

Update date: February 1, 2024

## Group No. 21: Electrolyte Solutions and Plasma Substitutes

**INJECTABLE WATER**

Clue	Description	Diluent	Route of administration and dosage
010.000.3673.00	INJECTABLE SOLUTION  Each vial contains: Injectable water 5 mL  Container with 100 vials with 5 mL.	<b>Indications</b> medicines. When it is required to lower the tonicity of solutions to be used.	Intravenous and intramuscular.  Adults and children:  After adding the appropriate solutes to make it isotonic.
010.000.3674.00	INJECTABLE SOLUTION  Each vial contains: Injectable water 10 mL  Container with 100 vials with 10 mL.		

## Generalities

Transparent, odorless liquid, free of microbial agents and pyrogens.

## Risk in Pregnancy

TO

## Adverse effects

Hemolysis.

## Contraindications and Precautions

Contraindications: Direct intravenous administration produces hemolysis.

## Interactions

None of clinical importance.

**SODIUM CHLORIDE**

Clue	Description	Indications	Route of administration and dosage
010.000.3608.00	INJECTABLE SOLUTION AT 0.9%  Each 100 mL contains: Sodium chloride 0.9 g Water for injection 100 mL  Container with 250 mL. Contains: Sodium 38.5 mEq Chloride 38.5 mEq	Hypotonic administration (with real hyponatremia).  Maintenance of electrolyte balance.  Hypochloremic alkalosis.  To solubilize and apply medications for venoclysis.	Intravenous.  Adults and children:  To recover or maintain hydroelectrolyte balance, depending on age, body weight and cardiovascular or renal condition.
010.000.3609.00	0.9% INJECTABLE SOLUTION  Each 100 mL contains: Sodium chloride 0.9 g Water for injection 100 mL  Container with 500 mL. Contains: Sodium 77 mEq Chloride 77 mEq		

## Generalities

Sodium is the most important cation of the intracellular fluid, in combination with chlorine it maintains the osmotic pressure, the acid-base balance, and the water balance.

## Risk in Pregnancy

TO

## Adverse effects

Administered in appropriate quantities it does not produce adverse reactions. If applied in doses above what is required, edema, hyperosmolarity and hyperchloremic acidosis occur.

## Contraindications and Precautions

Contraindications: Hyponatremia or fluid retention, renal failure, intracranial hypertension, cardiopulmonary disease.

Precautions: Preeclampsia and eclampsia.

#### Interactions

None of clinical importance.

## SODIUM CHLORIDE AND GLUCOSE

Clue	Description	Indications	Route of administration and dosage
010.000.3611.00	<p>INJECTABLE SOLUTION</p> <p>Each 100 mL contains: Sodium chloride 0.9 g Anhydrous glucose or glucose 5.0 g — Glucose monohydrate equivalent to 5.0 g of glucose.</p> <p>Container with 250 mL.</p> <p>Contains: Sodium 38.5 mEq Chloride 38.5 mEq Glucose 12.5 g</p>	State changes hydroelectrolyte and satisfaction of caloric needs.	<p>Intravenous.</p> <p>Adults and children:</p> <p>According to the patient's needs, age, body weight, cardiovascular and renal conditions.</p>
010.000.3612.00	<p>INJECTABLE SOLUTION</p> <p>Each 100 mL contains: Sodium chloride 0.9 g Anhydrous glucose or glucose 5.0 g or  Glucose monohydrate equivalent to 5.0 g of glucose.</p> <p>Container with 500 mL.</p> <p>Contains: Sodium 77 mEq Chloride 77 mEq Glucose 25 g</p>		

#### Generalities

Sterile solution containing sodium chloride and glucose. The daily requirements for sodium and chlorine are respectively 80 and 100 mEq. Parenteral administration should not exceed this amount. One gram. NaCl provides 17.1 mEq of both ions; while each gram of glucose is a source of 4 calories and helps reduce excessive nitrogen loss and the production of ketone bodies.

#### Risk in Pregnancy

TO

#### Adverse effects

Hyperosmolarity, hyperchloremic acidosis. Local injuries due to poor administration, hyponatremia, edema.

