Severe Hypertriglyceridemia (SHTG): Care for the non-diabetic patient

Children's Mercy KANSAS CITY

Transfer pt to inpt unit*
(*general inpt unit should be 6 Henson, if bed available, or PICU if pt. unstable)

POC BG q1hr for first 24hrs (if stable discuss frequency with endocrinology
*Inpt labs

*Inpatient labs:
- BMP every 6 hours
- TG every 6 hours
- CBC daily if pt has AP
- Clinical assessment for fluid overload q12hr

Goals for SHTG Care Process
- Decrease TG level with the use of insulin (insulin drip titrated to max of 0.3 unit/kg/hour).
- Dextrose infused in parallel to prevent hypoglycemia and/or maintain euglycemia.
- Consider IVF to maintain hydration

Is BG > 80 mg/dL
No → Treat hypoglycemia

Yes

TG typically decreases by 50-75% in 2-3 days

Is the TG level < 1000 mg/dL
No → **Increase** insulin drip up by 0.05 unit/kg/hr (max 0.3 unit/kg/hr)

Yes

Continue D_{10} IV Fluids

Recheck Cl at q6hr

Does pt. meet criteria to discontinue IV Fluids?
No → Is pt chloride < 115 mmol/L?
No → **Physician** switch to D_{10}½NS
Yes → Recheck Cl at q6hr

Yes

Criteria to d/c IV Fluids:
- Tolerating oral intake or enteral feeds at goal rate
- If D10 stopped and pt not tolerating PO/enteral feeds, *discuss with GI*

Does pt. meet criteria to discontinue insulin drip?
No → Continue IV insulin at current rate

Yes

Criteria to d/c Insulin drip:
- TG < 500 mg/dL
- TG = 500 - 1,000 mg/dL - if not dropping further in 2-3 days - discuss with Endocrine

- Discontinue insulin drip and IV Fluids
- Begin clear liquid diet when:
  - Pt. states hunger
  - No GI symptoms (abdominal pain, nausea, vomiting)
- Advance to low fat diet as tolerated

Meets discharge criteria?
TG <1,000 mg/dL*
Tolerating oral intake
(*Once PO resumed, rebound of TG up to 1,000 mg/dL is expected)

SHTG patient presents to ED

Regular Insulin drip:
- Start at 0.1 unit/kg/hr
- As tolerated, increase rate in increments of 0.05 units/kg/hr (increase q6hr)

POC Blood Glucose Checks
- Check 15 minutes after insulin start
- Check 15 minutes after any rate change to insulin drip
- Once patient stabilized at (determine rate & time) check q1h

IV Fluids bag components:
- Start at 1.5x maintenance
- D_{10}NS w/20mEq/L K Acetate & 20mEq/L K Phosphate
- Switch to D_{10}1/2 NS w/ 20 mEq/L K Acetate & 20 mEq/L K Phosphate if chloride gets too high (>115 mmol/L)

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For additional information, link to synopsis .