Beta Blocker (BB)/ Calcium Channel Blocker (CCB) Adult Overdose Pathway (Finalized May 2020)

Entrance criteria: Known beta-blocker and/or calcium channel blocker overdose with hemodynamic instability (shock/relative bradycardia)

- Note: Dihydropyridine calcium channel blockers can be initially tachycardic – please enter this pathway if evidence of shock

Step 1 (BB, CCB, or both **)
- Lactated Ringers 20ml/kg
- Calcium Gluconate 3g (peripheral line)
- Epinephrine infusion (titration allowed up to 20mcg/min)
  ** for both, go to 2c while performing step 1

Step 2a (BB only)
- Glucagon 10mg bolus over 10 minutes and if bolus effective, then Glucagon 3mg/hr infusion (titrate to HR Q5min) can go to 5mg/hr (if bolus not effective or bolus effective but 5mg/hr infusion not effective, please call poison control to discuss glucagon rate increase)

Step 2b (CCB only)
- High Dose Insulin/Euglycemia (HIE) Protocol
  - If patient becomes significantly hypoglycemic, rethink diagnosis and call poison control

Step 3 (BB, CCB, or both except for atenolol)***
- Intralipid (20% fat emulsion) 1.5ml/kg bolus + 0.25ml/kg/min x 60 minutes
  - In a normal sized adult (~70kg) this equates to 1 liter over one hour

Therapies that are generally ineffective:
- Pacing
- Atropine

*** Dialysis can be considered for atenolol

Step 4 (BB or CCB)
- Consider VA ECMO

Step 2c (Both)
- Check fingerstick and call poison control for guidance regarding using HIE or glucagon

HIE protocol:
- Insulin 0.5-1unit/kg bolus + 0.5-1units/kg/hr infusion
- Titrate to effect (goal HR, BP)
- Dextrose 50g bolus (25g syringes) + D20W infusion 100ml/hr (central line is best)
- Hold dextrose if POC BG>300mg/dL, titrate D20W to effect with blood glucose 150-200 mg/dL

*Insulin linked labs: K+ Q2H, Na+ Q4H, Blood glucose q15 min x 1 hour and q 30 min x 2 hour, if stable and no dose changes, can do q1 hour

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