

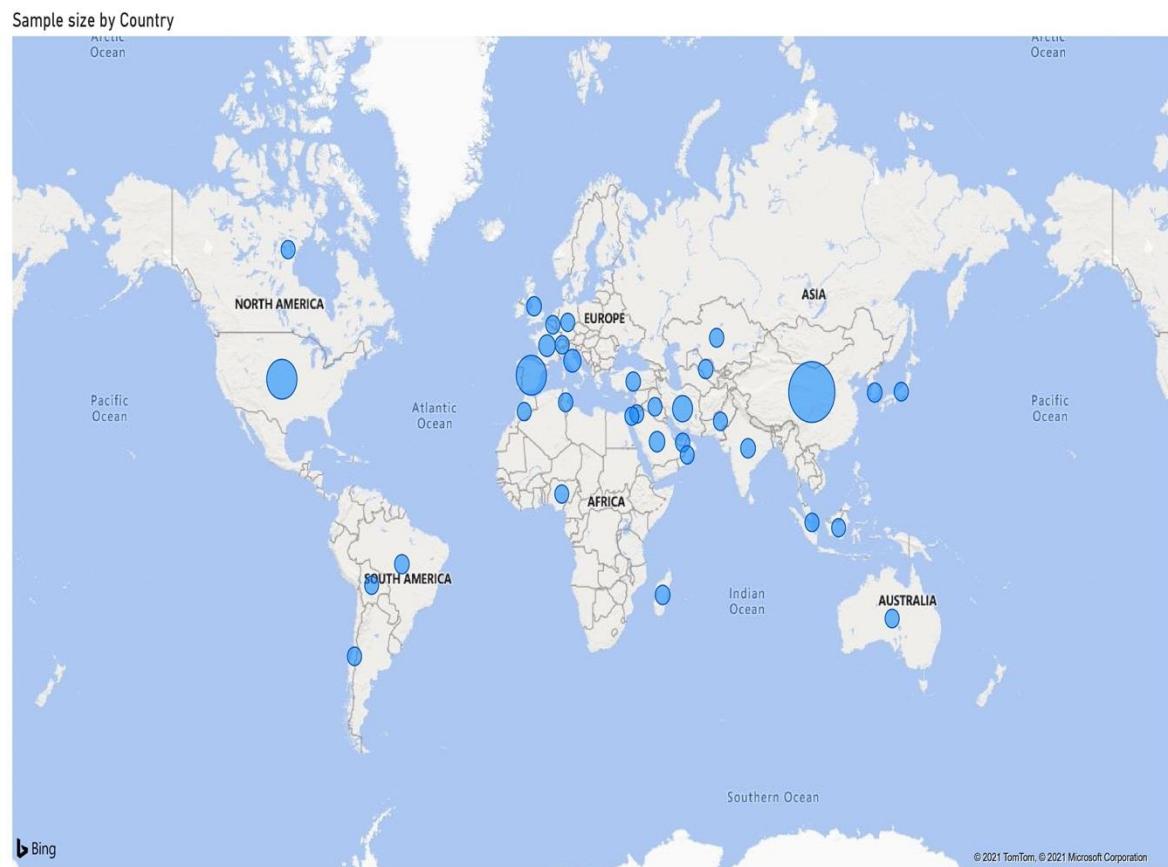
## eAppendix 1. Detailed Search strategy

1. ({"severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019-nCoV"[All Fields] OR "COVID-19"[All Fields] OR "SARS-CoV-2"[All Fields] OR ((coronavirus[All Fields] OR "cov"[All Fields]) AND 2019/11[PubDate] : 3000[PubDate])) AND neurological[All Fields] AND "features"[All Fields]) AND ("2019/12/31"[PubDate] : "2020/12/15"[PubDate])
2. ({"severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019-nCoV"[All Fields] OR "COVID-19"[All Fields] OR "SARS-CoV-2"[All Fields] OR ((coronavirus[All Fields] OR "cov"[All Fields]) AND 2019/11[PubDate] : 3000[PubDate])) AND ("neurologic manifestations"[MeSH Terms] OR ("neurologic"[All Fields] AND "manifestations"[All Fields]) OR "neurologic manifestations"[All Fields] OR ("neurological"[All Fields] AND "manifestations"[All Fields]) OR "neurological manifestations"[All Fields])) AND ("2019/12/31"[PubDate] : "2020/12/15"[PubDate])
3. ({"coronavirus"[MeSH Terms] OR "coronavirus"[All Fields]) AND ("neurologic manifestations"[MeSH Terms] OR ("neurologic"[All Fields] AND "manifestations"[All Fields]) OR "neurologic manifestations"[All Fields] OR ("neurological"[All Fields] AND "symptoms"[All Fields]) OR "neurological symptoms"[All Fields] AND ("diagnosis"[Subheading] OR "diagnosis"[All Fields] OR "signs"[All Fields] OR "diagnosis"[MeSH Terms] OR "signs"[All Fields])) AND ("2019/12/31"[PubDate] : "2020/12/15"[PubDate])
4. ({"severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019-nCoV"[All Fields] OR "COVID-19"[All Fields] OR "SARS-CoV-2"[All Fields] OR ((coronavirus[All Fields] OR "cov"[All Fields]) AND 2019/11[PubDate] : 3000[PubDate])) AND ("brain"[MeSH Terms] OR "brain"[All Fields] AND "features"[All Fields]) AND ("2019/12/31"[PubDate] : "2020/12/15"[PubDate])
5. ({"severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "sars cov 2"[All Fields]) AND ("central nervous system"[MeSH Terms] OR ("central"[All Fields] AND "nervous"[All Fields] AND "system"[All Fields]) OR "central nervous system"[All Fields])) AND ("2019/12/31"[PubDate] : "2020/12/15"[PubDate])
6. (Clinical[All Fields] AND "features"[All Fields]) AND ("covid-19"[MeSH Terms] OR "covid-19"[All Fields] OR "covid19"[All Fields]) AND ("2019/12/31"[PubDate] : "2020/12/15"[PubDate])
7. (Clinical[All Fields] AND "features"[All Fields]) AND ("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields]) AND ("2019/12/31"[PubDate] : "2020/12/15"[PubDate])

## **eAppendix 2. Definitions**

1. Neuropsychiatric disorders were defined as depression, anxiety, psychosis, paranoia, hallucinations, irritability, insomnia or impairment of sleep.
2. Disturbance of consciousness was defined as disturbances of both level and content of consciousness and spans from confusion to coma.
3. Corticospinal tract signs were defined as diffuse hyperreflexia, ankle clonus and bilateral extensor plantar reflexes.
4. Hyposmia and anosmia were included under the symptom “Smell Impairment”.
5. Ageusia and Dysgeusia were included under the symptom “Taste Impairment”.
6. Mild and moderate cases of COVID-19 were categorized as “non-severe COVID-19”.
7. Severe and critical cases of COVID-19 were categorized as “severe COVID-19”.