#### Contraindications and Precautions

Contraindications: DM2 and decompensated DM1, hyperglycemic coma, overhydration, hyperosmolarity and hyperchloremic acidosis.

Precautions: Heart or kidney disease and edema with sodium retention.

#### Interactions

None of importance.

## ORAL ELECTROLYTES

Clue	Description	Indications	Route of administration and dosage
	<p>POWDER (Osmolarity Formula Low)</p> <p>Each sachet with powder contains: Anhydrous glucose or glucose 13.5 g Potassium chloride 1.5 g</p>	<p>Oral rehydration in cases of diarrhea and dehydration with:</p> <p>Hyponatremia.</p>	<p>Oral.</p> <p>Adults and children:</p>

010.000.3622.00	Sodium chloride 2.6 g Trisodium citrate dihydrate 2.9 g Container with 20.5 g.	Hypochloremia. Hypokalemia.	According to the patient's needs, body weight, age and dehydration condition.
010.000.3623.00	SOLUTION Each sachet with powder contains: Glucose 20.0 g Potassium chloride 1.5 g Sodium chloride 3.5 g Trisodium citrate dihydrate 2.9 g Container with 27.9 g		Dilute the contents of the sachet in a liter of cold, boiled water. When preparing the dilution, add the powder to the water, not the water to the powder.

#### Generalities

Excessive losses of water and electrolytes (vomiting, diarrhea, fever, etc.) produce isotonic dehydration; Early oral rehydration is very effective in reducing morbidity and mortality from these conditions. Low osmolarity solutions improve net water absorption in the body and restore electrolyte balance in the body.

#### Risk in Pregnancy

TO

#### Adverse effects

Nausea and vomiting, electrolyte imbalance, hyponatremia and hyperkalemia with normal osmolarity formula. Hyponatremia in patients with cholera administered the low-osmolarity formula.

#### Contraindications and Precautions

Contraindications: Severe dehydration as basic therapy.  
Precautions: Intestinal obstruction of any etiology and in the presence of uncontrollable vomiting, paralytic ileus, perforation and intestinal obstruction. In patients with cholera, the low osmolarity formula is recommended

#### Interactions

None of clinical importance.

## GLUCOSE

Clue	Description	Indications	Route of administration and dosage
010.000.3601.00	5% INJECTABLE SOLUTION Each 100 mL contains: Anhydrous glucose or glucose 5 g -- Glucose monohydrate equivalent to 5.0 g of glucose. Container with 250 mL. Contains: Glucose 12.5 g	Caloric intake. Hypertonic dehydration. Water deficiency. Energy supplement.	Intravenous. Adults and children: According to the patient's daily energy requirements, body weight, age, cardiovascular and renal condition and degree of dehydration.
010.000.3630.00	5% INJECTABLE SOLUTION Each 100 mL contains: Anhydrous glucose or glucose 5 g -- Glucose monohydrate equivalent to 5.0 g of glucose. Container with 500 mL. Contains: Glucose 25.0 g	Hypoglycemia induced by insulin or oral hypoglycemic agents.	
010.000.3603.00	5% INJECTABLE SOLUTION Each 100 mL contains: Anhydrous glucose or glucose 5 g -- Glucose monohydrate equivalent to 5.0 g of glucose. Container with 1,000 mL. Contains: Glucose 50.0 g		
	50% INJECTABLE SOLUTION Each 100 mL contains: Anhydrous glucose or glucose 50 g -- Glucose monohydrate equivalent to 50.0 g of glucose.		

010.000.3607.00 Container with 50 mL.  
Contains: Glucose 25.0 g

**Generalities**

Glucose is the main source of energy in living organisms. Injectable solutions with this nutrient (glucose 5%) are a source of calories; They cover water needs and are useful in rehydrating the body.

**Risk in Pregnancy** TO

**Adverse effects**

Uncommon: local venous irritation, hyperglycemia and glycosuria.

