Reviewer’s report

Title: Smoking-attributable morbidity and acute care hospital costs in Canada 2002

Version: 1 Date: 20 June 2007

Reviewer: Malcolm Law

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General
The paper presents useful information on the prevalence of smoking-related illness which may prove to be widely cited. My comments generally relate to clarity of presentation.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The results in table 3 come as a something of a “black box”. More detail on how they were derived would be helpful. The formula on page 7 will be meaningless to most readers. A worked example would help more. For example “at age 60-69 years 15.1% of women and 17.2% of men were current smokers. For stroke (or some other specific disease example) there were x cases in region A, the age-specific relative risk of stroke in smokers compared to non-smokers was r, so simple algebra would apportion these x cases to y in smokers and z in non-smokers, to be consistent with the relative risk r”. Something like this would help greatly. Passive smoking would presumably also need to be taken into account, as may the proportion of people smoking variable numbers of cigarettes per day.

Additional information in the Methods would help, some of this may have been given, but if so I missed it. For example were the relative risks of diseases in smokers compared to non-smokers age-specific? Was the prevalence of smoking, in the various categories, determined by region like the hospitalisation rates? How were former smokers taken into account.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

There are a few issues relating to table 3. Inevitably there will be surprises at one or two diseases included as smoking-related, and surprises at one or two excluded (aortic aneurysm for example). But we do need explanation as to what “tobacco abuse” is – I have never heard of anyone being admitted to hospital for tobacco abuse. Yet there are as many hospital days as for cancers for the mouth, pharynx and oesophagus combined, so it seems fairly common. Many
readers will look at the table without reading the Methods, and it needs to be
clear to these people what SAF is – this should be explained in plain English with
a footnote if necessary. Under “number of diagnoses” it is not clear whether
second and subsequent admissions for the same disease count as “diagnosis”. Some of the diseases have asterisks by them but there is no footnote. The asterisk seems to correspond to missing SAF values, and it is not clear why SAF could not be calculated for these diseases.

The Abstract would attract more Medline scanners to read the entire paper if it reported on more of the major results. For example the result that smoking accounts for 10% of all acute care hospital days in Canada, and the value of the SAF for some of the major smoking-related diseases. Numbers like 463,625 are difficult to interpret in an Abstract, people find proportions easier to understand. If the Abstract has a strict word count some of the detail (such as fire deaths, reasons for the decline) could be omitted.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after discretionary revisions

Level of interest: An article of importance in its field

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