ED Pediatric DKA or HHS Order Set

Communication

Diagnostic Criteria for DKA: Serum glucose greater than 200mg/dL, Moderate Ketonuria or Ketonemia, Serum Bicarb less than 16 mEq/L, Venous or Arterial pH less than 7.3(NOTE)*
Diagnostic Criteria for HHS: Serum glucose greater than 600mg/dL, Absent to Minimal Ketonuria or ketonemia, Serum Bicarb greater than 15 mEq/L, Venous or Arterial pH greater than 7.3, altered consciousness(NOTE)*

☑ Notify Provider
Comments: Notify Provider for K+ < 3.5 mEq/L or > 5.0 mEq/L, Blood glucose < 80 mg/dL or > 400 mg/dL, Phosphorous < 2.0 mg/dL.

☑ Notify Provider
Comments: Notify Provider if onset of headache or worsening headache, any mental status change or alteration of vital signs.

Vital Signs

☑ Cardiac Monitoring.
T;N, Stat

☑ Vital Signs POC
Q1h

Diet

☐ Diet Order
NPO

Patient Care

☐ ECG 12 lead
T;N, Stat, Once

☐ I&O POC
Strict I&O

☐ Insert Foley Catheter
T;N, Indwelling

☐ Precautions
T;N, Constant Order, Falls Precautions

☑ Neuro Checks
Q1h

☑ Height & Weight POC
T;N, Stat

☑ Blood Glucose POC
T;N, q30minutes, Stat

☑ Saline Lock Insertion
T;N, Once, Stat

Respiratory

☐ Oxygen Therapy
T;N, 2 L, Nasal Cannula (DEF)*
T;N, 3 L, Nasal Cannula
T;N, 4 L, Nasal Cannula, Humidified
T;N, 5 L, Nasal Cannula, Humidified
T;N, 6 L, Nasal Cannula, Humidified

☐ Oxygen Titrate
keep O2 Sat greater than or equal to 94%. (DEF)*
keep O2 Sat greater than or equal to 92%.
keep O2 Sat greater than or equal to 91%
keep O2 Sat greater than or equal to 90%
keep O2 Sat greater than or equal to 89%
keep O2 Sat greater than or equal patients baseline.

☐ Pulse Oximetry POC
T;N, Stat, PRN

☐ ABG Draw (Resp)
T;N, Stat

☑ Pulse Oximetry Continuous
T;N, Stat

IV Solutions

Initial Fluid Resuscitation suggested 10-20 mL/kg over 1 hour. Maximum of 30 mL/kg(NOTE)*

☐ NS Bolus
*10 mL/kg, IV, Once, STAT, Start date: T;N (DEF)**
Comments: Run over 1 hour. Max of 30 mL/kg.
*20 mL/kg, IV, Once, STAT, Start date: T;N (DEF)**
Comments: Run over 1 hour. Max of 30 mL/kg.
*30 mL/kg, IV, Once, STAT, Start date: T;N (DEF)**
Comments: Run over 1 hour. Max of 30 mL/kg.

☐ LR Bolus
*10 mL/kg, IV, Once, STAT, Start date: T;N (DEF)**
Comments: Run over 1 hour. Max of 30 mL/kg.
*20 mL/kg, IV, Once, STAT, Start date: T;N (DEF)**
Comments: Run over 1 hour. Max of 30 mL/kg.
*30 mL/kg, IV, Once, STAT, Start date: T;N (DEF)**
Comments: Run over 1 hour. Max of 30 mL/kg.

