Reviewer's report

Title: Diabetes related risk factors did not explain the increased risk for urinary incontinence among women with diabetes. The Norwegian HUNT/EPINCONT study

Version: 1 Date: 30 June 2009

Reviewer: Aruna Sarma

Reviewer's report:

This manuscript describes analysis of 685 women with diabetes from the HUNT/EPINCONT study. This study addresses a very important and understudied issue of urologic complications of diabetes. The HUNT/EPINCONT study is a well recognized study and provides a means for a very nice analysis to answer important questions regarding the factors associated with UI. However there are several issues to be addressed:

1) Background- 2nd sentence. “…but still seems to be statistically significant…” Am assuming the authors are referring to diabetes but the term is missing.

2) Methods-Page 4, 1st paragraph, Last sentence which begins with “The women who met received questionnaire 2…” Met what? It appears there is a missing word.

3) Methods-Page 4, 2nd paragraph, Details regarding the EPINCONT study, i.e. specifics on the UI questions are recommended. While the authors reference a previous study, some details on the questions, possible answers and cutpoints used for definitions of UI, frequency and severity should be briefly described in the current manuscript.

4) Methods-Page 4, 3rd paragraph, The authors state that participants identified as having diabetes had an additional 5ml blood drawn including urine sampling. Assay information, including coefficients of variation regarding HbA1c, microalbuminuria and creatinine should be included in the manuscript.

5) Methods-Page 4&5, 4th paragraph. Response rates are provided for what appears to be Q2 & Q3. There should be more detail. Specifically, how many of the 47,313 original women participated in Q1 and then how many of those in Q2 and Q3. A sequential response to the final 685 needs to be more clear.

6) Statistics-Page 5, A chi square test was described to test for differences between women with and without UI. Differences in what? The authors need to state that differences in proportions for all variables under study were tested...The statement in the manuscript just needs to be clarified.

7) Statistics-Page 5, Stepwise procedure for regression modeling was described. More specifics are requested. Was this forward selection, backwards elimination. What p-value or criteria were used for the stepwise procedure? It appears that age, BMI, parity and smoking were forced into the models or were they all final
models in each of the stepwise model building processes for all outcomes?
8) Statistics-Page 5, See comment re: Methods above. Definitions/cutpoints for severe UI, and all other outcomes should be well described.
9) Table 1. A footnote describing tests used for p-values reported is needed.
10) Table 1. How was type 1 and type 2 DM defined? This should also be included in the Methods section.
11) Table 1. Triglycerides, glucose, cholesterol were all included but no information on assays completed etc. was included in the Methods section.
12) Description of types of DM variables, treatment, duration should be described in the Methods section.
13) Tables 2 & 3. As the authors present ORs with 95%CI's, the p-values are unnecessary.
14) Frequency and % labels should be included for each bar in Figure 3. How were types of DM defined? What is other? Were these frequencies different by UI type? P-values should be included in the figure.
15) Discussion. The authors discuss that response rates to different variables were similar in women with and without diabetes so no bias results. Do they specifically mean that UI rates were not different by women with and without DM? The authors should include data that presents UI prevalence in women with and without DM and whether factors such as age, parity, BMI differ in these women.

**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 that I have no competing interests