dose increase. Instruct patients to swallow oxymorphone hydrochloride extended-release tablets whole, crushing, chewing, or dissolving oxymorphone hydrochloride extended-release tablets can cause rapid release and absorption of a potentially fatal dose of oxymorphone [see Warnings and Precautions (5.2)].

Accidental Ingestion

Accidental ingestion of even one dose of oxymorphone hydrochloride extended-release, especially by children, can result in a fatal overdose of oxymorphone [see Warnings and Precautions (5.2)].

Neonatal Opioid Withdrawal Syndrome

Prolonged use of oxymorphone hydrochloride extended-release during pregnancy can result in neonatal opioid withdrawal syndrome, which may be life-threatening if not recognized and requires management according to protocols developed by neonatology experts. If opioid use is required for a prolonged period in a pregnant woman, advise the patient of the risk of neonatal opioid withdrawal syndrome and ensure that appropriate treatment will be available [see Warnings and Precautions (5.3)].

Interaction with Alcohol

Instruct patients not to consume alcoholic beverages or use prescription or non-prescription products that contain alcohol while taking oxymorphone hydrochloride extended-release. The co-ingestion of alcohol with oxymorphone hydrochloride extended-release may result in increased plasma levels and a potentially fatal overdose of oxymorphone [see Warnings and Precautions (5.4)].

1. INDICATIONS AND USAGE

Oxymorphone hydrochloride extended-release tablets are indicated for the management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate.

Limitations of Usage

- Because of the risks of addiction, abuse, and misuse with opioids, even at recommended doses, and because of the greater risks of overdose and death with extended-release opioid formulations, reserve oxymorphone hydrochloride extended-release for use in patients for whom alternative treatment options (e.g., non-opioid analgesics or immediate-release opioids) are ineffective, not tolerated, or would be otherwise inadequate to provide sufficient management of pain.
- Oxymorphone hydrochloride extended-release tablets are not indicated as an as-needed (prn) analgesic.

2. DOSAGE AND ADMINISTRATION

2.1 Initial Dosing

To avoid medication errors, prescribers and pharmacists must be aware that oxymorphone is available as both immediate-release 5 mg and 10 mg tablets and extended-release 5 mg and 10 mg tablets [see Dosage Forms and Strengths].

Oxymorphone hydrochloride extended-release should be prescribed only by healthcare professionals who are knowledgeable in the use of potent opioids for the management of chronic pain.

Initiate the dosing regimen for each patient individually, taking into account the patient's prior analgesic treatment experience and risk factors for addiction, abuse, and misuse [see Warnings and Precautions (5.1)]. Monitor patients closely for respiratory depression, especially within the first 24-72 hours of initiating therapy with oxymorphone hydrochloride extended-release [see Warnings and Precautions (5.2)].

Oxymorphone hydrochloride extended-release tablets must be taken whole, one tablet at a time, with enough water to ensure complete swallowing immediately after placing in the mouth [see Patient Counseling Information (17)]. Crushing, chewing, or dissolving oxymorphone hydrochloride extended-release tablets will result in uncontrolled delivery of oxymorphone and can lead to overdose or death [see Warnings and Precautions (5.2)].

Oxymorphone hydrochloride extended-release tablets are administered at a frequency of twice daily (every 12 hours). Administer on an empty stomach, at least 1 hour prior to or 2 hours after eating.

Use of Oxymorphone Hydrochloride Extended-Release as the First Opioid Analgesic

Initiate treatment with oxymorphone hydrochloride extended-release with the 5 mg tablet orally every 12-hours.

Use of Oxymorphone Hydrochloride Extended-Release in Patients who are not Opioid Tolerant

The starting dose for patients who are not opioid tolerant is oxymorphone hydrochloride extended-release tablet 5 mg orally every 12 hours. Patients who are opioid tolerant are those receiving, for one week or longer, at least 60 mg oral morphine per day, 25 mg transdermal fentanyl per hour, 30 mg oral oxycodone per day, 8 mg oral oxycodone per day, 25 mg oral oxycodone per day, 25 mg oral oxycodone per day, or an equivalent dose of another opioid.

Use of higher starting doses in patients who are not opioid tolerant may cause fatal respiratory depression.

Conversion from Oxymorphone Hydrochloride to Oxymorphone Hydrochloride Extended-Release

Patients receiving oxymorphone hydrochloride may be converted to oxymorphone hydrochloride extended-release by administering half the patient's total daily oral oxymorphone hydrochloride dose as oxymorphone hydrochloride extended-release, every 12 hours.

Conversion from Parenteral Oxymorphone to Oxymorphone Hydrochloride Extended-Release Tablets

The absolute oral bioavailability of oxymorphone hydrochloride extended-release tablets is approximately 10%. Convert patients receiving parenteral oxymorphone to oxymorphone hydrochloride extended-release tablets by administering 10 times the patient's total daily parenteral oxymorphone dose as oxymorphone hydrochloride extended-release tablets in two equally divided doses (e.g., [IV dose x 10] divided by 2). Due to patient variability with regards to opioid analgesic response, upon conversion monitor patients closely to evaluate for adequate analgesia and side effects.

Conversion from Other Oral Opioids to Oxymorphone Hydrochloride Extended-Release

Discontinue all other around-the-clock opioid drugs when oxymorphone hydrochloride extended-release therapy is initiated.

While there are useful tables of opioid equivalents readily available, there is substantial inter-patient variability in the relative potency of different opioid drugs and products. As such, it is preferable to underestimate a patient's 24-hour oral oxymorphone requirements and provide rescue medication (e.g., immediate-release opioid) than to overestimate the 24-hour oral oxymorphone requirements which could result in adverse reactions. In an oxymorphone hydrochloride extended-release clinical trial with an open-label titration period, patients were converted from their prior opioid to oxymorphone hydrochloride extended-release using Table 1 as a guide for the initial oxymorphone hydrochloride extended-release dose.

Consider the following when using the information in Table 1:

- This is **not** a table of equianalgesic doses.
- The conversion factors in this table are only for the conversion from one of the listed oral opioid analgesics to oxymorphone hydrochloride extended-release.
- This table cannot be used to convert from oxymorphone hydrochloride extended-release to another opioid. Doing so will result in an over-estimation of the dose of the new opioid and may result in fatal overdose.

CONVERSION FACTORS TO OXYMORPHONE HYDROCHLORIDE EXTENDED-RELEASE	
Prior Oral Opioid	Approximate Oral Conversion Factor
Oxymorphone	1
Hydrocodone	0.5
Oxycodone	0.5
Methadone	0.5
Morphine	0.333

To calculate the estimated oxymorphone hydrochloride extended-release dose using Table 1:

- For patients on a single opioid, sum the current total daily dose of the opioid and then multiply the total daily dose by the conversion factor to calculate the approximate oral (active opioid) daily dose.
- For patients on a regimen of more than one opioid, calculate the approximate oral (active opioid) dose for each opioid and sum the totals to obtain the approximate total (active opioid) daily dose.
- For patients on a regimen of fixed-ratio opioid/non-opioid analgesic products, use only the opioid component of these products in the conversion.

[Always round the dose down, if necessary, to the appropriate oxymorphone hydrochloride extended-release strength(s) available.]

