

Lidocaine Transdermal Gel for Rapid Anesthesia and Site-Specific Relief of Pain

LiDOR[®], formulated and manufactured by Gensco in a FDA licensed facility, contains 3% lidocaine (30mg of lidocaine in each gram of gel) in a patented transdermal delivery system. The transdermal patented delivery system enhances the absorption of the lidocaine across the skin barrier yielding a much greater effect (topical anesthesia) than other prescription formulations including those containing 5% Lidocaine (Lidocaine Patch and Lido 5% Ointment) or Lidocaine/Prilocaine Cream, as clinically proven by the LiDOR[®] Activation Study.¹

All Gensco products, including LiDOR[®], are distributed to pharmacy chains such as Walgreens[®], CVS[®], Walmart[®], RiteAid[®], Kroger[®] and Publix[®] through the major wholesalers such as McKesson, Cardinal and AmerisourceBergen. LiDOR[®] is contracted with DAPA (Contract #SP0200-15-H-0003), Federal Supply Schedule (FSS), making it accessible to all military personnel and is also available to all MEDICARE patients (Medicare Contract #P1466).

Indications

- Anesthetic for relief of pain at site of injury
- Relief of musculoskeletal pain and soreness
- Pain from neuropathy
- Local medical procedures; injections and vaccines
- Anesthetic for relief of pruritis, pruritic eczema, abrasions, minor burns, insect bites, pain, soreness and discomfort due to pruritis ani, pruritis vulvae, hemorrhoids, anal fissures and similar conditions of the skin and mucous membranes

LiDOR[®] is an effective topical anesthetic best used for minor to moderate pain relief.

LiDOR[®] can be applied as needed over 24 hours unlike the patch system that must be removed after 12 hours.



Covered by most insurance plans!

PHOED	PHOVED	DELIVER	WILL CALL
A.M.	P.M.		
<p>For: <u>John Doe</u> DOB: _____</p> <p>Address: <u>123 Main Street</u></p> <p>Rx <input checked="" type="checkbox"/> LiDORx 30mL</p> <p>Apply 1-4 pumps</p> <p>QID over 24 hours</p> <p>Maximum 16 pumps in 24 hours</p> <p>PRN Pain</p> <p>REF: <u>1</u> TIME: _____</p> <p>DATE: _____ M.D. <u>DSmith</u> M.D.</p> <p>PLAN: _____</p>			

LiDORx[®] Product Information

Product Overview

LiDORx[®] contains lidocaine formulated into a patented transdermal gel designed to enhance the penetration of lidocaine through the skin into the affected tissues. Since LiDORx[®] is not a patch, it can be applied in varying amounts, within package insert guidelines, to even difficult areas including joints, back, neck, legs, and arms regardless of bony protuberances or motion. In addition, peripheral neuropathies have been shown to benefit from topical lidocaine application.²

Indications

LiDORx[®] is indicated as an anesthetic for:

- Relief of pain at site of injury
- Relief of musculoskeletal pain and soreness
- Pain from neuropathy
- Local medical procedures; injections and vaccines
- Relief of pruritis, pruritic eczema, abrasions, minor burns, insect bites, pain, soreness and discomfort due to pruritis ani, pruritis vulvae, hemorrhoids, anal fissures and similar conditions of the skin and mucous membranes

LiDORx[®] is an effective topical anesthetic best used for minor to moderate pain relief.

LiDORx[®] can be applied as needed over 24 hours unlike the patch system that must be removed after 12 hours.

LiDORx[®] - Most Effective Topically Applied Transdermal Lidocaine for Local Anesthesia and Pain Relief

LiDORx[®] can be applied to multiple anatomic locations, large and small, with a dose appropriate for each site unlike the patch systems that require the patient to attempt to cut patches for each area, leading to excessive wastage. There is evidence from an open-label, nonrandomized trial that lidocaine patches were safe and effective for subacute and chronic low back pain when used daily for 6 weeks.³ Lidocaine patches are, however, limited in use for areas where there's motion and/or several anatomically challenging sites such as knees, elbows, fingers, feet, neck, shoulders, and forearms.

Patient Friendly for 24-Hour Use

LiDORx[®] can be applied to any external skin site including knees, elbows, shoulders, and fingers; sites where a patch may be unsuitable. The patient can apply a dose suitable for the area being treated, up to 4 grams per day. In addition, LiDORx[®] can be applied throughout the day and night (24 hours) as opposed to Lidocaine Patch, which is only recommended to be used for 12 hours in any 24-hour period, leaving the patient untreated for the other 12 hours.

