

## Supplementary material 1 Electronic search details

### EMBASE

Builder: ('covid-19' OR 'sars-cov-2 or') AND ('new onset diabetes' OR 'new onset hyperglycemia')

Link:

<https://www.embase.com/#advancedSearch/resultspage/history.2/page.1/200.items/orderby.relevance/source>.

**Hits: 13**

### Pubmed

("COVID-19" OR "SARS-COV-2 or") AND ("new onset diabetes" OR "new onset hyperglycemia")

Link: <https://pubmed.ncbi.nlm.nih.gov/?term=%28%22COVID-19%22+OR+%22SARS-COV-2+or%22%29+AND+%28%22new+onset+diabetes%22+OR+%22new+onset+hyperglycemia%22%29>

[19%22+OR+%22SARS-COV-](https://pubmed.ncbi.nlm.nih.gov/?term=%28%22COVID-19%22+OR+%22SARS-COV-2+or%22%29+AND+%28%22new+onset+diabetes%22+OR+%22new+onset+hyperglycemia%22%29)

[2+or%22%29+AND+%28%22new+onset+diabetes%22+OR+%22new+onset+hyperglycemia%22%29](https://pubmed.ncbi.nlm.nih.gov/?term=%28%22COVID-19%22+OR+%22SARS-COV-2+or%22%29+AND+%28%22new+onset+diabetes%22+OR+%22new+onset+hyperglycemia%22%29)

**Hits: 15**

### Pubmed Central

**Hits: 92**

("COVID-19" OR "SARS-COV-2 or") AND ("new onset diabetes" OR "new onset hyperglycemia")

Link:

[https://www.ncbi.nlm.nih.gov/pmc/?term=\(%22COVID-19%22+OR+%22SARS-COV-2+or%22\)+AND+\(%22new+onset+diabetes%22+OR+%22new+onset+hyperglycemia%22\)](https://www.ncbi.nlm.nih.gov/pmc/?term=(%22COVID-19%22+OR+%22SARS-COV-2+or%22)+AND+(%22new+onset+diabetes%22+OR+%22new+onset+hyperglycemia%22))

### Scopus

("COVID-19" OR "SARS-COV-2 or") AND ("new onset diabetes" OR "new onset hyperglycemia")

**Hits: 4**

### Google Scholar

**Hits: 11**

Search strategy: - allintitle: covid 19 "New onset hyperglycemia" OR "New onset diabetes"

Link:

[https://scholar.google.com/scholar?as\\_q=covid+19&as\\_epq=&as\\_oq=%22New+onset+hyperglycemia%22+%22New+onset+diabetes%22&as\\_eq=&as\\_occt=title&as\\_sauthors=&as\\_publication=&as\\_ylo=&as\\_yhi=&hl=en&as\\_sdt=0%2C5](https://scholar.google.com/scholar?as_q=covid+19&as_epq=&as_oq=%22New+onset+hyperglycemia%22+%22New+onset+diabetes%22&as_eq=&as_occt=title&as_sauthors=&as_publication=&as_ylo=&as_yhi=&hl=en&as_sdt=0%2C5)

## Supplementary material 2 Sensitivity analysis

### Case definition:

**Normal glucose (no DM):** FBG < 5.6mmol/L, HbA1c: < 5.7% (For Wang S *et al*, FBG < 6.1 mmol/L was taken)

**Hyperglycemia:** FBG 5.6-6.9 mmol/L HbA1c: 5.7%-6.4% (For Wang S *et al*, FBG 6.1-6.9 mmol/L was taken)

**New onset COVID associated DM:** No history of previous Diabetes. FBG:  $\geq 7$  mmol/L and/or HbA1c  $\geq 6.5\%$

**Known DM:** Previously diagnosed Diabetes Mellitus

### 1 New onset DM

Sensitivity analysis after excluding individual studies did not showed significant changes in the result (Supplementary Figure 1).

### 2 New onset hyperglycemia

Sensitivity analysis after excluding Zhou *et al* (in which few patients received steroid as well) (Supplementary Figure 2); and excluding individual studies did not showed significant changes in the result (Supplementary Figure 3).

### 3 Publication bias

Publication bias assessed using Egger's test to evaluate funnel plot asymmetry. Publication bias for reporting new onset DM showed some publication bias depicted by the asymmetry of the funnel plot (Supplementary Figure 4). Publication bias of reporting mortality outcome is depicted in Supplementary Figure 5.