Example conversion from a single opioid to oxymorphone hydrochloride extended-release:

- Sum the total daily dose of the opioid oxycodone 20 mg BID
- 20 mg former opioid 2 times daily = 40 mg total daily dose of former opioid
- Calculate the approximate equivalent dose of oral (active opioid) based on the total daily dose of the current opioid using Table 1
- 40 mg total daily dose of former opioid x 0.5 mg Conversion Factor = 20 mg of oral (active opioid) daily
- Step 3: Calculate the approximate starting dose of oxymorphone hydrochloride extended-release to be given every 12 hours. Round down, if necessary, to the appropriate oxymorphone hydrochloride extended-release tablets strengths available.
- 10 mg oxymorphone hydrochloride extended-release every 12 hours

INDICATIONS AND USAGE

Oxymorphone hydrochloride extended-release tablets are an opioid agonist indicated for the management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. (1)

Limitations of Use

- Because of the risks of addiction, abuse, and misuse with opioids, even at recommended doses, and because of the greater risks of overdose and death with extended-release opioid formulations, reserve oxymorphone hydrochloride extended-release for use in patients for whom alternative treatment options (e.g., non-opioid analgesics or immediate-release opioids) are ineffective, not tolerated, or would be otherwise inadequate to provide sufficient management of pain. (1)
- Oxymorphone hydrochloride extended-release tablets are not indicated as an as-needed (prn) analgesic. (1)

DOSAGE AND ADMINISTRATION

- For opioid-naïve and opioid non-tolerant patients, initiate with 5 mg tablets orally every 12 hours. (2.1)
- To convert to oxymorphone hydrochloride extended-release tablets from another opioid, use available conversion factors to obtain estimated dose. (2.1)
- Dose can be increased every 3 to 7 days, using increments of 5 to 10 mg every 12 hours (i.e., 10 to 20 mg per day). (2.2)
- Administer on an empty stomach, at least 1 hour prior to or 2 hours after eating. (2.4)
- Do not abruptly discontinue oxymorphone hydrochloride extended-release in a physically dependent patient. (2.5, 5.1)
- Instruct patients to swallow oxymorphone hydrochloride extended-release tablets intact. (2.4)
- Reduce the dose of oxymorphone hydrochloride extended-release in patients with mild hepatic impairment and patients with renal impairment. (2.5, 2.6)

DOSAGE FORMS AND STRENGTHS

Extended-release tablets: 5 mg, 7.5 mg, 10 mg, 15 mg, 20 mg, 30 mg, and 40 mg

CONTRAINDICATIONS

- Significant respiratory depression (4)
- Acute or severe bronchial asthma (4)
- Known or suspected paralytic ileus (4)

- Use in Elderly, Cachectic, and Dehydrated Patients
- Use in Patients with Chronic Pulmonary Disease
- Use in Patients with Hepatic Impairment
- Hypotensive Effect
- Use in Patients with Head Injury or Increased Intracranial Pressure
- Use in Patients with Gastrointestinal Conditions
- Use in Patients with Convulsive or Seizure Disorders
- Avoidance of Withdrawal
- Driving and Operating Machinery

6. ADVERSE REACTIONS

- Clinical Trial Experience
 - Post-marketing Experience
- DRUG INTERACTIONS
 - Alcohol
 - CNS Depressants
 - Mixed Agonist/Antagonist and Partial Agonist Opioid Analgesics
 - Muscle Relaxants
 - Medicines
 - Anticholinergics

8. USE IN SPECIFIC POPULATIONS

- Pregnancy
- Labor and Delivery

- Hypersensitivity to oxymorphone (4)
- Moderate or severe hepatic impairment (4)

WARNINGS AND PRECAUTIONS

See Boxed WARNINGS

- Interaction with CNS depressants: Concomitant use may cause profound sedation, respiratory depression, and death. If concomitant use is required, consider dose reduction of one or both drugs because of additive pharmacological effects. (5.4, 7.2)
- Elderly, cachectic, and debilitated patients and those with chronic pulmonary disease: Monitor closely because of increased risk for life-threatening respiratory depression. (5.5, 5.6)
- Hypotensive effect: Monitor during dose initiation and titration. (5.8)
- Patients with head injury or increased intracranial pressure: Monitor for sedation and respiratory depression. Avoid use of oxymorphone hydrochloride extended-release in patients with impaired consciousness or coma susceptible to intracranial effects of CO₂ retention. (5.9)

ADVERSE REACTIONS

Adverse reactions in ≥2% of patients in placebo-controlled trials: nausea, constipation, dizziness, somnolence, vomiting, pruritus, headache, sweating increased, dry mouth, sedation, diarrhea, insomnia, fatigue, appetite decreased, and abdominal pain. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Acavis at 1-800-432-8534 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

DRUG INTERACTIONS

Mixed agonist/antagonist and partial agonist opioid analgesics: Avoid use with oxymorphone hydrochloride extended-release because they may reduce analgesic effect of oxymorphone hydrochloride extended-release tablets or precipitate withdrawal symptoms. (7.3)

USE IN SPECIFIC POPULATIONS

- Pregnancy: Based on animal data, may cause fetal harm. (8.1)
- Nursing mothers: Closely monitor infants of nursing women receiving oxymorphone hydrochloride extended-release. (8.3)

See 17 for PATIENT COUNSELING INFORMATION and Medication Guide

Revised: 04/2014

- 8.3 Nursing Mothers
 - 8.4 Pediatric Use
 - 8.5 Geriatric Use
 - 8.6 Hepatic Impairment
 - 8.7 Renal Impairment
9. DRUG ABUSE AND DEPENDENCE
 - 9.1 Controlled Substance
 - 9.2 Abuse
 - 9.3 Dependence
10. OVERDOSAGE
 11. DESCRIPTION
 12. CLINICAL PHARMACOLOGY
 - 12.1 Mechanism of Action
 - 12.2 Pharmacodynamics
 - 12.3 Pharmacokinetics
13. NONCLINICAL TOXICOLOGY
 - 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
14. CLINICAL STUDIES
 16. HOW SUPPLIED/STORAGE AND HANDLING
 17. PATIENT COUNSELING INFORMATION

Conversion from Methadone to Oxymorphone Hydrochloride Extended-Release

Closely monitor is of particular importance when converting from methadone to other opioid agonists. The ratio between methadone and other opioid agonists may vary widely as a function of previous dose exposure. Methadone has a long half-life and can accumulate in the plasma.

2.2 Titration and Maintenance of Therapy

Individually titrate oxymorphone hydrochloride extended-release to a dose that provides adequate analgesia and minimizes adverse reactions. Continually reassess patients receiving oxymorphone hydrochloride extended-release to assess the maintenance of pain control and the relative incidence of adverse reactions, as well as monitoring for the development of addiction, abuse, and misuse. Frequent communication is important among the prescriber, other members of the healthcare team, the patient, and the caregiver/family during periods of changing analgesic requirements, including initial titration. During chronic therapy, periodically reassess the continued need for the use of opioid analgesics.

If the level of pain increases, attempt to identify the source of increased pain, while adjusting the oxymorphone hydrochloride extended-release dose to decrease the level of pain. Because steady-state plasma concentrations are approximated within 3 days, oxymorphone hydrochloride extended-release dosage adjustments, preferably at increments of 5-10 mg every 12 hours, may be done every 3 to 7 days.