## eFigure 1



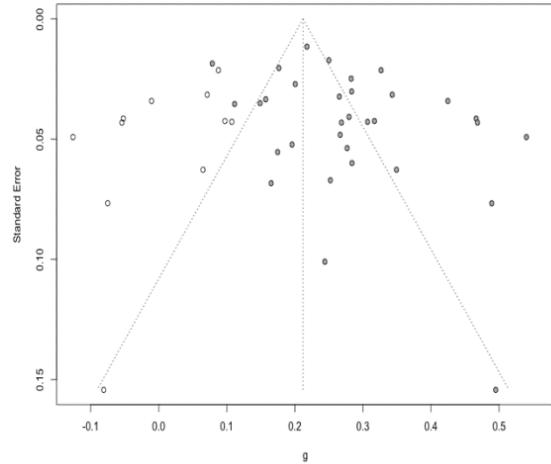
**eFigure 1:** Pictorial representation of the coverage of studies (including total sample from each country) from different parts of the world.

\*Multicentric studies which included samples from different countries and did not provide a bifurcation of samples from each respective country were excluded from this pictorial representation.

## eFigure 2

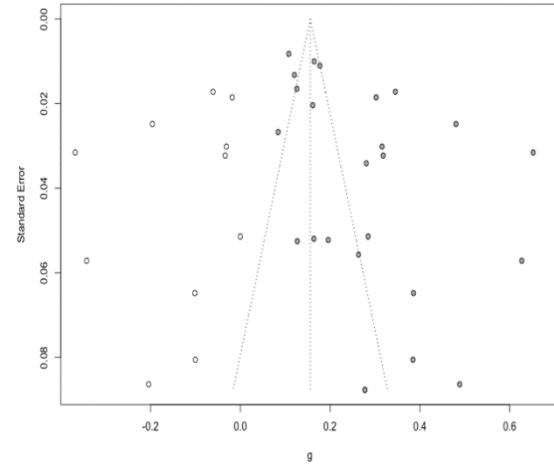
### I. Prevalence of Neurological symptoms/signs and diagnosis in COVID-19