**Contraindications and Precautions**

Contraindications: 50% solution in osmotic diuresis, intracaneal or intraspinal hemorrhage, delirium tremens.  
Precautions: restrict its use in edema with or without hyponatremia, heart or kidney failure, hyperglycemia, diabetic coma.

**Interactions**

Hyperglycemia is favored with medications such as corticosteroids, thiazide diuretics, and furosemide.

**HARTMANN SOLUTION**

Clue	Description	Indications	Route of administration and dosage
010.000.3614.00	<p>INJECTABLE SOLUTION</p> <p>Each 100 mL contains: Sodium chloride 0.600g Potassium chloride 0.030g Calcium chloride dihydrate 0.020g sodium lactate 0.310g</p> <p>Container with 250 mL. Milliequivalents per liter: Sodium 130 Potassium 4 Calcium 2.72-3 Chloride 109 Lactate 28</p>	<p>Isotonic dehydration and moderate acidosis due to: Vomiting.</p> <p>Diarrhea. Fistulas. Exudates. Trauma. Burns. State of shock. Surgery. Maintenance of hydroelectrolyte balance.</p>	<p>Intravenous.</p> <p>Adults and children: According to the patient's needs, age, body weight, kidney and cardiovascular conditions and functioning.</p>
010.000.3615.00	<p>INJECTABLE SOLUTION</p> <p>Each 100 mL contains: Sodium chloride 0.600g Potassium chloride 0.030g Calcium chloride dihydrate 0.020g sodium lactate 0.310g</p> <p>Container with 500 mL. Milliequivalents per liter: Sodium 130 Potassium 4 Calcium 2.72-3 Chloride 109 Lactate 28</p>		
010.000.3616.00	<p>INJECTABLE SOLUTION</p> <p>Each 100 mL contains: Sodium chloride 0.600g Potassium chloride 0.030g Calcium chloride dihydrate 0.020g sodium lactate 0.310g</p> <p>Container with 1000 mL. Milliequivalents per liter: Sodium 130 Potassium 4 Calcium 2.72-3</p>		

Chloride	109
Lactate	28

#### Generalities

Sterile liquid also known as lactated ringer's solution. Its pH is 6 to 7.5 and it contains essential electrolytes in the body. It is used when there is loss of water and bases, as well as to maintain hydroelectrolyte balance.

#### Risk in Pregnancy

TO

#### Adverse effects

Its excess produces pulmonary edema in patients with cardiovascular and kidney diseases. In adequate doses these effects do not occur.

#### Contraindications and Precautions

Contraindications: severe alkalosis and hypercalcemia.

Precautions: pulmonary edema, cardiopulmonary and kidney diseases, high blood pressure, heart failure, toxemia of pregnancy and lactation.

#### Interactions

None of clinical importance.

## INJECTABLE WATER

Clue	Description	Indications	Route of administration and dosage
010.000.3675.00	<p>INJECTABLE SOLUTION</p> <p>Each container contains: Injectable water 500 mL.</p> <p>Container with 500 mL.</p>	<p>Diluent medicines.</p> <p>When it is required to lower the tonicity of solutions by be used.</p> <p>To carry out irrigation processes (cleaning and surgical dressings, etc.).</p>	<p>Intravenous.</p> <p>Adult: After adding the solutes, it is convenient to make it isotonic.</p>

#### Generalities

Transparent, odorless liquid, free of microbial agents and pyrogens.

#### Risk in Pregnancy

TO

#### Adverse effects

Hemolysis.

#### Contraindications and Precautions

Contraindications: Direct intravenous administration produces hemolysis.

#### Interactions

None of clinical importance.