Patients who experience breakthrough pain may require a dose increase of oxymorphone hydrochloride extended-release, or may need rescue medication with an appropriate dose of an immediate-release analgesic. If the level of pain increases after dose stabilization, attempt to identify the source of increased pain before increasing oxymorphone hydrochloride extended-release dose.

If unacceptable opioid-related adverse reactions are observed, the subsequent dose may be reduced. Adjust the dose to obtain an appropriate balance between management of pain and opioid-related adverse reactions.

2.3 Discontinuation of Oxymorphone Hydrochloride Extended-Release

When a patient no longer requires therapy with oxymorphone hydrochloride extended-release, use a gradual downward titration of the dose every two to four days, to prevent signs and symptoms of withdrawal in the physically-dependent patient. Do not abruptly discontinue oxymorphone hydrochloride extended-release.

2.4 Administration of Oxymorphone Hydrochloride Extended-Release Tablets

Instruct patients to swallow oxymorphone hydrochloride extended-release tablets intact. The tablets are not to be crushed, dissolved, or chewed due to the risk of rapid release and absorption of a potentially fatal dose of oxymorphone [see Warnings and Precautions (5.2)]. Administer on an empty stomach, at least 1 hour prior to or 2 hours after eating.

2.5 Patients with Hepatic Impairment

Oxymorphone hydrochloride extended-release is contraindicated in patients with moderate or severe hepatic impairment.

In opioid-naïve patients with mild hepatic impairment, initiate treatment with the 5 mg dose. For patients on prior opioid therapy, start oxymorphone hydrochloride extended-release at the same dose as the starting dose for a patient with normal hepatic function on prior opioids and titrate slowly. Monitor patients closely for signs of respiratory or central nervous system depression [see Warnings and Precautions (5.8) and Clinical Pharmacology (12.3)].

2.6 Patients with Renal Impairment

In patients with creatinine clearance rates less than 50 mL/min, start oxymorphone hydrochloride extended-release in the opioid-naïve patient with the 5 mg dose. For patients on prior opioid therapy, start oxymorphone hydrochloride extended-release at 50% lower than the starting dose for a patient with normal renal function on prior opioids and titrate slowly. Monitor patients closely for signs of respiratory or central nervous system depression [see Warnings and Precautions (5.2), Use in Specific Populations (8.7) and Clinical Pharmacology (12.3)].

2.7 Geriatric Patients

The steady-state plasma concentrations of oxymorphone are approximately 40% higher in elderly subjects than in young subjects. Initiate dosing with oxymorphone hydrochloride extended-release in patients 65 years of age and over using the 5 mg dose and monitor closely for signs of respiratory and central nervous system depression when initiating and titrating oxymorphone hydrochloride extended-release to adequate analgesia [see Warnings and Precautions (5.2), Use in Specific Populations (8.3) and Clinical Pharmacology (12.3)]. For patients on prior opioid therapy, start oxymorphone hydrochloride extended-release at 50% lower than the starting dose for a younger patient on prior opioids and titrate slowly.

3. DOSAGE FORMS AND STRENGTHS

The 5 mg dosage form is a light pink, round tablet, debossed with "C" on one side and "227" on the other side. The 7.5 mg dosage form is a gray, round tablet, debossed with "C" on one side and "261" on the other side. The 10 mg dosage form is an orange, round tablet, debossed with "C" on one side and "228" on the other side. The 15 mg dosage form is a white to off-white, round tablet, debossed with "C" on one side and "262" on the other side. The 20 mg dosage form is a light tan to tan, round tablet, debossed with "C" on one side and "229" on the other side. The 30 mg dosage form is a pink, round tablet, debossed with "C" on one side and "263" on the other side. The 40 mg dosage form is a yellow, round tablet, debossed with "C" on one side and "230" on the other side.

4. CONTRAINDICATIONS

Oxymorphone hydrochloride extended-release is contraindicated in patients with:

- Significant respiratory depression
- Acute or severe bronchial asthma or hypercapnia
- Known or suspected paralytic ileus
- Moderate and severe hepatic impairment [see Clinical Pharmacology (12.3), Warnings and Precautions (5.7)].
- Hypersensitivity (i.e., anaphylaxis) to oxymorphone, any other ingredients in oxymorphone hydrochloride extended-release tablets, or to morphine analogs such as codeine [see Adverse Reactions (6.1)].

5. WARNINGS AND PRECAUTIONS

5.1 Addiction, Abuse, and Misuse

Oxymorphone hydrochloride extended-release contains oxymorphone, a Schedule II controlled substance. As an opioid, oxymorphone hydrochloride extended-release exposes users to the risks of addiction, abuse, and misuse [see Drug Abuse and Dependence (9)]. As modified-release products such as oxymorphone hydrochloride extended-release deliver the opioid over an extended period of time, there is a greater risk of overdose and death due to the larger amount of oxymorphone present.

Although the risk of addiction in any individual is unknown, it can occur in patients appropriately prescribed oxymorphone hydrochloride extended-release and in those who obtain the drug illicitly. Addiction can occur at recommended doses and if the drug is misused or abused.

Assess each patient's risk for opioid abuse or addiction, abuse, or misuse prior to prescribing oxymorphone hydrochloride extended-release, and monitor all patients receiving oxymorphone hydrochloride extended-release for the development of these behaviors or conditions. Risks are increased in patients with a personal or family history of substance abuse (including drug or alcohol addiction or abuse) or mental illness (e.g., major depression). The potential for these risks should not, however, prevent the prescribing of oxymorphone hydrochloride extended-release for the proper management of pain in any given patient. Patients at increased risk may be prescribed modified-release opioid formulations such as oxymorphone hydrochloride extended-release, but use in such patients necessitates intensive counseling about the risks and proper use of oxymorphone hydrochloride extended-release along with intensive monitoring for signs of addiction, abuse, and misuse.

Abuse, or misuse of oxymorphone hydrochloride extended-release by crushing, chewing, snorting, or injecting the dissolved product will result in the uncontrolled delivery of the oxymorphone and can result in overdose and death [see Overdose (10)].

Opioid agonists such as oxymorphone hydrochloride extended-release are sought by drug abusers and people with addiction disorders and are subject to criminal diversion. Consider these risks when prescribing or dispensing oxymorphone hydrochloride extended-release. Strategies to reduce these risks include prescribing the drug in the smallest appropriate quantity and advising the patient on the proper disposal of unused drug [see Patient Counseling Information (17)]. Contact local state professional licensing board or state controlled substances authority for information on how to prevent and detect abuse or diversion of this product.

5.2 Life-Threatening Respiratory Depression

Serious, life-threatening, or fatal respiratory depression has been reported with the use of modified-release opioids, even when used as recommended. Respiratory depression from opioid use, if not immediately recognized and treated, may lead to respiratory arrest and death. Management of respiratory depression may include close observation, supportive measures, and use of opioid antagonists, depending on the patient's clinical status [see Overdose (10)]. Carbon dioxide (CO₂) retention from opioid-induced respiratory depression can exacerbate the sedating effects of opioids.

While serious, life-threatening, or fatal respiratory depression can occur at any time during the use of oxymorphone hydrochloride extended-release, the risk is greatest during the initiation of therapy or following a dose increase. Closely monitor patients for respiratory depression when initiating therapy with oxymorphone hydrochloride extended-release and following a dose increase.

To reduce the risk of respiratory depression, proper dosing and titration of oxymorphone hydrochloride extended-release is essential [see Dosage and Administration (2.1, 2.2)]. Overestimating the oxymorphone hydrochloride extended-release dose when converting patients from another opioid product can result in fatal overdose with the first dose.

Accidental ingestion of even one dose of oxymorphone hydrochloride extended-release, especially by children, can result in respiratory depression and death due to an overdose of oxymorphone.

5.3 Neonatal Opioid Withdrawal Syndrome

Prolonged use of oxymorphone hydrochloride extended-release during pregnancy can result in withdrawal signs in the neonate. Neonatal opioid withdrawal syndrome, unlike opioid withdrawal syndrome in adults, may be life-threatening if not recognized and requires management according to protocols developed by neonatology experts. If opioid use is required for a prolonged period in a pregnant woman, advise the patient of the risk of neonatal opioid withdrawal syndrome and ensure that appropriate treatment will be available.

Neonatal opioid withdrawal syndrome presents as irritability, hyperactivity and abnormal sleep pattern, high pitched cry, tremor, vomiting, diarrhea and failure to gain weight. The onset, duration, and severity of neonatal opioid withdrawal syndrome vary based on the specific opioid used, duration of use, timing and amount of last maternal use, and rate of elimination of the drug by the newborn.

5.4 Interaction with Central Nervous System Depressants

Patients must not consume alcoholic beverages or prescription or non-prescription products containing alcohol while on oxymorphone hydrochloride extended-release therapy. The co-ingestion of alcohol with oxymorphone hydrochloride extended-release may result in increased plasma levels and a potentially fatal overdose of oxymorphone [see Clinical Pharmacology (12.3)].

Hypotension, profound sedation, coma, respiratory depression, and death may result if oxymorphone hydrochloride extended-release is used concomitantly with alcohol or other central nervous system (CNS) depressants (e.g., sedatives, anxiolytics, hypnotics, neuroleptics, other opioids).

When considering the use of oxymorphone hydrochloride extended-release in a patient taking a CNS depressant, assess the duration of use of the CNS depressant and the patient's response, including the degree of tolerance that has developed to CNS depression. Additionally, evaluate the patient's use of alcohol or illicit drugs that cause CNS depression. If the decision to begin oxymorphone hydrochloride extended-release is made, start with oxymorphone hydrochloride extended-release 5 mg every 12 hours, monitor patients for signs of sedation and respiratory depression, and consider using a lower dose of the concomitant CNS depressant [see Drug Interactions (7.2)].

5.5 Use in Elderly, Cachectic, and Dehydrated Patients

Life-threatening respiratory depression is more likely to occur in elderly, cachectic, or dehydrated patients as they may have altered pharmacokinetics or altered clearance compared to younger, healthier patients. Monitor such patients closely, particularly when initiating and titrating oxymorphone hydrochloride extended-release and when oxymorphone hydrochloride extended-release is given concomitantly with other drugs that depress respiration [see Warnings and Precautions (5.2)].

5.6 Use in Patients with Chronic Pulmonary Disease

Monitor patients with significant chronic obstructive pulmonary disease or cor pulmonale, and patients having a substantially decreased respiratory reserve, hypoxia, hypercapnia, or pre-existing respiratory depression for respiratory depression, particularly when initiating therapy and titrating with oxymorphone hydrochloride extended-release, as in these patients, even usual therapeutic doses of oxymorphone hydrochloride extended-release may decrease respiratory drive to the point of apnea [see Warnings and Precautions (5.2)]. Consider the use of alternative non-opioid analgesics in these patients if possible.

5.7 Use in Patients with Hepatic Impairment

A study of oxymorphone hydrochloride extended-release in patients with hepatic disease indicated greater plasma concentrations than those with normal hep

The possible side effects of oxymorphone hydrochloride extended-release tablets:

• constipation, nausea, sleepiness, vomiting, tiredness, headache, dizziness, abdominal pain.
Call your healthcare provider if you have any of these symptoms and they are severe.

Get emergency medical help if you have:

• trouble breathing, shortness of breath, fast heartbeat, chest pain, swelling of your face, tongue or throat, extreme drowsiness, light-headedness when changing positions, or you are feeling faint.

These are not all the possible side effects of oxymorphone hydrochloride extended-release tablets. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088. For more information go to dailymed.nlm.nih.gov. For more information about oxymorphone hydrochloride extended-release tablets, call Actavis at 1-800-432-8534.

This Medication Guide has been approved by the U.S. Food and Drug Administration.

Manufactured by:
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40-9236
(MG 41-1184/0414)

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7.3 Mixed Agonist/Antagonist and Partial Agonist Opioid Analgesics

Mixed agonist/antagonist analgesics (i.e., pentazocine, nalbuphine, and butorphanol), and partial agonists (buprenorphine) may reduce the analgesic effect of oxymorphone hydrochloride extended-release tablets or precipitate withdrawal symptoms. Avoid the use of mixed agonist/antagonist and partial agonist analgesics in patients receiving oxymorphone hydrochloride extended-release.

7.4 Muscle Relaxants

Oxymorphone may enhance the neuromuscular blocking action of skeletal muscle relaxants and produce an increased degree of respiratory depression. Monitor patients receiving muscle relaxants and oxymorphone hydrochloride extended-release for signs of respiratory depression that may be greater than otherwise expected.

7.5 Cimetidine

Cimetidine can potentiate opioid-induced respiratory depression. Monitor patients for respiratory depression when oxymorphone hydrochloride extended-release and cimetidine are used concurrently.

7.6 Anticholinergics

Anticholinergics or other medications with anticholinergic activity when used concurrently with opioid analgesics may result in increased risk of urinary retention and/or severe constipation, which may lead to paralytic ileus. Monitor patients for signs of respiratory and central nervous system depression when oxymorphone hydrochloride extended-release is used concurrently with anticholinergic drugs.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Clinical Considerations

Fetal/neonatal adverse reactions

Prolonged use of opioid analgesics during pregnancy for medical or nonmedical purposes can result in physical dependence in the neonate and neonatal opioid withdrawal syndrome shortly after birth. Observe newborns for symptoms of neonatal opioid withdrawal syndrome, such as poor feeding, diarrhea, irritability, tremor, rigidity, and seizures, and manage accordingly [see Warnings and Precautions (5.3)].

Teratogenic Effects - Pregnancy Category C

There are no adequate and well-controlled studies in pregnant women. Oxymorphone hydrochloride extended-release should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Oxymorphone hydrochloride administration did not cause malformations at any doses evaluated during developmental toxicity studies in rats (≤ 25 mg/kg/day) or rabbits (≤ 50 mg/kg/day). These doses are ~ 3 -fold and ~ 12 -fold the human dose of 40 mg every 12 hours, based on body surface area. There were no developmental effects in rats treated with 5 mg/kg/day or rabbits treated with 25 mg/kg/day. Fetal weights were reduced in rats and rabbits given doses of ≥ 10 mg/kg/day and 50 mg/kg/day, respectively. These doses are ~ 1.2 -fold and ~ 12 -fold the human dose of 40 mg every 12 hours based on body surface area, respectively. There were no effects of oxymorphone hydrochloride on intrauterine survival in rats at doses ≤ 25 mg/kg/day, or rabbits at ≤ 50 mg/kg/day in these studies (see Non-teratogenic Effects, below). In a study that was conducted prior to the establishment of Good Laboratory Practices (GLP) and not according to current recommended methodology, a single subcutaneous injection of oxymorphone hydrochloride on gestation day 8 was reported to produce malformations in offspring of hamsters that received 15.5-fold the human dose of 40 mg every 12 hours based on body surface area. This dose also produced 20% maternal lethality.

Non-teratogenic Effects

Oxymorphone hydrochloride administration to female rats during gestation in a pre- and postnatal developmental toxicity study reduced mean litter size (18%) at a dose of 25 mg/kg/day, attributed to an increased incidence of stillborn pups. An increase in neonatal death occurred at 25 mg/kg/day. Post-natal survival of the pups was reduced throughout weaning following treatment of the dams with 25 mg/kg/day. Low pup birth weight and decreased postnatal weight gain occurred in pups born to oxymorphone-treated pregnant rats given a dose of 25 mg/kg/day. This dose is ~ 3 -fold higher than the human dose of 40 mg every 12 hours on a body surface area basis.

8.2 Labor and Delivery

Opioids cross the placenta and may produce respiratory depression in neonates. Oxymorphone hydrochloride extended-release is not for use in women during and immediately prior to labor, when shorter acting analgesics or other analgesic techniques are more appropriate. Opioid analgesics can prolong labor through actions that temporarily reduce the strength, duration, and frequency of uterine contractions. However this effect is not consistent and may be offset by an increased rate of cervical dilation, which tends to shorten labor.

8.3 Nursing Mothers

It is not known whether oxymorphone is excreted in human milk. Because many drugs, including some opioids, are excreted in human milk, caution should be exercised when oxymorphone hydrochloride extended-release is administered to a nursing woman. Monitor infants who may be exposed to oxymorphone hydrochloride extended-release through breast milk for excess sedation and respiratory depression. Withdrawal symptoms can occur in breast-fed infants when maternal administration of an opioid analgesic is stopped, or when breast-feeding is stopped.

8.4 Pediatric Use

The safety and effectiveness of oxymorphone hydrochloride extended-release in patients below the age of 18 years have not been established.

8.5 Geriatric Use

Of the total number of subjects in clinical studies of oxymorphone hydrochloride extended-release, 27% were 65 and over, while 9% were 75 and over. No overall differences in effectiveness were observed between these subjects and younger subjects. There were several adverse events that were more frequently observed in subjects 65 and over compared to younger subjects. These adverse events included dizziness, somnolence, confusion, and nausea. On average, age greater than 65 years was associated with a 1.4-fold increase in oxymorphone AUC and a 1.5-fold increase in C_{max} . Initiate dosing with oxymorphone hydrochloride extended-release in patients 65 years of age and over using the 5 mg dose and monitor closely for respiratory and central nervous system depression when initiating and titrating oxymorphone hydrochloride extended-release. For patients on prior opioid therapy, start at 50% of the starting dose for a younger patient on prior opioids and titrate slowly.

8.6 Hepatic Impairment

Patients with mild hepatic impairment have an increase in oxymorphone bioavailability of 1.6-fold. In opioid-naïve patients with mild hepatic impairment, initiate oxymorphone hydrochloride extended-release using the 5 mg dose and monitor closely for respiratory and central nervous system depression. Oxymorphone hydrochloride extended-release is contraindicated for patients with moderate and severe hepatic impairment [see Contraindications (4), Warnings and Precautions (5.7), and Dosage and Administration (2.5)]. For patients on prior opioid therapy, start at 50% of the dose for that a patient with normal hepatic function on prior opioids and titrate slowly.

8.7 Renal Impairment

Patients with moderate to severe renal impairment were shown to have an increase in oxymorphone bioavailability ranging from 57-65% [see Clinical Pharmacology (12.3)]. Start opioid-naïve patients with the 5 mg dose of oxymorphone hydrochloride extended-release and titrate slowly while closely monitoring for respiratory and central nervous system depression [see Dosage and Administration (2.6)]. For patients on prior opioid therapy, start at 50% of the dose for a patient with normal renal function on prior opioids and titrate slowly.

9 DRUG ABUSE AND DEPENDENCE

9.1 Controlled Substance

Oxymorphone hydrochloride extended-release contains oxymorphone, a Schedule II controlled substance with an abuse liability similar to other opioids including fentanyl, hydromorphone, methadone, morphine, oxycodone and tapentadol. Oxymorphone hydrochloride extended-release can be abused and is subject to criminal diversion [see Warnings and Precautions (5.1)].

The high drug content in extended release formulations adds to the risk of adverse outcomes from abuse and misuse.

9.2 Abuse

All patients treated with opioids require careful monitoring for signs of abuse and addiction, since use of opioid analgesic products carries the risk of addiction even under appropriate medical use.

Drug abuse is the intentional non-therapeutic use of an over-the-counter or prescription drug, even once, for its rewarding psychological or physiological effects. Drug abuse includes, but is not limited to the following examples: the use of a prescription or over-the-counter drug to "get high", or the use of steroids for performance enhancement and muscle build up.

Drug addiction is a cluster of behavioral, cognitive, and physiological phenomena that develop after repeated substance use and include: a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal.

"Drug seeking" behavior is very common to addicts and drug abusers. Drug-seeking tactics include emergency calls or visits near the end of office hours, refusal to undergo appropriate examination, testing or referral, repeated claims of loss of prescriptions, tampering with prescriptions and reluctance to provide prior medical records or contact information for other treating physicians(s). "Doctor shopping" (visiting multiple prescribers) to obtain additional prescriptions is common among drug abusers and people suffering from untreated addiction. Preoccupation with achieving adequate pain relief can be appropriate behavior in a patient with poor pain control.

Abuse and addiction are separate and distinct from physical dependence and tolerance. Physicians should be aware that addiction 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 addiction.

Oxymorphone hydrochloride extended-release, like other opioids, can be diverted for non-medical use into illicit channels of distribution. Careful record-keeping of prescribing information, including quantity, frequency, and renewal requests as required by state law, is strongly advised.

Proper assessment of the patient, proper prescribing practices, periodic re-evaluation of therapy, and proper dispensing and storage are appropriate measures that help to reduce abuse of opioid drugs.

Risks Specific to Abuse of Oxymorphone Hydrochloride Extended-Release Tablets

Oxymorphone hydrochloride extended-release tablets are for oral use only. Abuse of oxymorphone hydrochloride extended-release poses a risk of overdose and death. This risk is increased with concurrent abuse of oxymorphone hydrochloride extended-release with alcohol and other substances. Taking cut, broken, chewed, crushed, or dissolved oxymorphone hydrochloride extended-release tablets enhances drug release and increases the risk of overdose and death.

Parenteral drug abuse is commonly associated with transmission of infectious diseases such as hepatitis and HIV.

9.3 Dependence

Both tolerance and physical dependence can develop during chronic opioid therapy. Tolerance is the need for increasing doses of opioids to maintain a defined effect such as analgesia (in the absence of disease progression or other external factors). Tolerance may occur to both the desired and undesired effects of drugs, and may develop at different rates for different effects.

Physical dependence results in withdrawal symptoms after abrupt discontinuation or a significant dose reduction of a drug. Withdrawal also may be precipitated through the administration of drugs with opioid antagonist activity, e.g., naloxone, nalmefene, mixed agonist/antagonist analgesics (pentazocine, butorphanol, nalbuphine), or partial agonists (buprenorphine). Physical dependence may not occur to a clinically significant degree until after several days to weeks of continued opioid usage.

Oxymorphone hydrochloride extended-release should not be abruptly discontinued [see Dosage and Administration (2.3)]. If oxymorphone hydrochloride extended-release is abruptly discontinued, a withdrawal syndrome may ensue. Some of the signs and symptoms of the following can characterize this syndrome: restlessness, lacrimation, rhinorrhea, yawning, perspiration, chills, myalgia, and mydriasis. Other signs and symptoms also may develop, including: irritability, anxiety, backache, joint pain, weakness, abdominal cramps, insomnia, nausea, anorexia, vomiting, diarrhea, or increased blood pressure, respiratory rate, or heart rate.

Infants born to mothers physically dependent on opioids will also be physically dependent and may exhibit respiratory difficulties and withdrawal symptoms [see Use in Specific Populations (8.2)].

10 OVERDOSAGE

Clinical Presentation

Acute overdosage with oxymorphone is manifested by respiratory depression, somnolence progressing to stupor or coma, skeletal muscle flaccidity, cold and clammy skin, constricted pupils, and, sometimes, pulmonary edema, bradycardia, hypotension, and death. Marked mydriasis rather than miosis may be seen due to severe hypoxia in overdose situations.

Treatment of Overdose

In case of overdose, priorities are the re-establishment of a patent and protected airway and institution of assisted or controlled ventilation if needed. Employ other supportive measures (including oxygen, vasopressors) in the management of circulatory shock and pulmonary edema as indicated. Cardiac arrest or arrhythmias will require advanced life support techniques.

The opioid antagonists, naloxone or nalmefene, are specific antidotes to respiratory depression resulting from opioid overdose. Opioid antagonists should not be administered in the absence of clinically significant respiratory or circulatory depression secondary to oxymorphone overdose. Such agents should be administered cautiously to patients who are known, or suspected to be, physically dependent on oxymorphone hydrochloride extended-release. In such cases, an abrupt or complete reversal of opioid effects may precipitate an acute withdrawal syndrome.

Because the duration of reversal would be expected to be less than the duration of action of oxymorphone in oxymorphone hydrochloride extended-release, carefully monitor the patient until spontaneous respiration is reliably re-established. Oxymorphone hydrochloride extended-release will continue to release oxymorphone adding to the oxymorphone load for up to 24 hours after administration, necessitating prolonged monitoring. If the response to opioid antagonists is suboptimal or not sustained, additional antagonist should be given as directed in the product's prescribing information.

In an individual physically dependent on opioids, administration of an opioid receptor antagonist may precipitate an acute withdrawal. The severity of the withdrawal produced will depend on the degree of physical dependence and the dose of the antagonist administered. If a decision is made to treat serious respiratory depression in the physically dependent patient, administration of the antagonist should be begun with care and by titration with smaller than usual doses of the antagonist.

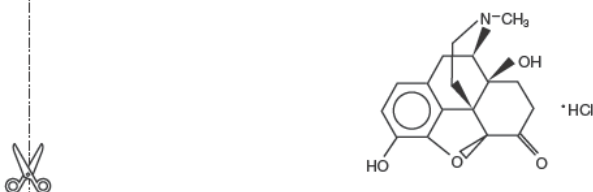
11 DESCRIPTION

Oxymorphone hydrochloride extended-release tablets are for oral use and contain oxymorphone, a semi-synthetic opioid analgesic. Oxymorphone hydrochloride extended-release tablets are supplied in 5 mg, 7.5 mg, 10 mg, 15 mg, 20 mg, 30 mg, and 40 mg tablet strengths for oral administration. The tablet strength describes the amount of oxymorphone hydrochloride, USP per tablet.

The tablets contain the following inactive ingredients: colloidal silicon dioxide, hypromellose, magnesium stearate and microcrystalline cellulose. In addition the 5 mg tablets contain titanium dioxide and red iron oxide. The 7.5 mg tablets contain titanium dioxide and black iron oxide. The 10 mg tablets contain red iron oxide and titanium dioxide. The 15 mg tablets contain titanium dioxide and yellow iron oxide. The 20 mg tablets contain black iron oxide, titanium dioxide, and yellow iron oxide. The 30 mg tablets contain titanium dioxide and red iron oxide. The 40 mg tablets contain black iron oxide and yellow iron oxide.

The chemical name of oxymorphone hydrochloride is 4, 5 α - α - α -14-ethyl-17-methylmorphinan-6-one hydrochloride, a white or slightly off-white, odorless powder, which is sparingly soluble in alcohol and ether, but freely soluble in water. The molecular weight of oxymorphone hydrochloride is 337.50. The pKa1 and pKa2 of oxymorphone at 37°C are 8.17 and 9.54, respectively. The octanol/aqueous partition coefficient at 37°C and pH 7.4 is 0.98.

The structural formula for oxymorphone hydrochloride is as follows:



12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Oxymorphone, an opioid agonist, is relatively selective for the mu receptor, although it can interact with other opioid receptors at higher doses.

The precise mechanism of analgesia, the principal therapeutic action of oxymorphone, is unknown. Specific central nervous system (CNS) opiate receptors and endogenous compounds with morphine-like activity have been identified throughout the brain and spinal cord and are likely to play a role in the expression and perception of analgesic effects. In addition, opioid receptors have also been identified within the peripheral nervous system (PNS). The role that these receptors play in these drugs' analgesic effects is unknown.

12.2 Pharmacodynamics

Concentration-Effect Relationships

The minimum effective plasma concentration of oxymorphone for analgesia varies widely among patients, especially among patients who have been previously treated with opioids. As a result, individual patients may require different doses and/or dosing regimens to achieve desired analgesic effects. The minimum effective analgesic concentration of oxymorphone for any individual patient may increase over time due to an increase in pain, progression of disease, development of a new pain syndrome and/or potential development of analgesic tolerance.

Concentration-Adverse Experience Relationships

There is a general relationship between increasing opioid plasma concentration and increasing frequency of adverse experiences such as nausea, vomiting, CNS effects, and respiratory depression.

CNS Depression/Alcohol Interaction

Additive pharmacodynamic effects may be expected when oxymorphone hydrochloride extended-release is used in conjunction with alcohol, other opioids, or illicit drugs that cause central nervous system depression.

Effects on the Central Nervous System (CNS)

The principal therapeutic action of oxymorphone is analgesia. Oxymorphone causes respiratory depression, in part by a direct effect on the brainstem respiratory centers. The respiratory depression involves a reduction in the responsiveness of the brain stem respiratory centers to both increases in carbon dioxide tension and electrical stimulation. Oxymorphone depresses the cough reflex by direct effect on the cough center in the medulla.

Oxymorphone causes miosis, even in total darkness. Pinpoint pupils are a sign of opioid overdose but are not pathognomonic (e.g., pontine lesions of hemorrhagic or ischemic origin may produce similar findings). Marked mydriasis rather than miosis may be seen with hypoxia in overdose situations [see Overdose (10)]. Other therapeutic effects of oxymorphone include anxiolysis, euphoria, and feeling of relaxation, drowsiness and changes in mood.

Effects on the Gastrointestinal Tract and on Other Smooth Muscle

Gastric, biliary and pancreatic secretions are decreased by oxymorphone. Oxymorphone causes a reduction in motility and is associated with an increase in 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 is increased to the point of spasm. The end result is constipation. Oxymorphone can cause a marked increase in biliary tract pressure as a result of spasm of the sphincter of Oddi, and transient elevations in serum amylase. Oxymorphone may also cause spasm of the sphincter of the urinary bladder.

Effects on the Cardiovascular System

Oxymorphone produces peripheral vasodilation which may result in orthostatic hypotension. Release of histamine can occur and may contribute to orthostatic hypotension. Manifestations of histamine release may include orthostatic hypotension, pruritus, flushing, red eyes, and sweating.

Effects on the Endocrine System

Opioid agonists have been shown to have a variety of effects on the secretion of hormones. Opioids inhibit the secretion of ACTH, cortisol, and luteinizing hormone (LH) in humans. They also stimulate prolactin, growth hormone (GH) secretion, and pancreatic secretion of insulin and glucagon.

Effects on the Immune System

Opioids have been shown to have a variety of effects on components of the immune system in *in vitro* and animal models. The clinical significance of these findings is unknown.

12.3 Pharmacokinetics

Absorption

The absolute oral bioavailability of oxymorphone is approximately 10%.

Steady-state levels are achieved after three days of multiple dose administration. Under both single-dose and steady-state conditions, dose was proportionally increased from 5 mg to 10 mg, 20 mg, and 40 mg doses of oxymorphone hydrochloride extended-release, for both peak plasma levels (C_{max}) and extent of absorption (AUC) (see Table 4).

Table 4: Mean (±SD) Oxymorphone Hydrochloride Extended-Release Pharmacokinetic Parameters					
Regimen	Dosage	C_{max} (ng/mL)	AUC (ng·hr/mL)	$T_{1/2}$ (hr)	
Single Dose	5 mg	0.27±0.13	4.54±2.04	11.30±10.81	
	10 mg	0.65±0.29	8.94±4.16	9.83±5.68	
	20 mg	1.21±0.77	17.81±7.22	9.69±5.21	
	40 mg	2.59±1.65	37.90±16.20	9.85±2.94	
Multiple Dose ^a	5 mg	0.70±0.55	5.60±3.87	NA	
	10 mg	1.24±0.56	9.77±3.52	NA	
	20 mg	2.54±1.35	19.28±8.32	NA	
	40 mg	4.47±1.91	36.98±13.53	NA	

NA = not applicable

^aResults after 5 days of q12h dosing.

Food Effect

Two studies examined the effect of food on the bioavailability of single doses of 20 and 40 mg of oxymorphone hydrochloride extended-release in healthy volunteers. In both studies, after the administration of oxymorphone hydrochloride extended-release, the C_{max} was increased by approximately 50% in fed subjects compared to fasted subjects. A similar increase in C_{max} was also observed with oxymorphone solution.

The AUC was unchanged in one study and increased by approximately 18% in the other study in fed subjects following the administration of oxymorphone hydrochloride extended-release. Examination of the AUC suggests that most of the difference between fed and fasting conditions occurs in the first four hours after dose administration. After oral dosing with a single dose of 40 mg, a peak oxymorphone plasma level of 2.8 ng/mL in fasted subjects and a peak of 4.25 ng/mL is achieved at 2 hours in fed subjects and that beyond the 12 hour time point, there is very little difference in the curves. As a result, oxymorphone hydrochloride extended-release should be dosed at least one hour prior to or two hours after eating [see Dosage and Administration (2.1, 2.2)].

Distribution

Formal studies on the distribution of oxymorphone in various tissues have not been conducted. Oxymorphone is not extensively bound to human plasma proteins; binding is in the range of 10% to 12%.

Metabolism

Oxymorphone is highly metabolized, principally in the liver, and undergoes reduction or conjugation with glucuronic acid to form both active and inactive metabolites. The two major metabolites of oxymorphone are oxymorphone-3-glucuronide and 6-OH-oxymorphone. The mean plasma AUC for oxymorphone-3-glucuronide is approximately 90-fold higher than the parent compound. The pharmacologic activity of the glucuronide metabolite has not been evaluated. 6-OH-oxymorphone has been shown in animal studies to have analgesic bioactivity. The mean plasma 6-OH-oxymorphone AUC is approximately 70% of the oxymorphone AUC following single oral doses, but is essentially equivalent to the parent compound at steady-state.

Excretion

Because oxymorphone is extensively metabolized, <1% of the administered dose is excreted unchanged in the urine. On average, 33% to 38% of the administered dose is excreted in the urine as oxymorphone-3-glucuronide and less than 1% excreted as 6-OH-oxymorphone in subjects with normal hepatic and renal function. In animals given radiolabeled oxymorphone, approximately 90% of the administered radioactivity was recovered within 5 days of dosing. The majority of oxymorphone-derived radioactivity was found in the urine and feces.

Specific Populations

Geriatric Patients

The steady-state plasma concentrations of oxymorphone, 6-OH-oxymorphone, and oxymorphone-3-glucuronide are approximately 40% higher in elderly subjects (≥ 65 years of age) than in young subjects (18 to 40 years of age). On average, age greater than 65 years was associated with a 1.4-fold increase in oxymorphone AUC and a 1.5-fold increase in C_{max} . This observation does not appear related to a difference in body weight, metabolism, or excretion of oxymorphone [see Use in Specific Populations (8.3)].

Gender

The effect of gender was evaluated following single- and multiple-doses of oxymorphone hydrochloride extended-release in male and female adult volunteers. There was a consistent tendency for female subjects to have slightly higher AUCs and C_{max} values than male subjects; however, gender differences were not observed when AUCs and C_{max} were adjusted by body weight.

Hepatic Impairment

The bioavailability of orally administered oxymorphone is markedly increased in patients with moderate to severe liver disease. The disposition of oxymorphone was compared in six patients with mild, five patients with moderate, and one patient with severe hepatic impairment and 12 healthy subjects with normal hepatic function. The bioavailability of oxymorphone was increased by 1.6-fold in patients with mild hepatic impairment and by 3.7-fold in patients with moderate hepatic impairment. In one patient with severe hepatic impairment, the bioavailability was increased by 12.2-fold. The half-life of oxymorphone was not significantly affected by hepatic impairment.

Renal Impairment

Data from a pharmacokinetic study involving 24 patients with renal dysfunction show an increase of 26%, 57%, and 65% in oxymorphone bioavailability in mild (creatinine clearance 51-80 mL/min; n=8), moderate (creatinine clearance 30-50 mL/min; n=8), and severe (creatinine clearance <30 mL/min; n=8) patients, respectively, compared to healthy controls.

