

Fludrocortisone

Fludrocortisone is an aldosterone analog indicated for Addison's disease (primary adrenal insufficiency) and congenital adrenal hyperplasia. The side effects of long-term use include Cushing's syndrome, edema, congestive heart failure exacerbation, and hyperpigmentation.



PLAY PICMONIC

Mechanism of Action

Aldosterone Analog

Aldo-stereo On-a-log

Fludrocortisone is an analog of endogenous aldosterone. Aldosterone acts primarily in the renal collecting ducts to stimulate reabsorption of Na^+ and secretion of K^+ and H^+ . This will lead to an increase in blood pressure.

Indications

Addison's Disease (Primary Adrenal Insufficiency)

Add-sun

Fludrocortisone is used to treat Addison's disease (primary adrenal insufficiency). In Addison's disease, the adrenal glands do not produce enough cortisol and aldosterone; thus, replacement therapy with fludrocortisone is indicated.

Congenital Adrenal Hyperplasia

Present-from-birth Adrenal-gland and Hiker-plates

Fludrocortisone is used to treat congenital adrenal hyperplasia (CAH). This disease describes a group of autosomal recessive disorders which involve the impairment of cortisol synthesis. Therefore, cortisol and aldosterone will be decreased and replacement is indicated.

Side Effects

Cushing Syndrome

Cushion

Long term use of fludrocortisone may lead to Cushing's syndrome which is a disorder caused by hypercortisolism. This is because fludrocortisone also has glucocorticoid effects that are 10-15x more potent than hydrocortisone. The symptoms of Cushing's syndrome include weight gain, increased fatty deposits, moon-shaped facies, and fatigue.

Edema

Edamame

Fludrocortisone can cause the retention of high amounts of sodium which leads to an increase in water retention. This can then lead to edema.

Congestive Heart Failure Exacerbation

Dead Heart

Fludrocortisone can worsen the state of congestive heart failure in patients due to the action of aldosterone which increases blood pressure and retains fluid.

Hyperpigmentation

Hiker-pig with Hyperpigmentation

Fludrocortisone may cause hyperpigmentation of the skin and nails.