Clinical Guideline

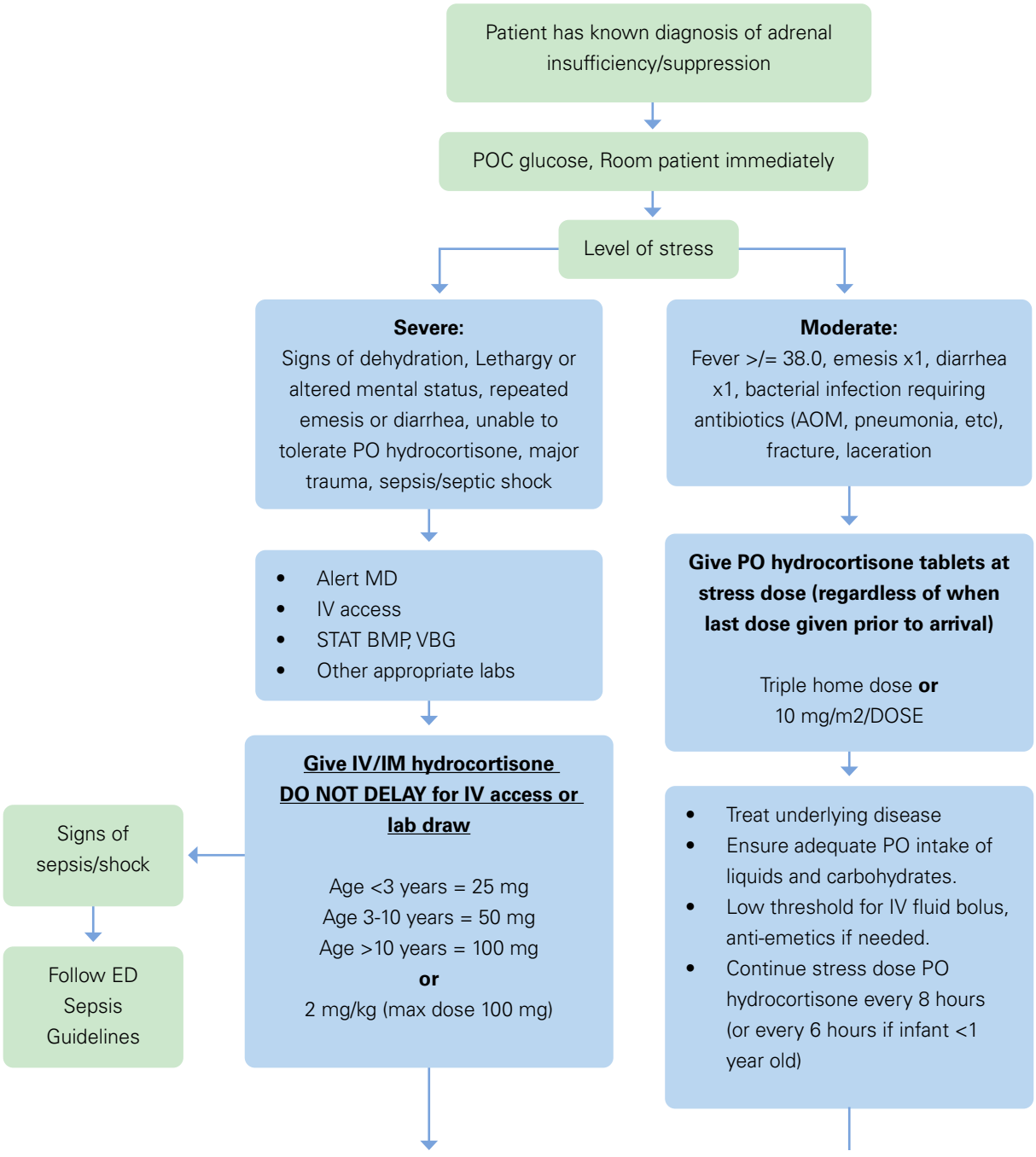
Adrenal Insufficiency: ED management

Pediatric Emergency Medicine and Pediatric Endocrinology

This guideline should not replace clinical judgment.