Summary of Product Research

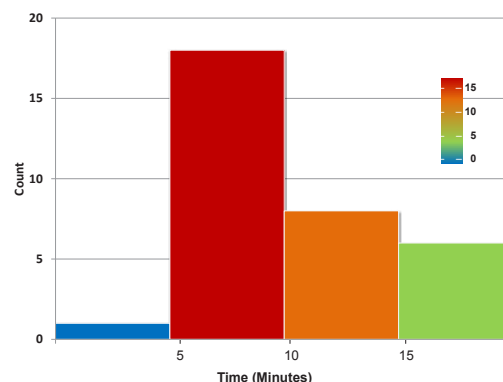
Superior Absorption

Gensco's superior transdermal delivery system, containing lidocaine at different concentrations, was tested using in vitro diffusion cells to determine absorption characteristics. The patented transdermal delivery system demonstrated an average 37.7% absorption of applied lidocaine over 6 hours in these tests using a Franz Cell method.⁴ Pharmacokinetic evaluations using animal models revealed that 74% of the total dose of lidocaine applied was detected in the plasma over 6 hours (as area under the curve).⁴ Therefore, applying the maximum daily dose of LiDORx[®] 3%, 4 grams (120 milligrams lidocaine), over a 12-hour period would result in an absorption of approximately 88.8 mg of lidocaine. Compare this to Lidoderm patches, containing 5% lidocaine (700mg lidocaine per patch), that have a documented absorption of 3% over 12 hours.⁵ Applying the maximum daily dose of Lidoderm patches, 3 patches (2,100 mg lidocaine), would only result in approximately 63 mg of lidocaine crossing the skin barrier and available for pain relief. The reason for this 40% superior absorption of LiDORx[®], while using 94% less drug, is our patented delivery system which provides for faster and greater absorption than standard lidocaine containing creams, gels, and patches.

As an illustration, standard OTC topical lidocaine formulations exhibit 1-2% absorption. EMLA cream, containing 2.5% lidocaine and 2.5% prilocaine, yields only 3.6% absorption of the lidocaine over 3 hours.⁶ Since the skin behaves as a barrier, LiDORx's superior absorption and rapid onset of anesthesia results clinically demonstrate the advantage of the Gensco patented delivery system, therefore allowing a lower concentration of Lidocaine to outperform prescription topical Lidocaine 5% products.

Rapid Onset of Anesthesia

Lidocaine is a well-known topical anesthetic in common use but, due to poor transdermal absorption characteristics, has only limited effects. LiDORx[®] is a 3% lidocaine in a transdermal gel that has been evaluated for both absorption and onset of pain relief. The enhanced absorption of lidocaine using this patented transdermal



base was demonstrated in laboratory (in vitro) testing using synthetic skin. The absorption across this membrane was measured at 37% compared to 2-3% typically seen with standard topical creams and ointments.⁴ In an additional clinical study, the onset of anesthesia using LiDORx® was measured in normal healthy adults.¹ Results indicate that over 55% of the subjects experienced anesthesia within 6 to 10 minutes compared to other commercially available lidocaine and combination products that can take over 60 minutes to achieve sufficient anesthesia.

The enhanced absorption characteristics of LiDORx® produces a fast onset of anesthesia, more rapid than typically experienced with commonly available topical prescription formulations, meaning that simply placing a drug on the skin does not enable its absorption. In one recent study, application of LiDORx® to the arms of healthy volunteers resulted in topical anesthesia in as little as 3-5 minutes with a median time of 10 minutes.¹ As a comparison, EMLA is recommended to be applied one hour prior to any procedure to assure sufficient anesthesia.

LiDORx® Regulatory Overview and Prescription Status

The Gensco FDA Facility Establishment Identifier (FEI) number is 3006374829 and NDC number is 35781. Lidocaine HCl is designated by the USFDA as Generally Recognized As Safe and Effective (GRASE). This designation is created when a drug is shown through scientific evidence to be safe and effective for its intended use. Lidocaine HCl has been shown to be effective for use as an external analgesic and anesthetic through clinical studies which have been published. These studies include those conducted by the FDA. In order to achieve GRASE, the clinical investigations must be adequate and well-controlled. Those clinical investigations must be published in scientific literature available to qualified experts. Finally, experts generally agree, based on these published studies, that the drug is safe and effective for its intended use.

Due to the rapid and enhanced absorption characteristics of LiDORx®, the use of this product must be prescribed under the supervision of a physician to prevent over usage or inappropriate usage by the patient that could result in adverse drug reactions including systemic lidocaine toxicity.

Serious Interactions

Antiarrhythmic Drugs: LiDORx® 3% should be used with caution in patients receiving Class I antiarrhythmic drugs (such as tocainide and mexiletine) since the toxic effects are additive and potentially synergistic.

Bupivacaine liposome: Lidocaine Hydrochloride USP increases toxicity of Bupivacaine by increasing the free (unencapsulated) bupivacaine.