## STARCH

Clue	Description	Indications	Route of administration and dosage
010.000.3663.00 010.000.3663.01	<p>10% INJECTABLE SOLUTION.</p> <p>Each 100 mL contains: Poly (o-2 hydroxyethyl) starch or pentastarch or hydroxyethyl starch (200/0.5) 10 g</p> <p>Container with 250 mL. Container with 500 mL.</p>	<p>Prophylaxis and therapy of hypovolemic states.</p>	<p>Intravenous.</p> <p>Adult: 20 mg/kg body weight/hour.</p>
010.000.3666.00	<p>6% SOLUTION FOR INJECTION</p> <p>Each 100 mL contains: Poly(o-2 hydroxyethyl)-starch (130,000 daltons) – hydroxyethyl starch (130/0.4) 6 g</p> <p>Container with 250 mL.</p>		<p>Intravenous infusion.</p> <p>Adult: 10-50 mL/kg/hour.</p>

010.000.3666.01	Container with 500 mL.		
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#### Generalities

Synthetic colloid from a waxy starch, consisting entirely of amylopectin. Increases plasma volume up to 100% of the infused volume. It can improve hemorrhheological conditions.

#### Risk in Pregnancy

c

#### Adverse effects

Anaphylactic reactions, prolonged bleeding due to the dilution effect, and a temporary increase in serum amylase values may occur without being associated with pancreatitis.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, chronic heart and kidney failure, coagulation disorders, cerebral hemorrhage, intracellular dehydration and overhydration.

#### Interactions

None of clinical importance.

## SODIUM BICARBONATE

Clue	Description	Indications	Route of administration and dosage
010.000.3619.00	INJECTABLE SOLUTION AT 7.5%  Each vial contains: Baking soda 0.75 g  Container with 50 10 mL vials. Each vial with 10 mL contains: Sodium bicarbonate 8.9 mEq	Metabolic acidosis.  Assist in cardiac arrest.  Alkalinization of local anesthetics.	Intravenous.  Adults and children over 2 years:  The dose depends on the values blood levels of CO <sub>2</sub> , pH and patient conditions.  Cardiac arrest: 1 mEq/kg body weight, if the arrest continues, 0.5 mEq/kg body weight every 10 min.
010.000.3618.00	7.5% INJECTABLE SOLUTION  Each vial contains: Baking soda 3.75 g  Container with 50 mL vial. The 50 mL container contains: Sodium bicarbonate 44.5 mEq.		

#### Generalities

The solution in an aqueous medium dissociates into sodium and bicarbonate ions. Bicarbonate is a normal ion in the body that accepts protons. Its deficiency produces metabolic acidosis (decrease in blood pH, due to an increase in the concentration of hydrogen ions).

#### Risk in Pregnancy

b

#### Adverse effects

Excessive doses or rapid administration cause dry mouth, thirst, tiredness, muscle pain, irregular pulse, restlessness, bloating, irritability.

#### Contraindications and Precautions

Contraindications: Do not mix with calcium salts, hypocalcemia.

Precautions: Monitor pH and CO<sub>2</sub> values, total CO<sub>2</sub> may be low in respiratory alkalosis, administration of bicarbonate or acetate worsens alkalosis, anuria, oliguria, hypertension, edema, intracranial hemorrhage in neonates and infants due to rapid application.

#### Interactions

Do not mix with calcium salts for administration. Prolongs the duration of effects of quinidine, amphetamines, ephedrine and pseudoephedrine. Increases renal elimination of tetracyclines, especially doxycycline.

## POTASSIUM CHLORIDE

Clue	Description	Indications	Route of administration and dosage
	INJECTABLE SOLUTION  Each vial contains:	Arrhythmias due to ectopic focus of digitalis poisoning.	Intravenous.  Adults:

010.000.0524.00	Potassium chloride 1.49 g (20 mEq potassium, 20 mEq chlorine).  Container with 50 vials with 10 mL.	Hypokalemia.	20 mEq/hour of a concentration of 40 mEq/liter. Maximum dose: 150 mEq/day.  Children: 3 mEq/kg body weight.
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#### Generalities

Essential electrolyte for cardiac and cellular function. Reduces the risk of hypokalemia in patients receiving diuretics and corticosteroids.

#### Risk in Pregnancy

TO

#### Adverse effects

Paresthesias, mental confusion, cardiac arrhythmias, hypotension, flaccid paralysis and abdominal pain.

#### Contraindications and Precautions

Contraindications: Renal failure, Addison's disease, acute dehydration, Hyperkalemia, hypocalcemia, heart disease.

