General Guidelines for Diuretic Therapy

Diuretics control blood pressure by eliminating excess salt and water from the body. The decrease in blood volume decreases the blood pressure.

The following are intended responses of diuretic therapy:

- Increased urine output
- Decreased blood volume
- Dilated blood vessels
- Decreased blood pressure
- Decreased peripheral edema

Nursing Considerations:

- Assess blood pressure and heart rate before administration. Notify physician before administration if B/P is less than 90/60 mmHg or heart rate is less than 60 beats per minute
- Assess patient for orthostatic hypotension. Patient will be at a high risk for falls if they are experiencing dizziness and postural hypotension.
- Teach patients about daily weights and how to perform them in the home setting. Inform them to notify physician if they experience more than a 5-pound loss in one week.
- Teach patients to take their diuretic in the morning in the home setting to prevent nocturia and sleep disturbances.
- Continue to monitor urine output, BP, and weight to evaluate effectiveness.

Thiazide Diuretics

Mechanism of action: slows down/turns off sodium pumps in the nephron tube. This causes potassium, sodium, and water to be excreted through urination.

Drug names:

- Hydrochlorothiazide
- Chlorothiazide
- Metolazone

Side effects:

- Postural hypotension
- Hyponatremia
- Hypokalemia
- Dizziness

HIGH risk for falls due to postural hypotension and dizziness

Nursing Considerations:

-Check potassium level before administration (should be greater than 3.5 mEq/L)

-Continue to monitor potassium level after administration and assess for hypokalemia

-Teach patients to report generalized weakness or an irregular heartbeat

-AVOID in pregnancy and breastfeeding

Loop Diuretics

Mechanism of action: slows down/turns off sodium pumps in the nephron tube. Sodium, potassium, calcium, and water is excreted through urination.

Drug names:

- furosemide
- bumetanide
- Torsemide

Side effects:

- Dizziness
- Light-headedness
- Hypokalemia
- Hyponatremia
- Ototoxicity (hearing loss)

HIGH risk for falls due to postural hypotension and dizziness

Nursing Considerations:

-Check potassium level before administration (should be greater than 3.5 mEq/L)

-Continue to monitor potassium after administration and asses for signs of hypokalemia (patient may need a potassium supplement)

-Assess for hearing loss and teach patient to report ringing in the ear

-AVOID in pregnancy and breastfeeding

Potassium Sparing Diuretics

Mechanism of action: slows down sodium pumps (sodium and water are excreted through urination) but does not cause excretion of potassium. This causes more potassium to return to the blood.

Drug names:

- Spironolactone
- Triamterene
- Amiloride

Side effects:

- Hyponatremia
- Hyperkalemia
- N/V, diarrhea

Women may experience hirsutism, irregular menses, and breast enlargement Men may experience trouble getting and maintaining an erection and gynecomastia

Nursing Considerations:

- Check potassium levels before administration- should be less than 5 mEq/L
- Continue to reassess potassium levels and assess for signs of hyperkalemia after administration
- Teach patients to avoid eating foods that are high in potassium (such as bananas, dairy, avocados, spinach, etc.)
- Teach patients to avoid salt substitutes as they are high in potassium