Peritoneal Dialysis Adequacy 2006
- Clinical practice guidelines for peritoneal dialysis adequacy

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Initiation of dialysis

1. Preparation for kidney failure

Pateints who reach chronic kidney disease (CKD) stage 4 (estimated GFR <30 mL/min/1.73m2) should receive timely education about kidney failure and options for its treatment and conservative treatment. Patients family members and caregivers also should be educated about treatment choices for kidney failure.

2. Estimation of kidney function

GFR should be estimated by using a validated estimating equation or bu measurement of creatinine and urea clearance, not simply by measurement of serum creatinine and urea nitrogen.

3. Timing of therapy

When patients reach stage 5 CKD (estimated GFR <15 mL/min/1.73m2), nephrologists should evaluate the benefits, risks, and disadvantages of beginning kidney replacement therapy (KRT). Particular clinical considerations and certain characteristic complications of kidney failure may prompt initiation of therapy before stage 5.

Peritoneal dialysis solute clearance targets and measurements

1. For patients with residual kidney function (RKF) (considered to be significant when urine volume (UV) is 〉100 mL/d):

1) The minimal delivery dose of total small-solute clearance should be a total (peritoneal and kidney) Kt/Vurea of at least 1.7 per week.
2) Total solute clearance should be measured within the first month after initiating dialysis therapy and at least once every 4 months thereafter.
3) If the patient has greater than 100 mL/d of RKD and RKclearance is being considered as part of the patients total weekly solute clearance goal, a 24-h urine collection for urine volume and solute clearance determinations should be obtained at a minimum of every 2 months.

2. For patients without RKF (considered insignificant when UV is 100 mL/d):

1) The minimal delivery dose of total small-solute clearance should be a peritoneal Kt/V_{urea} of at least 1.7 per week measured within the first month after starting dialysis therapy and at least once every 4 months thereafter.

Preservation of residual kidney function

1. It is important to monitor and preserve RKF.
2. In the patients with RKF who needs antihypertensive medication, preference should be given to the use of ACE inhibitors or angiotensin receptor blockers (ARBs).
3. In the normotensive patients with RKF, consideration should be given to the use of ACE inhibitors or ARBs for kidney preservation.
4. Insults of RKF in patients with CKD also should be considered insults to RKF in PD patients and should be avoided when possible.

Maintenance of euvolemia

1. Each facility should be implement of program that monitors and reviews peritoneal dialysate drain volume, RKF, and patients blood pressure on a monthly basis.
2. Some of the therapies one should consider to optimize extracellular water and blood volume include, but are not limited to, restricting delivery sodium and water intake, use of diuretics in patients with RKF, and optimization of peritoneal ultrafiltration volume and sodium removal.

Quality improvement programs

1. Each home-training unit should establish quality improvement programs with the goal of monitoring clinical outcomes and implementing programs that result in improvements in patient care.
2. Quality improvement programs should include representatives of all disciplines involved in the care of the PD patient, including physicians, midlevel practitioners, nurses, social workers, dietitians, and administrators.
3. Suggested domains of clinical activities one should consider monitoring are listed such as peritonitis rates, exit-site infection rates, technique failure rates, patient satisfaction, quality of life, catheter related problems and catheter survival rate, etc.