Inclusion criteria

- Diagnosis on the problem list
- Parent/guardian states that patient has adrenal insufficiency
- Wearing medical alert for adrenal insufficiency
- Patient is prescribed Sulucortef (IM)hydrocortisone for my home



Clinical Guideline

This guideline should not replace clinical judgment.

Adrenal Insufficiency: ED management

Pediatric Emergency Medicine and Pediatric Endocrinology

- Administer 20 ml/kg NS bolus
- Treat hypoglycemia (BG <70 mg/dL), hyponatremia, hyperkalemia if present
- Start maintenance fluids with D5% NS, if severe hypoglycemia (BG <55 mg/dL) consider D10% NS
- Monitor POC glucose hourly for a minimum of 2 hours after hydrocortisone administration to ensure it remains normal
- If initial BMP abnormal then repeat STAT BMP in 2 hours
- Treat underlying disease

Consult Endocrine if:

- > 1 visit to the ER in the last 24-48 hours
- Patient unable to tolerate PO
- Patient presented with lethargy or altered mental status
- Presence of hypoglycemia, hyponatremia, or hyperkalemia on labs

Consider Admission

Discharge Criteria

- Tolerating PO and no further vomiting or diarrhea
- Normal vitals
- Electrolyte abnormalities and hypoglycemia, if present on admission, resolved and normal BMP/POCT Glucose 2 hours after hydrocortisone administered

Patient Education/Discharge Instructions

- Notify family of the times hydrocortisone was administered in the ER
- Educate family to continue stress dosing every 8 hours (or every 6 hours if infant <1 year old) for at least 24 hours or until the stressor resolves
- Educate family on what time the next dose of hydrocortisone should be given

Adrenal Insufficiency: ED management guideline

Children's Hospital of Richmond at VCU Adrenal Insufficiency: ED Management Workgroup

Pediatric Emergency Medicine Owner: Judy Barto, MD

Pediatric Endocrine Owner: Sarah Hensley, MD

Approved (May 2024)

Pediatric Emergency Medicine Quality Committee:

Judy Barto, MD

Pediatric Pharmacy:

Kelley Byrum, PharmD, BCPPS

Chief of Pediatric Emergency Medicine:

Frank Petruzella, MD, MS

Chief of Pediatric Endocrine:

Bryce Nelson, MD, PhD

CHoR Clinical guideline committee:

Jonathan Silverman, MD, MPH

Ashlie Tseng, MD

CHoR Quality committee:

Matthew Schefft, DO, MSHA

Elizabeth Peterson, RN, MPH, CPHQ

References

Bornstein SR, Allolio B, Arlt W, Barthel A, Don-Wauchope A, Hammer GD, Husebye ES, Merke DP, Murad MH, Stratakis CA, Torpy DJ. Diagnosis and Treatment of Primary Adrenal Insufficiency: An Endocrine Society Clinical Practice Guideline. The Journal of Clinical Endocrinology and Metabolism. 2016 Feb; 101 (2):364-389

Miller BS, Spencer SP, Geffner ME, Gourgari E, Lahoti A, Kamboj MK, Stanley TK, Uli NK, Wicklow BA, Sarafoglou K. Emergency management of adrenal insufficiency in children: advocating for treatment options in outpatient and field settings. Journal of Investigative Medicine. 2020; 68 (1):16-25

Royal Children's Hospital Melbourne "Adrenal crisis and acute adrenal insufficiency" clinical practice guideline, https://www.rch.org.au/clinicalguide/guideline_index/Adrenal_crisis_and_acute_adrenal_insufficiency/

Children's Hospital of Philadelphia Clinical Pathway for child at risk of HPA suppression: Steroid dosing, https://www.chop.edu/clinical-pathway/steroid-stress-dosing-and-weaning-clinical-pathway

Citation

Title: **Clinical Guideline: ED Management of Adrenal Insufficiency and Adrenal Crisis**

Authors:
Children's Hospital of Richmond at VCU
Judy Barto, MD
Sarah Hensley, MD

Date: **June 2024**

Retrieval website: **https://www.chrichmond.org/health-care-professionals/chor-clinical-guidelines**