Author's response to reviews

Title: Predictors and prognosis of paroxysmal atrial fibrillation in general practice in the UK.

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Author's response to reviews: see over
Dear Editor,

Please find enclosed a copy of our new revised manuscript entitled ‘Predictors and prognosis of paroxysmal atrial fibrillation in general practice in the UK’. MS: 7218034875911277

We have re-reviewed again our manuscript following the reviewer and the statistician comments. All changes have been highlighted in red in the revised version. We also provide a point-by-point response to all the questions raised by reviewers.

We thank you for considering this manuscript and look forward to hearing from you, hoping this time it will take less than in previous revisions.

Yours sincerely,

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**Point by point response to reviewer’s comments (L.Frost)**

1.- The figures that shows odds ratio can be omitted, as odds are already in one of the tables.

We cannot omit figure 3 as this is part of the main message of the paper, and it presents completely different estimates of risk than the ones in table 2, as described in the title of the tables:

Table 2. Risk of paroxysmal atrial fibrillation associated with age, sex, and other factors

Figure 3. Risk of progression to chronic atrial fibrillation among paroxysmal atrial fibrillation patients (Odds ratio estimates adjusted by age and sex, using logistic regression).

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**Point by point response to reviewer’s comments (A. Budinsky)**

1.- Which P-values was used to define significance?. Please add P-values in the text and tables…

We present 95% confidence intervals for each risk estimate instead of P-values. We as epidemiologists, believe that confidence intervals are more informative than a single P-value. We very much prefer the use of interval estimation procedures to assess the random error in the estimation process, and would rather avoid statistical hypothesis testing in epidemiologic presentations and research reports as it favours at time some misinterpretations (Rothman KJ, Greenland S. Approaches to statistical analysis. In:… Rothman KJ,
“An interval estimation procedure does much more than assess the extent to which the null hypothesis is compatible with the data. It provides simultaneously an idea of the likely magnitude of the effect and the random variability of the point estimate. The P-value on the other hand, indicates only the degree of consistency between data and a single hypothesis, and thus reveal nothing about either the magnitude of the effect or the random variability of the point estimate. It is not surprising that confidence limits convey more information than a single p-value, because the confidence limits are two values, whereas a single p-value is only one number.”

“Confidence limits and P-values functions convey information about size and precision of the estimate simultaneously, keeping these two features of measurements in the foreground. The use of a single P-value, or (worse) dichotomization of this into significant/not-significant, obscures these features, so that the focus on measurement is lost” (Rothman KJ, Greenland S. 1998)

2.- Difference between diabetes type 1 and diabetes type 2. Add diabetes as risk factor, please add in table 1 and table 2.

Due to the way we collected prior comorbidity, we could not differentiate between diabetes type1 and 2.

In table 1 we present the distribution of age, aetiology, diagnostic tests and pattern of treatment among paroxysmal atrial fibrillation patients by sex. Diabetes was not a comorbidity designed as possible etiology by the GP, and therefore it does not appear in this table.

We report in the text that did not find any major association with diabetes, but following the suggestion of the reviewer we now include diabetes as a risk factor for PAF in table 2.

3.- Possible association between duration of treatment and persistent AF

As we report in the manuscript, we did not find any association between use of antiarrhythmic drugs after initial diagnosis of paroxysmal AF and the rate of progression to chronic forms of AF, but we observed that patients progressing to persistent AF were more likely to have been treated with warfarin after their initial PAF diagnosis compared to those not progressing.

4.- Table 2. Please define units per week for alcohol consumption. A unit of alcohol corresponds to 10 mL of pure ethanol. We have now added this information as footnote in table 2.