

ACTIVE LEARNING TEMPLATE: *Medication*

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MEDICATION Hydrochlorothiazide

REVIEW MODULE CHAPTER _____

CATEGORY CLASS Thiazide Diuretic

PURPOSE OF MEDICATION

Expected Pharmacological Action

- Increase excretion of sodium and water by inhibiting sodium reabsorption in the distal tubule.
- Promotes excretion of chloride, potassium, hydrogen, magnesium, phosphate, calcium and bicarbonate
- May produce arteriolar dilation

Therapeutic Use

- used with other drugs, treats heart failure
- treats cirrhosis of the liver and renal failure
- treats hypertension

Complications

- electrolyte imbalances:
 - *hyponatremia, hyochloremia, severe fluid loss (dehydration), and hypokalemia (most common)
- hyperglycemia (especially in clients who are diabetic)
- increased uric acid levels (hyperuricemia) with possible gouty arthritis in susceptible clients

Medication Administration

- Monitor serum electrolyte levels periodically; notify provider for abnormal levels
- if hypokalemia is a risk may be combined with potassium as a supplement or potassium-sparing diuretic
- monitor blood glucose
- monitor uric acid levels

Contraindications/Precautions

- greatly decreased urine output (anuria)
- Hypersensitivity (cross-sensitivity with other thiazides or sulfonamides may exist)
- Some products contain tartrazine and should be avoided in patients with known intolerance
- lactation
- renal or hepatic impairment

Nursing Interventions

- Monitor serum electrolyte levels periodically; notify provider for abnormal levels
- if hypokalemia is a risk may be combined with potassium as a supplement or potassium-sparing diuretic
- monitor blood glucose
- monitor uric acid levels

Interactions

- lithium toxicity may occur
- increased digoxin toxicity with potassium or magnesium deficiency
- corticosteroids and amphotericin B increase risk for hypokalemia
- NSAIDS can reduce effectiveness

Client Education

- eat foods rich in potassium (citrus fruits, potatoes and bananas)
- report signs of electrolyte imbalance: such as confusion, muscle twitching or weakness, irregular pulse, nausea and others
- Client who have diabetes mellitus need to carefully blood glucose levels and notify provier for persisten hyperglycemia

Evaluation of Medication Effectiveness

- Decrease in high blood pressure
- Reduce in fluid retention
- Increase in urine output