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

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

Pt. presents to ED with severe hypertriglyceridemia (SHTG) +/- acute pancreatitis (AP) (TG > 1000 mg/dL)

Is pt. known or suspected new onset diabetes mellitus (DM)?

- No → Initial treatment
- Yes → Is pt. in diabetic ketoacidosis (DKA)?

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- No → Initial treatment
- Yes → Follow the Initial diabetic ketoacidosis (DKA) and hyperglycemic hyperosmolar syndrome (HHS) care algorithm

Initial treatment
- Initial labs - BMP, TG level, lipase and CBC
- Begin Intravenous (IV) fluids: $D_{10}NS$ at 1.5x maintenance rate
- Begin Insulin drip via IV: 0.1 unit/kg/hr-
- Pt NPO
- Initiate pain control methods
- Consult Endocrine
- Consider GI consult if pancreatitis present

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

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

IVF 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)

This care process model is meant as a guide for the healthcare provider, does not establish a standard of care, and is not a substitute for medical judgment which should be applied based upon the individual circumstances and clinical condition of the patient.