Dofetilide: Lidocaine Hydrochloride USP increases effects of dofetilide through pharmacodynamic synergism.

Lomitapide: Lidocaine Hydrochloride USP increases levels of lomitapide by affecting hepatic/intestinal enzymes CYP3A4 metabolism.

Product Summary

Gensco Pharma's LiDORx® provides prescribers with an alternative to current treatment regimens when prescribing for patients who need controlled relief of pain. LiDORx® (Lidocaine HCl USP 3%) applied in controlled doses provides relief of pain and utilizes MDose™ Technology which dispenses an exact amount of medication (0.25 mL per pump) per application.

LiDORx® is indicated as an anesthetic for:

- Relief of pain at site of injury
- Relief of musculoskeletal pain and soreness
- Pain from neuropathy
- Local medical procedures; injections and vaccines
- Relief of pruritis, pruritic eczema, abrasions, minor burns, insect bites, pain, soreness and discomfort due to pruritis ani, pruritis vulvae, hemorrhoids, anal fissures and similar conditions of the skin and mucous membranes

LiDORx® has been proven to deliver 40% more Lidocaine in a 12-hour period than Lidocaine 5% patches. It also has been shown to have a 3-5 minute onset of anesthesia vs EMLA which requires application with an occlusive dressing for one hour prior to any procedure to assure sufficient anesthesia.

LiDORx® can be applied to multiple anatomic locations, large and small, with a dose appropriate for each site unlike the patch systems that require the patient to attempt to cut patches for each area, leading to excessive wastage. LiDORx® can be applied to most areas including joints, back, neck, legs, and arms as needed over 24-hours unlike the patch system that must be removed after 12 hours.

LiDORx® doesn't cause impairment and allows patients to continue their Activities of Daily Living including driving and operating equipment and should be considered as a solution for pain over opioid analgesics.

References

- 1 An Exploratory, Single-blind Study to Evaluate Both the Onset of Anesthesia of LiDORx® in Patients Aged 18-88 Years - Patrick Hardigan, BS, MS, PhD, Nova Southeastern University, Director of Clinical Research
- 2 Lattanzi, S and Provinciali L: Topical Lidocaine for Localized Neuropathic Pain. Arch Neurosci. 2016 January; 3(1)
- 3 Gimbel J, Linn R, Hale M, Nicholson B: Lidocaine patch treatment in patients with low back pain: results of an open-label, nonrandomized pilot study, Am J Ther. 2005 Jul-Aug;12(4):311-9
- 4 Gensco Data on file
- 5 Lidoderm package insert
- 6 EMLA package insert



10mL: NDC 35781-0300-1
30mL: NDC 35781-0300-3
90mL: NDC 35781-0300-9

READ THIS INFORMATION BEFORE PRESCRIBING THIS PRODUCT

INDICATIONS AND USAGE

LIDORx® 3% is an Amide-type Local Anesthetic indicated for:

Relief of pain at site of injury; relief of musculoskeletal pain and soreness; pain from neuropathy; local medical procedures, injections and vaccines; relief of pruritis, pruritic eczema, abrasions, minor burns, insect bites, pain, soreness and discomfort due to pruritis ani, pruritis vulvae, hemorrhoids, anal fissures and similar conditions of the skin and mucous membranes.

DOSEAGE AND ADMINISTRATION

Apply 1-4 pumps to the affected area three or four times daily not to exceed 16 pumps in twenty-four hours (24 Hrs) or as directed by a physician. As a topical anesthetic, apply an adequate amount for the desired procedure to the target area 10 minutes prior to initiation of procedure.

DOSEAGE FORMS AND STRENGTHS

LIDORx® 3% is a Topical Gel.

Each gram of LIDORx® 3% contains 3% Lidocaine HCl USP (30mg).

CONTRAINDICATIONS

Traumatized mucosa, secondary bacterial infection of the area of proposed application and known hypersensitivity to any of the components.

Lidocaine Hydrochloride USP is contraindicated in patients with a known history of hypersensitivity to local anesthetics of the amide type.

WARNINGS AND PRECAUTIONS

For External Use Only. Avoid Contact with Eyes.

If irritation or sensitivity occurs or infection appears, discontinue use and institute appropriate therapy.

LIDORx® 3% should be used with caution in ill, elderly, debilitated patients and children who may be more sensitive to the systemic effects of Lidocaine Hydrochloride USP.

