NDA 21-217 EXALGO™ (HYDROMORPHONE HYDROCHLORIDE) EXTENDED RELEASE TABLETS CII

Opioid Agonist

Mallinckrodt Inc., a Covidien Company 675 McDonnell Boulevard Hazelwood, MO 63042

RISK EVALUATION AND MITIGATION STRATEGY (REMS)

I. GOAL(S):

- 1. To inform patients and healthcare professionals about the potential for abuse, misuse, overdose, and addiction of EXALGO.
- 2. To inform patients and healthcare professionals about the safe use of EXALGO.

II. REMS ELEMENTS:

A. Medication Guide

A Medication Guide will be dispensed with each EXALGO prescription in accordance with 21 CFR§208.24. The following additional measures will be instituted:

- 1. Medication Guides will be included in the primary and secondary packaging of the commercial product.
- 2. One (1) Medication Guide will be affixed (spot glued) to each bottle of EXALGO
- 3. Additional Medication Guides (48) will be provided with each carton containing 12 bottles of EXALGO; partial cases will include four additional Medication Guides per bottle.
- 4. The Medication Guide also will be available through the EXALGO REMS web site (www.exalgorems.com), the product web site (www.exalgo.com), or through the toll-free Product Monitoring department number at 1-800-778-7898.
- 5. The Medication Guide also will be distributed with the EXALGO REMS Healthcare Professional Education Program Kit as part of the prescribing program.

Please see the appended Medication Guide.

B. Element to Assure Safe Use

- 1. Healthcare providers who prescribe EXALGO will receive training.
 - a. Covidien will ensure that training will be provided to healthcare providers who prescribe EXALGO. To become trained, each prescriber will be provided with the materials in the EXALGO REMS Healthcare Professional Education Program Kit.

The training includes the following:

- i. Proper patient selection
- ii. Appropriate EXALGO dosing and administration
- iii. General opioid use including information about opioid abuse and how to identify patients who are at risk for addiction
- iv. The risks of abuse, misuse, overdose, and addiction from exposure to opioids, including EXALGO
- v. The risks of EXALGO including:
 - 1) The risk of overdose caused by exposure to an essentially immediate-release form of hydromorphone due to broken, chewed, crushed, or dissolved EXALGO
 - 2) The risk of addiction from exposure to EXALGO
 - 3) The risk of overdose with use in opioid non-tolerant individuals
- vi. Information to counsel patients on the need to store opioid analgesics safely out of the reach of children and household acquaintances
- vii. The importance of providing each patient a Medication Guide with each prescription and instructing the patient to read the Medication Guide
- b. Covidien will ensure that within 60 days of approval of EXALGO, a Dear Healthcare Professional letter will be mailed to prescribers most experienced in treating chronic pain with opioid agonists; including pain specialists, and primary care physicians. This letter is designed to convey and reinforce the risks of abuse, misuse, overdose, and addiction of EXALGO as well as the need to complete the EXALGO REMS Education Program. This letter will also be available on both the product web site (www.exalgo.com) and the REMS web site (www.exalgorems.com) for 1 year.
- c. The mailing will also include the EXALGO Healthcare Professional Education Program Kit which will consist of the following:
 - i. A copy of the full Prescribing Information (PI);
 - ii. The Medication Guide;

- iii. The EXALGO Prescribing Brochure;
- iv. The EXALGO Essential Information Form.
- d. Additional printed educational materials will be made available through field-force distribution and the toll-free Product Monitoring department number at 1-800-778-7898.
- e. The educational materials will be available for download at www.exalgorems.com.
- f. Covidien will maintain a list of all prescribers that have completed the EXALGO REMS Education Program.
- g. Prescribers will be re-trained, including review of the educational material and completion of the EXALGO Essential Information Form, every two years or following substantial changes to the EXALGO REMS. Substantial changes may include, changes in the EXALGO Full Prescribing Information, EXALGO Medication Guide, or EXALGO REMS that require substantial modification of the educational materials.

The following materials are part of the REMS and are appended:

- o Dear Healthcare Professional Letter
- o EXALGO REMS Web site
- EXALGO REMS Healthcare Professional Education Program Kit
 - Full Prescribing Information
 - Medication Guide
 - EXALGO Essential Information Form
 - EXALGO Prescribing Brochure

C. Implementation System

Because EXALGO can be approved without the Elements to Assure Safe Use described under 505-1(f)(3)(B), (C), and (D) of the Food Drug & Cosmetic Act as amended an implementation system is not required.

D. Timetable for Submission of Assessments

Covidien will submit REMS Assessments to the U.S. Food and Drug Administration (FDA) every 6 months for the first year from the date of approval of the REMS, and annually thereafter. To facilitate inclusion of as much information as possible while allowing reasonable time to prepare the submission, the reporting interval covered by each assessment will conclude no earlier than 60 days before the submission date for that assessment time interval. Covidien will submit each assessment so that it will be received by the FDA on or before the due date.



[Month date, year]

Dear Healthcare Professional:

Mallinckrodt Inc., a Covidien company, is notifying you that EXALGO[™] (hydromorphone hydrochloride) Extended Release Tablets CII has been approved for the management of moderate to severe pain in opioid tolerant patients requiring continuous, around-the-clock opioid analgesia for an extended period of time. Patients considered opioid tolerant are those who are taking at least 60 mg oral morphine per day, 25 mcg transdermal fentanyl/hour, 30 mg oral oxycodone/day, 8 mg oral hydromorphone/day, 25 mg oral oxymorphone/day, or an equianalgesic dose of another opioid, for 1 week or longer. EXALGO is NOT intended for use as an as-needed analgesic.

Please see full prescribing information including BOXED WARNING. PHYSICIANS AND OTHER HEALTHCARE PROVIDERS MUST BECOME FAMILIAR WITH THE IMPORTANT WARNINGS IN THIS LABEL.

