ADULT MEDICAL EMERGENCIES: DIALYSIS / RENAL PATIENT

E	EMT	E
A	AEMT	A
P	PARAMEDIC	P
M	MED CONTROL	M

UNIVERSAL PATIENT CARE PROTOCOL

Monitor Vital Signs

AIRWAY PROTOCOL

IV / IO PROCEDURE
(Use Shunt ONLY in Full Arrest)
(Use Straight Needle)

12 LEAD EKG PROCEDURE
1ST Contact to EKG and Transmission < 10 Min

Breathing Difficulty

Assess Breath Sounds

See Respiratory Distress Protocol

Suspected Hyperkalemia (increased potassium levels)

Pt. missed dialysis
Tall Peaked T waves
Bradycardia

CALCIUM GLUCONATE
1 gram IVP

SODIUM BICARBONATE
1 Amp IVP

Pulmonary Edema

See Pulmonary Edema Protocol

Symptomatic Hypertension w/ Pulmonary Edema

Blurred Vision
Headache
Diaphoresis/Chest Pain

See Chest Pain Protocol

SBP > 220 or DBP > 120

Review Blood Pressure
Obtain 2 Readings – 1 Each Arm
** At Least 1 Manual BP **

LABETALOL (TRANDATE)
10 mg IVP SLOW over 2 min

STOP Bradycardia, CHF, Asthma
⚠ Give Slow

10 – 15 Min Post Administration
Recheck BP – Is Systolic Still > 220 or Diastolic > 120

LABETALOL (TRANDATE)
20 mg IVP SLOW over 2 min

STOP Bradycardia, CHF, Asthma
⚠ Give Slow

TRANSPORT to appropriate facility
CONTACT receiving facility
CONSULT Medical Direction where indicated

ADULT MEDICAL EMERGENCIES: DIALYSIS / RENAL PATIENT-Cont.

PEARLS and KEY POINTS

HISTORY	SIGNS AND SYMPTOMS	DIFFERENTIAL DIAGNOSIS
• Renal failure • Dialysis treatment • Anemia • Dialysis treatment schedule • Previous implications • Long term catheter access • Shunt access • Hyperkalemia	• Hypotension • Bleeding • Fever • Electrolyte imbalances • Nausea • Vomiting • Altered mental status • Seizure • Dysrhythmias	• Congestive heart failure • Pericarditis • Diabetic problem

The chronic renal dialysis patient has numerous medical problems. The kidneys help maintain electrolyte balance, acid-base balance and rid the body of metabolic waste. Kidney failure results in a build-up of toxins within the body, which can cause many problems.

Dialysis is a process which filters out the toxins, excess fluids and restores electrolyte balance. The process may be done in two ways:

1. **Peritoneal Dialysis**
   Toxins are absorbed by osmosis through a solution infused into the peritoneal cavity; and then drained out. The solution is placed into the abdomen by means of a catheter, which is placed below the navel. This process must be done frequently, as frequently as every 12 hours for a period of 1 - 2 hours.

2. **Hemodialysis**
   Removes toxins by directly filtering the blood using equipment that functions like an electric Kidney, circulating the blood through a Shunt that is connected to a vein and an artery. This process usually needs to be done every 2 - 3 days for a period of 3 - 5 hours. A permanent shunt can be surgically formed as a fistula.

POSSIBLE COMPLICATIONS OF DIALYSIS TREATMENT

1. Hypotension (15-30%)
   - May result in angina, MI, dysrhythmia, altered mental status, and seizure
2. Removal of therapeutic medications
   - Example: Tegretol
3. Disequilibrium syndrome
   - Cause: shift of urea and / or electrolytes
   - Signs and symptoms: Nausea and / or vomiting, altered mentation, or seizure
4. Bleeding
   - These patients are often treated with heparin and they may have a low platelet count
   - Bleeding may be at the catheter site, retro peritoneal, gastrointestinal, or subdural
5. Equipment malfunctions
   - Possible air embolus
   - Possible fever or endotoxin

- Do not take blood pressure in arm that has the shunt. Use shunt for IV access ONLY if full arrest.
- Access a dialysis shunt with a standard straight needle connected to IV tubing. IV catheters will be compressed by the wall of the shunt and will not flow correctly.
  A dialysis patient may not respond to drug therapy. A renal patient in full cardiac arrest should be treated according to current ACLS guidelines.