Standard of Care for the Patient with Diabetic Ketoacidosis (DKA) and Hyperglycemic Hyperosmolar Syndrome (HHS formerly HNK)

Objectives:
1. Correct abnormal glucose homeostasis.
2. Correct patient’s hydration status.
3. Maintain insulin/glucose balance along with the correction of acidosis.
4. Implement patient and/or family teaching to provide understanding of disease process and management.
5. Prevent complications related to diabetic ketoacidosis or hyperosmolar syndrome.

Process Standards:
1. Assessment of the patient will be performed and documented at least 4 hours.
   a. Level of consciousness, respiratory status, skin turgor, and presence of nausea will be assessed.
2. Obtain lab work as ordered at least every 4 hours (glucose and electrolytes) with notification of MD for abnormal values.
   a. ABG will be obtained per physician order.
   b. Pediatric patients urine ketones shall be assessed with every urine void until negative.
3. Begin insulin infusion per volumetric pump as ordered per MD, titrating to prescribed parameters of glucose.
4. Dextrosticks every 1 – 2 hour as ordered with notification as ordered.
5. Administer IV fluids and electrolyte supplements as ordered with notification of MD when glucose <250mg/dl for possible addition of D5W to IV fluids.
6. Provide baseline assessment of volume status or more frequently as condition warrants.
7. Monitor acid/basis (pH, HCO3) and notify MD of progress.
8. Monitor vital signs at least every hour or more frequently as condition warrants.
9. Document clinical S/S DKA or HHS in baseline assessment if present (see table below for symptoms).
10. Document baseline integrity of skin with interventions when necessary.
11. Observe for S/S of underlying infection.
12. Maintain accurate Intake and Output.
13. Patient maintained NPO until DKA/HHS resolves.
14. Once DKA/HHS (normalization of both anion gap and CO₂) resolves the RHI drip is discontinued and 1st dose of NPH given upon arrival of diet. HHS is seen in Type 2 diabetics, these patients may be converted back to routine medications once glucose levels normalize.
15. Assess and document current self-knowledge level, current insulin dosage, length of time diagnosed with diabetes, concurrent problems, and history of onset for current problems.
Outcome Standards:
At time of discharge for ICU
1. The patient’s return to normal glucose homeostasis will have been accomplished. Serum glucose, electrolytes, ABGs, will be within normal limits: non-ketotic state.
2. The patient’s insulin infusion will be off and patient will be normovolemic.
3. The patient will be free of complications related to DKA/HHS prior to transfer.
4. Diabetic Education nurses will be consulted for explanation regarding disease process and management.

Reference:


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