

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Examining the Risk of Depression or Self-Harm Associated with Incretin-based Therapies Used to Manage Hyperglycemia in Patients with Type 2 Diabetes: A Cohort Study Using the UK Clinical Practice Research Datalink
<b>AUTHORS</b>	Gamble, John Michael; Chibrikov, Eugene; Midodzi, William; Twells, Laurie; Majumdar, Sumit

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Preman Kumarathurai Department of Cardiology, University Hospital of Roskilde, Denmark
<b>REVIEW RETURNED</b>	10-Jul-2018

<b>GENERAL COMMENTS</b>	<p>This is a revised manuscript of the study by John-Michael Gamble and colleagues that examine the risk of depression and self-harm associated with incretin-based therapies (DPP4-inhibitors or GLP-1 receptor agonists) in a large cohort of type 2 diabetes patients.</p> <p>The authors have addressed the questions raised in my previous review. I still think this is an interesting study with some sophisticated statistical methods. The exclusion of patients with known psychiatric illness and patients using psychiatric drugs is an important change to the manuscript. I have no further comments.</p>
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<b>REVIEWER</b>	Nithya Sukumar Warwick Medical School, University of Warwick, United Kingdom
<b>REVIEW RETURNED</b>	17-Jul-2018

<b>GENERAL COMMENTS</b>	<p>Thank you to the authors for their response to my comments. I am satisfied with their response and the relevant changes made, which I believe have significantly improved the quality of the manuscript. The inclusion of BMI data (Tables, 1, 2 and Appendix J) is reassuring in that people in higher BMI categories (on their own and in the hdps models) do not seem to be at risk of depression / self-harm with the new treatments.</p> <p>One minor comment:- 1.Abstract (Results): The unadjusted and adjusted HR's should be presented together for easier reading and to maintain consistency with the main body of the paper.</p>
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### VERSION 1 – AUTHOR RESPONSE

#### Reviewer 1 Comments:

This is a revised manuscript of the study by John-Michael Gamble and colleagues that examine the risk of depression and self-harm associated with incretin-based therapies (DPP4-inhibitors or GLP-1 receptor agonists) in a large cohort of type 2 diabetes patients.

The authors have addressed the questions raised in my previous review. I still think this is an interesting study with some sophisticated statistical methods. The exclusion of patients with known psychiatric illness and patients using psychiatric drugs is an important change to the manuscript. I have no further comments.

**Response: Thank you for your comment.**

### **Reviewer 2 Comments:**

Thank you to the authors for their response to my comments. I am satisfied with their response and the relevant changes made, which I believe have significantly improved the quality of the manuscript. The inclusion of BMI data (Tables, 1, 2 and Appendix J) is reassuring in that people in higher BMI categories (on their own and in the hdps models) do not seem to be at risk of depression / self-harm with the new treatments.

Reviewer #2 comments	Author response and changes made	Section or page #
1. Abstract (Results): The unadjusted and adjusted HR's should be presented together for easier reading and to maintain consistency with the main body of the paper.	The results section in the abstract has been revised to present the unadjusted and adjusted hazard ratios together.	Abstract