Veterinary Lactated Ringer’s and 5% Dextrose Injection, USP

For Animal Use Only

Description
Veterinary Lactated Ringer’s and 5% Dextrose Injection, USP is a sterile, nonpyrogenic solution for fluid and electrolyte replenishment and caloric supply in a single dose container for intravenous administration. It contains no antimicrobial agents.

Table 1

<table>
<thead>
<tr>
<th>Composition (g/L)</th>
<th>Ionic Concentration (mEq/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride, USP, (NaCl)</td>
<td>145</td>
</tr>
<tr>
<td>Potassium Chloride, USP (KCl)</td>
<td>100</td>
</tr>
<tr>
<td>Chloride</td>
<td>180</td>
</tr>
<tr>
<td>Calcium Chloride, USP (CaCl2 • 2H2O)</td>
<td>20</td>
</tr>
<tr>
<td>Lactate</td>
<td>180</td>
</tr>
<tr>
<td>pH</td>
<td>6.2 to 7.2</td>
</tr>
</tbody>
</table>

D-Glucopyranose monohydrate

Lactated Ringer’s and 5% Dextrose Injection, USP administered intravenously has value as a source of water, electrolytes, and calories.

Normal physiologic range is approximately 280 to 310 mOsmol/L.

Indications and Usage
Lactated Ringer’s and 5% Dextrose Injection, USP is indicated as a source of water, electrolytes, and calories or as an alkalinizing agent.

Clinical Pharmacology
Lactated Ringer’s and 5% Dextrose Injection, USP produces a metabolic alkalinizing effect. Lactate ions are metabolized ultimately to carbon dioxide and water, which requires the consumption of hydrogen cations.

Contraindications
Solutions containing dextrose may be contraindicated in patients with known allergy to corn or corn products.

Warnings
Lactated Ringer’s and 5% Dextrose Injection, USP should be used with great care, if at all, in patients with congestive heart failure, severe renal insufficiency, potassium retention, and in clinical states in which there exists edema with sodium retention.

Precautions
Clinical evaluation and periodic laboratory determinations are necessary to monitor changes in fluid balance, electrolyte concentrations, and acid base balance during prolonged parenteral therapy or whenever the condition of the patient warrants such evaluation.

Veterinary Lactated Ringer’s and 5% Dextrose Injection, USP can cause fluid and/or solute overloading resulting in dilution of serum electrolyte concentrations, overhydration, congested states, or pulmonary edema. The risk of dilutional states is inversely proportional to the electrolyte concentrations of the injection. The risk of solute overload causing congested states with peripheral and pulmonary edema is directly proportional to the electrolyte concentrations of the injection.

In patients with diminished renal function, administration of Lactated Ringer’s and 5% Dextrose Injection, USP may result in sodium or potassium retention.

Adverse Reactions
Reactions which may occur because of the solution or the technique of administration include febrile response, infection at the site of injection, venous thrombosis or phlebitis extending from the site of injection, extravasation, and hypervolemia.

If an adverse reaction does occur, discontinue the infusion, evaluate the patient, institute appropriate therapeutic countermeasures, and save the remainder of the fluid for examination if deemed necessary.

Contraindications
Solutions containing dextrose may be contraindicated in patients with known allergy to corn or corn products.

Warnings
Lactated Ringer’s and 5% Dextrose Injection, USP should be used with great care, if at all, in patients with hyperkalemia, severe renal failure, and in conditions in which potassium retention is present.

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Dosage and Administration
As directed by a veterinarian. Dosage is dependent upon the age, weight and clinical condition of the patient as well as laboratory determinations.
Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration whenever solution and container permit.
All injections in plastic containers are intended for intravenous administration using sterile equipment.
Additives may be incompatible. Complete information is not available. Those additives known to be incompatible should not be used. Consult with veterinarian, if available. If, in the informed judgement of the veterinarian, it is deemed advisable to introduce additives, use aseptic technique. Mix thoroughly when additives have been introduced. Do not store solutions containing additives.

OverDosage
In an event of overhydration or solute overload, re-evaluate the patient and institute appropriate corrective measures. See Warnings, Precautions and Adverse Events.

How Supplied
Lactated Ringer’s and 5% Dextrose Injection, USP in plastic containers is available as follows:

<table>
<thead>
<tr>
<th>List Number</th>
<th>Size (mL)</th>
<th>Code</th>
<th>NDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>04937-04-10</td>
<td>1000</td>
<td>289254</td>
<td>00074-4937-10</td>
</tr>
</tbody>
</table>

Exposure of pharmaceutical products to heat should be minimized. Avoid excessive heat. It is recommended the product be stored at room temperature (25°C/77°F); brief exposure up to 40°C/104°F does not adversely affect the product.

Directions for use of plastic container
To Open
Tear overwrap down side at slit and remove solution container.
Some opacity of the plastic due to moisture absorption during the sterilization process may be observed. This is normal and does not affect the solution quality or safety. The opacity will diminish gradually.
Check for minute leaks by squeezing inner bag firmly. If leaks are found, discard solution as sterility may be impaired. If supplemental medication is desired, follow directions below.

Preparation for Administration
1. Suspend container from eyelet support.
2. Remove plastic protector from outlet port at bottom of container.
3. Attach administration set. Refer to complete directions accompanying set.

To Add Medication
WARNING: Additives may be incompatible.
To add medication before solution administration
1. Prepare medication site.
2. Using syringe with 19 to 22 gauge needle, puncture medication port and inject.
3. Mix solution and medication thoroughly. For high density medication such as potassium chloride, squeeze ports while ports are upright and mix thoroughly.

To add medication during solution administration
1. Close clamp on the set.
2. Prepare medication site.
3. Using syringe with 19 to 22 gauge needle, puncture resealable medication port and inject.
4. Remove container from IV pole and/or turn to an upright position.
5. Evacuate both ports by squeezing them while container is in the upright position.
6. Mix solution and medication thoroughly.
7. Return container to in use position and continue administration.

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

Manufactured for:
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North Chicago, IL 60064
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