Reviewer's report

Title: A review of the prevalence and determinants of nonadherence to phosphate binding medication in patients with end-stage renal disease

Version: 1 Date: 24 October 2007

Reviewer: Ken Leypoldt

Reviewer's report:

General

This manuscript reviews previous literature regarding adherence to phosphate binding medication in hemodialysis and peritoneal dialysis patients. Databases were searched for quantitative studies of predictors of nonadherence to phosphate binding medication, assessed primarily by high predialysis serum phosphate levels. Predictors of phosphate binding nonadherence were divided into demographic, clinical and pyschosocial factors. The authors conclude that nonadherence to phosphate binding medications is prevalent in these patients and that several potentially modifiable psychosocial factors were most often identified as predictors of nonadherence.

The manuscript is well organized and is very well written. The conclusions are not stiking but the identification of psychosocial factors as the most important predictors of nonadherence is interesting and provides ideas for clinical intervention in future studies. I have only a few minor revisions to suggest.

Minor Essential Revisions

METHODS does not discuss statistical methods used in the reviewed papers. Although this may be difficult to describe concisely, I think it is important to identify the most commonly used methods. Also, the definition of "significant" used later in the text should be defined in this statistical section also.

The forms of dialysis searched and reported on should be further clarified. Peritoneal dialysis was not used a search term. It should be clarified that the search included peritoneal dialysis patients even though peritoneal dialysis was not used as a search term. Further, phosphate serum levels in some studies have been shown to be a function of the frequency of hemodialysis treatments. Was hemodialysis performed in the reported studies performed more than thrice weekly? If not known, it is still worth mentioning.

What next?: Accept after minor essential 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, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I am currently employed by Baxter Healthcare Corporation.