WARNING: POTENTIAL FOR ABUSE, IMPORTANCE OF PROPER PATIENT SELECTION AND LIMITATIONS OF USE

Potential for Abuse

EXALGO contains hydromorphone, an opioid agonist and a Schedule II controlled substance with an abuse liability similar to other opioid analgesics. EXALGO can be abused in a manner similar to other opioid agonists, legal or illicit. These risks should be considered when administering, prescribing, or dispensing EXALGO in situations where the healthcare professional is concerned about increased risk of misuse, abuse, or diversion. Schedule II opioid substances which include hydromorphone, morphine, oxycodone, fentanyl, oxymorphone and methadone have the highest potential for abuse and risk of fatal overdose due to respiratory depression.

Proper Patient Selection

EXALGO is an extended release formulation of hydromorphone hydrochloride indicated for the management of moderate to severe pain in opioid tolerant patients when a continuous around-the-clock opioid analgesic is needed for an extended period of time. Patients considered opioid tolerant are those who are taking at least 60 mg oral morphine per day, 25 mcg transdermal fentanyl/hour, 30 mg oral oxycodone/day, 8 mg oral hydromorphone/day, 25 mg oral oxymorphone/day or an equianalgesic dose of another opioid, for a week or longer.

EXALGO is for use in opioid tolerant patients only.

Fatal respiratory depression could occur in patients who are not opioid tolerant.

Accidental consumption of EXALGO, especially in children, can result in a fatal overdose of hydromorphone.

Limitations of Use

EXALGO is not indicated for the management of acute or postoperative pain.

EXALGO is not intended for use as an as-needed analgesic.

EXALGO tablets are to be swallowed whole and are not to be broken, chewed, dissolved, crushed or injected. Taking broken, chewed, dissolved or crushed EXALGO or its contents leads to rapid release and absorption of a potentially fatal dose of hydromorphone.



To ensure that the benefits of EXALGO outweigh the potential risks, a Risk Evaluation and Mitigation Strategy (REMS) has been implemented in response to a requirement of the U.S. Food and Drug Administration (FDA). The EXALGO REMS requires:

- Healthcare Professional (HCP) training on responsible EXALGO prescribing and use
- Distribution of REMS educational materials to HCPs
- Distribution of the Exalgo Medication Guide to patients and/or caregivers every time EXALGO is dispensed

The goals of this REMS are to:

- Inform patients and healthcare professionals about the potential for abuse, misuse, overdose, and addiction of EXALGO
- Inform patients and healthcare professionals about the safe use of EXALGO.

EXALGO should only be prescribed in accordance with the EXALGO REMS including HCP training on responsible EXALGO prescribing and use. HCPs should review the educational material in print or online at <u>www.exalgorems.com</u>. The printed materials are available as part of the EXALGO REMS Healthcare Professional Education Program Kit. Prior to prescribing, the training materials should be reviewed along with the Prescribing Information and Medication Guide. The Essential Information Form found in the kit should be completed and faxed to Covidien at 1-888-423-3511. A confirmation of receipt will be faxed or emailed.

Please see the enclosed Full Prescribing Information, including the boxed warning, Medication Guide, and EXALGO Prescribing Brochure for important safety information for EXALGO.

EXALGO contains hydromorphone, an opioid agonist and a Schedule II controlled substance with an abuse liability similar to other opioid analgesics. EXALGO can be abused in a manner similar to other opioid agonists, legal or illicit. These risks should be considered when administering, prescribing, or dispensing EXALGO in situations where the healthcare professional is concerned about increased risk of misuse, abuse, or diversion.

EXALGO is for use in opioid tolerant patients only. Administration of EXALGO to patients who are not opioid tolerant could result in fatal respiratory depression.

EXALGO is not indicated for the management of acute or postoperative pain and is not intended for use as an as-needed analgesic.

EXALGO tablets are to be swallowed whole and are not to be broken, chewed, dissolved, crushed or injected. Taking broken, chewed, dissolved, or crushed EXALGO or its contents can lead to rapid release and absorption of a potentially fatal dose of hydromorphone.

EXALGO contains hydromorphone, an opioid agonist and a schedule II controlled substance. Opioid agonists have the potential for being abused and are sought by drug abusers and people with addiction disorders, and are subject to criminal diversion. Proper assessment of the patient, proper prescribing practices including careful titration for patients who are new to EXALGO, periodic re-evaluation of



therapy, and proper dispensing and storage are appropriate measures that help to reduce abuse and misuse of opioid drugs.

Abuse of EXALGO by breaking, crushing, chewing, or dissolving the contents of the tablet can result in the uncontrolled delivery of the opioid and pose a significant risk of overdose and death.

Selection of patients for treatment with EXALGO is governed by the same principles that apply to the use of similar opioid analgesics. Physicians should individualize treatment in every case, using non-opioid analgesics, opioids on an as-needed basis and/or combination products, and chronic opioid therapy in a progressive plan of pain management such as the guidelines outlined by the World Health Organization or the Federation of State Medical Boards Model Guidelines.

The dose range studied in clinical trials of EXALGO is 8 mg to 64 mg, once-daily. The tablets are to be administered every 24 hours with or without food. Discontinue all other extended release opioids when beginning EXALGO therapy.

Use caution to avoid medication errors when prescribing or dispensing EXALGO 8 mg tablets, as 8 mg tablets are also available as immediate-release hydromorphone tablets.

It is critical to initiate the dosing regimen individually for each patient. Overestimating the EXALGO dose when converting patients from another opioid medication can result in fatal overdose with the first dose.

In the selection of the initial dose of EXALGO, give attention to the following:

- Daily dose, potency, and specific characteristics of the opioid the patient has been taking previously
- Reliability of the relative potency estimate used to calculate the equivalent hydromorphone dose needed
- Patient's degree of opioid tolerance
- Age, general condition, and medical status of the patient
- Concurrent non-opioid analgesics and other medications, such as those with central nervous system (CNS) activity
- Type and severity of the patient's pain
- Balance between pain control and adverse effects
- Risk factors for abuse and addiction, including a prior history of abuse and addiction

In general, EXALGO should not be abruptly discontinued. When the patient no longer requires therapy with EXALGO, taper doses gradually, down to a dose of 8 mg before discontinuation of therapy, to prevent signs and symptoms of withdrawal in the physically dependent patient.

