

Dialysis / Renal Failure

History

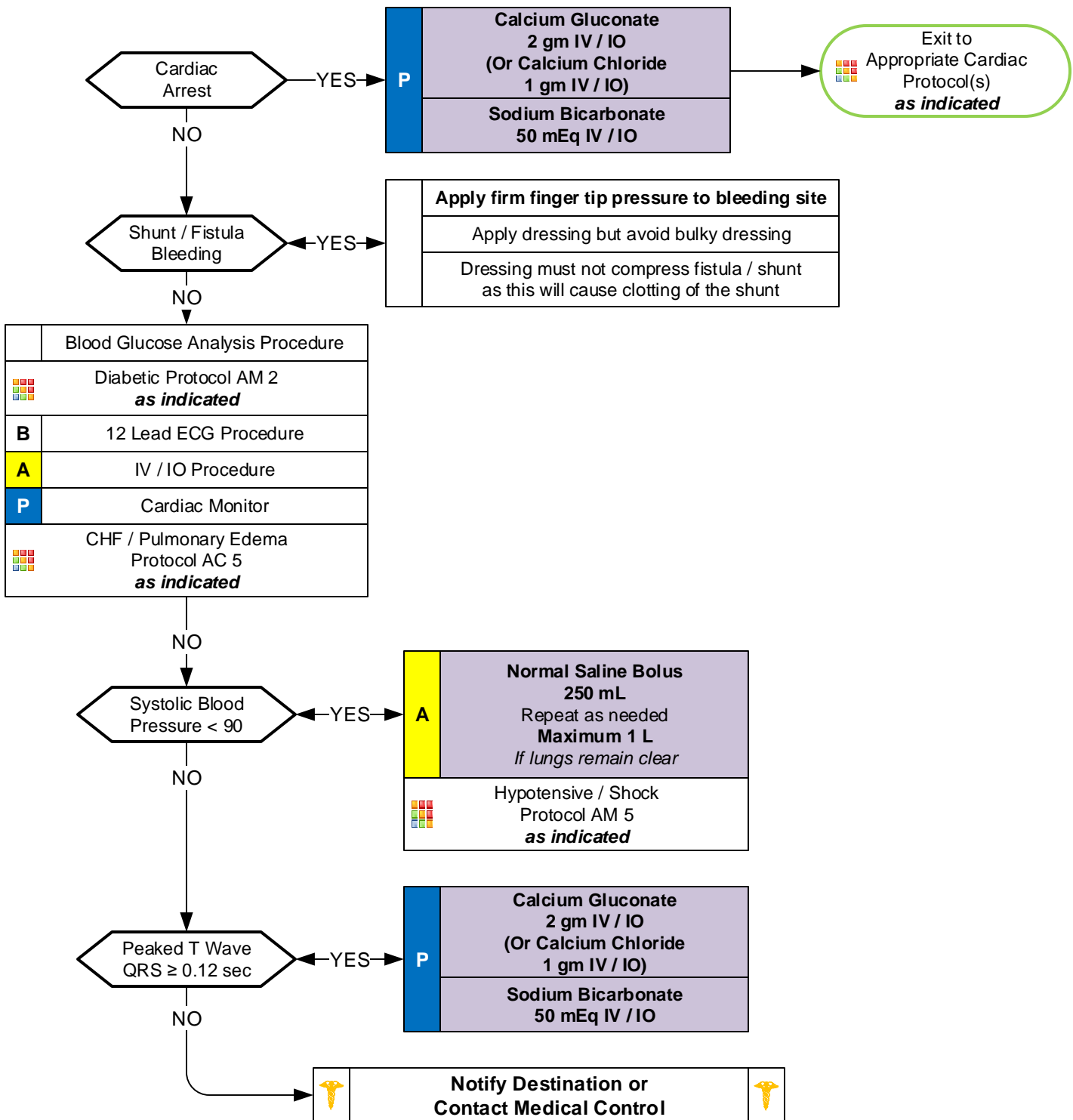
- Peritoneal or Hemodialysis
- Anemia
- Catheter access noted
- Shunt access noted
- Hyperkalemia

Signs and Symptoms

- Hypotension
- Bleeding
- Fever
- Electrolyte imbalance
- Nausea and / or vomiting
- Altered Mental Status
- Seizure
- Arrhythmia

Differential

- Congestive heart failure
- Pericarditis
- Diabetic emergency
- Sepsis
- Cardiac tamponade



Dialysis / Renal Failure

Pearls

- **Recommended exam: Mental status. Neurological. Lungs. Heart.**
 - **Consider transport to medical facility capable of providing Dialysis treatment.**
 - **Do not take Blood Pressure or start IV in extremity which has a shunt / fistula in place.**
 - **Access of shunt indicated in the dead or near-dead patient only with no IV or IO access.**
 - **If hemorrhage cannot be controlled with firm, uninterrupted direct pressure, application of tourniquet with uncontrolled dialysis fistula bleeding is indicated.**
 - **Hemodialysis:**
 - Process which removes waste from the blood stream and occurs about three times each week.
 - Some patients do perform hemodialysis at home.
 - **Peritoneal dialysis:**
 - If patient complains of fever, abdominal pain, and / or back pain, bring the PD fluid bag, which has drained from the abdomen, to the hospital.
- Complications of Dialysis Treatment:**
- Hypotension:
Typically responds to small fluid bolus of 250 mL Normal Saline. May result in angina, AMS, seizure or arrhythmia.
- Filtration and decreased blood levels of some medications like some seizure medications:
- Disequilibrium syndrome:
Shift of metabolic waste and electrolytes causing weakness, dizziness, nausea and / or vomiting and seizures.
- Equipment malfunction:
Air embolism.
Bleeding.
Electrolyte imbalance.
Fever.
- **Fever:**
 - Consider sepsis in a dialysis patient with any catheter extending outside the body.
 - Always consider Hyperkalemia in all dialysis or renal failure patients.
 - Sodium Bicarbonate and Calcium Chloride / Gluconate should not be mixed. Ideally give in separate lines.
 - Renal dialysis patients have numerous medical problems typically. Hypertension and cardiac disease are prevalent.