Methemoglobinemia Warning: Cases of methemoglobinemia have been reported in association with local anesthetic use. Although all patients are at risk for methemoglobinemia, patients with glucose-6-phosphate dehydrogenase deficiency, congenital or idiopathic methemoglobinemia, cardiac or pulmonary compromise, infants under 6 months of age, and concurrent exposure to oxidizing agents or their metabolites are more susceptible to developing clinical manifestations of the condition. If local anesthetics must be used in these patients, close monitoring for symptoms and signs of methemoglobinemia is recommended. Signs and symptoms of methemoglobinemia may occur immediately or may be delayed some hours after exposure and are characterized by a cyanotic skin discoloration and abnormal coloration of the blood. Methemoglobin levels may continue to rise; therefore, immediate treatment is required to avert more serious central nervous system and cardiovascular adverse effects, including seizures, coma, arrhythmias, and death. Discontinue LIDORx® and any other oxidizing agents. Depending on the severity of the symptoms, patients may respond to supportive care, i.e., oxygen therapy, hydration. More severe symptoms may require treatment with methylene blue, exchange transfusion, or hyperbaric oxygen.

ADVERSE REACTIONS

Most common adverse reactions are redness or swelling at the application site. Less common side effects, such as sluggishness, confusion, slow breathing, low blood pressure, or slow heartbeat, may occur. To report SUSPECTED ADVERSE REACTIONS, contact Genesco Pharma at 866-608-6284 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

DRUG INTERACTIONS

Prilocaine, Bupivacaine, Amyl nitrate(s) sodium nitrate(s) sodium thiosulfate, Dofetilide, Lomitapide, Beta-blockers (eg, atenolol), Cimetidine, or Class I antiarrhythmic drugs (ex. Mexiletine). Patients that are administered local anesthetic may be at increased risk of developing methemoglobinemia when concurrently exposed to the following oxidizing agents: Nitrate(s)/Nitrites (nitroglycerin, nitrofurantoin, nitrofurazone, nitric oxide, nitrous oxide); Local anesthetics (benzocaine, Lidocaine, bupivacaine, inepivacaine, tetracaine, prilocaine, procaine, articaine, ropivacaine); Antineoplastic agents (cyclophosphamide, flutamide, rasburicase, ifosfamide, hydroxyurea); Antibiotics (dapsones, sulfonamides, nitrofurantoin, para-aminosalicylic acid); Antimalarials (chloroquine, primaquine); Anticonvulsants (phenytoin, sodium valproate, phenobarbital); Other drugs (acetaminophen, metoprolamide, sulfa drugs (i.e., sulfasalazine), quinine). **This may not be a complete list of all interactions that may occur. Ask your health care provider if LIDORx® 3% may interact with other medicines that you take.**

USE IN SPECIFIC POPULATIONS

Use in Pregnancy: Teratogenic Effects - Pregnancy Category B. **Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Lidocaine Hydrochloride USP is administered to a nursing woman. **Pediatric** use: Dosage in children should be reduced, commensurate with age, body weight and physical condition. **Geriatric** use: No overall clinical differences in safety or effectiveness have been observed between the healthy elderly and other adult patients.

USE IN PATIENT COUNSELING

FULL PRESCRIBING INFORMATION: CONTENTS*

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*Sections or subsections omitted from the full prescribing information are not listed.

Warning: FOR EXTERNAL USE ONLY. NOT FOR OPHTHALMIC USE. EXCESSIVE DOSAGE, OR SHORT INTERVALS BETWEEN DOSES, CAN RESULT IN HIGH PLASMA LEVELS AND SERIOUS ADVERSE EFFECTS, PATIENTS SHOULD BE INSTRUCTED TO STRICTLY ADHERE TO THE RECOMMENDED DOSAGE AND ADMINISTRATION GUIDELINES AS SET FORTH IN THIS PACKAGE INSERT. THE MANAGEMENT OF SERIOUS ADVERSE REACTIONS MAY REQUIRE THE USE OF RESUSCITATIVE EQUIPMENT, OXYGEN, AND OTHER RESUSCITATIVE DRUGS.

1. Indications: Anesthetic for relief of pain at site of injury; relief of musculoskeletal pain and soreness; pain from neuropathy; local medical procedures, injections and vaccines; relief of pruritis, pruritic eczema, abrasions, minor burns, insect bites, pain, soreness and discomfort due to pruritis ani, pruritis vulvae, hemorrhoids, anal fissures and similar conditions of the skin and mucous membranes.

