Reviewer’s report

Title: Attainment of Clinical Performance Targets and Improvement in Clinical Outcomes and Resource Use in Hemodialysis Care: A Prospective Cohort Study

Version: 1 Date: 17 October 2006

Reviewer: David S Goldfarb

Reviewer’s report:

Major Compulsory Revisions:
1. page 5, study design: please describe in the manuscript how the EQUAL patients were derived from CHOICE. Are they the survivors? What is the timing of EQUAL and CHOICE relative to each other? I believe that neither study was an intervention trial and the text should state that.

2. Page 18: authors include as a limitation: “because most of the factors that we studied here were not the subject of national guidelines at the time we started our study, guideline-directed therapeutic intent cannot be shown”. The authors should be more specific about how the KDOQI guidelines differed at the time (’95-’98) from the present targets which are used to judge the current study cohort.

3. A major limitation of the study is the use of the word "attain" and inclusion of patients who were at the target at initiation. Healthier patients were already at target values at enrollment and therefore they did not "attain" the targets. These healthier patients would be expected to have fewer hospitalizations, lesser morbidity, etc. This would be a more valuable study if the patients who were NOT at target at enrollment, who experienced changes in albumin, hgb, Kt/V, etc were compared to those with similar baseline values who did not improve.

4. The possibility or even likelihood that albumin and hgb are affected by volume status is not entertained here. Patients who “attained” their targets may have been able to achieve them because of better ultrafiltration, achievement of dry weight. Otherwise the achievement of an increase in albumin in a 6 month time period is not easy to accomplishment. Evidence that increases in epo, hgb, Kt/V etc can do this is slight. While the dialysis community made great strides in many clinical performance outcomes in the late years, for albumin “only 39% of patients achieved a serum albumin concentration of >4.0 g/dl in the last quarter of 2003”. This is not to dispute that albumin is associated with outcome; but to imply that it is “attainable”, unless through ultrafiltration, is too simplified.

Minor Essential Revisions:
1. authors should state method of albumin assay, BCP or BCG, whether all patients had same assay or not.
2. page 11, top and again at bottom of page 11, page 12, page 13: "39% (n=133) had attained 0/1 targets at baseline"; this should read "attained 0 OR 1 target out of 5" since it reads as "0 out of 1 target" as later in the sentence you say "attained 2, 3, and 4/5 targets at baseline" which I took to be 2, 3 and 4 OF 5.

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests