COHESIVE HEALTHCARE MANAGEMENT & CONSULTING

Mangum Regional Medical Center

TITLE		POLICY
DKA/Insulin Drip Protocol		**DRP-005**
MANUAL	EFFECTIVE DATE	REVIEW DATE
Drug Room	**10-1-2020**	**10-1-2020**
DEPARTMENT	REFERENCE	
Drug Room	**https://www.aafp.org**	

SCOPE

This protocol applies to adult patients at Mangum Regional Medical Center for the acute management of Diabetic Ketoacidosis (DKA).

PURPOSE

The purpose of this protocol is to assist with streamlining the diagnostic work-up and treatment of DKA.

DEFINITION

DKA: Moderate ketonemia, arterial pH <7.3, serum glucose >250 mg/dL, serum bicarbonate <18 mEq/L

PROCEDURE

Monitor and Record:

- Vital signs & I&O every hour until stable, then every 2 hours x 24 hours
- Insert Foley if no urine output within the first hour
- STAT finger stick (capillary) blood glucose
  (Use venous or arterial draw if glucose >450 or <45 mg/dL or SBP <60 mmHg)
- Accuchecks every hour
- Accuchecks every 4 hours
- Neuro checks every 2 hours (maintain seizure precautions) x 24 hour
- Initiate and complete Insulin Drip Flowsheet until patient is transitioned off insulin drip

Diet:

- NPO
- NPO except Ice Chips
- Other_____

Admission Labs:
 CBC with Differential
 Comprehensive Metabolic Profile
 Serum Magnesium level
 Serum Phosphorus level
 Venous blood gas
 Blood cultures x 2
 Urine C&S
 Hgb A1C
 TSH
 Serum osmolarity (measured)
 Record acidosis-ketosis gap (AKG = arterial pH – plasma ß-hydroxybutyrate. AKG >3 may indicate drug abuse)
 Other labs: _____

Adult DKA Every 4 hour Labs for initial 24 Hours:

 Basic Metabolic Panel with Total Calcium, Magnesium, Phosphorus
 Serum ketones
 Venous Blood Gas

Additional Diagnostic Tests:
 EKG
 CXR
 Portable CXR

Initial IV Fluids:
 Consider IV Bicarbonate therapy for pH less than or equal to 7
 Bolus Sodium Chloride 0.9% IV to run at 999ml/hr for _____ liters

Maintenance IV Fluids:

 Dextrose 5% - Sodium Chloride 0.45% to run at ____ ml/hr
 Sodium Chloride 0.9% IV to run at ____ mL/hr
 Sodium Chloride 0.9% with KCl 20mEq/L IV to run at ____ mL/hr
 Sodium Chloride 0.9% with KCl 40mEq/L IV to run at ____ ml/hr
 Sodium Chloride 0.45% to run at ____ ml/hr
 Sodium Chloride 0.45% with 75mEq of Sodium Bicarbonate to run at ___ mL/hr

Insulin Bolus and Infusion:

□ Regular insulin 0.15 units/kg IV x 1 dose now
□ Regular insulin ____ units IV x 1 dose now (Typically dosed 10-15 units)
□ Regular insulin 100units/100mL IV to start at 0.1units/kg/hr
□ Regular insulin 100units/100mL IV to start at maintenance dose
(Initial rate typically dosed based on glucose level divided by 100)

Insulin Infusion Rate Algorithm:

Blood Sugar Level	Insulin Drip units/hour
< 60	Treat Hypoglycemia
61-69	Turn IV Drip Off
70-109	0.5
110-119	1
120-149	1.5
150-179	2
180-209	3
210-239	4
240-269	5
270-299	6
300-329	7
330-359	8
> 360	12

Treatment of Hypoglycemia:
□ Initiate Hypoglycemic Protocol

Electrolyte Supplementation:
□ Magnesium Supplementation
- Magnesium sulfate 1gm IVPB x 1 dose

□ Phosphate Supplementation
- Potassium phosphate 10mmol IVPB x 1 dose
- Potassium phosphate 20mmol IVPB x 1 dose

□ Potassium Supplementation
- Potassium chloride 20mEq IVPB x 1 dose

Stress Ulcer Prophylaxis:
□ Carafate 1gm NG Tube every 6 hours
□ Zantac 50mg IVPB every 8 hours

 Protonix 40mg IV Push daily

REFERENCES

https://www.aafp.org/afp/2005/0501/p1705.html

ATTACHMENTS

None.

REVISIONS/UPDATES

Date	Brief Description of Revision/Change