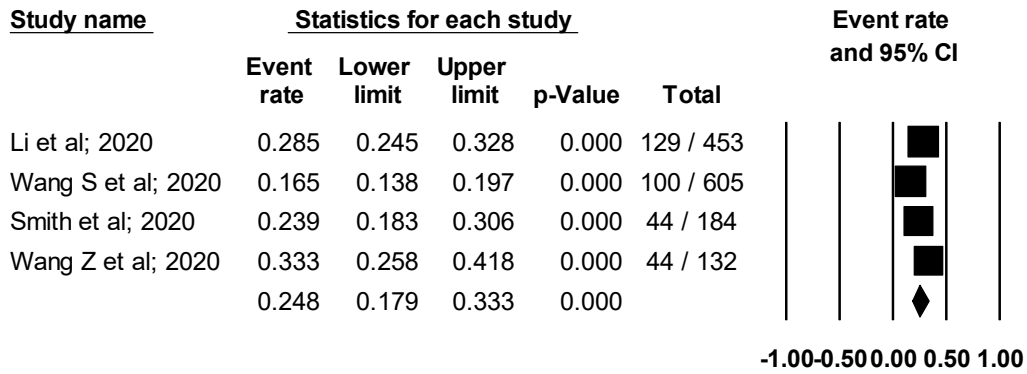
**Prevalence of COVID-19 associated new onset DM**

<u>Study name</u>	<u>Statistics with study removed</u>			<u>p-Value</u>	<u>Event rate (95% CI) with study removed</u>
	<b>Point</b>	<b>Lower limit</b>	<b>Upper limit</b>		
Smith et al, 2020	0.205	0.104	0.365	0.001	
Fadini et al; 2020	0.249	0.154	0.378	0.000	
Wang Z et al, 2020	0.215	0.113	0.370	0.001	
Wang S et al; 2020	0.180	0.077	0.364	0.002	
Yang et al; 2020	0.149	0.086	0.246	0.000	
Li et al; 2020	0.194	0.086	0.382	0.003	
	0.197	0.109	0.329	0.000	

-1.00 0.50 0.00 0.50 1.00

**Supplementary Figure 1 Sensitivity analysis for prevalence of coronavirus disease 2019 associated new onset diabetes mellitus after excluding individual studies.**  
 COVID-19: Coronavirus disease 2019; DM: Diabetes mellitus.

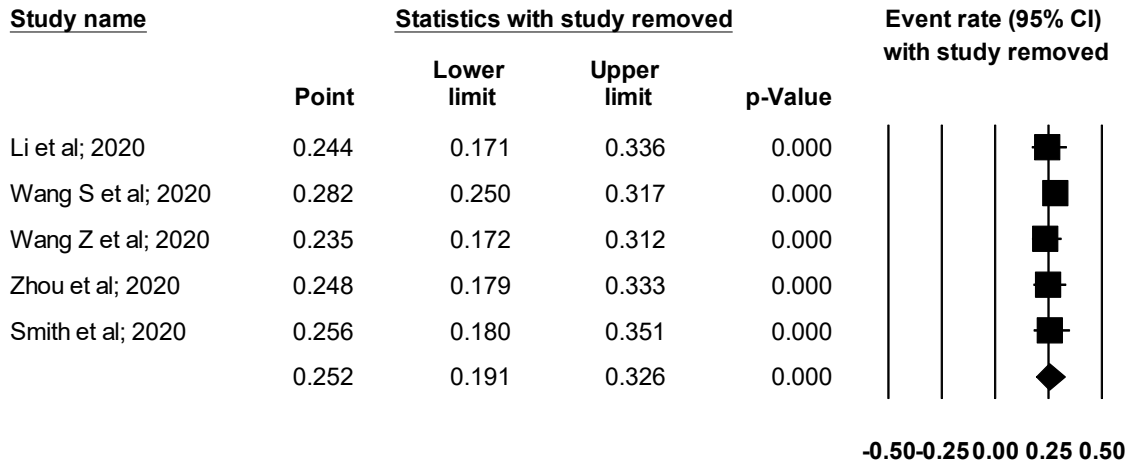
**New onset Hyperglycemia after excluding Zhou et al.**