2. Dosage and Administration: Each pump of the LIDORx® 3% bottle (30mL Airless Pump bottle - NDC-35781-0300-3) will deliver 0.25 mL of LIDORx® 3% enough to cover a 2 inch by 2 inch area of skin. A single application should not exceed 4 pumps of the Airless bottle, equal to 1 gram of LIDORx® 3%, (30 mg of Lidocaine Hydrochloride USP). No more than 16 pumps of the Airless Pump bottle, approximately 4 grams of LIDORx® 3% (120 mg Lidocaine Hydrochloride USP) should be administered in any one day. Although the incidence of adverse effects with LIDORx® 3% is quite low, caution should be exercised, particularly when employing large amounts, since the incidence of adverse effects is directly proportional to the total dose of local anesthetic agent administered. **2.1 Dosage for children:** It is difficult to recommend a maximum dose of any drug for children since this varies as a function of age and weight. For children less than ten years who have a normal lean body mass and a normal lean body development, the maximum dose may be determined by the application of one of the standard pediatric drug formulas (e.g., Clark's rule). For example a child of five years weighing 50 lbs., the dose of lidocaine should not exceed 75-100 mg when calculated according to Clark's rule. In any case, the maximum amount of Lidocaine Hydrochloride USP administered should not exceed 4.3 mg/kg (2.0 mg/lb) of body weight. **2.2 Administration:** Apply 1-4 pumps to the affected area three or four times daily not to exceed 16 pumps in twenty-four hours (24 Hrs) or as directed by a physician. As a topical anesthetic, apply an adequate amount for the desired procedure to the target area 10 minutes prior to initiation of procedure.

3. Dosage Form and Strength: LIDORx® 3% is a Topical Gel. Each gram of LIDORx® 3% contains 3% Lidocaine Hydrochloride USP (30mg).

4. Contraindications: Lidocaine Hydrochloride USP is contraindicated in patients with a known history of hypersensitivity to local anesthetics of the amide type or to other components of LIDORx® 3%. Do not use LIDORx® 3% on traumatized mucosa or in the presence of secondary bacterial infection of the area of proposed application.

5. Warnings and Precautions: If irritation or sensitivity occurs or infection appears, discontinue use and institute appropriate therapy. LIDORx® 3% Gel should be used with caution in ill, elderly, debilitated patients and children who may be more sensitive to the systemic effects of Lidocaine Hydrochloride USP. In case of accidental ingestion get medical help or contact poison control center right away. Methemoglobinemia: Cases of methemoglobinemia have been reported in association with local anesthetic use. Although all patients are at risk for methemoglobinemia, patients with glucose-6-phosphate dehydrogenase deficiency, congenital or idiopathic methemoglobinemia, cardiac or pulmonary compromise, infants under 6 months of age, and concurrent exposure to oxidizing agents or their metabolites are more susceptible to developing clinical manifestations of the condition. If local anesthetics must be used in these patients, close monitoring for symptoms and signs of methemoglobinemia is recommended. Signs and symptoms of methemoglobinemia may occur immediately or may be delayed some hours after exposure and are characterized by a cyanotic skin discoloration and abnormal coloration of the blood. Methemoglobin levels may continue to rise; therefore, immediate treatment is required to avert more serious central nervous system and cardiovascular adverse effects, including seizures, coma, arrhythmias, and death. Discontinue LIDORx® and any other oxidizing agents. Depending on the severity of the symptoms, patients may respond to supportive care, i.e., oxygen therapy, hydration. More severe symptoms may require treatment with methylene blue, exchange transfusion, or hyperbaric oxygen.

6. Adverse Reactions: Adverse experiences following the administration of Lidocaine Hydrochloride USP are similar in nature to those observed with other amide local anesthetic agents. These adverse experiences are, in general, dose-related and may result from high plasma levels caused by excessive dosage or rapid absorption, or may result from a hypersensitivity, idiosyncrasy or diminished tolerance on the part of the patient. Serious adverse experiences are generally systemic in nature. The following types are those most commonly reported: **6.1 Central nervous system:** CNS manifestations are excitatory and/or depressant and may be characterized by lightheadedness, nervousness, apprehension, euphoria, confusion, dizziness, drowsiness, tinnitus, blurred or double vision, vomiting, sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness, respiratory depression and arrest. The excitatory manifestations may be very brief or may not occur at all, in which case the first manifestation of toxicity may be drowsiness, merging into unconsciousness and respiratory arrest. Drowsiness following the administration of Lidocaine Hydrochloride USP is usually an early sign of a high blood level of the drug and may occur as a consequence of rapid absorption. **6.2 Cardiovascular system:** Cardiovascular manifestations are usually depressant and are characterized by bradycardia, hypotension, and cardiovascular collapse, which may lead to cardiac arrest. **6.3 Allergic:** Allergic reactions are characterized by cutaneous lesions, urticaria, edema or anaphylactoid reactions. Allergic reactions may occur as a result of sensitivity either to the local anesthetic agent or to other components in the formulation. Allergic reactions as a result of sensitivity to Lidocaine Hydrochloride USP are extremely rare and, if they occur, should be managed by conventional means. The detection of sensitivity by skin testing is of doubtful value.