#### Dizziness (N=46)



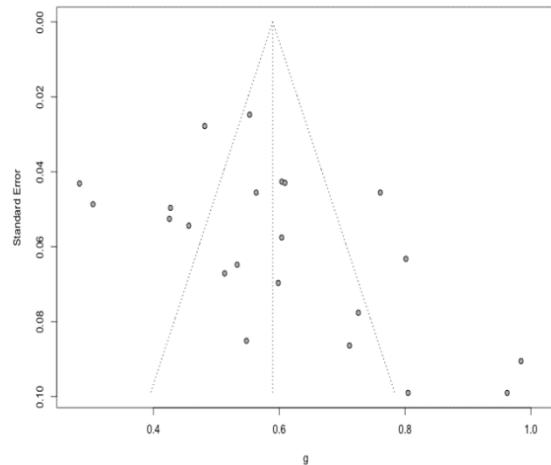
P-value: 0.003

#### Disturbance of Consciousness (N=25)



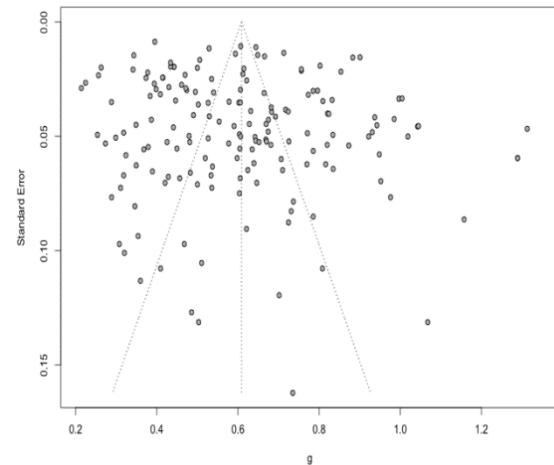
P-value: 0.007

#### Myalgia or Fatigue (N=22)



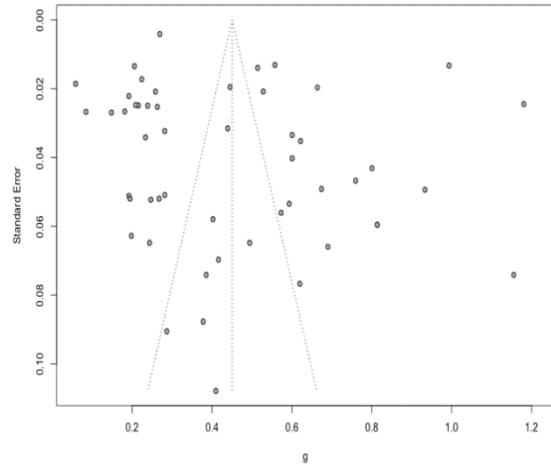
P-value: 0.06

#### Fatigue (N=169)



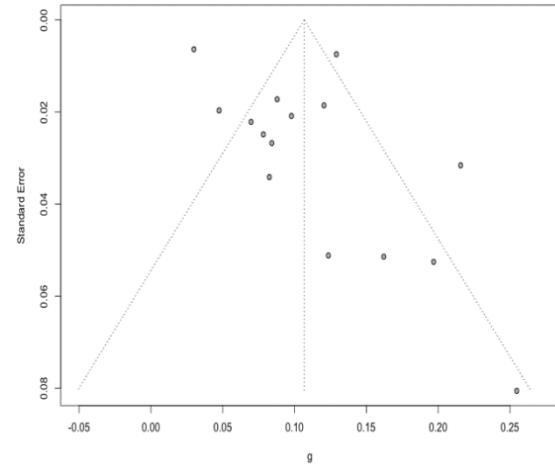
P-value: 0.07

### **Smell Impairment (N=51)**



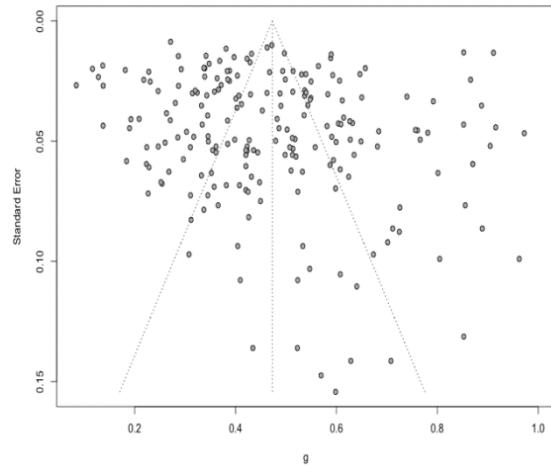
P-value: 0.07

### **Seizure (N=15)**



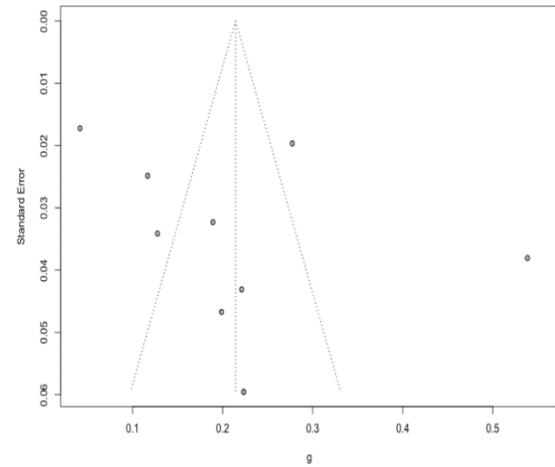
P-value: 0.14

### **Myalgia (N=207)**



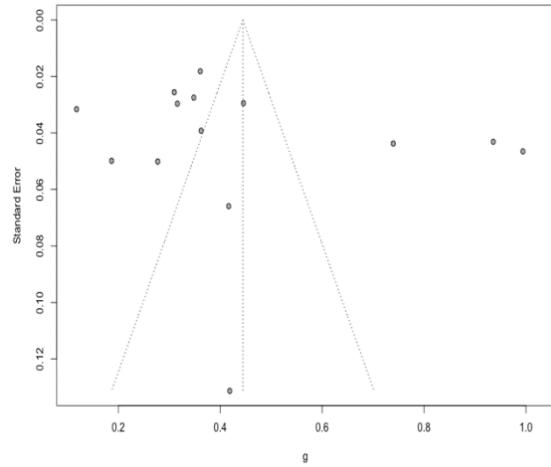
P-value: 0.18

### **Vision Impairment (N=10)**



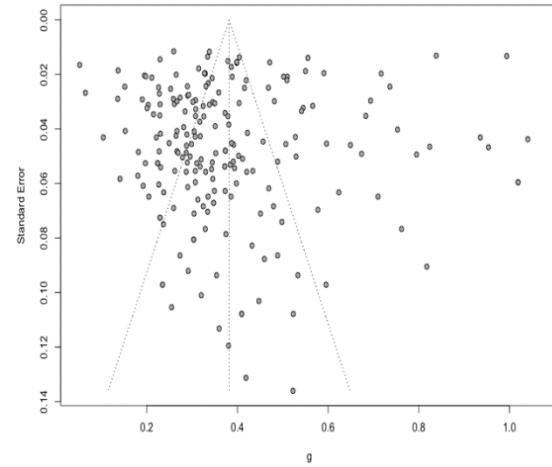
P-value: 0.26

### **Smell or Taste Impairment (N=14)**



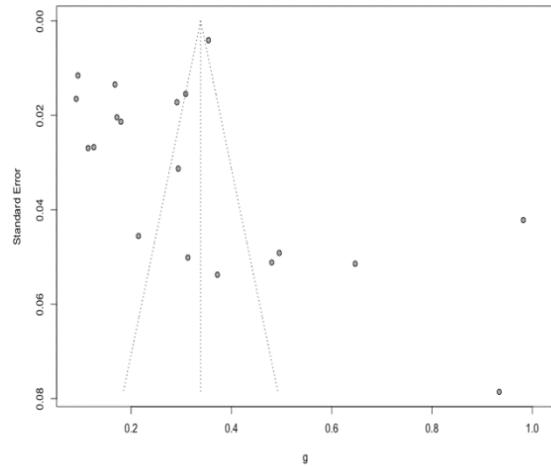
P-value: 0.29

### **Headache (N=202)**



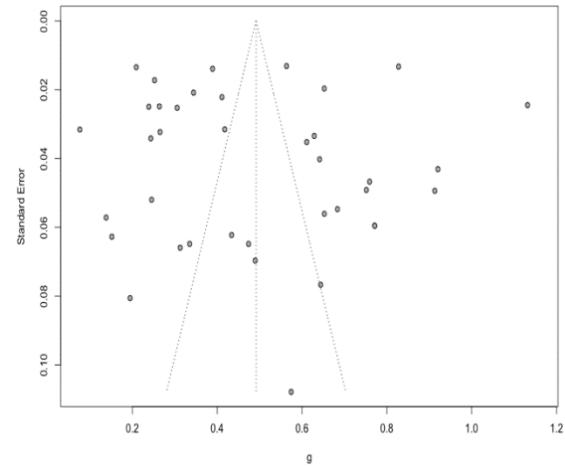
P-value: 0.29

### **Acute confusion/delirium (N=19)**



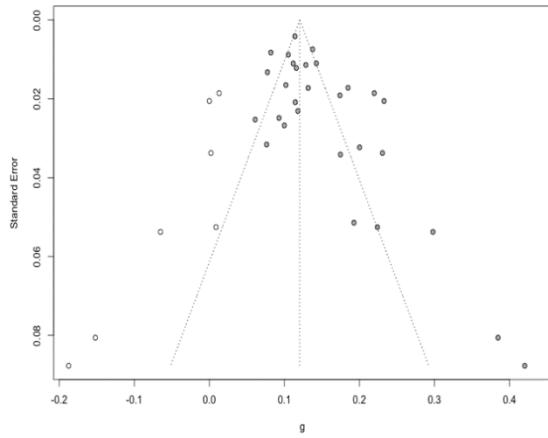
P-value: 0.63

### **Taste Impairment (N=38)**



P-value: 0.82

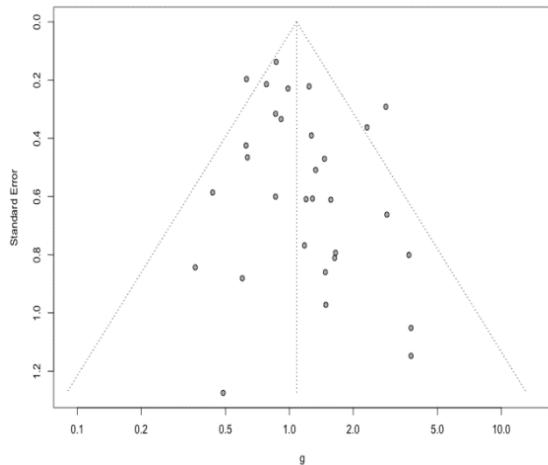
### **Total Stroke (N=22)**



**P-value: 0.007**

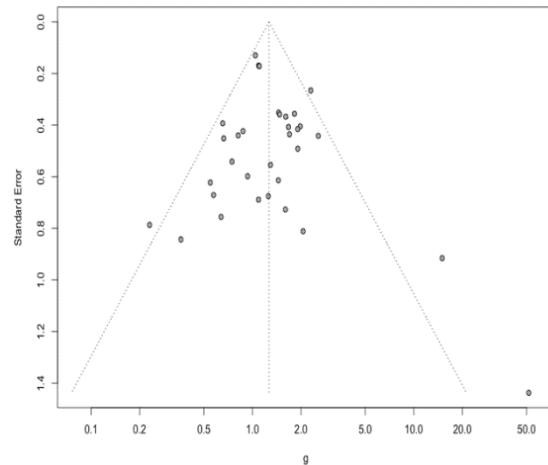
## II. Neurological manifestations and severity of COVID-19

