Hydrocodone Polistirex and Chlorpheniramine Polistirex
Extended-Release Oral Suspension
Rx Only

DESCRIPTION: Each 5 mL of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension contains hydrocodone polistirex equivalent to 10 mg of hydrocodone bitartrate and chlorpheniramine polistirex equivalent to 8 mg of chlorpheniramine maleate. Hydrocodone is a centrally-acting narcotic antitussive. Chlorpheniramine is an antihistamine. Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is for oral use only.

Hydrocodone Polistirex: Sulfonated styrene-divinylbenzene copolymer complex with 4.5 α-epoxy-3-methoxy-17-methylmorphinan-6-one.


Inactive Ingredients: Purified Water, High Fructose Corn Syrup, Sucrose, Propylene Glycol, Xanthan Gum, Vegetable (Corn) Oil, Methylparaben, Polysorbate 80, Ascorbic Acid, Propylparaben, Ethyloilulose, Sorbitol, Dibutyl Sebacate, Natural Mango Flavor, D&C Yellow No. 10, FD&C Yellow No. 6, Sodium Benzoate, and Phosphoric Acid.

CLINICAL PHARMACOLOGY: Hydrocodone is a semisynthetic narcotic antitussive and analgesic with multiple actions qualitatively similar to those of codeine. The precise mechanism of action of hydrocodone and other opiates is not known; however, hydrocodone is believed to act directly on the cough center. In excessive doses, hydrocodone, like other opioid derivatives, will depress respiration. The effects of hydrocodone in therapeutic doses on the cardiovascular system are insignificant. Hydrocodone can produce miosis, euphoria, and physical and psychological dependence.

Chlorpheniramine is an antihistamine drug (H1 receptor antagonist) that also possesses anticholinergic and sedative activity. It prevents released histamine from dilating capillaries and causing edema of the respiratory mucosa.

Hydrocodone release from Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is controlled by an extended-release drug delivery system, which combines an ion-exchange polymer matrix with a diffusion rate-limiting permeable coating. Chlorpheniramine release is prolonged by use of an ion-exchange polymer system.

Following multiple dosing with Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension products, hydrocodone mean (S.D.) peak plasma concentrations of 22.8 (5.9) ng/mL occurred at 3.4 hours. Chlorpheniramine mean (S.D.) peak plasma concentrations of 58.4 (14.7) ng/mL occurred at 6.3 hours following multiple dosing. Peak plasma levels obtained with an immediate-release syrup occurred at approximately 1.5 hours for hydrocodone and 2.8 hours for chlorpheniramine. The plasma half-lives of hydrocodone and chlorpheniramine have been reported to be approximately 4 and 16 hours, respectively.

INDICATIONS AND USAGE: Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is indicated for relief of cough and upper respiratory symptoms associated with allergy or a cold in adults and children 6 years of age and older.

CONTRAINDICATIONS: Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is contraindicated in patients with a known allergy or sensitivity to hydrocodone or chlorpheniramine.

The use of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is contraindicated in children less than 6 years of age due to the risk of fatal respiratory depression.

WARNINGS:

Respiratory Depression: As with all narcotics, Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension produces dose-related respiratory depression by directly acting on brain stem respiratory centers. Hydrocodone affects the center that controls respiratory rhythm and may produce irregular and periodic breathing. Caution should be exercised when Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is used postoperatively and in patients with pulmonary disease, or whenever ventilatory function is depressed. If respiratory depression occurs, it may be antagonized by the use of naloxone hydrochloride and other supportive measures when indicated (see OVERDOSAGE).

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

Acute Abdominal Conditions: The administration of narcotics may obscure the diagnosis or clinical course of patients with acute abdominal conditions.

Obstructive Bowel Disease: Chronic use of narcotics may result in obstructive bowel disease especially in patients with underlying intestinal motility disorder.

Pediatric Use: The use of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is contraindicated in children less than 6 years of age (see CONTRAINDICATIONS).

In pediatric patients, as well as adults, the respiratory center is sensitive to the depressant action of narcotic cough suppressants in a dose-dependent manner. Caution should be exercised when administering Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension to pediatric patients 6 years of age and older. Overdose or concomitant administration of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension with other respiratory depressants may increase the risk of respiratory depression in pediatric patients. Benefit to risk ratio should be carefully considered, especially in pediatric patients with respiratory embarrassment (e.g., croup) (see PRECAUTIONS).

PRECAUTIONS:

General: Caution is advised when prescribing this drug to patients with narrow-angle glaucoma, asthma, or prostatic hypertrophy.

Special Risk Patients: As with any narcotic agent, Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension should be used with caution in elderly or debilitated patients and those with severe impairment of hepatic or renal function, hypothyroidism, Addison’s disease, prostatic hypertrophy, or urethral stricture. The usual precautions should be observed and the possibility of respiratory depression should be kept in mind.