In clinical trials, the most commonly reported ($\geq 10\%$) adverse events associated with EXALGO were constipation, nausea, vomiting, somnolence, headache, fatigue, and dizziness. These adverse events should be expected and managed accordingly. For more information, please see accompanying Full Prescribing Information, including boxed warning.



It is important that you discuss the risks of EXALGO with your patients and their caregivers. Provide your patients with a Medication Guide and encourage them to read the Medication Guide (see enclosed copy). The Medication Guide provides important information on the safe and effective use of EXALGO and will be provided to patients with each prescription. Patients should be counseled on the need to store EXALGO safely out of the reach of children and household acquaintances.

Additional copies of the Medication Guide are available by download from <u>www.exalgorems.com</u>, by contacting our EXALGO Call Center at 1-888-9EXALGO (1-888-939-2546) or by asking your Covidien representative.

Please report all suspected adverse events associated with the use of EXALGO to Covidien Product Monitoring at 1-888-778-7898.

Adverse event information may also be reported to the FDA MedWatch Reporting System by phone at 1-800-FDA-1088 (1-800-332-1088) or by mail using Form 3500 at www.fda.gov/medwatch.

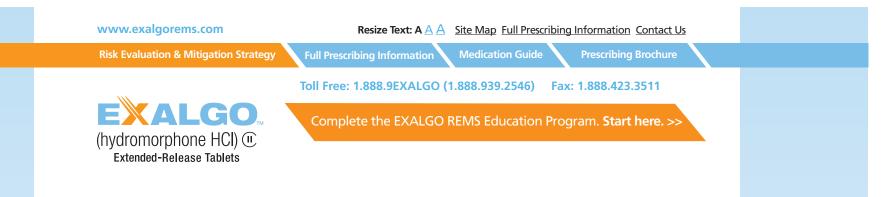
Please take the time to review the enclosed Full Prescribing Information, Medication Guide and EXALGO Prescribing Brochure. If you have any questions or concerns, you may contact our Product Monitoring department at 1-888-778-7898 or visit<u>www.exalgorems.com</u>

Sincerely,

Herbert Neuman, MD Chief Medical Officer Vice President, Medical Affairs Covidien Pharmaceuticals

Enclosures:

- Full Prescribing Information
- Medication Guide
- EXALGO Prescribing Brochure



Risk Evaluation and Mitigation Strategy

In order to ensure that the benefits of EXALGO outweigh the potential risks, a Risk Evaluation and Mitigation Strategy (REMS) has been implemented in response to a requirement of the U.S. Food and Drug Administration (FDA).

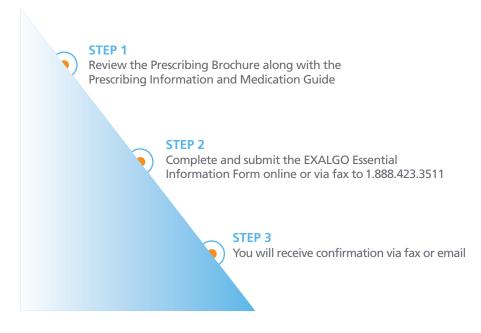
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- 1. Inform patients and healthcare professionals about the potential for abuse, misuse, overdose, and addiction of EXALGO
- 2. Inform patients and healthcare professionals about the safe use of EXALGO

Education Program: Training and REMS Information

The EXALGO REMS requires that EXALGO should only be prescribed in accordance with the EXALGO REMS, including healthcare professional training on responsible prescribing and use.

The EXALGO REMS education can be completed in 3 easy steps.



You may download the EXALGO REMS information:

Dear Healthcare Professional Letter >> EXALGO Full Prescribing Information >> EXALGO Medication Guide >> EXALGO Prescribing Brochure >> EXALGO Essential Information Form >>

For additional information, please call Covidien at 1.888.9EXALGO (1.888.939.2546)

Please see full prescribing information including BOXED WARNING. PHYSICIANS AND OTHER HEALTHCARE PROVIDERS MUST BECOME FAMILIAR WITH THE IMPORTANT WARNINGS IN THIS LABEL.

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morphine, oxycodone, fentanyl, oxymorphone and methadone have the highest potential for abuse and risk of fatal overdose due to respiratory depression.

Proper Patient Selection

EXALGO is an extended release formulation of hydromorphone hydrochloride indicated for the management of moderate to severe pain in opioid tolerant patients when a continuous around-the-clock opioid analgesic is needed for an extended period of time. Patients considered opioid tolerant are those who are taking at least 60 mg oral morphine per day, 25 mcg transdermal fentanyl/hour, 30 mg oral oxycodone/day, 8 mg oral hydromorphone/day, 25 mg oral oxymorphone/day or an equianalgesic dose of another opioid, for a week or longer.

EXALGO is for use in opioid tolerant patients only.

Fatal respiratory depression could occur in patients who are not opioid tolerant.

Accidental consumption of EXALGO, especially in children, can result in a fatal overdose of hydromorphone.

Limitations of Use

EXALGO is not indicated for the management of acute or postoperative pain.

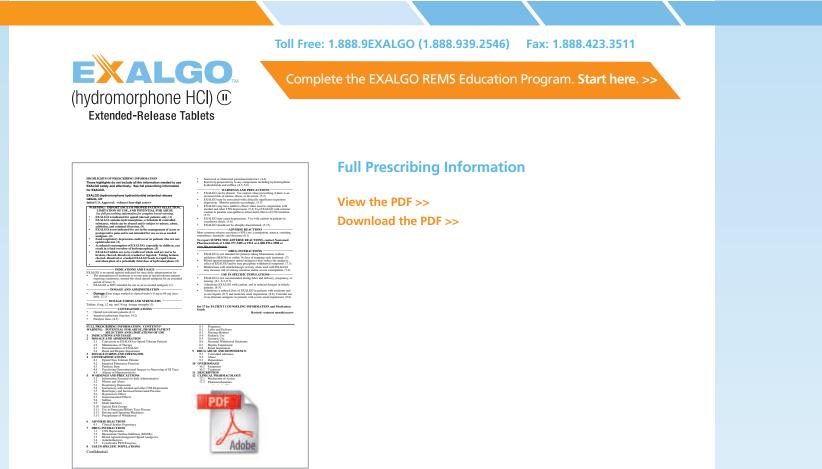
EXALGO is not intended for use as an as-needed analgesic.