### Myalgia (N=31)



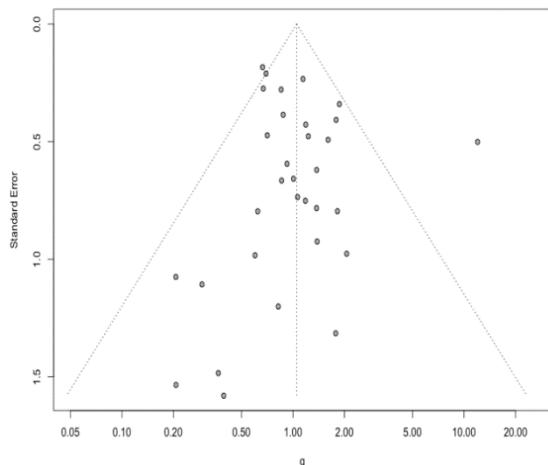
P-value: 0.09

### Fatigue (N=33)



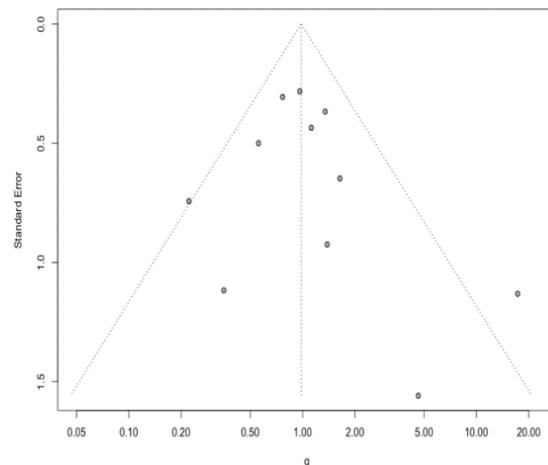
P-value: 0.39

### Headache (N=32)



P-value: 0.44

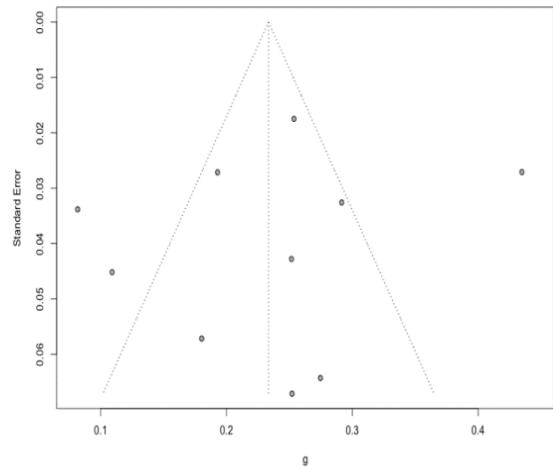
### Dizziness (N=11)



P-value: 0.49

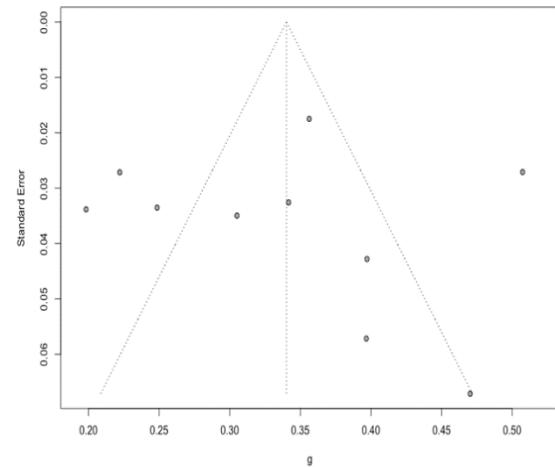
### **III. Prevalence of Neurological symptoms/signs in COVID-19 in Elderly population**

**Headache (N=10)**



P-value: 0.55

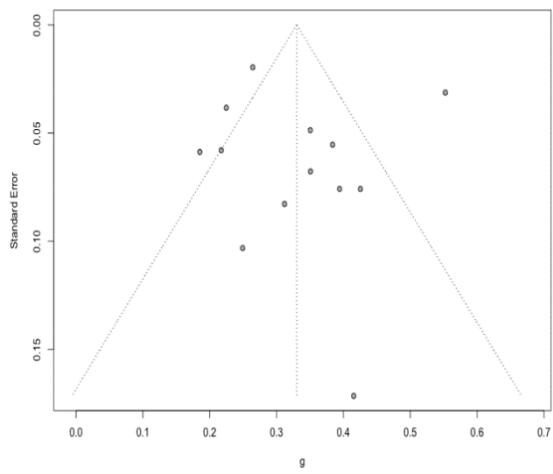
**Myalgia (N=10)**



P-value: 0.97

### **IV. Prevalence of Neurological symptoms/signs in COVID-19 in Young population**

**Headache (N=13)**



P-value: 0.78

\***Bold p-values: <0.05**

**eFigure 2:** Publication bias analysis using funnel plots for various neurological manifestations in COVID-19.

**eTable 1:** Neurological symptoms & signs in the form of case reports and case series (excluded from systematic review and meta-analysis)

S. No	Neurological symptoms & signs	Number of case series (>1 case)	Number of case reports	Number of cases	e-References
1.	Headache	46	3	2224	1-28, 29-48
2.	Fatigue	41	0	2036	1,2,5,6,9,13-16,19-22,49-59, 31-36,40-43,60-66
3.	Smell or Taste Impairment	3	0	1082	9,13,67
4.	Myalgia	43	4	864	1,9,10,14-24,26,27,49,52,54,55,57,68-73, 31-34,36,38-42,47,60,62-65,74,75
5.	Smell Impairment	25	8	856	4,7,9,10,14,16,18-20,23-27,53,67,76-87, 34,38,39,44,46
6.	Disturbance of Consciousness	6	4	232	4,25,27,72,88-90, 44,46,47
7.	Taste Impairment	14	3	201	4,7,9,14,18-20,24,26,27,78,80,81,84,85, 39,46
8.	Dizziness	14	0	155	2,3,8,15,16,21,22,51,54,57, 31,46,47,91
9.	Seizure	15	7	91	4,7,11,25,87-89,92-100, 44-47,101,102
10.	Acute Confusion/ Delirium	9	1	83	4,10,12,19,27,103-105, 43,106
11.	Myalgia or Fatigue	1		75	48
12.	Focal neurological deficits	1	0	34	25
13.	Hemiplegia	2	1	30	107, 44,46
14.	Cranial Nerve Palsy	7	5	29	7,92,108-111, 112-115
15.	Corticospinal tract signs	2	2	16	4,45,72,116
16.	Myoclonus	2	1	14	12,117-120
17.	Short term memory loss	1	0	12	7
18.	Ataxia	4	2	10	7,118, 46,106,120
19.	Agitation	1	0	9	4
20.	Pseudo Bulbar Palsy	1	1	9	88,115
21.	Behavioral abnormalities	1	0	4	25
22.	Language impairment	1	0	4	106
23.	Parasthesia	1	0	1	7



**eTable 2:** Neurological diagnosis in the form of case reports and case series (excluded from systematic review and meta-analysis)