#### Interactions

Hyperkalemia is favored with potassium-sparing diuretics.

## SODIUM CHLORIDE

Clue	Description	Indications	Route of administration and dosage
010.000.3671.00	INJECTABLE SOLUTION 0.9%  Each 10 mL vial contains: Sodium chloride 0.09 g (Sodium 1.54 mEq)  (Chloride 1.54 mEq)  Container with 100 10 mL vials.	Dissolution and reconstitution of medications for intravenous administration.	Intravenous.  Adults and children:  Vehicle for dissolving and applying medications.  The volume should be adjusted according to the patient and type of medication.
010.000.3626.00	0.9% INJECTABLE SOLUTION  Each 100 mL contains: Sodium chloride 0.9g injectable water 100mL  Container with 50 mL		
010.000.3633.00	INJECTABLE SOLUTION  Each 100 mL contains: Sodium chloride 900 mg injectable water 100mL  Container with 50 mL bag and vial adapter.		
010.000.3634.00	INJECTABLE SOLUTION  Each 100 mL contains: Sodium chloride 900 mg injectable water 100mL  Container with 100 mL bag and vial adapter.		
010.000.3627.00	0.9% INJECTABLE SOLUTION  Each 100 mL contains: Sodium chloride 0.9g injectable water 100mL  Container with 100 mL.	Hypotonic dehydration with hyponatremia.  To recover or maintain the hydroelectrolyte balance.	Intravenous.  Adults and children:  The volume should be adjusted according to the patient's age, body weight, cardiovascular or renal conditions.
010.000.3610.00	0.9% INJECTABLE SOLUTION  Each 100 mL contains: Sodium chloride 0.9g injectable water 100mL  Container with 1,000 mL.  Contains: Sodium 154 mEq Chloride 154 mEq		

010.000.5386.00	INJECTABLE SOLUTION AT 17.7%  Each mL contains: Sodium chloride 0.177g  Container with one hundred 10 mL vials.	Normalizer of severe sodium depletion.  Shock due to hemorrhage and burns.	Intravenous.  Adults:  The volume should be adjusted according to the patient's age, body weight, cardiovascular or renal conditions and judgment of the specialist.
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#### Generalities

Sodium is the most important cation of the extracellular fluid, in combination with chlorine it maintains osmotic pressure, acid-base balance, and water balance. It contributes to nerve conduction, neuromuscular function and glandular secretion.

#### Risk in Pregnancy

TO

#### Adverse effects

Administered in appropriate quantities it does not produce adverse reactions. If applied in doses above what is required, edema, extracellular hyperosmolarity and hyperchloremic acidosis occur.

#### Contraindications and Precautions

Contraindications: Hyponatremia or fluid retention.

Precautions: Severe renal dysfunction, cardiopulmonary disease, intracranial hypertension with or without edema.

#### Interactions

None of clinical importance.

## SODIUM CHLORIDE AND GLUCOSE

Clue	Description	Indications	Route of administration and dosage
010.000.3613.00	INJECTABLE SOLUTION  Each 100 mL contains: Sodium chloride 0.9 g Anhydrous glucose  or glucose 5.0 g or Glucose monohydrate equivalent to 5.0 g of glucose.  Container with 1,000 mL. Contains: Sodium 154.0 mEq Chloride 154.0 mEq Glucose 50.0 g	State changes hydroelectrolytic and satisfaction of caloric needs.	Intravenous.  Adults and children:  According to the patient's needs, age, body weight, cardiovascular and renal conditions.

#### Generalities

Sterile solution containing sodium chloride and glucose. The daily sodium and chlorine requirements are respectively 80 and 100 mEq. One gram of NaCl provides 17.1 mEq of both ions; while each gram of glucose is a source of 4 calories and helps reduce excessive loss of Na<sup>+</sup> and the production of ketone bodies.

#### Risk in Pregnancy

TO

#### Adverse effects

Hyperosmolarity, hyperchloremic acidosis. Local injuries due to poor administration, hyponatremia, edema.

#### Contraindications and Precautions

Contraindications: DM2 and decompensated DM1, hyperglycemic coma, overhydration, hyperosmolarity and hyperchloremic acidosis.

#### Interactions

None of clinical importance.

## DEXTRAN

Clue	Description	Indications	Route of administration and dosage
	10% INJECTABLE SOLUTION  Every 100 milliliters contain: Dextran (40,000): 10g Glucose 5g		Hypovolemia due to loss of whole blood and plasma.  Prophylaxis of thromboembolic disease.

Intravenous.

Adults:



010.000.0641.00	Container with 500 mL.			Prophylaxis: 10 mL/kg (10% solution) on the surgical day; continue for two or three days.  <b>Hypovolemia:</b> The volume and speed must be established according to the patient's conditions administered: adults 20 10 mL/kg/day.  Do not exceed 1 g/kg/day, days.
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#### Generalities

Water-soluble polysaccharide whose main effect is the expansion of plasma volume by colloidal osmotic action that extracts liquids from the interstitial space in a ratio of double the amount administered. It produces an increase in cardiac output, central venous pressure, blood pressure, urinary output, capillary perfusion and a decrease in heart rate and blood viscosity due to a decrease in platelet adhesiveness.

#### Risk in Pregnancy

TO

#### Adverse effects

Anaphylactic shock (rare), increased intraoperative bleeding.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, severe heart or kidney failure, hemorrhagic disease (thrombocytopenia, use of anticoagulants).

#### Interactions

None of clinical importance.

## POTASSIUM PHOSPHATE

Clue	Description	Indications	Route of administration and dosage
010.000.3617.00	INJECTABLE SOLUTION  Each vial contains: Dibasic potassium phosphate 1,550 g Monobasic potassium phosphate 0,300 g (Potassium 20 mEq) (Phosphate 20 mEq)  Container with 50 vials with 10 mL.	Parenteral nutrition.  Decompensated diabetes mellitus.	Intravenous.  Adults:  Individualize the dose. In general 60 mEq for 24 hours.  Children:  1 mEq/kg body weight/24 h.

#### Generalities

Essential electrolyte for cardiac and cellular function. Reduces the risk of hypokalemia in patients receiving diuretics and corticosteroids.

#### Risk in Pregnancy

TO

#### Adverse effects

Paresthesias, mental confusion, cardiac arrhythmias, hypotension, flaccid paralysis and abdominal pain.

#### Contraindications and Precautions

Contraindications: Renal failure, Addison's disease, acute dehydration, hyperkalemia, hypocalcemia, heart disease.

#### Interactions

Hyperkalemia is favored with potassium-sparing diuretics.

**CALCIUM GLUCONATE**

Clue	Description	Indications	Route of administration and dosage
010.000.3620.00 010.000.3620.01	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Calcium gluconate 1 g equivalent to 0.093 g of ionizable calcium.</p> <p>Container with 50 10 mL vials. Container with 100 10 mL vials.</p>	<p>Tetany due to hypocalcemia. BV Polytransfusions.</p> <p>To prepare multiple solutions.</p> <p>Pancreatitis.</p> <p>Heart attack.</p>	<p>Intravenous.</p> <p>Adults and children: According to the severity of the condition, age, body weight, kidney and cardiovascular condition of the patient.</p>

## Generalities

Essential electrolyte that maintains the integrity of biological membranes, participates in skeletal, smooth and cardiac muscle contraction, nervous excitability and blood coagulation.

## Risk in Pregnancy

b

## Adverse effects

Hypercalcemia, bradycardia, depression of the central nervous system, hyporeflexia and hypotonia, abdominal pain, arterial hypotension and vasomotor collapse.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, primary hyperparathyroidism, hypercalcemia and hypercalciuria, acute and chronic renal failure, kidney stones.

## Interactions

Do not mix with baking soda. With digitalis the risk of toxicity increases. With warfarin and heparin their anticoagulant effect decreases.

