Reviewer's report

Title: Comparison of two methods for assessing diabetes risk in a pharmacy setting in Australia

Version: 2
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Reviewer: James Dunbar

Reviewer's report:

There is accumulating international and Australian evidence of the value of identifying and recruiting at risk groups for cardiovascular disease through pharmacies. Your paper adds to our knowledge in that area.

Major Compulsory Revisions

Line 75 onwards
The purpose of AUSDRISK is to identify people at risk of diabetes so that they can be offered a prevention program. Currently the federal program has been defunded but the Life! program exists in Victoria. The evidence from the Finnish Diabetes Prevention Study, the US Diabetes Prevention Program should be quoted along with the Australian national demonstrator, Greater Green Triangle Diabetes Prevention Program.

Line 90
The most frequently used diabetes risk assessment tool for identification of individuals eligible for diabetes prevention programs is FINDRISC. It has been used and validated in many countries and is the international standard. Its advantage over AUSDRISK is that it assesses modifiable risk factors including BMI. A score of 15 identifies an individual with a 1 in 3 risk of progression to diabetes and AUSDRISK score of 15 identifies an individual with a 1 in 7 risk of progression to diabetes.

Line 126
Evidence soon to be published from the Melbourne Diabetes Prevention Study (MDPS) will demonstrate that participants with an AUSDRISK score of 15, far less 12 are not at high risk of progression to diabetes. Even an AUSDRISK score of 20 does not equate to a FINDRISC score of 15. Your paper needs to be rewritten in the light of the fact that both a FBG of 5.6 and an AUSDRISK score of 12 are poor indications of people who would benefit from being regarded as sufficiently at risk of diabetes to merit intervention. This is a matter of health economics and obtaining value for money.

A high BMI is a significant predictor of type 2 diabetes but BMI is not included in AUSDRISK while waist circumference is. FINDRISC includes both measures. Furthermore AUSDRISK is heavily loaded for age, male gender and other non-modifiable risk factors, and therefore AUSDRISK 20 can still result in
participants entering programs with low risk or with non-modifiable risk factors. In the only other reported scaled-up diabetes prevention program, FIND2D, the entry criterion has been set at a score of 15 or higher using FINDRISC which is equivalent to 20 on AUSDRISK. Rather than overwhelm health services, the decision was made in FIND2D to take those at highest risk as approximately 30% of the Finnish population aged 50 years or more is at moderate to high risk of developing T2DM.

Line 157
Spelling mistake.

Line 160
From what I have written earlier, I can’t understand why you would use AUSDRISK as the reference standard. The definition of at risk of diabetes or diabetes itself is either IFG or IGT.

Line 228
Your results would be much more interesting if you look at the sort of cut-off points I have suggested for AUSDRISK and similarly look at different cut-off points between 5.6 and 7.0 for FBG.

Lines 236, 237
It is not clear whether pharmacists didn’t refer, participants refused to be referred, or what. Please clarify.

Line 251
AUSDRISK is heavily influenced by age, so your finding is not surprising.

Line 289
You could add that the MDPS is the first ever head-to-head trial comparing AUSDRISK with FINDRISC with results to be available soon.

Line 321
Your pharmacists are absolutely correct!

Line 350
One of the major limitations is that you have no information from general practice on the results of OGTT and the consequences of referral to GPs.

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