2000 ESRD Clinical Performance Measures Project
Dialysis Facility Questionnaire
Opportunities for Improvement

HCFA's ESRD Clinical Performance Measures (CPM) Project has collected information from facilities for the past two years. The Facility Questionnaire asks questions about post-dialysis BUN sampling, HD Adequacy CPM IV[1] and baseline measurement of total cell volume (TCV) of dialyzers intended for reuse, HD Adequacy CPM V[2]. These two clinical performance measures are important because an accurate measurement of the change in BUN concentration can only be made when blood samples are collected properly. Likewise, an accurate assessment of the solute clearance of the dialyzer (baseline TCV) is needed since it is a critical variable in writing a hemodialysis prescription and in delivering an adequate treatment.

Post Dialysis BUN Sampling Policy and Audit
Drawing post-BUN blood samples in the method specified by HD Adequacy CPM IV assures consistency of kinetic modeling results by minimizing sample dilution from access recirculation and minimizing the confounding effects of urea rebound. As part of your facility's quality improvement program, regular formal, documented audits should be done to assure that staff is adhering to the written policy which should comply with HD Adequacy CPM IV.

The most recent data about HD Adequacy CPM IV collected from a sample of dialysis facilities found that: (see Supplemental Report #2 – Hemodialysis CPMs IV and V: Results from the Pilot-Test of the Facility Questionnaire, 1999-2000 and/or visit www.hcfa.gov/quality/3m.htm on the Internet)

- 92% (153/166) of facilities reported that they had a written policy for post-dialysis BUN sampling.
- 81% (124/153) of the facilities that had a written policy reported that they were drawing the sample in adherence to the NKF-DOQI guidelines.
- 34% (52/153) reported conducting a formal, documented audit to assure adherence to the policy.

Baseline Measurement of Total Cell Volume (TCV) in Dialyzers Intended for Reuse
The TCV of each dialyzer varies. To assure accurate monitoring of reused dialyzers HD Adequacy CPM V specifically states that if dialyzer reuse is practiced, baseline TCV should be measured on ***each*** dialyzer prior to its first use. Batch testing or group averages are identified as unacceptable practice. In addition, NKF-DOQI Hemodialysis Adequacy Clinical Practice Guideline No. 11 rationale states that, due to lot to lot variation as well as dialyzer to dialyzer variation within a single lot, it is unacceptable practice to infer baseline TCV from the manufacturer's information. As part of your facility's quality improvement program, care should be taken to assure that your facility is adhering to HD Adequacy CPM V with regards to reuse practices.

The most recent data about HD Adequacy CPM V collected from facilities found that: (see Supplemental Report #2 – Hemodialysis CPMS IV and V: Results from the Pilot-Test of the Facility Questionnaire, 1999-2000 and/or visit www.hcfa.gov/quality/3m.htm on the Internet)

- 74% (123/166) of facilities reported reusing dialyzers during 1999.
- 76% (94/123) of those facilities reusing dialyzers reported measuring baseline TCV for 95 – 100% of dialyzers.

- **Does your facility have a copy of the NKF-DOQI Clinical Practice Guidelines available for staff review?**
- **Are you aware that these Guidelines are literature-based and have been developed to focus on the ultimate improvement of the quality and outcomes of dialysis care?**
- **As a dialysis provider it is extremely important that you familiarize yourself with these Guidelines to ensure improved patient outcomes.**

[1] HD Adequacy CPM IV is the number of facilities with written policies requiring post-dialysis BUN sampling to be done using the Slow Flow/Stop Pump Technique (15-60 seconds after slowing or stopping blood flow). This CPM is based on NKF-DOQI Hemodialysis Adequacy Clinical Practice Guideline No. 8. NKF-DOQI Clinical Practice Guidelines for Hemodialysis Adequacy. AM J Kidney Dis 1997;30 (supplement 2)

[2] HD Adequacy CPM V is the number of facilities that measured 100% of dialyzers intended for reuse prior to their first use. This CPM is based on NKF-DOQI Hemodialysis Adequacy Clinical Practice Guideline No. 11. NKF –DOQI Clinical Practice Guidelines for Hemodialyiss Adequacy. Am J Kidney Dis 1997;30 (supplement 2)