Drug Interactions/Medical Interaction

An *in vivo* study of the effect of alcohol (40%, 20%, 4% and 0%) on the bioavailability of a single dose of 40 mg of oxymorphone hydrochloride extended-release in healthy, fasted volunteers demonstrated a highly variable effect on C_{max} with concomitant administration of alcohol and oxymorphone hydrochloride extended-release. The change in C_{max} ranged from a decrease of 50% to an increase of 270% across all conditions studied. Following administration of 240 mL of 40% ethanol, the C_{max} increased on average by 70% and up to 270% in individual subjects. Following the administration of 240 mL of 20% ethanol, the C_{max} increased on average by 31% and up to 250% in individual subjects. Following the concomitant administration of 240 mL of 4% ethanol, the C_{max} increased 7% on average and by as much as 110% for individual subjects. After oral dosing with a single dose of 40 mg in fasted subjects, the mean peak oxymorphone plasma level was 2.4 ng/mL and the median T_{max} was 1.5 hours. Following co-administration of oxymorphone hydrochloride extended-release and alcohol (240 mL of 40% ethanol) in fasted subjects, the mean peak oxymorphone level was 3.9 ng/mL and the median T_{max} was 1.5 hours (range 0.75 - 6 hours). The oxymorphone mean AUC was 13% higher after co-administration of 240 mL of 40% alcohol. The AUC was essentially unaffected in subjects following the co-administration of oxymorphone hydrochloride extended-release and ethanol (240 mL of 20% or 4% ethanol).

In vitro studies have demonstrated that oxymorphone hydrochloride extended-release does not release oxymorphone more rapidly in 500 mL of 0.1N HCl solutions containing ethanol (4%, 20%, and 40%).

Instruct patients to avoid use of alcohol when taking oxymorphone hydrochloride extended-release.

In vitro studies revealed little to no biotransformation of oxymorphone to 6-OH-oxymorphone by any of the major cytochrome P450 (CYP P450) isoforms at therapeutically relevant oxymorphone plasma concentrations.

No inhibition of any of the major CYP P450 isoforms was observed when oxymorphone was incubated with human liver microsomes at concentrations of ≤ 15 µg/mL. An inhibition of CYP3A4 activity occurred at oxymorphone concentrations ≥ 45.3 µg/mL. Therefore, it is not expected that oxymorphone, or its metabolites will act as inhibitors of any of the major CYP P450 enzymes *in vivo*. Increases in the activity of the CYP 2C9 and CYP 3A4 isoforms occurred when oxymorphone was incubated with human liver microsomes. A >50 -fold increase in the activity of CYP 2C9 was observed when oxymorphone hydrochloride was not assayed in *in vivo* following administration of up to 500 mg oxymorphone activity, indicating that no dose adjustment for CYP 3A4- or 2C9-mediated drug-drug interactions is required.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenesis

Long-term studies have been completed to evaluate the carcinogenic potential of oxymorphone in both Sprague-Dawley rats and CD-1 mice. Oxymorphone HCl was administered to Sprague-Dawley rats (2.5, 5, and 10 mg/kg/day in males and 5, 10, and 25 mg/kg/day in females) for 2 years by oral gavage. The lowest dose evaluated (AUC: ng·hr/mL) at the 10 mg/kg/day in male rats was 0.24-fold and at the 25 mg/kg/day dose in female rats was 1.5-fold

Medication Guide

Oxymorphone Hydrochloride
(ox-ee-MOR-fone HYE-droe-KLOR-ide)
Extended-Release Tablets, for oral use



Oxymorphone hydrochloride extended-release tablets are:

- A strong prescription pain medicine that contains an opioid (narcotic) that is used to manage pain severe enough to require daily around-the-clock, long-term treatment with an opioid, when other pain treatments such as non-opioid pain medicines or immediate-release opioid medicines do not treat your pain well enough or you cannot tolerate them.
- A long-acting (extended-release) opioid pain medicine that can put you at risk for overdose and death. Even if you take your dose correctly as prescribed you are at risk for opioid addiction, abuse, and misuse that can lead to death.
- Not for use to treat pain that is not around-the-clock.

Important information about oxymorphone hydrochloride extended-release tablets:

- **Get emergency help right away if you take too much oxymorphone hydrochloride extended-release tablets (overdose).** When you first start taking oxymorphone hydrochloride extended-release tablets, when your dose is changed, or if you take too much (overdose), serious or life-threatening breathing problems that can lead to death may occur.
- Never give anyone your oxymorphone hydrochloride extended-release tablets. They could die from taking it. Store oxymorphone hydrochloride extended-release tablets away from children and in a safe place to prevent stealing or abuse. Selling or giving away oxymorphone hydrochloride extended-release tablets is against the law.

Do not take oxymorphone hydrochloride extended-release tablets if you have:

- severe asthma, trouble breathing, or other lung problems.
- a bowel blockage or have narrowing of the stomach or intestines.

Before taking oxymorphone hydrochloride extended-release tablets, tell your healthcare provider if you have a history of:

- head injury, seizures
- liver, kidney, thyroid problems
- problems urinating
- pancreas or gallbladder problems
- abuse of street or prescription drugs, alcohol addiction, or mental health problems.

Tell your healthcare provider if you are:

- **pregnant or planning to become pregnant.** Prolonged use of oxymorphone hydrochloride extended-release tablets during pregnancy can cause withdrawal symptoms in your newborn baby that could be life-threatening if not recognized and treated.
- **breastfeeding.** Oxymorphone hydrochloride extended-release passes into breast milk and may harm your baby.
- taking prescription or over-the-counter medicines, vitamins, or herbal supplements. Taking oxymorphone hydrochloride extended-release tablets with certain other medicines can cause serious side effects.

When taking oxymorphone hydrochloride extended-release tablets:

- Do not change your dose. Take oxymorphone hydrochloride extended-release tablets exactly as prescribed by your health-care provider.
- Take your prescribed dose every 12 hours at the same time every day on an empty stomach, at least 1 hour before or 2 hours after meals. Do not take more than your prescribed dose in 24 hours. If you miss a dose, take your next dose at your usual time.
- Swallow oxymorphone hydrochloride extended-release tablets whole. Do not cut, break, chew, crush, dissolve, snort, or inject oxymorphone hydrochloride extended-release tablets because this may cause you to overdose and die.
- **Call your healthcare provider if the dose you are taking does not control your pain.**
- **Do not stop taking oxymorphone hydrochloride extended-release tablets without talking to your healthcare provider.**
- After you stop taking oxymorphone hydrochloride extended-release tablets, flush any unused tablets down the toilet.

While taking oxymorphone hydrochloride extended-release tablets DO NOT:

- Drive or operate heavy machinery, until you know how oxymorphone hydrochloride extended-release tablets affect you. Oxymorphone hydrochloride extended-release tablets can make you sleepy, dizzy, or lightheaded.
- Drink alcohol or use prescription or over-the-counter medicines that contain alcohol. Using products containing alcohol during treatment with oxymorphone hydrochloride extended-release tablets may cause you to overdose and die.

The possible side effects of oxymorphone hydrochloride extended-release tablets:

- constipation, nausea, sleepiness, vomiting, tiredness, headache, dizziness, abdominal pain.

Call your healthcare provider if you have any of these symptoms and they are severe.

Get emergency medical help if you have:

- trouble breathing, shortness of breath, fast heartbeat, chest pain, swelling of your face, tongue or throat, extreme drowsiness, light-headedness when changing positions, or you are feeling faint.

These are not all the possible side effects of oxymorphone hydrochloride extended-release tablets. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088. **For more information go to dailymed.nlm.nih.gov.** For more information about oxymorphone hydrochloride extended-release tablets, call Actavis at 1-800-432-8534.

This Medication Guide has been approved by the U.S. Food and Drug Administration.

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/s/

ROBERT L WEST

04/16/2014

Deputy Director, Office of Generic Drugs, for
Kathleen Uhl, M.D.