Selenious Acid Injection is indicated in adult and pediatric patients as a source of selenium for parenteral nutrition (PN) when oral or enteral nutrition is not possible, insufficient, or contraindicated.

**INDICATIONS AND USAGE**

- Selenious Acid Injection is supplied as a pharmacy bulk package for admixing only. It is not for direct intravenous infusion. Prior to administration, Selenious Acid Injection must be transferred to a separate PN container, prepared and used as an admixture in PN solutions.
- The final PN solution for intravenous infusion into a central or peripheral vein. The choice of a central or peripheral venous route should depend on the osmolarity of the final infusate. Solutions with osmolarity of 900 mOsm/L or greater must be infused through a central venous catheter (2.1).

**DOSE AND ADMINISTRATION**

- **Dosage Form and Strengths**: Selenious Acid Injection, USP: 600 mcg/10 mL (60 mcg/mL) of selenium as a clear, colorless solution in a 10 mL (2.5).
- **Administration**: Consult the prescribing information of all added components to determine the recommended nutritional requirements for dextrose, amino acids and lipid emulsion, as applicable. Prior to administration of PN solution containing Selenious Acid Injection, correct severe fluid, electrolyte and acid-base disorders.

- **Recommended Dosage in Adults and Pediatric Patients**: Selenious Acid Injection provides 60 mcg/mL of selenium. The dosage of Selenious Acid Injection should be individualized based on the patient’s clinical condition, nutritional requirements, and the contribution of oral or enteral selenium intake. The dosages in the following table are general recommendations intended for most patients. However, based upon clinical requirements, some patients may require a higher dosage:
  - **Adults**: 60 mcg/day
  - **Pediatric Patients 7 kg and above**: 2 mcg/kg/day (up to 60 mcg/kg/day)
  - **Pediatric Patients less than 7 kg**: 2 to 4 mcg/kg/day
- **Monitor selenium concentrations during treatment**.

**DOSAGE FORMS AND STRENGTHS**

Selenious Acid Injection, USP: 600 mcg/10 mL (60 mcg/mL) of selenium as a Pharmacy Bulk Package vial (3).

**CONTRAINDICATIONS**

- None.

**WARNINGS AND PRECAUTIONS**

- **Pulmonary Embolism due to Pulmonary Vascular Precipitates**: If signs of pulmonary distress occur, stop the infusion and initiate a medical evaluation (3.1). Vein Damage and Thrombosis: Solutions with osmolarity of 900 mOsm/L or more must be infused through a central venous catheter (2.1, 5.2).
- **Aluminum Toxicity**: Increased risk in patients with renal impairment, including preterm infants (3.1, 5.3, 5.4).

- **Monitoring and Laboratory Tests**: Monitor selenium concentrations, fluid and electrolyte status, serum osmolality, blood glucose, liver and kidney function, blood counts and coagulation parameters during treatment (5.4, 2.4).

**ADVERSE REACTIONS**

- No selenium-related adverse reactions in patients receiving intravenously administered PN solutions containing selenium acid within the recommended dosage range (6).

- To report SUSPECTED ADVERSE REACTIONS, contact American Regent Inc. at 1-800-734-9236 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.
- See 17 for PATIENT COUNSELING INFORMATION.

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Selenium is a trace element that plays a crucial role in human health. It is found in various food sources and is essential for various physiological processes. In this document, we will discuss the clinical pharmacology of selenium, including its uses, side effects, and precautions.

**1. INDICATIONS**

Selenium is primarily used in parenteral nutrition to supplement selenium levels in patients who require parenteral nutrition. It is indicated when oral or enteral nutrition is not possible, insufficient, or contraindicated. Selenium is also used in chronic kidney disease to help prevent selenium deficiency.

**2. CONTRAINDICATIONS**

Selenium is not indicated for patients with a known hypersensitivity to selenium or its components. It is also contraindicated in patients with severe kidney or liver failure.

**3. PRECAUTIONS**

Selenium is generally safe when used appropriately. However, there are some precautions to consider. Patients should be monitored for signs of toxicity, and the dose should be adjusted according to the patient's response.

**4. DOSAGE AND ADMINISTRATION**

The recommended dose of Selenium Injection is 10 ml. The solution should be administered over 24 hours, and the dose should be titrated based on the patient's response.

**5. ADVERSE REACTIONS**

The most common adverse reaction associated with selenium is garlic breath. Other reactions include gastrointestinal disturbances, skin rash, and headaches. Severe reactions are rare, but they may include myalgia, muscle spasms, and irritability.

**6. OVERDOSAGE**

There are no known cases of selenium overdosage. However, if overdosage occurs, it is important to monitor the patient for signs of toxicity and adjust the dose accordingly.

**7. DOSAGE FORMS**

Selenium Injection is available in 10 ml vials.

**8. STORAGE**

The solution should be stored at 20°C to 25°C (68°F to 77°F) and protected from light.

**9. PATIENT COUNSELING INFORMATION**

Patients should be counseled on the proper use of Selenium Injection and the importance of monitoring for adverse effects.