S. No	Neurological diagnosis	Number of case series (>1 case)	Number of case reports	Number of cases	e-References
1.	Total stroke (TIA, IS, ICH, SAH & CVST)	54	30	1090	7,25,92,95,121–152,153–166 44,46,135,167–196
2.	Encephalopathy (Including ANE and Leukoencephalopathy)	16	8	250	7,92,95,197,198,11,153,199–206 45,46,106,207–212
3.	GBS (AIDP, AMAN, AMSAN)	13	32	106	25,92,95,213–232,11,233–238 44–46,239–250
4.	Meningoencephalitis	4	3	34	4,44,251–255
	Encephalitis (Including LE, AHNE, BE, Para Infectious AIE, Rhombencephalitis)	5	16	71	92,95,256–268 46,269–273
5.	Neuropsychiatric disorders - Associated with NMDAR Encephalitis	3	0	32	92,274,275
		0	1	1	276
6.	Posterior reversible encephalopathy syndrome (PRES)	8	2	18	7,25,151,162,163,277,278 279–281
7.	CIM	3	1	16	282,283 47,275
	CIN	3	0	13	11 46,275
	CINM (Critical Illness neuro-myopathy)	1	0	4	284
8.	ADEM (Including AHL & AHLE)	1	4	13	95,285,286 287,288
9.	Muscle Injury & Rhabdomyolysis	2	3	12	7,289,290 47,291
10.	Acute Myelitis (Including ATM, ANM, Post/Para Infectious Myelitis)	1	7	9	85,95,227,292–294 248,295
11.	Cytotoxic lesion of the Corpus Callosum (CLOCCs)	3	2	8	25,163,296–298
12.	Meningitis	2	1	8	11,46,84
13.	Movement disorder	1		8	46
14.	Dysautonomia	1	1	7	7,225
15.	GBS-MFS overlap & MFS	3	1	5	231,232,299,300
16.	Epilepsy	1	1	5	121,301
	NCSE	3	3	6	95,302,303 210,304,305
	NORSE	1	0	1	303

	-Associated with NMDAR Encephalitis	0	1	1	306
	SE	1	0	1	210
17.	Myositis/Inflammatory Myopathy	1	2	4	47,307,308
18.	CNS microangiopathy/ Vasculitis	1	2	3	92,147,309
19.	Brachial Plexopathy/ Brachial Neuritis	2	1	3	92,95,310
20.	Opsoclonus-Myoclonus Syndrome (OMS)	1	1	2	92,311
21.	Neuropathy	1	1	2	46,312
22.	Myasthenia Gravis		2	2	313,314
23.	CNS Abscess with ventriculitis	1	0	1	95
24.	Acute Cerebellitis	0	1	1	315
25.	Optic Neuritis	1	0	1	25
26.	Vestibulo Cochlear Neuritis	1	0	1	25
27.	Pseudo tumor cerebri	1	0	1	95
28.	Myelopathy/ cord ischemia	1	0	1	95
29.	Postural Tachycardia Syndrome (POTS)	0	1	1	316
30.	Acute Tumefactive demyelination	1	0	1	163
	Demyelinating lesions of Brain & Spinal Cord	0	2	2	317,318
	-Associated with Aquaporin Antibody	0	1	1	319
	-Associated with MOG antibody	0	2	2	320,321
31.	Multiple Sclerosis		1	1	322
32.	Pansinusitis	1		1	184
33.	Cerebellar Syndrome	1		1	45

**Abbreviations:** ADEM- Acute disseminated encephalomyelitis, AHL- Acute Hemorrhagic Leukoencephalomyelitis, AHLE- Acute Hemorrhagic leukoencephalitis, AHNE- Acute Hemorrhagic, Necrotizing Encephalitis, AIE- Autoimmune encephalitis, AIDP- Acute inflammatory demyelinating polyneuropathy, AMAN- Acute motor axonal neuropathy, AMSAN- Acute motor sensory axonal neuropathy, ANM- Acute Necrotizing Myelitis, ANE-Acute Necrotizing Encephalopathy, ATM- Acute Transverse Myelitis, BE-Bickerstaff Encephalitis, CLOCC- Cytotoxic lesion of the Corpus Callosum, CIM-Critical Illness Myopathy, CIN- Critical illness Neuropathy, CINM- Critical Illness Neur-myopathy, CNS- Central Nervous System, CVST- Cerebral venous sinus thrombosis, GBS- Guillain Barre Syndrome, ICH- Intra Cerebral Hemorrhage, IS- Ischemic Stroke, LE-Limbic Encephalitis, MFS- Miller Fisher syndrome, MOG- Myelin Oligodendrocyte Glycoprotein, NCSE- Non-Convulsive Status Epilepticus, NORSE- New Status Onset Refractory Status Epilepticus, SE- Status Epilepticus, OMS- Opsoclonus-Myoclonus Syndrome, POTS- Postural Tachycardia Syndrome, PRES- Posterior reversible encephalopathy syndrome, SAH- Sub Arachnoid Hemorrhage, TIA- Transient Ischemic Attack.

**eTable 3:** Inter-rater agreement for analyzing the hospitalization status of COVID-19 patients in 35 studies.

	Rater 2		No. of studies= 35	
Rater 1	0 (No)	1 (Yes)	Kappa*	Agreement
<b>Hospitalized</b>				
0 (No)	2	1	0.525 (0.055 to 0.995)	91.43%
1 (Yes)	2	30		
<b>Non-Hospitalized</b>				
0 (No)	32	2	0.478 (-0.122 to 1.000)	94.29%
1 (Yes)	0	1		
<b>Combined</b>				
0 (No)	34	-	Not Estimable	97.14%
1 (Yes)	1	-		
<b>Unclear</b>				
0 (No)	33	1	-0.029 (-0.099 to 0.040)	94.29%
1 (Yes)	1	0		

**eTable 4:** Inter-rater agreement for analyzing the risk of bias in 35 studies.

	Rater 2			No. of studies= 35	
Rater 1	0 (No)	1 (Unclear)	2 (Yes)	Kappa* (95%CI)	Agreement
<b>Item 1</b>					
0 (No)	0	0	3		
1 (Unclear)	0	0	0		
2 (Yes)	0	0	32		
				Not Estimable	91.43%
<b>Item 2</b>					
0 (No)	0	0	3		
1 (Unclear)	0	0	0		
2 (Yes)	0	0	32		
				Not Estimable	91.43%
<b>Item 3</b>					
0 (No)	0	0	0	0.653 (0.026 to 1.000)	97.14%
1 (Unclear)	0	1	1		
2 (Yes)	0	0	33		
<b>Item 4</b>					
0 (No)	0	0	0	0.222 (-0.222 to 0.667)	85.71%
1 (Unclear)	0	1	1		
2 (Yes)	0	4	29		
<b>Item 5</b>					
0 (No)	3	0	0	0.486 (0.111 to 0.597)	68.57%
1 (Unclear)	0	6	1		
2 (Yes)	2	8	15		
<b>Item 6</b>					
0 (No)	0	0	1		
1 (Unclear)	0	0	0	Not Estimable	94.29%

2 (Yes)	1	0	33		
<b>Item 7</b>				0.566 (0.309 to 0.740)	71.43%
0 (No)	5	1	3		
1 (Unclear)	1	9	5		
2 (Yes)	0	0	11		
<b>Item 8</b>				Not Estimable	91.43%
0 (No)	0	0	0		
1 (Unclear)	0	0	2		
2 (Yes)	1	0	32		