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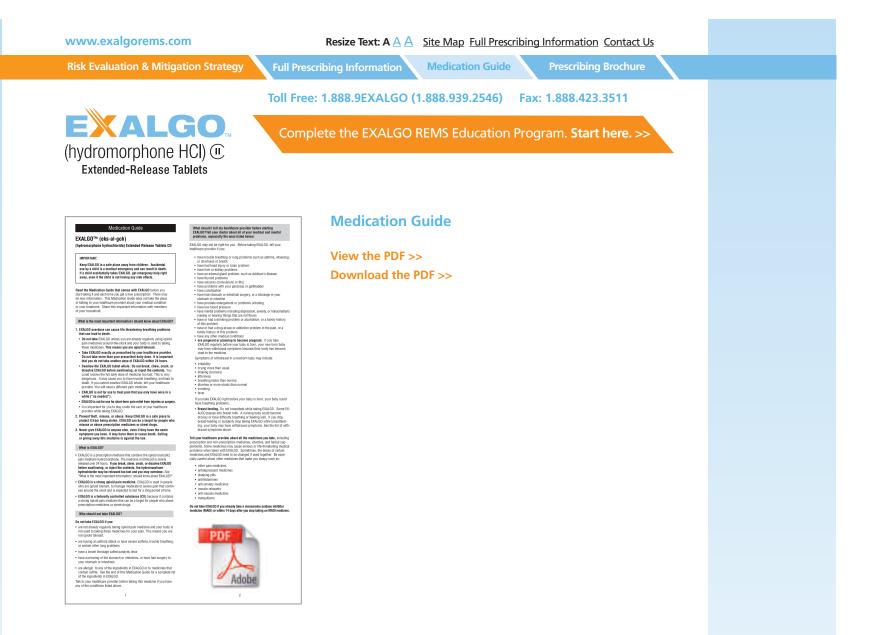
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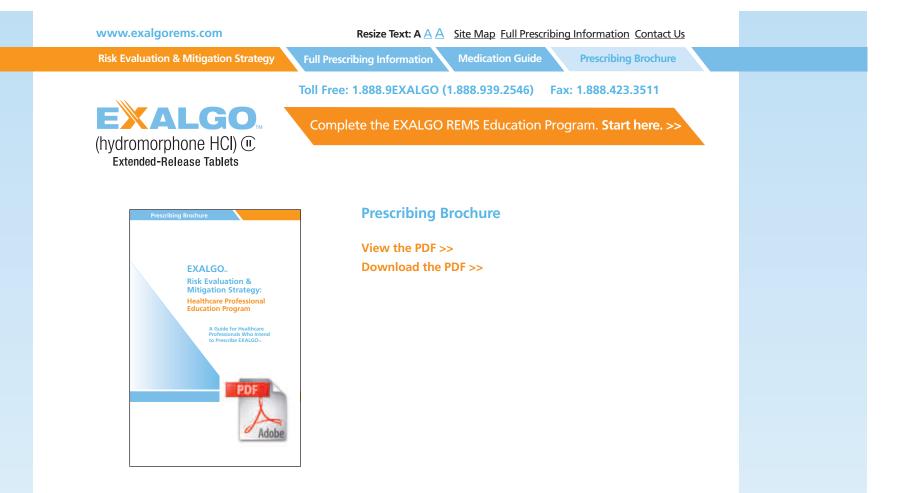
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Ways to Complete Your Training

tincluded in this kit The above steps can be completed using the resources

The education can be completed in 3 easy ste

on responsible EXALGO prescribing and use

vith the EXALGO REMS including HCP educat EXALGO should only be prescribed in accorda

that the benefits outweigh the potential risks

• EXALGO was approved with a REMS in order

Strategy (REMS) Healthcare Professional

noitspitiM bns noitsulsv3 AziA ODJAX3

(HCP) Education Program

• Or online at www.exalgorems.com

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Please see full prescribing information, including BOXED WARNING.



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STEP 3

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Essential Information Form electronically

Complete and submit the EXALGO

You will recieve confirmation

1-888-423-3211

Prescribing Information and Medication Guide

Review the Prescribing Brochure along with the

STEP 2

STEP ۱

EXALGO[™] **Risk Evaluation & Mitigation Strategy**

Healthcare Professional Education Program Kit



<u> Limitations of Use</u>

of hydromorphone.

Accidental consumption of EXALGO, especially in children, can result in a fatal overdose Fatal respiratory depression could occur in patients who are not opioid tolerant. EXALGO is for use in opioid tolerant patients only.

oral oxymorphone/day or an equianalgesic dose of another opioid, for a week or longer. transdermal fentanyl/hour, 30 mg oral oxycodone/day, 8 mg oral hydromorphone/day, 25 mg opioid tolerant are those who are taking at least 60 mg oral morphine per day, 25 mcg

around-the-clock opioid analgesic is needed for an extended period of time. Patients considered the management of moderate to severe pain in opioid tolerant patients when a continuous EXALGO is an extended release formulation of hydromorphone hydrochloride indicated for Proper Patient Selection

hydromorphone, morphine, oxycodone, fentanyl, oxymorphone and methadone have the hydromorphone for abuse and risk of fatal overdose due to respiratory depression. about increased risk of misuse, abuse, or diversion. Schedule II opioid substances which include prescribing, or dispersional is concerned where the healthcare professional is concerned similar to other opioid agonists, legal or illicit. These risks should be considered when administering, with an abuse liability similar to other opioid analgesics. EXALGO can be abused in a manner EXALGO contains hydromorphone, an opioid agonist and a Schedule II controlled substance <u>Potential for Abuse</u>

> **PROPER PATIENT SELECTION AND LIMITATIONS OF USE** WARNING: POTENTIAL FOR ABUSE, IMPORTANCE OF

IMPORTANT WARNINGS IN THIS LABEL. PHYSICIANS AND OTHER HEALTHCARE PROVIDERS MUST BECOME FAMILIAR WITH THE Please see full prescribing information including BOXED WARNING.

