

Ketogenic Diet Readmission Care Guideline

Inclusion Criteria: any child admitted to the hospital who is currently on the Ketogenic Diet

Assessment

- Vital signs q 4 hrs until tolerating diet (without emesis or hypoglycemia), then per unit standards of care
- Weights per unit protocol

Interventions

- Seizure precautions
- Continue prescribed antiepileptic drugs; pharmacy to ensure keto friendly brands for all medications
- Labs: CMP and serum ketones (KET) on admit, BMP and KET daily while NPO
- Monitor for acidosis; treat if symptomatic and/or $\text{CO}_2 < 20$ mmol/L with oral sodium bicarbonate 1 mEq/kg BID
- Accuchecks q 4_hrs while NPO.
- DC accuchecks when tolerating full diet and normoglycemic x 24 hrs
- If blood glucose < 40 mg/dL or patient symptomatic, give 15 mL juice and recheck in ½ hr (repeat as necessary until > 50 mg/dL). If NPO, give 0.25 gm/kg D10W. Notify provider
- If intractable hypoglycemia (3 episodes of BG < 40 mg/dL within 24 hrs), consider D2.5W-D5W continuous infusion to maintain blood glucose 50-80 mg/dL
- Urine ketones, specific gravity, and pH q 24 hrs; if specific gravity > 1.030 consider fluid bolus (no dextrose)
- Fluids – maintenance divided throughout the day (caffeine and calorie free). If NPO, provide maintenance IV (no dextrose)
- Consults: Nutrition and Child Life

Recommendations/ Considerations and Information

- Patients who are on the ketogenic diet are followed by a multi-disciplinary team
- It is essential for the patient to remain in ketosis at all times
- Avoid giving IVF with Dextrose, unless warranted per Care Guidelines
- Avoid making changes to medicines without consulting the Pharmacy for the carbohydrate content
- Patients on the ketogenic diet are able to fast like other kids. But do need blood sugar monitoring, especially close attention after 12 hours of fasting

Goals

- Blood glucose: 50-80 mg/dL
- Urine ketones: 80-160 mg/dL (moderate-large)
- Urine Specific Gravity: 1.010-1.020
- Urine pH: 6-8
- Ketones (Beta-Hydroxybutyrate): 40-80 mg/dL (4-8 mmol/L)
- Goal: $\text{CO}_2 \geq 20$ mmol/L

Diet Advancement

Ketogenic Oral (PO)

- Clear liquids – sugar-free, caffeine free: water, ice chips, diet caffeine free soda, sugar-free jello, carbohydrate free broth, Powerade Zero
- Start with ½ portion of calculated meal x 2-3 meals as tolerated, then advance to full volume meals

Ketogenic Enteral

- Clear liquids – pedialyte vs free water (consult with RD)
- Ketogenic formula recipe, start slowly, then advance to full volume per home regimen, as tolerated

Discharge Criteria

- Consumed and tolerated 3 full strength ketogenic meals or feedings
- Normoglycemic (> 50 mg/dL) for previous 12 hrs

References

Ketogenic Diet Initiation Care Guideline

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