**Key:** Item 1- Clear Inclusion criteria in case series; Item 2- Condition measured in a standard, reliable way; Item 3- Valid methods used for identification of the condition; Item 4- Consecutive inclusion of participants; Item 5- Complete inclusion of participants; Item 6- Clear reporting of demographics; Item 7- Clear reporting of clinical information; Item 8- Clear reporting of presenting site(s)/clinic(s) demographic information

**eTable 5:** List of distinct countries included in our systematic review and meta-analysis

S. No	Country	World Bank Income bracket	Number of studies
1	Australia	HIC	3
2	Austria	HIC	1
3	Belgium	HIC	1
4	Bolivia	LMIC	1
5	Brazil	UMIC	3
6	Bulgaria	UMIC	1
7	Canada	HIC	1
8	Chile	HIC	1
9	China	UMIC	202
10	Croatia	HIC	1
11	Denmark	HIC	1
12	Egypt	LMIC	1
13	Estonia	HIC	1
14	France	HIC	13
15	Germany	HIC	3
16	Greece	HIC	1
17	Hungary	HIC	1
18	India	LMIC	7
19	Indonesia	UMIC	1
20	Iran	UMIC	9
21	Iraq	UMIC	2
22	Ireland	HIC	1
23	Israel	HIC	1
24	Italy	HIC	16
25	Japan	HIC	5
26	Jordan	UMIC	2
27	Kazakhstan	UMIC	1
28	Lithuania	HIC	1
29	Madagascar	LIC	1
30	Moldova	LMIC	1
31	Morocco	LMIC	1
32	Netherlands	HIC	1
33	Nigeria	LMIC	1
34	Norway	HIC	1
35	Oman	HIC	1
36	Pakistan	LMIC	2
37	Portugal	HIC	1
38	Romania	HIC	1

39	Russia	UMIC	1
40	Saudi Arabia	HIC	4
41	Scotland	PART OF UK	1
42	Singapore	HIC	1
43	Slovakia	HIC	1
44	Slovenia	HIC	1
45	South Korea	HIC	6
46	Spain	HIC	11
47	Sweden	HIC	1
48	Switzerland	HIC	2
49	Tunisia	LMIC	1
50	Turkey	UMIC	7
51	UAE	HIC	1
52	UK	HIC	5
53	Ukraine	LMIC	1
54	USA	HIC	28
55	Uzbekistan	LMIC	1

**Abbreviations:** HIC- High Income Countries; LMIC- Low Middle Income Countries; UMIC- Upper Middle-Income Countries; LIC- Low Income Countries

**eTable 6:** Baseline characteristics of studies included in the systematic review and meta-analysis

S. No	Author & Year	Country	Sample size	Mean Age, SD	Males
1	Mao L, 2020 <sup>1</sup>	China	214	52.7, 15.5	87
2	Helms J (a), 2020 <sup>2</sup>	France	58	Median (63)	NA
3	Hornuss D, 2020 <sup>3</sup>	Germany	45	56, 16.9	25
4	Levinson R, 2020 <sup>4</sup>	Israel	42	43.67, 15.43	23
5	Yan CH, 2020 <sup>5</sup>	USA	59	NA	29
6	Chen N, 2020 <sup>6</sup>	China	99	55.5, 13.1	67
7	Guan W, 2020 <sup>7</sup>	China	1099	46.67, 17.07	637
8	Chen P, 2020 <sup>8</sup>	China	136	48.33, 17.98	69
9	Chen Q, 2020 <sup>9</sup>	China	145	47.5, 14.6	79
10	Chen T, 2020 <sup>10</sup>	China	274	58.67, 19.38	171
11	Chen X, 2020 <sup>11</sup>	China	267	47.67, 22.36	121
12	Cummings NJ, 2020 <sup>12</sup>	USA	257	61.67, 15.65	170
13	Du W, 2020 <sup>13</sup>	China	53	42.49, 35.53	26
14	Jin X, 2020 <sup>14</sup>	China	651	45.21, 14.42	331
15	Kim ES, 2020 <sup>15</sup>	South Korea	28	42.6, 13.4	15
16	Liang WH, 2020 <sup>16</sup>	China	1590	48.9, 16.3	904
17	Liu K, 2020 <sup>17</sup>	China	137	53.33, 47.2	61
18	Ma Y, 2020 <sup>18</sup>	China	47	35.67, 54.3	20
19	Niu S, 2020 <sup>19</sup>	China	141	NA	70
20	Shen L, 2020 <sup>20</sup>	China	119	49.33, 17.26	56
21	Sun Y, 2020 <sup>21</sup>	China	63	45, 62.21	NA
22	Tian S, 2020 <sup>22</sup>	China	262	47.5, 69.32	127
23	Tomlins J, 2020 <sup>23</sup>	UK	95	72, 17.31	60
24	Wang D (a), 2020 <sup>24</sup>	China	138	55.33, 19.48	75
25	Wang D (b), 2020 <sup>25</sup>	China	107	50.67, 21.79	57
26	Wang L (a), 2020 <sup>26</sup>	China	26	42.93, 15.53	11
27	Romero-Sanchez C, 2020 <sup>27</sup>	Spain	841	66.42, 14.96	473
28	Wang X (a), 2020 <sup>28</sup>	China	80	39.83, 12.46	31
29	Wang X (b), 2020 <sup>29</sup>	China	1012	49, 14.1	524
30	Xu YH, 2020 <sup>30</sup>	China	50	43.9, 16.8	29