EXALGO Essential Information Form

Please complete and submit this form electronically on www.exalgorems.com or via fax to 1.888.423.3511. For additional educational information, go to www.exalgorems.com or call 1.888.9EXALGO (1.888.939.2546). Completion of this form does not affect your ability to prescribe EXALGO.



Prescriber Information (please fill in all fields completely)

	(promo		
Pr	escriber Name, Credentials		
DE	EA Registration Number Spec	cialty	
Af	filiation		
Ac	ddress		
Ci	ty S	State	Zip
Of	ffice Phone Office	e Fax	
E-I	mail Office Manager N	lame	
Ho	ow do you want to be confidentially informed of the results of	your	Essential Information Form?
Vi	a E-mailVia	a Fax	
Da	ate the form was completed		
1.	Which are the primary risks of EXALGO? (check all that apply)	5.	What is the only safe way to take EXALGO?
	 Misuse Abuse Addiction Overdose 		 Swallowing the tablet after it has been crushed Chewing the tablet Swallowing the tablet whole or intact
2.	For which of the following conditions should EXALGO be prescribed?		Dissolving the tablet in a glass of water before swallowing
	Pain that lasts only for a short time (acute)		Injecting the dissolved contents
	For moderate-to-severe chronic pain in opioid tolerant patients	6.	Which of the following statements are true about the safe storage of EXALGO? (check all that apply)
	 Pain after injury or surgery Mild pain 		EXALGO should be kept out of reach of children and in a childproof container
	 Sudden or occasional pain that requires treatment on an as-needed basis 		EXALGO should be kept in a convenient location accessible to anyone
3.	The EXALGO Full Prescribing Information defines opioid tolerance as patients taking. (check all that apply)		 EXALGO should be kept hidden and inaccessible to household acquaintances
	 At least 60 mg oral morphine/day At least 30 mg oral oxycodone/day 		EXALGO should be protected from theft from anyone for whom it was not prescribed
	 At least 25 mg oral oxymorphone/day At least 8 mg oral hydromorphone/day At least 25 mcg transdermal fentanyl/hour 	7.	Patients should be counseled to read the EXALGO Medication Guide that they receive with every prescription as important information may have changed.
4.	Please check the appropriate steps for proper EXALGO dosing. (check all that apply)		TrueFalse
	 Sum the total daily dose of current opioid therapy then multiply by the conversion ratio to calculate the approximate total daily dose of EXALGO, using conversion ratios in the EXALGO Full Prescribing Information 	(Which of the following are risk factors for addiction? (check all that apply) Active substance use disorder History of major untreated psychopathology
	 Determine the approximate starting dose (approximately 50% of the calculated total daily EXALGO dose) Adjust the starting dose individually for each patient Individually titrate to adequate pain relief with tolerable side 		 Positive urine drug test for illicit drugs Egregious aberrant drug-taking behaviors, like selling prescription drugs
	Individually titrate to adequate pain relief with tolerable side effects no more frequently than every 3-4 days	Р	lease see full prescribing information, including BOXED WARNING.

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Prescribing Brochure

EXALGO[™]

Risk Evaluation & Mitigation Strategy:

Healthcare Professional Education Program

> A Guide for Healthcare Professionals Who Intend to Prescribe EXALGO



Please see full prescribing information including BOXED WARNING. PHYSICIANS AND OTHER HEALTHCARE PROVIDERS MUST BECOME FAMILIAR WITH THE IMPORTANT WARNINGS IN THIS LABEL.

WARNING: POTENTIAL FOR ABUSE, IMPORTANCE OF PROPER PATIENT SELECTION AND LIMITATIONS OF USE

Potential for Abuse

EXALGO contains hydromorphone, an opioid agonist and a Schedule II controlled substance with an abuse liability similar to other opioid analgesics. EXALGO can be abused in a manner similar to other opioid agonists, legal or illicit. These risks should be considered when administering, prescribing, or dispensing EXALGO in situations where the healthcare professional is concerned about increased risk of misuse, abuse, or diversion. Schedule II opioid substances which include hydromorphone, morphine, oxycodone, fentanyl, oxymorphone and methadone have the highest potential for abuse and risk of fatal overdose due to respiratory depression.

Proper Patient Selection

EXALGO is an extended release formulation of hydromorphone hydrochloride indicated for the management of moderate to severe pain in opioid tolerant patients when a continuous around-the-clock opioid analgesic is needed for an extended period of time. Patients considered opioid tolerant are those who are taking at least 60 mg oral morphine per day, 25 mcg transdermal fentanyl/hour, 30 mg oral oxycodone/day, 8 mg oral hydromorphone/day, 25 mg oral oxymorphone/day or an equianalgesic dose of another opioid, for a week or longer.

EXALGO is for use in opioid tolerant patients only.

Fatal respiratory depression could occur in patients who are not opioid tolerant.

Accidental consumption of EXALGO, especially in children, can result in a fatal overdose of hydromorphone.

Limitations of Use

EXALGO is not indicated for the management of acute or postoperative pain.

EXALGO is not intended for use as an as-needed analgesic.

EXALGO tablets are to be swallowed whole and are not to be broken, chewed, dissolved, crushed or injected. Taking broken, chewed, dissolved or crushed EXALGO or its contents leads to rapid release and absorption of a potentially fatal dose of hydromorphone.