7. Drug Interactions: **7.1 Serious Interactions:** Antiarrhythmic Drugs: LIDORx® 3% should be used with caution in patients receiving Class I antiarrhythmic drugs (such as tocainide and mexiletine) since the toxic effects are additive and potentially synergistic. Bupivacaine Liposome: Lidocaine Hydrochloride USP increases toxicity of Bupivacaine by increasing the free (unencapsulated) bupivacaine. Dofetilide: Lidocaine Hydrochloride USP increases effects of dofetilide thru pharmacodynamic synergism. Lomitapide: Lidocaine Hydrochloride USP increases levels of lomitapide by affecting hepatic/intestinal enzymes CYP3A4 metabolism. **7.2 General Interactions:** Drugs metabolized via CYP3A4 enzyme: (ex. Antipsychotics, SSRIs, TCAs, many chemotherapeutics, calcium channel blockers, benzodiazepines) Lidocaine Hydrochloride USP may increase serum levels of many drugs metabolized by hepatic / intestinal CYP3A4 enzymes. Drugs that affect hepatic CYP1A2 enzyme: (ex. Quinolone antibiotics, cimetidine, barbiturates, benzodiazepines, erythromycin) May increase serum Lidocaine Hydrochloride USP levels by decreasing Lidocaine Hydrochloride USP metabolism by CYP1A2 enzyme.

8. Use in Specific Populations: **8.1 Use in Pregnancy:** Teratogenic Effects. Pregnancy Category B. Reproduction studies have been performed in rats at doses up to 6.6 times the human dose and have revealed no evidence of harm to the fetus caused by Lidocaine Hydrochloride USP. There are, however, no adequate and well-controlled studies in pregnant women. Animal reproduction studies are not always predictive of human response. General consideration should be given to this fact before administering Lidocaine Hydrochloride USP to women of childbearing potential, especially during early pregnancy when maximum organogenesis takes place. **8.2 Labor and Delivery:** Lidocaine Hydrochloride USP is not contraindicated in labor and delivery. Should LIDORx® 3% be used concomitantly with other products containing Lidocaine Hydrochloride USP, the total dose contributed by all formulations and, by appropriate, a depressor as directed by the clinical situation (e.g., epinephrine). If not treated immediately, both convulsions and cardiovascular depression can result in hypoxia, acidosis, bradycardia, arrhythmias and cardiac arrest. If cardiac arrest should occur, standard cardiopulmonary resuscitative measures should be instituted. Dialysis is of negligible value in the treatment of acute over dosage with Lidocaine Hydrochloride USP The oral LD50 of Lidocaine HCl USP in non-fasted female rats is 459(346-773) mg/kg (as the salt) and 214 (159-324) mg/kg (as the salt) in fasted female rats.

9. Over Dose: Acute emergencies from local anesthetics are generally related to high plasma levels encountered during therapeutic use of local anesthetics. (see ADVERSE REACTIONS, WARNINGS, and PRECAUTIONS). **9.1 Management of local anesthetic emergencies:** The first consideration is prevention, best accomplished by careful and constant monitoring of cardiovascular and respiratory vital signs and the patient's state of consciousness after each local anesthetic administration. At the first sign of change, oxygen should be administered. The first step in the management of convulsions consists of immediate attention to the maintenance of a patent airway and assisted or controlled ventilation with oxygen and a delivery system capable of permitting immediate positive airway pressure by mask. Immediately after the institution of these ventilatory measures, the adequacy of the circulation should be evaluated, keeping in mind that drugs used to treat convulsions sometimes depress the circulation when administered intravenously. Should convulsions persist despite adequate respiratory support, and if the status of the circulation permits, small increments of an ultra-short acting barbiturate (such as thiopental or thiamylal) or a benzodiazepine (such as diazepam) may be administered intravenously. The clinician should be familiar, prior to use of local anesthetics, with these anticonvulsant drugs. Supportive treatment of circulatory depression may require administration of intravenous fluids and, by appropriate, a depressor as directed by the clinical situation (e.g., epinephrine). If not treated immediately, both convulsions and cardiovascular depression can result in hypoxia, acidosis, bradycardia, arrhythmias and cardiac arrest. If cardiac arrest should occur, standard cardiopulmonary resuscitative measures should be instituted. Dialysis is of negligible value in the treatment of acute over dosage with Lidocaine Hydrochloride USP The oral LD50 of Lidocaine HCl USP in non-fasted female rats is 459(346-773) mg/kg (as the salt) and 214 (159-324) mg/kg (as the salt) in fasted female rats.

