Reviewer's report

Title: Did the Great East Japan Earthquake affect chronic hemodialysis patients in Fukushima? Analysis based on laboratory findings

Version: 1 Date: 3 August 2013

Reviewer: Jeffrey Kopp

Reviewer's report:

Haga and colleagues describe the effects of reduced dialysis duration following the Fukushima earthquake.

General comments. The text is admirably concise and clear. The chief findings are the modest reduction in dialysis duration (1 hr reduction for 2 weeks, then 0.5 hr reduction for 2 weeks) was not associated with worsening of chemical or clinical parameters. I think that reduced dietary intake, perhaps to psychological factors or access to preferred foods, is the most likely explanation for the fall in BUN, despite the reference provided (which deals with anorexia nervosa patients and thus may not be relevant to the present situation) and the similarity in more and less affected units.

Major compulsory revisions

1. I would be interested in some discussion of the process by which the decision to reduce dialysis was made (was this a pre-arranged plan or a rapidly made decision?) and who participated in the decision (e.g. a panel of nephrologists affiliate with the dialysis units or the unit director and/or public health officials). Knowledge of the process could help shape policy that would govern future decisions.

2. Unless I missed it, there are no data on the actual duration of dialysis at baseline, nor are there data on blood pressure at the three examinations.

3. In table 2, the rise in hematocrit at week 8 with no change in hemoglobin suggests reduced plasma volume and indeed weight gain was less. I would interested in knowing whether the hematocrit change was correlated with weight gain and could be added to Table 4C.

Discretionary revisions

P9: the timing of the first, second and third examinations should be restated here, to help the reader

P11: reference 11 refers to the Kobe earthquake, and so the sentence by refer to “the Kobe earthquake”, as the reader now infers that this might be about the Fukushima earthquake
The timing of the 3 examinations is 1-2 w, 4w and 8 wk after the earthquake (methods, P8). These weeks should be added to the discussion and table 2.

Figure 4: “simple linear regression analysis” should be “linear regression analysis” or “simple linear regression analysis”

**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 declare no competing interests.