

LOOP DIURETICS

DEFINITION

•loop diuretics act principally on the ascending limb of the loop of Henle, where they inhibit the $\text{Na}^+/\text{K}^+/\text{2Cl}^-$ -cotransporter. This protein is responsible for transporting sodium, potassium and chloride ions from the tubular lumen into the epithelial cell. Water then follows by osmosis. Inhibiting this process has a potent diuretic effect.

Core Concepts

Side effects Mild GI disturbance, Hypotension, Hypokalaemia, Hyponatraemia, Gout, Hyperglycaemia (less common than thiazides), Hyperuricaemia, Hypomagnesaemia and Hypocalcaemia.

Other Notes

- Used to clear and assist pulmonary oedema, Also used in patients with chronic heart failure
- Can be added to anti-hypertensive to achieve better control.
- Both act within 1 hour of oral administration.
- Oral administration preferred in the morning.
- Causes loss of potassium in the body.

Understand the role of the loop diuretics

Understand the monitoring requirements