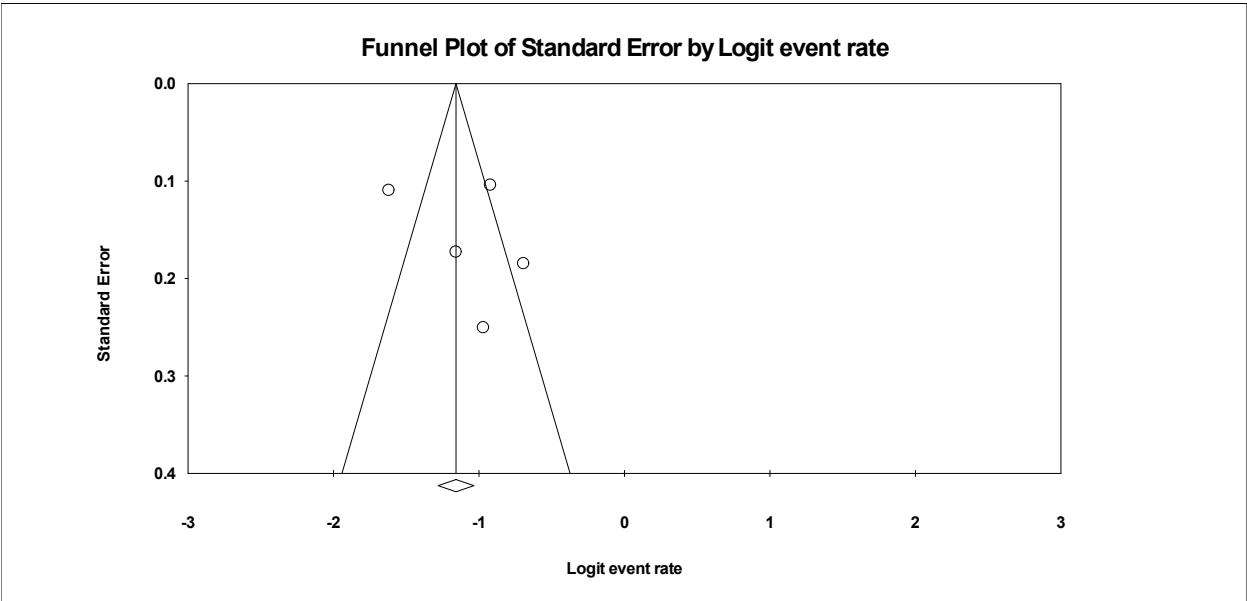
Meta Analysis

**Supplementary Figure 2 Sensitivity analysis for prevalence of coronavirus disease 2019 associated hyperglycemia after excluding Zhou *et al.***

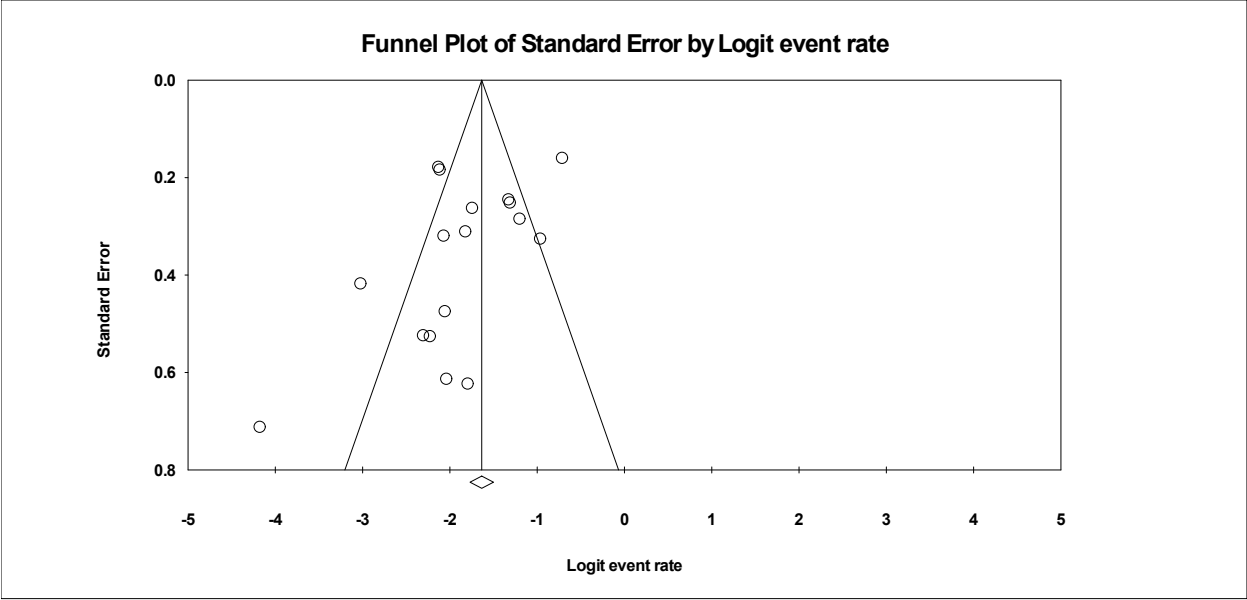
**Prevalence of COVID-19 associated hyperglycemia**



**Supplementary Figure 3 Sensitivity analysis for prevalence of coronavirus disease 2019 associated hyperglycemia after excluding individual studies. COVID-19: Coronavirus disease 2019.**



**Supplementary Figure 4 Publication bias among studies reporting coronavirus disease 2019 associated new onset diabetes mellitus.**



Supplementary Figure 5 Publication bias among studies reporting mortality outcome.