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Introduction

EXALGO[™] (hydromorphone HCl) Extended Release Tablets CII is an opioid agonist indicated for once daily administration for the management of moderate to severe pain in opioid tolerant patients requiring continuous, around-the-clock opioid analgesia for an extended period of time. Patients considered opioid tolerant are those who are taking at least 60 mg oral morphine per day, 25 mcg transdermal fentanyl per hour, 30 mg oral oxycodone per day, 8 mg oral hydromorphone per day, 25 mg oral oxymorphone per day, or an equianalgesic dose of another opioid, for a week or longer. EXALGO is not intended for use as an as-needed analgesic and is not indicated for the management of acute or postoperative pain.¹

In order to ensure that the benefits of EXALGO outweigh the potential risks, a Risk Evaluation and Mitigation Strategy (REMS) has been implemented in response to a requirement of the U.S. Food and Drug Administration (FDA). A REMS is a strategy to manage a known or potentially serious risk associated with a medicine.

The EXALGO REMS requires:

- Healthcare Professional (HCP) training on responsible EXALGO prescribing and use
- Distribution of REMS educational materials to HCPs
- Distribution of the EXALGO Medication Guide to patients and/or caregivers every time EXALGO is dispensed

The goals of this REMS are to:

- Inform patients and healthcare professionals about the potential for abuse, misuse, overdose, and addiction of EXALGO
- Inform patients and healthcare professionals about the safe use of EXALGO

This brochure includes information on:

- Proper patient selection
- Appropriate product dosing and administration
- General opioid use, including information about opioid abuse and how to identify those at risk for addiction

- The risk of abuse, misuse, overdose, and addiction from exposure to opioids, including EXALGO
- The risks of EXALGO including:
 - The risk of overdose caused by exposure to an essentially immediate-release form of hydromorphone due to broken, chewed, crushed, or dissolved EXALGO
 - The risk of addiction from exposure to EXALGO
 - The risk of overdose with use in opioid non-tolerant patients
- Information to counsel patients on the need to store opioid analgesics safely out of reach of children and household acquaintances
- The importance of providing each patient the EXALGO Medication Guide with each prescription and instructing the patient to read it

General Opioid Use: Risks

Misuse, Abuse and Addiction of Prescription Opioids

Patients have a right to proper, respectful, informed, and nondiscriminatory pain management and care. Concerns about abuse and addiction should not prevent the proper management of pain. However, all patients treated with opioids, including EXALGO, 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.¹

Addiction is characterized by behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving. Proper assessment of the patient, proper prescribing practices, periodic re-evaluation and proper use and handling are appropriate measures that help to minimize abuse and addiction of opioid drugs.²

Overdose of Prescription Opioids

Respiratory depression is the chief hazard of opioids, including EXALGO. Fatal respiratory depression could occur in individuals who are not opioid tolerant or in patients who use too much EXALGO. Proper patient selection, good prescribing practices as well as proper use and handling can significantly reduce the risk of overdose of opioid drugs.¹

This brochure contains the most important information you should know to responsibly prescribe EXALGO.



General Opioid Use: Risk Factors

Risk Factors for Abuse

- Personal or family history of substance abuse³
- History of preadolescent sexual abuse³
- Mental disease³
- Social patterns of drug use⁴
- Psychological stress⁴

Risk Factors for Addiction

- Active substance use disorder⁵
- Major, untreated psychopathology⁵
- Positive urine drug test for illicit drugs⁶
- Behaviors suggestive of addiction may include²:
 - taking multiple doses together
 - frequent reports of lost or stolen prescriptions
 - doctor shopping
 - isolation from family and friends

Risk Factors for Overdose¹

- Opioid non-tolerant individuals
- Children and elderly
- Impaired respiratory function
- Debilitated health
- Concomitant sedating agents that depress respiration
- Not taking as directed (e.g., misuse)
- Abuse, especially
 - if broken, chewed, dissolved, crushed, or injected
 - with concurrent abuse of alcohol or other sedating substances (e.g., benzodiazepines)

EXALGO Risks

Treatment with EXALGO carries certain risks of which prescribers should be aware.

Misuse, Abuse, and Addiction

EXALGO contains hydromorphone, an opioid agonist and a Schedule II controlled substance with an abuse liability similar to other opioid analgesics, legal or illicit. Misuse or abuse by breaking, crushing, chewing, dissolving, or injecting EXALGO or its contents poses a hazard of overdose and death. This risk is increased by concurrent abuse of EXALGO with alcohol and other sedating substances.¹

Overdose

Fatal respiratory depression could occur in individuals who are not opioid tolerant. Taking broken, crushed, chewed or dissolved EXALGO or its contents leads to rapid release and absorption of a potentially fatal dose of hydromorphone. Accidental consumption of EXALGO, especially in children, can result in a fatal overdose of hydromorphone. Overestimating the EXALGO dose when converting patients from another opioid medication can result in fatal overdose with the first dose. Titrating more frequently than every 3-4 days can lead to an overdose once steady-state concentrations are achieved.¹

Information Essential for Safe Administration

 EXALGO tablets are to be swallowed whole, and are not to be broken, chewed, crushed, dissolved or injected. Taking broken, chewed, crushed, or dissolved EXALGO or its contents leads to the rapid release and absorption of a potentially fatal dose of hydromorphone.



- EXALGO is for use only in opioid tolerant patients. Ingestion of EXALGO may cause fatal respiratory depression when administered to patients who are not opioid tolerant.
- EXALGO tablets must be kept in a secure place out of the reach of children. Accidental consumption of EXALGO, especially in children, can result in a fatal overdose of hydromorphone.



Proper Patient Selection

Proper patient selection is integral to responsible prescribing and use. Selection of patients for treatment with EXALGO is governed by the same principles that apply to the use of similar opioid analgesics. Physicians should individualize treatment in every case, using non-opioid analgesics, opioids on an as-needed basis and/or combination products, and chronic opioid therapy in a progressive plan of pain management such as the guidelines outlined by the World Health Organization⁷ or the Federation of State Medical Boards Model Guidelines.⁸

Before initiating treatment, clinicians should conduct and document in the medical record an effective patient evaluation, including an assessment of risk of substance misuse, abuse, or addiction.