31	Yang W, 2020 <sup>31</sup>	China	149	45.11, 13.35	81
32	Yang X, 2020 <sup>32</sup>	China	52	59.7, 13.3	35
33	Yin S, 2020 <sup>33</sup>	China	33	47.5, 25.96	16
34	Huang C, 2020 <sup>34</sup>	China	41	49.33, 13.06	30
35	Zhang G, 2020 <sup>35</sup>	China	221	53.5, 20.52	108
36	Zhao XY, 2020 <sup>36</sup>	China	91	Median (46)	49
37	Zheng Y (a), 2020 <sup>37</sup>	China	73	46.67, 41.59	40
38	Wan S, 2020 <sup>38</sup>	China	135	46, 14.24	72
39	Qian GQ, 2020 <sup>39</sup>	China	91	47.83, 15.44	37
40	Hu Z, 2020 <sup>40</sup>	China	24	36.17, 29.95	8
41	Wu J (a), 2020 <sup>41</sup>	China	80	46.1, 15.42	39
42	Xu XW, 2020 <sup>42</sup>	China	62	41.67, 15.18	35
43	Zhang X, 2020 <sup>43</sup>	China	645	45.34, 13.86	328
44	Wang L(b), 2020 <sup>44</sup>	China	339	70, 8.19	166
45	Cai Q, 2020 <sup>45</sup>	China	298	47.17, 20.86	145
46	Kong I, 2020 <sup>46</sup>	South Korea	28	45.2, 41.4	15
47	Gupta N, 2020 <sup>47</sup>	India	21	43.1, 45.32	14
48	Karadas O, 2020 <sup>48</sup>	Turkey	239	46.46, 15.41	133
49	Beltran-Corbellini A, 2020 <sup>49</sup>	Spain	79	61.6, 17.4	48
50	Lechien JR (a), 2020 <sup>50</sup>	France/ Belgium	417	36.9, 11.4	154
51	Han R, 2020 <sup>51</sup>	China	108	52, 51.84	38
52	Lo IL, 2020 <sup>52</sup>	China	10	48.33, 31.82	3
53	Du Y, 2020 <sup>53</sup>	China	85	65.8, 14.2	62
54	Han X, 2020 <sup>54</sup>	China	17	40, 10	6
55	Lian J (a), 2020 <sup>55</sup>	China	788	NA	407
56	Shi S, 2020 <sup>56</sup>	China	416	60, 55.05	205
57	Lei P, 2020 <sup>57</sup>	China	14	47, 19	8
58	Zheng F, 2020 <sup>58</sup>	China	161	45.17, 17.58	80
59	Wang Z, 2020 <sup>59</sup>	China	69	46.33, 20.44	32
60	Bhatraju PK, 2020 <sup>60</sup>	USA	24	64, 18	15
61	Chang D, 2020 <sup>61</sup>	China	13	38.67, 11.63	10
62	Xu X (a), 2020 <sup>62</sup>	China	90	51.33, 51.23	39
63	Liu Y (a), 2020 <sup>63</sup>	China	12	53.67, 18.01	8
64	Zhou F, 2020 <sup>64</sup>	China	191	56.33, 15.69	119
65	Han Y, 2020 <sup>65</sup>	China	25	45.33, 37.73	12
66	Cao J, 2020 <sup>66</sup>	China	102	52.67, 22.56	53
67	Zhao W, 2020 <sup>67</sup>	China	101	45.48, 43.62	56

68	Li X (a), 2020 <sup>68</sup>	China	131	47, 15	63
69	Feng Y, 2020 <sup>69</sup>	China	476	52.33, 17.84	271
70	Lei Z, 2020 <sup>70</sup>	China	20	43.2, 14	10
71	Zhang R, 2020 <sup>71</sup>	China	120	45.4, 15.6	43
72	Barrasa H, 2020 <sup>72</sup>	Spain	48	63, 12	27
73	Li YK, 2020 <sup>73</sup>	China	25	60.33, 14.15	12
74	Chen TL, 2020 <sup>74</sup>	China	203	54.33, 20.16	108
75	Chu J, 2020 <sup>75</sup>	China	54	46, 35.8	36
76	Cheng Z, 2020 <sup>76</sup>	China	11	50.36, 15.5	8
77	Goyal P, 2020 <sup>77</sup>	USA	393	61.5, 18.67	238
78	Chen J (a), 2020 <sup>78</sup>	China	249	50.33, 20.88	126
79	Escalera-Antezana JP, 2020 <sup>79</sup>	Bolivia	12	36.5, 15.78	6
80	Merza MA, 2020 <sup>80</sup>	Iraq	15	28.06, 16.42	9
81	Wang R, 2020 <sup>81</sup>	China	125	38.76, 13.79	71
82	Zheng Y (b), 2020 <sup>82</sup>	China	99	49.39, 18.45	51
83	Garg R, 2020 <sup>83</sup>	India	391	49.07, 15.74	241
84	Li Y, 2020 <sup>84</sup>	China	219	53.3, 15.9	89
85	Chung M, 2020 <sup>85</sup>	China	21	51, 14.5	13
86	Du RH, 2020 <sup>86</sup>	China	179	57.6, 13.7	97
87	Li X (b), 2020 <sup>87</sup>	China	548	59, 15.61	279
88	Pan F, 2020 <sup>88</sup>	China	21	40, 9	6
89	Shi H, 2020 <sup>89</sup>	China	81	49.5, 11	42
90	Song F, 2020 <sup>90</sup>	China	51	49, 16	25
91	Wu J (b), 2020 <sup>91</sup>	China	80	44, 11	42
92	Zhang JJ, 2020 <sup>92</sup>	China	140	56.33, 46.44	7
93	Duanmu Y, 2020 <sup>93</sup>	USA	100	47.33, 24.82	56
94	Giacomelli A, 2020 <sup>94</sup>	Italy	59	61.33, 18.24	40
95	Li K, 2020 <sup>95</sup>	China	83	45.5, 12.3	44
96	Jain R, 2020 <sup>96</sup>	USA	3218	NA	NA
97	Qin C, 2020 <sup>97</sup>	China	1875	61.33, 14.09	945
98	Merkler AE, 2020 <sup>98</sup>	USA	1916	63.67, 18.55	1111
99	Radmanesh A, 2020 <sup>99</sup>	USA	3661	68.7, 16.5	150/ 242
100	Xiong W, 2020 <sup>100</sup>	China	917	48.7, 17.1	506
101	Mahammedi A, 2020 <sup>101</sup>	Italy	725	69, 15	69
102	Agarwal P, 2020 <sup>102</sup>	USA	404	NA	197
103	Notz Q, 2020 <sup>103</sup>	Germany	38	64.5, 19.5	25

104	Helms J (b), 2020 104	France	140	61.33, 13.48	100
105	Ora J, 2020 <sup>105</sup>	Italy	21	68.4, 13.9	13
106	Duployez N, 2020 106	France	122	60.67, 54.77	93
107	Fu J, 2020 <sup>107</sup>	China	75	46.6, 14	45
108	Gao Y, 2020 <sup>108</sup>	China	44	52.17, 19.54	15
109	Gu Q, 2020 <sup>109</sup>	China	50	44.84, 16.26	25
110	Guo T, 2020 <sup>110</sup>	China	98	49, 12	43
111	Hafiz M, 2020 <sup>111</sup>	Indonesia	30	53.9, 16.4	16
112	He F, 2020 <sup>112</sup>	China	288	48.27, 20.64	131
113	Hu HT, 2020 <sup>113</sup>	China	55	63.67, 15.22	34
114	Huang R, 2020 <sup>114</sup>	China	280	43.67, 17.88	146
115	Jiang H, 2020 <sup>115</sup>	China	59	64, 12.16	29
116	Kato H, 2020 <sup>116</sup>	Japan	70	66.67, 6.81	47
117	Khan M, 2020 <sup>117</sup>	Pakistan	121	47, 64.52	85
118	Klopfenstein T, 2020 <sup>118</sup>	France	70	57, 19	29
119	Lapostolle F, 2020 119	France	1452	44.33, 18.55	700
120	Liu D (a), 2020 <sup>120</sup>	China	2044	61, 14.09	1000
121	Liu J, 2020 <sup>121</sup>	China	1190	57, 14.84	635
122	Mishra P, 2020 <sup>122</sup>	India	74	NA	43
123	Qu J, 2020 <sup>123</sup>	China	246	53.63, 15.27	115
124	Ren D, 2020 <sup>124</sup>	China	150	51.33, 19.46	82
125	Trigo J, 2020 <sup>125</sup>	Spain	576	67.2, 14.7	326
126	Wang Y, 2020 <sup>126</sup>	China	90	45, 14	33
127	Wang ZH, 2020 <sup>127</sup>	China	59	67.4, 11.3	38
128	Wei Y, 2020 <sup>128</sup>	China	276	50, 12.67	155
129	Wu G, 2020 <sup>129</sup>	China	299	NA	137
130	Xie Y, 2020 <sup>130</sup>	China	62	64.1, 14.95	27
131	Xiong Y, 2020 <sup>131</sup>	China	86	NA	43
132	Xu X (b), 2020 <sup>132</sup>	China	88	57.11, 15.39	36
133	Yang L, 2020 <sup>133</sup>	China	200	55, 17.1	98
134	Yang Q, 2020 <sup>134</sup>	China	136	54.67, 14.98	66
135	Zhao D, 2020 <sup>135</sup>	China	19	46.67, 23.23	11
136	Zhao G, 2020 <sup>136</sup>	China	47	50, 21.41	19
137	Zheng Y (c), 2020 137	China	238	NA	141
138	Guilmot A, 2020 138	Belgium	349	61, 38.44	12
139	Liguori C, 2020 <sup>139</sup>	Italy	103	55, 14.65	59
140	Romagnolo A, 2020 <sup>140</sup>	Italy	344	61.5, 17.8	204