**GLUCOSE**

Clue	Description	Indications	Route of administration and dosage
010.000.3604.00	<p>10% INJECTABLE SOLUTION</p> <p>Each 100 mL contains: Anhydrous glucose or glucose 10 g or Glucose monohydrate equivalent to 10.0 g of glucose.</p> <p>Container with 500 mL Contains: Glucose 50.0 g.</p>	<p>Plasma volume deficiency and electrolyte concentration.</p> <p>Hypertonic dehydration (hypernatremic).</p> <p>Start infusion.</p> <p>Need to increase caloric intake.</p>	<p>Intravenous.</p> <p>Adults and children: According to the patient's needs, body weight, age, cardiovascular and renal condition and degree of dehydration.</p>
010.000.3605.00	<p>10% INJECTABLE SOLUTION</p> <p>Each 100 mL contains: Anhydrous glucose or glucose or 10g Glucose monohydrate equivalent to 10.0g glucose.</p> <p>Container with 1,000 mL Contains: Glucose 100.0 g</p>		
010.000.3625.00	<p>5% INJECTABLE SOLUTION</p> <p>Each 100 mL contains: Anhydrous glucose or glucose or 5g Glucose monohydrate equivalent to 5.0g glucose.</p> <p>Container with 100 mL. Contains: Glucose 5.0 g</p>		
	<p>5% INJECTABLE SOLUTION</p> <p>Each 100 mL contains: Anhydrous glucose or glucose or 5g Glucose monohydrate equivalent to 5.0g</p>		

010.000.3624.00	of glucose. Container with 50 mL Contains: Glucose 2,5 g		
010.000.3606.00	INJECTABLE SOLUTION 50%  Each 100 mL contains: anhydrous glucose or glucose 50g injectable water 100mL  Glucose monohydrate equivalent to glucose. 50g	Hypoglycemia.  Insulin shock.  Energy supplement.  Total parenteral nutrition by central catheter.  Mix with amino acid and lipid solution.	Intravenous.  Adults and children:  According to the patient's needs, body weight, age, cardiovascular and renal condition and degree of dehydration.
010.000.3631.00	5% INJECTABLE SOLUTION  Each 100 mL contains: Anhydrous glucose or glucose or 5g  Glucose monohydrate equivalent to glucose. 5g  Container with 50 mL bag and vial adapter.	Dissolution and reconstitution of medications for intravenous administration.	Intravenous.  Adults and children:  Vehicle for dissolving and applying medications.
010.000.3632.00	5% INJECTABLE SOLUTION  Each 100 mL contains: Anhydrous glucose or glucose or 5g.  Glucose monohydrate equivalent to glucose. 5g  Container with 100 mL bag and vial adapter.		

#### Generalities

Glucose is the main source of energy in living organisms. Injectable solutions with this nutrient (glucose 5%) are a source of calories, cover water needs and are useful in rehydrating the body.

#### Risk in Pregnancy

b

D (Last trimester and labor due to fetal hypoglycemia)

#### Adverse effects

Uncommon: local venous irritation, hyperglycemia and glycosuria.

#### Contraindications and Precautions

Contraindications: The 50% solution in osmotic diuresis, intracranial or intraspinal hemorrhage, delirium tremens

Precautions: Restrict its use in patients with edema with or without hyponatremia, heart or kidney failure, hyperglycemia, diabetic coma.

#### Interactions

Hyperglycemia is promoted with medications such as corticosteroids, thiazide diuretics and furosemide.

## MAGNESIUM SULFATE

Clue	Description	Indications	Route of administration and dosage
010.000.3629.00	INJECTABLE SOLUTION  Each vial contains: Magnesium sulfate 1g (Magnesium 8.1 mEq sulfate 8.1 mEq).  Container with 100 10 mL vials with 1 g (100 mg/1 mL).	Hypomagnesemia.  Prevention and control of seizures in preeclampsia or eclampsia.	Intramuscular or intravenous.  Adults: 4 g in 250 mL of glucose solution 5%, at a rate of 3 mL/min and according to serum magnesium values.  Intramuscular: 1 to 5 g, every 4 or 6 hours, do not exceed 40 g/day.  Children: Over 6 years old 2 to 10 mEq/day.