Information for Patients: Patients should be advised that Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension may produce marked drowsiness and impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery.

Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension must not be diluted with fluids or mixed with other drugs as this may alter the resin-binding and change the absorption rate, possibly increasing the toxicity.

 Patients should be advised to measure Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension with an accurate measuring device. A household teaspoon is not an accurate measuring device and could lead to overdosage. A pharmacist can recommend an appropriate measuring device and can provide instructions for measuring the correct dose. Rinse the measuring device after each use.

Shake well before using.

Keep out of the reach of children.

Cough Reflex: Hydrocodone suppresses the cough reflex; as with all narcotics, caution should be exercised when Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is used postoperatively, and in patients with pulmonary disease.

Drug Interactions: Patients receiving narcotics, anticholinametics, antipsychotics, antianxiety agents, or other CNS depressants (including alcohol) concomitantly with Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension may exhibit an additive CNS depression. When combined therapy is contemplated, the dose of one or both agents should be reduced.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodone preparations may increase the effect of either the antidepressant or hydrocodone.

The concurrent use of other anticholinergics with hydrocodone may produce paralytic ileus.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Carcinogenicity, mutagenicity, and reproductive studies have not been conducted with Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension.

Pregnancy: Teratogenic Effects – Pregnancy Category C.

Hydrocodone has been shown to be teratogenic in hamsters when given in doses 700 times the human dose. There are no adequate and well-controlled studies in pregnant women.
Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nonteratogenic Effects: Babies born to mothers who have been taking opioids regularly prior to delivery will be physically dependent. The withdrawal signs include irritability and excessive crying, tremors, hyperactive reflexes, increased respiratory rate, increased stools, sneezing, yawning, vomiting, and fever. The intensity of the syndrome does not always correlate with the duration of maternal opioid use or dose.

Labor and Delivery: As with all narcotics, administration of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension to the mother shortly before delivery may result in some degree of respiratory depression in the newborn, especially if higher doses are used.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for serious adverse reactions in nursing infants from Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use: The use of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is contraindicated in children less than 6 years of age (see CONTRAINDICATIONS and ADVERSE REACTIONS, Respiratory, Thoracic and Mediastinal Disorders).

Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension should be used with caution in pediatric patients 6 years of age and older (see WARNINGS, Pediatric Use).

Geriatric Use: Clinical studies of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy.

This drug is known to be substantially excreted by the kidney, and the risk of toxic reactions to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function.

ADVERSE REACTIONS:

Gastrointestinal Disorders: Nausea and vomiting may occur; they are more frequent in ambulatory than in recumbent patients. Prolonged administration of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension may produce constipation.

General Disorders and Administration Site Conditions: Death.

Nervous System Disorders: Sedation, drowsiness, mental clouding, lethargy, impairment of mental and physical performance, anxiety, fear, dysphoria, euphoria, dizziness, psychic dependence, mood changes.

Respiratory, Thoracic and Mediastinal Disorders: Dryness of the pharynx, occasional tightness of the chest, and respiratory depression (see CONTRAINDICATIONS).

Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension may produce dose-related respiratory depression by acting directly on brain stem respiratory centers (see OVERDOSAGE). Use of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension in children less than 6 years of age has been associated with fatal respiratory depression. Overdose with Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension in children 6 years of age and older, in adolescents, and in adults has been associated with fatal respiratory depression.

Drug Abuse and Dependence: Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is a Schedule II narcotic. Psychic dependence, physical dependence and tolerance may develop upon repeated administration of narcotics; therefore, Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension should be prescribed and administered with caution. However, psychic dependence is unlikely to develop when Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is used for a short time for the treatment of cough. Physical dependence, the condition in which continued administration of the drug is required to prevent the appearance of a withdrawal syndrome, assumes clinically significant proportions only after several weeks of continued oral narcotic use, although some mild degree of physical dependence may develop after a few days of narcotic therapy.
PATIENT INFORMATION
Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension

Read this Patient Information before you start taking Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension and each time you get a refill. There may be new information. This information does not take the place of talking to your doctor about your medical condition or your treatment.

What is Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension?
Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is a prescription medicine used to treat cough and upper respiratory symptoms you can have with allergies or a cold. Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is for adults and children age 6 years and older.

Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension contains two medicines, hydrocodone and chlorpheniramine. Hydrocodone is a narcotic cough suppressant. Chlorpheniramine is an antihistamine.

Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension is a controlled substance (CII) because it contains hydrocodone that can be a target for people who abuse prescription medicines or street drugs. Keep your Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension in a safe place, to protect it from theft. Never give your Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension to anyone else, because it may cause death or harm them. Selling or giving away this medicine is against the law.

