

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

TITLE (PROVISIONAL)	False-negative RT-PCR for COVID-19 and a diagnostic risk score: a retrospective cohort study among patients admitted to hospital
AUTHORS	Gupta-Wright, Ankur; Macleod, Colin; Barrett, Jessica; Filson, Sarah; Corrah, Tumena; Parris, Victoria; Sandhu, Gurjinder; Harris, Miriam; Tennant, Rachel; Vaid, Nidhi; Takata, Junko; Duraisingham, Sai; Gandy, Nemi; Chana, Harmeet; Whittington, Ashley; McGregor, Alastair; Papineni, Padmasayee

VERSION 1 – REVIEW

REVIEWER	Robert Robinson SIU School of Medicine USA
REVIEW RETURNED	09-Dec-2020

GENERAL COMMENTS	<p>This is an interesting and useful article. The abstract reflects the contents of the article The introduction is sufficiently broad to introduce the subject material and research question. The methods are conventional and are not controversial. The methods are described in sufficient detail to allow replication. Ethical approval and oversight is documented. Results are clearly stated, including tables and figures. Discussion and conclusions are appropriate and do not overstate the results.</p> <p>One minor issue in the text was ICU was used in place of ITU on one occasion. Consistent terminology should be used.</p>
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REVIEWER	Paul Hakendorf Flinders University Australia
REVIEW RETURNED	12-Dec-2020

GENERAL COMMENTS	<p>Thank you for the opportunity to review this well written, interesting and important paper. This paper introduces the validation of a clinical and diagnostic score created to predict the probability of having Covid-19. These methods and results are described very clearly .</p> <p>Only 1 small thing that could be looked at and is fairly pedantic The paper refers to ROC as a receiver operator curve. I think ROC is normally referred to as receiver operating characteristic and the area under the curve is that area under the roc curve which can seen in the stata graph shown on page 37 line 18 ie "Area under ROC curve = 0.8363" which is more commonly used but elsewhere in the paper the C in ROC is defined as the curve</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Dr. Robert Robinson, Southern Illinois University School of Medicine

Comments to the Author:

This is an interesting and useful article.

The abstract reflects the contents of the article

The introduction is sufficiently broad to introduce the subject material and research question.

The methods are conventional and are not controversial. The methods are described in sufficient detail to allow replication.

Ethical approval and oversight is documented.

Results are clearly stated, including tables and figures.

Discussion and conclusions are appropriate and do not overstate the results.

One minor issue in the text was ICU was used in place of ITU on one occasion. Consistent terminology should be used.

- We have replaced the ITU with ICU throughout the revised manuscript, which now has consistent terminology

Reviewer: 2

Mr. Paul Hakendorf, Flinders Medical Centre

Comments to the Author:

Thank you for the opportunity to review this well written, interesting and important paper. This paper introduces the validation of a clinical and diagnostic score created to predict the probability of having Covid-19. These methods and results are described very clearly .

Only 1 small thing that could be looked at and is fairly pedantic

The paper refers to ROC as a receiver operator curve. I think ROC is normally referred to as receiver operating characteristic and the area under the curve is that area under the roc curve which can seen in the stata graph shown on page 37 line 18 ie “Area under ROC curve = 0.8363” which is more commonly used but elsewhere in the paper the C in ROC is defined as the curve

- We have corrected this error, so the revised manuscript refers to the ‘area under the receiver operating characteristic curve’ or ‘AUROC curve’

VERSION 2 – REVIEW

REVIEWER	Paul Hakendorf Flinders University
REVIEW RETURNED	15-Jan-2021
GENERAL COMMENTS	Thank you for the opportunity to review this well written, interesting and important paper again. The authors have clarified points raised and made improvements to the original and I endorse this paper for publication.