Reviewer's report

**Title:** Effect of an Electronic Nicotine Delivery Device (e-Cigarette) on Smoking Cessation and Reduction: A Prospective Pilot Study

**Version:** 2  **Date:** 16 December 2010

**Reviewer:** Murray Laugesen

**Reviewer's report:**

This article deserves rapid publication and the changes suggested which would not take more than a fortnight to put right, will greatly broaden the appeal of the article beyond physicians. 

I have read the article, studied the figure and analysed the tables.

This is a pilot study of 40 smokers not intending to quit in the next 30 days.

The study breaks new ground with a number of mostly new findings

a) No withdrawal symptoms while using ecigarettes

b) The e-cigarette surprisingly benefits half of a class of 40 smokers not reached by any treatment yet devised, These were smokers who dont want to quit and are not ready to be treated, and this pilot shows the ecigarette is for them.

This suggests ecigs serves a different market outside the white coat domains of doctors and pharmacists, so although they may cannabalise NRT sales somewhat, they will do much more.

c) No relationship between ecig dose and success in quitting tobacco- does this means that urge to vape or addiction to ecigs does not help smokers quit? It may mean that tobacco still dominates the nicotine supply as long as dual smoking persists, and that the role of ecigs is to attenuate the dependence on nicotine.

d) As we show below, ecigs will cannabalise the cigarette market if the price of cigarettes is high enough and ecig prices low enough.

This study could be published as it is, but I would encourage the authors to extract more value and detail some astounding conclusions that lie just below the surface. The e-cigarette can only save lives by replacing cigarettes. The extent to which this happens is therefore a major focus.

I would also suggest this pilot could deserve publication in a more general interest journal. eg BMC Medicine

**MEAN VALUES OF CONSUMPTION**

If the mean values could be provided, the reader could know the changes in group and subgroup cigarette consumption. Assuming the means are close to the medians, it looks like a 92% reduction in cigarette consumption among the responding 55%, and no change among the rest, suggesting that e-cigarettes have potential to halve cigarette consumption (e.g. in the real world, if the price rose further). So the bottom line is - by what % did consumption fall in this total
group over 6 months, and by what % did CO expired values fall in this time? These calculations can show readers the potential of the e-cigarette, to replace quitting with switching (temporarily or longer term), and to start competing with cigarettes for its share of the nicotine market.

At one point the authors compared the Ecig cessation rate with other pharmaceutical products. However this is not an ordinary cessation study, because ecigarettes are used throughout the study period. This alone might account for the over 20% Smoking cessation rate at 6 months.

SMOKER'S ECONOMICS Also the % fall in the individual cost of smoking, from switching to vaping should be calculated for responders - which will vary. Did this fall immediately or reduce over time??

TRENDS The study has five contact points over 6 months, and the trend in cigarette and in e-cigarette consumption over this period could I hope be graphed with dramatic impact, with a separate trend line for non-responders (flat line) abstainers and reducers. For example, did the abstainers abstain immediately or later. Did the reducers reach their low consumption suddenly and early, or gradually over time? Did e-cigarette consumption increase over time?

DUAL USE Was the dual use (especially the cigarette consumption) increasing or decreasing over the six months? If decreasing perhaps dual use was due to experimentation during the switchover, if increasing over time perhaps it suggests addiction to tobacco was gaining ground over nicotine use alone.

The authors are to be congratulated on the idea and the design of the study, studying ecig users without expecting the ecig to work like an ordinary short burst of NRT. The long term 6 months use of the ecig in this study obviously provides act -of-smoking replacement (hand movements, exhaling mist), cigarette-look-alike replacement, and not just nicotine replacement.

END

**Level of interest:** An exceptional article

**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 I have no competing interests.