Components of effective patient evaluation⁹

- Conduct a comprehensive physical examination including appropriate diagnostic testing
- Conduct a complete patient history, including comprehensive pain history, nature and intensity of pain, the effect of pain on physical and psychological function, as well as current and past treatments for pain
- Assess pain using validated pain assessment tools such as the Numeric Rating Scale (NRS) or the Brief Pain Inventory (BPI)
- Assess risk of abuse and addiction using patient history of substance abuse and validated risk assessment tools
- Evaluate the patient's environmental risk factors for opioid misuse, abuse, overdose, and addiction, including:
 - Presence of young children
 - Presence of adolescents or young adults
 - Presence of individuals with a history of substance misuse, abuse, or addiction, psychiatric issues, or drug-seeking behavior
 - Improper medication handling, storage, or disposal

Weigh the risks and benefits before initiating treatment with EXALGO and on an ongoing basis.¹

Selection of patients for treatment with EXALGO is governed by the same principles that apply to the use of similar opioid analgesics¹

- Screen and stratify patients according to risk factors for abuse and addiction
- Monitor for signs of abuse and addiction

RISK ASSESSMENT FOR ABUSE AND ADDICTION			
Lower Risk	Moderate Risk	Higher Risk	
 No past or current history of substance use disorder⁵ No family history of past or current sub- stance use disorders⁵ No major psychopathology⁵ 	 May be a past history of a treated sub- stance use disorder⁵ May be significant family history of problematic drug use⁵ May have a past or concurrent psychiatric disorder⁵ Not actively addicted⁵ 	 Active substance use disorder⁵ Major, untreated psychopathology⁵ Actively addicted⁵ Positive urine drug test for illicit drugs⁶ 	

For patients with a history of drug abuse, psychiatric issues, or serious aberrant drug-related behaviors, consider¹⁰:

- Frequent and stringent monitoring
- · Consulting with a mental health or addiction specialist
- Evaluating for appropriateness of treatment
- Restructuring therapy
- Referral for assistance in management
- Discontinuing treatment

Proper Patient Selection

- Appropriate patients for once-daily EXALGO must:
 - be opioid tolerant. Patients considered opioid tolerant are those who are taking at least 60 mg oral morphine per day, 25 mcg transdermal fentanyl per hour, 30 mg oral oxycodone per day, 8 mg oral hydromorphone per day, 25 mg oral oxymorphone per day, or an equianalgesic dose of another opioid, for a week or longer
 - have moderate to severe pain
 - require continuous, around-the-clock opioid analgesia for an extended period of time
- EXALGO is not intended for use as an as-needed analgesic
- EXALGO is not indicated for the management of acute or postoperative pain



Dosing and Administration¹

- EXALGO will be available in the following tablet strengths: 8 mg, 12 mg, and 16 mg
- The approved dosage range is 8 mg to 64 mg
- It is important to consider the following for proper administration:
 - EXALGO should be taken once every 24 hours
 - EXALGO must be swallowed whole and should not be broken, crushed, chewed, dissolved, or injected
 - Discontinue all other around-the-clock opioids before starting EXALGO
 - Avoid concurrent use of alcohol and sedating medicines
 - Avoid medication errors when prescribing or dispensing 8 mg tablets, as 8 mg tablets are also available as immediate-release hydromorphone tablets
 - Follow all proper dosing and administration procedures (see below)

STEP 1 Calculate the equivalent dose*

- 1. Sum the total daily current opioid therapy
- 2. Multiply by the conversion ratio to calculate the approximate total daily dose of EXALGO
- 3. Use 5:1 oral morphine:oral hydromorphone conversion ratio
 - 12 mg for every 60 mg total daily oral morphine equivalent
 - 12 mg for every 30 mg of total daily oral oxycodone
 - 12 mg for every 25 mcg/hr of transdermal fentanyl

STEP 2

Determine approximate starting dose*

- 1. 50% of calculated total daily EXALGO dose
- 2. Adjust individually for each patient
- 3. Administer once daily

STEP 3 Individually titrate*

- 1. Titrate to adequate pain relief with tolerable side effects
- 2. Assess pain relief and adverse reactions frequently
- 3. Titrate no more frequently than every 3 to 4 days
- 4. Consider increases of 25%-50%
- 5. Continue to administer once daily

* Give attention to the following:

- Daily dose, potency, and specific characteristics of the previous opioid
- Reliability of the relative potency estimate
- Degree of opioid tolerance
- Age, general condition, and medical status
- Concurrent medications
- Type and severity of the patient's pain
- Salance between pain control and adverse effects
- Risk factors for abuse, addiction, or diversion



Hydromorphone Conversion Table¹

Previous Opioid	Approximate Equivalent Oral Dose	Oral Conversion Ratioª
Hydromorphone	12 mg	1
Codeine	200 mg	0.06
Hydrocodone	30 mg	0.4
Methadone ^b	20 mg	0.6
Morphine	60 mg	0.2
Oxycodone	30 mg	0.4
Oxymorphone	20 mg	0.6

Select opioid, sum the total daily dose, and then multiply the dose by the conversion ratio to calculate the approximate oral hydromorphone equivalent.

- a. Ratio for conversion of oral opioid dose to approximate hydromorphone equivalent dose.
- b. It is extremely important to monitor all patients closely 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 tends to accumulate in the plasma.

Sample Conversion and Starting Dose

From oxycodone 30 mg q12h to EXALGO

Step 1: Calculate the equivalent dose

• 30 mg oxycodone q12h = 60 mg/day x 0.4 = 24 mg EXALGO

Step 2: Calculate approximate starting dose (50% of calculated total daily EXALGO dose)

- 24 mg/ 2 = 12 mg EXALGO once-daily
- Adjust individually for each patient

		Previous Opioid	Approximate Equivalent Oral Dose	Oral Conversion Ratio ^a
		Hydromorphone	12 mg	1
Oxycodone	30 mg	0.4	Ja	0.06
		Hydrocodone	30 mg	0.4
		Methadone ^b	20 mg	0.6
		Morphine	60 mg	0.2
		Oxycodone	30 mg	0.4
		Oxymorphone	20 mg	0.6

1. Periodic Review of Chronic Therapy with EXALGO

During chronic therapy with EXALGO, assess the continued need for around-the-clock opioid therapy periodically. Continue to assess patients for their clinical risks for opioid abuse, addiction, or diversion particularly with high-dose formulations.