Maintenance Fluids: Two bag system given at 1.5x normal rate(NOTE)*
Total Fluid Rate = 1.5 x maintenance (Maximum 175 mL/kg/hr total) (NOTE)*
Potassium in Fluids should be ordered based on initial serum K. See sections below.(NOTE)*

For Initial Serum K <5 mMol/L, add 30 mEq/L potassium acetate and 30 mEq/L Potassium phosphate to Normal Saline bag and D10 1/2NS bag. (NOTE)* highlight note yellow

☐ Potassium Acetate 30 mEq/L + Potassium Phosphate 30 mEq/L + NS 1,000 mL Continuous
Rate field = See Comments
Potassium Acetate additive
15 mL
Potassium Phosphate additive
6.8 *mL*
Sodium Chloride 0.9%
1,000 mL
Comments: Run continuous with D10 1/2NS containing infusion into single line.
Combined fluids from BOTH bags must = total mL/hr. For Fluid adjustment:
If blood glucose greater than 300, give at ____ mL/hr (100% total rate)
If blood glucose is 251-300, give at ____ mL/hr (75% total rate)
If blood glucose is 201-250, give at ____ mL/hr (50% total rate)
If blood glucose is 151-200, give at ____ mL/hr (25% total rate)
If blood glucose less than or equal to 150, stop the NS containing infusion.

☐ Potassium Acetate 30 mEq/L + Potassium Phosphate 30 mEq/L + D10 1/2NS 1,000 mL
Rate field = See Comments
Potassium Acetate additive
15 *mL*
Potassium Phosphate additive
6.8 *mL*
Dextrose 10%, 0.45% Sodium Chloride
1,000 mL
Comments: Run continuous with NS containing infusion order into single line.
Combined fluids from BOTH bags must = total mL/hr. For Fluid adjustment:
If blood glucose greater than 300, stop the D10 1/2NS infusion.
If blood glucose is 251-300, give at ____ mL/hr (25% total rate)
If blood glucose is 201-250, give at ____ mL/hr (50% total rate)
If blood glucose is 151-200, give at ____ mL/hr (75% total rate)
If blood glucose less than or equal to 150, give at ____ mL/hr (100% total rate)

For Initial Serum K 5 – 5.9 mMol/L, add 20 mEq/L potassium acetate and 20 mEq/L Potassium phosphate to Normal Saline bag and D10 1/2NS bag. (NOTE)* highlight note yellow

☐ Potassium Acetate 20 mEq/L + Potassium Phosphate 20 mEq/L + NS 1,000 mL Continuous
Rate field = See Comments
Potassium Acetate additive
10 mL
Potassium Phosphate additive
4.6 mL
Sodium Chloride 0.9%
1,000 mL
Comments: Run continuous with D10 1/2NS containing infusion into single line.
Combined fluids from BOTH bags must total mL/hr. For Fluid adjustment:
If blood glucose greater than 300, give at ____ mL/hr (100% total rate)
If blood glucose is 251-300, give at ____ mL/hr (75% total rate)
If blood glucose is 201-250, give at ____ mL/hr (50% total rate)
If blood glucose is 151-200, give at ____ mL/hr (25% total rate)
If blood glucose less than or equal to 150, stop the NS containing infusion.

☐ Potassium Acetate 20 mEq/L + Potassium Phosphate 20 mEq/L + D10 1/2NS 1,000 mL
Rate field = See Comments
Potassium Acetate
10 mL
Potassium Phosphate
4.6 mL
Dextrose 10%, 0.45% Sodium Chloride
1,000 mL
Comments: Run continuous with NS containing infusion order into single line.
Combined fluids from BOTH bags must = total mL/hr. For Fluid adjustment:
If blood glucose greater than 300, stop the D10 1/2NS infusion.
If blood glucose is 251-300, give at ____ mL/hr (25% total rate)
If blood glucose is 201-250, give at ____ mL/hr (50% total rate)
If blood glucose is 151-200, give at ____ mL/hr (75% total rate)
If blood glucose less than or equal to 150, give at ____ mL/hr (100% total rate)

For Initial Serum K > 5.9 mMol/L, Do not add any potassium acetate or Potassium phosphate to Normal Saline bag and D10 1/2NS bag. (NOTE)* highlight note yellow

☐ NS
1,000 mL, IV, STAT, Start date: T;N, Rate field = See Comments *mL/hr* (DEF)*
Comments: Comments: Run continuous with D10 1/2NS containing infusion into single line. Combined fluids from BOTH bags must total mL/hr. For Fluid

adjustment:
If blood glucose greater than 300, give at ____ mL/hr (100% total rate)
If blood glucose is 251-300, give at ____ mL/hr (75% total rate)
If blood glucose is 201-250, give at ____ mL/hr (50% total rate)
If blood glucose is 151-200, give at ____ mL/hr (25% total rate)
If blood glucose less than or equal to 150, stop the NS containing infusion.