10. Description: **10.1 Active Ingredients:** Each gram of LIDORx® 3% contains Lidocaine Hydrochloride USP 3% (30 mg). Lidocaine Hydrochloride USP is chemically designated as acetamide, 2- (diethylamino)-N-(2,6-dimethylphenyl). **10.2 Inactive Ingredients:** AQUA (DEIONIZED WATER), CARBOMER, ISOPROPYL ALCOHOL, PETROLATUM, POLYSORBATE-20, TRIETHANOLAMINE.

11. Clinical Pharmacology: **11.1 Mechanism of action:** LIDORx® 3% releases Lidocaine Hydrochloride USP from a mild acidic vehicle to stabilize the neuronal membrane by inhibiting the ionic fluxes required for initiation and conduction of impulses, thereby effecting local anesthetic action. A mild acidic vehicle lowers pH to increase protection against alkaline irritations and to provide a favorable environment for healing. **11.2 Onset and duration of anesthesia:** LIDORx® 3% effects local, topical anesthesia. The onset is 3-5 minutes. Clinical testing has demonstrated the average onset of anesthesia occurs 5 to 10 minutes after application of LIDORx® 3%. In a study evaluating the onset and duration of anesthesia in 37 healthy volunteers the average time to anesthesia was 8 minutes and 40 seconds while duration of anesthesia in the majority of subjects was between 8-15 minutes (median 10 minutes and 46 seconds). There was considerable inter-subject variation that may be due to subject age and relative skin condition. **11.3 Hemodynamics:** Excessive blood levels may cause changes in cardiac output, total peripheral resistance, and mean arterial pressure. These changes may be attributable to a direct vasodilant effect of the local anesthetic agent versus components of the cardiovascular system. **11.4 Pharmacokinetics and metabolism:** Lidocaine Hydrochloride USP may be absorbed following topical administration to mucous membranes or open wounds, its rate and extent of absorption depending upon the specific site of application, duration of exposure, concentration, and total dosage. In general, the rate of absorption of local anesthetic agents following topical application occurs most rapidly after intracutaneous administration. Lidocaine Hydrochloride USP is also well-absorbed from the gastrointestinal tract, but little intact drug appears in the circulation because of biotransformation in the liver. Lidocaine Hydrochloride USP is metabolized rapidly by the liver, and metabolites and unchanged drug are excreted by the kidneys. Biotransformation includes oxidative N-dealkylation, ring hydroxylation, cleavage of the amide linkage, and conjugation. N-dealkylation, a major pathway of biotransformation, yields the metabolites monoethylglycinexylide and glycinyxylide. The pharmacological/toxicological actions of these metabolites are similar to, but less potent than, those of Lidocaine Hydrochloride USP. Approximately 90% of Lidocaine Hydrochloride USP administered is excreted in the form of various metabolites, and less than 10% is excreted unchanged. The primary metabolite in urine is a conjugate of 4-hydroxy-2,6-dimethylaniline. The plasma binding of Lidocaine Hydrochloride USP is dependent on drug concentration, and the fraction bound decreases with increasing concentration. At concentrations of 1 to 4 µg of free base per mL, 60 to 80 percent of Lidocaine Hydrochloride USP is protein bound. Binding is also dependent on the plasma concentration of the alpha-1-acid glycoprotein. Lidocaine Hydrochloride USP crosses the blood-brain and placental barriers, presumably by passive diffusion. Studies of Lidocaine Hydrochloride USP metabolism following intravenous bolus injections have shown that the elimination half-life of this agent is typically 1.5 to 2.0 hours. Because of the rapid rate at which Lidocaine Hydrochloride USP is metabolized, any condition that affects liver function may alter Lidocaine Hydrochloride USP kinetics. The half-life may be prolonged two-fold or more in patients with liver dysfunction. Renal dysfunction does not affect Lidocaine Hydrochloride USP kinetics but may increase the accumulation of metabolites. Factors such as acidosis and the use of CNS stimulants and depressants affect the CNS levels of Lidocaine Hydrochloride USP required to produce overt systemic effects. Objective adverse manifestations become increasingly apparent with increasing venous plasma levels above 6.0 µg free base per mL. In the rhesus monkey arterial blood levels of 18-21 µg/mL have been shown to be threshold for convulsive activity.

12. Non-Clinical Toxicity: Studies of Lidocaine Hydrochloride USP in animals to evaluate the carcinogenic and mutagenic potential or the effect on fertility have not been conducted.

