PEARLS:

Adrenal insufficiency results when the body does not produce the essential life-sustaining hormones cortisol and aldosterone, which are vital to maintaining blood pressure, cardiac contractility, water, and salt balance. Chronic adrenal insufficiency can be caused by a number of conditions:

- Congenital or acquired disorders of the adrenal gland
- Congenital or acquired disorders of the pituitary gland
- Long-term use of steroids (COPD, asthma, rheumatoid arthritis, and transplant patients)

Acute adrenal insufficiency can result in refractory shock or death in patients on a maintenance dose of hydrocortisone (SoluCortef)/prednisone who experience illness or trauma and are not given a stress dose and, as necessary, supplemental doses of hydrocortisone.

PEARLS:

A “stress dose” of hydrocortisone should be given to patients with known chronic adrenal insufficiency who have the following illnesses/injuries:

- Shock (any cause)
- Fever >100.4°F and ill-appearing
- Multi-system trauma
- Drowning
- Environmental hyperthermia or hypothermia
- Multiple long-bone fractures
- Vomiting/diarrhea accompanied by dehydration
- Respiratory distress
- 2nd or 3rd degree burns >5% BSA
- RSI (Etomidate may precipitate adrenal crisis)