☐ D10W 1/2 NS
1,000 mL, IV, STAT, Start date: T;N, Rate field = See Comments *mL/hr* (DEF)*
Comments: Run continuous with NS containing infusion order into single line. Combined fluids from BOTH bags must = total mL/hr. For Fluid adjustment:
If blood glucose greater than 300, stop the D10 1/2NS infusion.
If blood glucose is 251-300, give at ____ mL/hr (25% total rate)
If blood glucose is 201-250, give at ____ mL/hr (50% total rate)
If blood glucose is 151-200, give at ____ mL/hr (75% total rate)
If blood glucose less than or equal to 150, give at ____ mL/hr (100% total rate)

☑ Nursing Communication
When Blood Glucose less than 250mg/dl AND anion gap less than 11mEq/L or serum bicarb greater than 18mEq/L - Notify provider for order to change IV Fluids to D5W-1/2NS at current rate.

Medications

DO NOT START INSULIN - until Metabolic Profile is resulted and Serum Potassium is above 3.5 mEq/L(NOTE)*

☐ Insulin human 100 units/100 mL Premix (IVS)*
Sodium Chloride 0.9% Premix Diluent
100 mL, IV, Routine, See Infusion instructions
Comments: Begin at rate of 0.1 Units/kg/hr after initial fluid bolus is complete. Lower rate of 0.05 Units/kr/hr may be used initially for children < 2 years of age who may be more sensitive to insulin.
insulin regular
100 unit(s)

☐ ondansetron
0.1 mg/kg, Vial, IV Push, Once, STAT, Start date: T;N (DEF)*
Comments: Maximum 4 mg
2 mg, Vial, IV Push, Once, STAT, Start date: T;N
4 mg, Vial, IV Push, Once, STAT, Start date: T;N

☑ Nursing Communication
DO NOT START INSULIN - until Metabolic Profile is resulted and Serum Potassium is above 3.5 mEq/L.

☑ Notify Provider
Comments: Hold insulin infusion and notify provider if Blood Glucose falls below 100 mg/dL.

Laboratory

☐ SARS-CoV-2 (COVID-19) Antigen
Nasopharyngeal Swab, Stat collect, T;N

☐ Hgb A1C
Blood, Stat collect, T;N

☐ CPK
Blood, Stat collect, T;N

☐ Lipase Level
Blood, Stat collect, T;N

☐ ED Blood Culture X 2 - IMH(SUB)*

☐ Beta hCG Quant.
Blood, Stat collect, T;N

☐ hCG Qual Urine
Urine, Stat collect, T;N, Nurse Collect
Comments: may straight cath if unable to obtain

☐ Urine Medical Drug Screen
Urine, Stat collect, T;N, Nurse Collect
Comments: may straight cath if unable to obtain

☑ CBC w/Auto Diff
Blood, Stat collect, T;N

☑ Comprehensive Metabolic Panel
Blood, Stat collect, T;N

☑ +2Hrs Basic Metabolic Panel
Blood, Stat collect, Q2hr

☑ Magnesium Level
Blood, Stat collect, T;N

☑ Phosphorous Level –
Blood, Stat collect, T;N

☑ Venous Blood Gas
Blood, Stat collect, T;N

☑ Urinalysis Complete.
Urine, Stat collect, T;N, Nurse Collect
Comments: May straight cath if unable to obtain.

***Report Legend:**
DEF - This order sentence is the default for the selected order
GOAL - This component is a goal
IND - This component is an indicator
INT - This component is an intervention
IVS - This component is an IV Set
NOTE - This component is a note
Rx - This component is a prescription
SUB - This component is a subphase