13. How Supplied / Storage and Handling: HOW SUPPLIED: LIDORx® 3% (Lidocaine HCl USP 3%) 0.33 oz (9.5g) 10mL Airless Pump - NDC 35781-0300-1; 1.01 oz (28.5g) 30mL Airless Pump - NDC 35781-0300-3; 3.04 oz (86g) 90mL Airless Pump - NDC 35781-0300-9. STORE AND DISPOSE OF THIS AND ALL MEDICATIONS OUT OF REACH OF CHILDREN AND PETS. All prescriptions using this product shall be pursuant to state statutes as applicable. This product may be administered under a physician's supervision. There are no implied or explicit claims on the therapeutic equivalence. Store at 25°C (77°F); excursions permitted to 15°-30°C (59°-86° F). See USP Controlled Room Temperature. Protect from freezing. Manufactured for: Genesco Pharma, 8550 NW 33rd Street, Miami, FL 33122.

14. Patient Counseling Information:

What is LIDORx® 3%? LIDORx® 3% is a topical gel containing 3% lidocaine HCl USP (30mg / gram) of gel. Lidocaine Hydrochloride USP is a local anesthetic (numbing medication). It works by blocking nerve signals in your body. LIDORx® 3% (for use on the skin) is used to reduce pain or discomfort caused by irritations such as burns, insect bites, poison ivy, poison oak, poison cactus, scratches, hemorrhoids, and burns. LIDORx® 3% may also be used for purposes not listed in this medication guide.

How do I use LIDORx® 3%? Use exactly as prescribed by your doctor. Do not use in larger or smaller amounts or for longer than recommended. Follow the directions on your prescription label. LIDORx® 3% is generally for use on the skin only. If your medication comes with patient instructions for safe and effective use, follow these directions carefully. Ask your doctor or pharmacist if you have any questions. Your body may absorb more of this medication if you use too much, if you apply it over large skin areas, or if you apply heat, bandages, or plastic wrap to treated skin areas. Skin that is cut or irritated may also absorb more topical medication than healthy skin. Use the smallest amount of this medication needed to numb the skin or relieve pain. Do not use large amounts of LIDORx® 3%, or cover treated skin areas with a bandage or plastic wrap without medical advice. Be aware that many cosmetic procedures are performed without a medical doctor present. LIDORx® 3% may be applied with your finger tips or a cotton swab. Follow your doctor's instructions. Do not apply this medication to swollen skin areas or deep puncture wounds. Avoid using the medicine on skin that is raw or blistered, such as a severe burn or abrasion. Store at room temperature away from moisture and heat. Keep both used and unused LIDORx® 3% out of the reach of children or pets. The amount of Lidocaine Hydrochloride USP in the gel could be harmful to a child or pet who accidentally sucks on or swallows the gel. Seek emergency medical attention if this happens.

What happens if I miss a dose? Since LIDORx® 3% is used as needed, you may not be on a dosing schedule. If you are using the medication regularly, use the missed dose as soon as you remember. Skip the missed dose if it is almost time for your next scheduled dose. Do not use extra medicine to make up a missed dose.

What happens if I overdose? Seek emergency medical attention or call the Poison Help line at 1-800-222-1222. LIDORx® 3% applied to the skin is not likely to cause an overdose unless you apply more than the recommended dose. Overdose may also occur if you apply heat, bandages, or plastic wrap to treated skin areas. Improper use of LIDORx® 3% may result in death. Overdose symptoms may include drowsiness, confusion, nervousness, ringing in your ears, blurred vision, feeling hot or cold, numbness, muscle twitches, uneven heartbeats, seizure (convulsions), slowed breathing, or respiratory failure (breathing stops).

What should I avoid while using LIDORx® 3%? Do not allow this medication to come into contact with your eyes. If it does, rinse with water. Avoid using other topical medications on the affected area unless directed by a physician.

LIDORx® 3% side effects: Get emergency medical help if you have any of these signs of an allergic reaction: hives; difficulty breathing; swelling of your face, lips, tongue, or throat.

Use of local anesthetics may cause methemoglobinemia, a serious condition that must be treated promptly. Patients or caregivers should stop use and seek immediate medical attention if they or someone in their care experience the following signs or symptoms: pale, gray, or blue colored skin (cyanosis); headache; rapid heart rate; shortness of breath; lightheadedness; or fatigue.

Stop using LIDORx® 3% and call your doctor at once if you have any of these serious side effects:

- uneven heartbeats;
- drowsiness, confusion;
- tremors, seizure (convulsions); or
- blurred vision.

Less serious side effects include:

- mild irritation, redness, or swelling where the medication is applied; or
- numbness in places where the medicine is accidentally applied.

This is not a complete list of side effects and others may occur. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

PREGNANCY AND BREAST-FEEDING:

It is not known if Lidocaine Hydrochloride USP can cause harm to the fetus. If you become pregnant, contact your doctor. You will need to discuss the benefits and risks of using LIDORx® 3% while you are pregnant. It is not known if Lidocaine Hydrochloride USP is found in breast milk after topical use. If you are or will be breast-feeding while you use LIDORx® 3%, check with your doctor. Discuss any possible risks to your baby.