Reviewer’s report

Title: Defining frequent attendance in an average general practice: a validation study

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Reviewer: Phil Heywood

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General
Introduction:
This is a short, but useful and important methodological paper for anyone wishing to study the phenomenon of frequent attenders (FAs), whether in research or clinical practice.

There is a longstanding debate about how to define the frequency of attendance as sufficiently abnormal to be designated ‘frequent’. There is a utility to using a definition that takes the statistical cut off point for FA as someone who consults >90% or >97% of normal attendance for age and sex. This begs the question of what is normal for age and sex in a particular setting (particularly in a specific practice) where the numbers of patients are small.

The introduction to this study suggests that the reference standard for age is in single year bands; however, individual practices and even small groups of practices, are far too small to generate significantly large datasets to be able to break them down into single year bands.

Aim:
This is clearly stated. The aim of this study was to use a large dataset of health contacts from patient ages 15 to 74 years to test, against the reference standard of single year age bands, the relative accuracy of using:
1. Six equal 10-year age bands (15-24, 25-34, etc) for both sexes
2. Four equal 15-year age bands (15-29, 30-4, etc) for both sexes
3. Three unequal age bands (15-44, 45-64 and 65-74) for both sexes
4. Women into a single age band; and men into two equal age bands (15-44 and 45-74) – the 3-group method.

Methods:
Data from the second Dutch National Survey of General Practice was used for the analyses. These are data from 263148 people who were registered throughout the study year (2001) with 96 study practices. Every contact between a patient and a member of the primary health care team was recorded.

Normal and frequent attenders were identified in each of the age band, using
both the 90 and 97 percentiles as cut-offs. Similar data were calculated for the wider age bands and, using 4x4 tables, compared with data from the single year age bands (the reference standard) to produce true positives, false positives, true negatives and false negatives, and the degree of correlation assessed as sensitivity, specificity, positive & negative predictive value, and kappa.

Results:
These are presented simply and concisely. They are predictable, in that they shown that the wider the age band, the poorer the correlation. Nevertheless, the results are important because they show the strength of the correlations. It is clear that the 10-year, 15 year and the three unequal year age bands all are acceptably accurate proxies for the reference ('gold') standard. But the 3-group method is significantly less good, perhaps missing 20% of FAs, and therefore is probably unacceptable for use in routine practice or research.

The discussion is unremarkable. Referencing is brief, but accurate and adequate.

I recommend publication without change, but it should be assessed by a statistician.

I undertook research on patterns of attendance until about 5 years ago. I am now retired and have no conflict of interest.

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