2. Periodic review should include documentation of:

- Pain intensity and level of functioning using validated assessment tools
- Progress toward achieving therapeutic goals
- ☑ Presence of adverse events
- ☑ Adherence to prescribed therapies and medication agreement, including periodic urine drug testing (UDT), tablet counts, or other information to confirm adherence to the treatment plan and agreement
- 🗹 Evidence of aberrant drug-related behaviors, addiction, or diversion
- Changes in psychiatric or medical co-morbidities
- ☑ Changes in environmental risk factors

3. Discontinuing EXALGO Therapy

When the patient no longer requires therapy with EXALGO, taper doses gradually, by 25%–50% every 2 to 3 days down to a dose of 8 mg before discontinuation of therapy, to prevent signs and symptoms of withdrawal in the physically dependent patient.

Patient Counseling¹

Before initiating treatment with EXALGO, counsel patients and caregivers on EXALGO risks and safe use, including:

- EXALGO risks, including
 - The risk for overdose in opioid non-tolerant individuals
 - The importance of swallowing the EXALGO tablet whole
 - The importance of taking once-daily EXALGO exactly as prescribed
- The need to read the EXALGO Medication Guide each time EXALGO is dispensed
- The need to store opioid analgesics, including EXALGO, safely out of reach of children and household acquaintances

See the EXALGO Full Prescribing Information for a complete list of patient counseling messages.

The FDA requires that a Medication Guide be dispensed each time EXALGO is dispensed. Instruct patients to read the Medication Guide each time EXALGO is dispensed because new information may be available.



Glossary of Terms^{1,2}

Aberrant drug-related behavior: A behavior outside the boundaries of the agreed upon treatment plan that is established as early as possible in the doctor-patient relationship.

Abuse: Any use of an illegal drug, or the intentional self-administration of a medication for a nonmedical purpose such as altering one's state of consciousness, for example, getting high.

Addiction: A primary, chronic, neurobiologic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving.

Diversion: The intentional transfer of a controlled substance from legitimate distribution and dispensing channels.

Doctor Shopping: Visiting multiple doctors to obtain additional prescriptions.

Drug Seeking Behavior: 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 physician(s).

Misuse: Use of a medication (for a medical purpose) other than as directed or as indicated, whether willful or unintentional, and whether harm results or not.

Physical Dependence: A state of adaptation that is manifested by an opioid specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug, and/or administration of an antagonist.

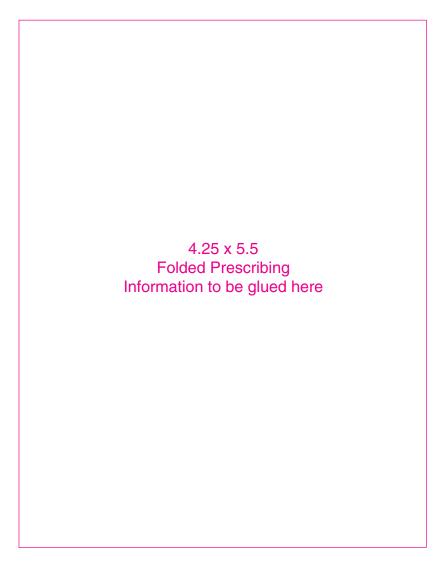
Tolerance: A state of adaptation in which exposure to a drug induces changes that result in a diminution of one or more opioid effects over time. Tolerance could occur to both the desired and undesired effects of drugs, and may develop at different rates for different effects.

References:

1. EXALGO Full Prescribing Information. EXALGO [package insert] Hazelwood, MO: Mallinckrodt Inc.; 2010. 2. American Academy of Pain Medicine, the Pain Society and the American Society of Addiction Medicine. Definitions related to the use of opioids for the treatment of pain. WMJ. 2001; 100(5):28-9 3. Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the Opioid Risk Tool. Pain Med 2005; 6:432-42 4. Savage SR. Assessment for addiction in pain-treatment settings. Clin J Pain 2002; 18(4 Suppl.): S28-38 5. Gourlay DL, Heit HA, Almahrezi A. Universal precautions in pain medicine: a rational approach to the treatment of chronic pain. Pain Med. 2005 Mar-Apr; 6(2): 107-12 6. Fleming MF; Balousek SL, Klessig CL, et al. Substance use disorders in a primary care sample receiving daily opioid therapy. J Pain. 2007 Jul; 8(7): 573-82 7. World Health Organization Cancer Pain Relief: Guide to Opioid Availability. http://apps.who.int/bookorders/anglais/ detart1.jsp?sesslan=1&codlan=1&codcol=15&codcch=2247<http://apps.who.int/bookorders/anglais/ detart1.jsp?sesslan=1&codlan=1&codcol=15&codcch=2247>; 1996 8. Model Policy for the Use of Controlled Substances for the Treatment of Pain. http://www.fsmb.org/pdf/2004_grpol_Controlled_ Substances.pdf<http://www.fsmb.org/pdf/2004_grpol_Controlled_Substances.pdf>; 2004. Federation of State Medical Boards. 9. Fishman, Scott M. Responsible Opioid Prescribing: A Physician's Guide. Washington DC: Waterford Life Sciences; 2007. 10. Chou R, Fanciullo GJ, Fine PG et al. Clinical guidelines for the use of chronic opioid therapy in chronic noncancer pain. J Pain. 2009 Feb; 10(2): 113-30

(hydromorphone HCI) (i) Extended-Release Tablets





Please see full prescribing information, including BOXED WARNING.

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Application Type/Number	Submission Type/Number	Submitter Name	Product Name
NDA-21217	SUPPL-1	ALZA CORP	Exalgo (hydromorphone HCI) 8/12/16

This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.

/s/

SHARON H HERTZ 03/24/2010 Signing for Larissa Lapteva, M.D.