Drug Information Table

Loop diuretics – furosemide (Lasix)

Therapeutic Use	Administration	
• Treats pulmonary edema in heart failure • Treats edema caused by renal, hepatic or cardiac failure not affected by other diuretics • Treats hypertension not controlled by other diuretics	• Available for oral, IM, or IV use • Give oral form with food to prevent GI symptoms • If prescribed more than once daily, give second dose by early afternoon to prevent nocturia and sleep loss • Give IV form undiluted; administer slowly to prevent ototoxicity • Protect all forms from light; store oral solution in refrigerator and other forms at controlled room temperature	
Side/Adverse Effects	**Interventions**	**Patient Instructions**
• Electrolyte imbalance: hyponatremia, hypochloremia, severe fluid loss (dehydration), and hypokalemia	• Monitor serum electrolyte levels periodically; notify provider for abnormal levels • Monitor carefully for signs of electrolyte imbalance • If hypokalemia occurs, monitor for cardiac dysrhythmias • If hypokalemia is a risk (e.g., patient also taking digoxin) furosemide can be combined with a potassium-sparing diuretic	• Eat foods rich in potassium (if indicated), such as citrus fruits, potatoes, and bananas • Report signs of electrolyte imbalance, such as confusion, muscle twitching or weakness, irregular pulse, and nausea
• Hypotension	• Monitor blood pressure frequently during treatment	• Teach patient to have blood pressure monitored frequently • Report dizziness, syncope to provider • Avoid hazardous activities (e.g., driving) until effects are known
• Ototoxicity (all loop diuretics can be temporary or permanent depending on the specific drug	• Ensure that the patient does not take other ototoxic drugs (additive effect) • Monitor for hearing loss, tinnitus, and vertigo	• Report new onset of hearing loss, ringing in ears, or vertigo to provider
• Hyperglycemia (especially in patients who have diabetes mellitus)	• Monitor blood glucose periodically in all patients • Monitor blood glucose more frequently in patients who have diabetes mellitus; insulin or oral antidiabetic drug dosage can need to be increased	• Patients who have diabetes mellitus need to carefully monitor blood glucose levels and notify provider for persistent hyperglycemia
• Increased uric acid levels (hyperuricemia) with possible gouty arthritis in susceptible patients	• Monitor uric acid levels periodically	• Know that this effect can occur, usually without symptoms • Patients who have a history of gout need to report symptom onset to provider
Contraindications	**Precautions**	**Interactions**
• Allergy to furosemide • Pre-eclampsia or eclampsia of pregnancy • Hepatic coma • Electrolyte imbalance or dehydration • Increase in oliguria	• Renal or liver disorders • Acute MI with cardiogenic shock • Ventricular dysrhythmias • Heart failure • Diarrhea • History of gout or systemic lupus erythematosus • Diabetes mellitus	• Digoxin toxicity is a high risk with hypokalemia • Other diuretics increase the diuretic effect • NSAIDs can decrease diuretic effect • Neuromuscular blocking agents can have prolonged effect • Lithium toxicity can occur • Amphotericin B and corticosteroids increase risk for hypokalemia • Other ototoxic drugs (e.g., aminoglycoside antibiotics) increase risk for ototoxicity