Who should not take Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension?
Do not take Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension if you:

- are allergic to any of the ingredients in Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension. See the end of this leaflet for a complete list of ingredients in Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension.
- are a child under 6 years old. Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension can cause a decreased rate of breathing (respiratory depression) which can lead to death.

What should I tell my doctor before taking Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension?
Before you take Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension, tell your doctor if you:

- have lung or breathing problems
- have had a head injury
- have pain in your belly (abdomen)
- have eye problems, such as glaucoma
- have prostate problems
- have problems with your urinary tract (urethral stricture)
- plan to have surgery
- abuse alcohol
- have kidney or liver problems
- have thyroid problems, such as hypothyroidism
- are pregnant or plan to become pregnant. If you take Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension regularly before your baby is born, your newborn baby may have withdrawal symptoms because their body has become used to the medicine. Symptoms of withdrawal in a newborn baby may include:
  - irritability
  - crying more than usual
  - shaking (tremors)
  - jitteriness
  - breathing faster than normal
  - diarrhea or more stools than normal
  - sneezing
  - yawning
  - vomiting
  - fever

If you take Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension regularly before your baby is born, your baby could have breathing problems.

- are breastfeeding or plan to breastfeed. You and your doctor should decide if you will take Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension or breastfeed. You should not do both.

Tell your doctor about all of the medicines you take, including prescription and nonprescription medicines, vitamins, and herbal supplements.

Using Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension with certain other medicines may affect each other. Using Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension with other medicines can cause serious side effects.

Especially tell your doctor if you:
- take pain medicines such as narcotics
- take cold or allergy medicines that contain antihistamines or cough suppressants
- take medicines for mental illness (anti-psychotics, anti-anxiety)
- drink alcohol
- take medicines for depression including monoamine oxidase inhibitors (MAOIs)
- take medicines for stomach or intestine problems

Know the medicines you take. Keep a list of them to show your doctor and pharmacist when you get a new medicine.

How should I take Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension?
Take Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension exactly as your doctor tells you.

Do not mix Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension with other fluids or medicines. Mixing may change how Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension works.

Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension can be taken with or without food.

Ask your pharmacist to give you a measuring device to help you measure the correct amount of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension. Do not use a household teaspoon to measure your medicine. You may accidentally take too much.

- Rinse the accurate measuring device with water after each use
- If you take too much Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension, call your doctor or go to the nearest hospital emergency room right away.

What should I avoid while taking Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension?
Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension may cause serious side effects, including:

- Decreased breathing (respiratory depression) which can lead to death. Call your doctor or get emergency treatment right away if you have:
  - shallow or slow breathing
  - confusion
  - excessive sleepiness

- drowsiness leading to inability to think clearly or do normal physical activities
- bowel problems, including constipation and bowel obstruction

The most common side effects of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension are:

- nausea and vomiting
- constipation
- nervous system problems (anxiety, fear, dizziness, mood changes)
- urinary tract problems
- dry throat
- chest tightness

Tell your doctor if you have any side effect that bothers you or that does not go away.

These are not all the possible side effects of Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension. For more information, ask your doctor or pharmacist.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should I store Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension?

Store Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension in a safe place at 68°F to 77°F (20°C to 25°C).

- Safely throw away medicine that is out of date or no longer needed.
- Keep Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension and all medicines out of the reach of children.

General information about Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension

Medicines are sometimes prescribed for purposes other than those listed in a Patient Information Leaflet. Do not use Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension unless prescribed by your doctor.
Extended-Release Oral Suspension for a condition for which it was not prescribed. Do not give Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension to other people, even if they have the same condition. It may harm them and it is against the law.

This Patient Information Leaflet summarizes the most important information about Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension. If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension that is written for healthcare professionals.

For more information about Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension call 1-(888)-319-1789

What are the ingredients in Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension?

Active Ingredient: hydrocodone polistirex and chlorpheniramine polistirex.

Inactive Ingredients: Purified Water, High Fructose Corn Syrup, Sucrose, Propylene Glycol, Xanthan Gum, Vegetable (Corn) Oil, Methylparaben, Polysorbate 80, Ascorbic Acid, Propylparaben, Ethylcellulose, Sorbitol, Dibutyl Sebacate, Natural Mango Flavor, D&C Yellow No. 10, FD&C Yellow No. 6, Sodium Benzoate, and Phosphoric Acid.

Hydrocodone Polistirex and Chlorpheniramine Polistirex Extended-Release Oral Suspension Manufactured by:
Neos Therapeutics, LP
Grand Prairie, TX 75050

This patient information has been approved by the U.S. Food and Drug Administration.
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