Generalities
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Restore and preserve magnesium values. As an anticonvulsant, it decreases muscle contractions by interfering with the release of acetylcholine in the neuromuscular plate.

Risk in Pregnancy
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b

Adverse effects
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Decreased or absent deep tendon reflexes, drowsiness, flaccid paralysis, hypothermia, hypocalcemia (paraesthesias, tetany, seizures). Blushing and sweating. bradycardia, arterial hypotension, cardiac arrhythmias. respiratory paralysis.

Contraindications and Precautions
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Contraindications: Kidney failure, myocardial injury, heart blocks, labor.

Precautions: Intravenous administration should be done slowly to avoid cardiorespiratory arrest, verifying vital signs, deep tendon reflexes and calcium concentration.

Interactions
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With neuromuscular blockers (pancuronium, vecuronium) the duration of effects increases. Extreme caution should be used in patients receiving digitalis preparations.

**MANITOL**

Clue	Description	Indications	Route of administration and dosage
010.000.2306.00	20% INJECTABLE SOLUTION  Each container contains Mannitol 50g  Container with 250 mL	Cerebral edema.  Prophylaxis of acute renal failure. Diagnostic test for acute renal failure.	Intravenous.  Adults and kids older than 12 years old: 50 to 100 g for 2 to 6 hours. Cerebral edema 1.5 to 2 g/kg. Diagnostic test 200 mg/kg.

Generalities
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Osmotic diuretic that increases water flow into the intravascular space by increasing plasma osmolarity.

Risk in Pregnancy
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c

Adverse effects
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Hyponatremia, hydroelectrolyte imbalance, cerebral edema, tachycardia.

Contraindications and Precautions
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Contraindications: Hypersensitivity to the drug, congestive heart failure, acute pulmonary edema, chronic renal failure, cerebral hemorrhage.

Interactions
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None of clinical importance.

**POLYGELINE**

Clue	Description	Indications	Route of administration and dosage
010.000.3661.00	INJECTABLE SOLUTION  Each 100 mL contains: Poligeline 3.5g  Container with 500 mL with or without equipment for administration.	Plasma substitute in states of decreased blood volume.	Intravenous.  Adults and children:  According to the patient's needs, body weight, age, cardiovascular and renal condition and degree of dehydration.
010.000.3664.00	INJECTABLE SOLUTION  Each 100 mL contains: gelatin polymerization degraded succinylated 4.0g  Container with 500 mL.		

Generalities
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It has an adequate osmotic pressure to be used as a circulating volume expander.

Risk in Pregnancy
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c

Adverse effects
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Hypersensitivity including anaphylactoid reactions, acute renal failure. Too much can speed up bleeding time.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug, heart failure, states of circulatory overload.

**Interactions**

The calcium ions contained in the solution make it incompatible with citrated blood and it should also be used with caution in patients under treatment with digitalis.

**HUMAN SERUM ALBUMIN OR HUMAN ALBUMIN**

Clue	Description	Indications	Route of administration and dosage
010.000.4552.00	INJECTABLE SOLUTION Each container contains: human serum albumin or human albumin 10g Container with 50 mL.	Hypoalbuminemia with serious physiological repercussion.  Shock states.  Liver failure.	Intravenous.  Adults and children:  According to the patient's needs, body weight, age, cardiovascular and renal condition.
010.000.3662.00	INJECTABLE SOLUTION Each container contains: human serum albumin or human albumin 12.5g Container with 50 mL.	Nephrotic syndrome.  Burns.	

**Generalities**

Normal serum albumin provides an intravascular oncotic pressure in a 5:1 ratio, diverting extracellular fluid to the intravascular space. It is useful as a plasma expander. Increases protein in circulation.

**Risk in Pregnancy**

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**Adverse effects**

Vascular overload, heart rhythm disturbances. salivation, nausea, vomiting, chills and fever.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug, severe anemia and heart failure.

**Interactions**

None of clinical importance.