141	Asai N, 2020 <sup>141</sup>	Japan	92	58, 57.24	50
142	Cavalleri M, 2020 <sup>142</sup>	Italy	172	64.2, 13.4	117
143	Davarpanah AH, 2020 <sup>143</sup>	Iran	228	56.1, 15.9	148
144	Faury H, 2020 <sup>144</sup>	France	100	61, 17.3	58
145	Feng G, 2020 <sup>145</sup>	China	134	44.67, 17.24	65
146	Kang MK, 2020 <sup>146</sup>	South Korea	118	60.33, 15.01	52
147	Liu D (b), 2020 <sup>147</sup>	China	599	52.67, 67.62	325
148	Marvisi M, 2020 <sup>148</sup>	Italy	90	66, 15	60
149	Meiler S, 2020 <sup>149</sup>	Germany	64	57.2, 14.5	40
150	Salepci E, 2020 <sup>150</sup>	Turkey	223	49.67, 19.4	113
151	Shah SJ, 2020 <sup>151</sup>	USA	33	62.67, 19.37	21
152	Wang W (a), 2020 <sup>152</sup>	China	123	67.5, 16.13	60
153	Xiang C, 2020 <sup>153</sup>	China	53	53, 16	31
154	Zandkarimi E, 2020 <sup>154</sup>	Iran	1831	52.74, 22.16	1019
155	Zhang J, 2020 <sup>155</sup>	China	211	51.67, 16.42	95
156	Zhou J, 2020 <sup>156</sup>	China	201	45.93, 18.82	102
157	Abbas HM, 2020 <sup>157</sup>	Iraq	284	48.6, 14.79	188
158	Campioli CC, 2020 <sup>158</sup>	USA	251	53, 27	103
159	Chen X (b), 2020 <sup>159</sup>	China	70	42.93, 13.32	41
160	Chon YJ, 2020 <sup>160</sup>	South Korea	281	61.17, 16.39	75
161	Coppola A, 2020 <sup>161</sup>	Italy	73	69.75	52
162	Gatti M, 2020 <sup>162</sup>	Italy	260	62.8, 15.8	159
163	Gu J, 2020 <sup>163</sup>	China	155	42.97, 14.85	87
164	Kuzan TY, 2020 <sup>164</sup>	Turkey	120	50.9, 16.04	67
165	Li J (a), 2020 <sup>165</sup>	China	74	64.33, 12.85	44
166	Li J (b), 2020 <sup>166</sup>	China	94	58.7, 16	51
167	Lian J (b), 2020 <sup>167</sup>	China	465	46, 61.72	243
168	Liu Y (b), 2020 <sup>168</sup>	China	107	54.83, 16.16	45
169	Moon SS, 2020 <sup>169</sup>	South Korea	352	55.67, 25.31	144
170	Tabata S, 2020 <sup>170</sup>	Japan	104	63.33, 21.05	54
171	Tan JY, 2020 <sup>171</sup>	Singapore	287	NA	233
172	Wang H, 2020 <sup>172</sup>	China	13	49.54, 17.42	7
173	Wang W (b), 2020 <sup>173</sup>	China	421	50.67, 16.36	214
174	Wang X (c), 2020 <sup>174</sup>	China	131	49, 19.49	59

175	Xu H, 2020 <sup>175</sup>	China	102	NA	50
176	Ye H, 2020 <sup>176</sup>	China	117	48.2, 13.5	65
177	Zha L, 2020 <sup>177</sup>	China	88	56.17, 13.94	45
178	Zhang L, 2020 <sup>178</sup>	China	134	60.78, 12.98	87
179	Zhou H, 2020 <sup>179</sup>	China	42	38.93, 11.67	17
180	Zhuang Y, 2020 <sup>180</sup>	China	22	40.7, 10.3	11
181	Lechien JR (b), 2020 <sup>181</sup>	France/ Belgium	1420	39.17, 12.09	458
182	Rothstein A, 2020 <sup>182</sup>	USA	844	59, 18	405
183	Chary E, 2020 <sup>183</sup>	France	115	50, 47.3	34
184	Scullen T, 2020 <sup>184</sup>	USA	76	61.4, 11.7	39
185	Aggarwal A, 2020 <sup>185</sup>	India	32	53.58, 10.67	19
186	Alsofayan YM, 2020 <sup>186</sup>	Saudi Arabia	1519	36	825
187	Carignan A, 2020 <sup>187</sup>	Canada	134	54.27, 17.46	64
188	Chen FF, 2020 <sup>188</sup>	China	681	63.67, 13.37	362
189	Chen J (c), 2020 <sup>189</sup>	China	3309	60, 14.83	1642
190	Chen Y, 2020 <sup>190</sup>	China	904	54, 20.79	421
191	Duan X, 2020 <sup>191</sup>	China	25	52, 19.3	15
192	Easom N, 2020 <sup>192</sup>	UK	68	39.67, 57.18	32
193	Fu Y, 2020 <sup>193</sup>	China	482	54.27, 21.04	243
194	Gao X, 2020 <sup>194</sup>	China	36	44.1, 17.6	17
195	Gaur A, 2020 <sup>195</sup>	India	26	41.3, 14.14	16
196	Gupta S, 2020 <sup>196</sup>	USA	2215	60.5, 14.5	1436
197	Jalessi M, 2020 <sup>197</sup>	Iran	92	52.94, 13.25	62
198	Li G, 2020 <sup>198</sup>	China	199	62.67, 18.67	89
199	Li W, 2020 <sup>199</sup>	China	97	45, 18	45
200	Martin-Sanchez FJ, 2020 <sup>200</sup>	Spain	1379	62, 18	739
201	Meng H, 2020 <sup>201</sup>	China	58	42.6, 16.56	26
202	O'Reilly GM (a), 2020 <sup>202</sup>	Australia	14	50, 18	11
203	Samrah SM, 2020 <sup>203</sup>	Jordan	81	39.95, 16.59	37
204	Khamis F, 2020 <sup>204</sup>	Oman	63	48, 16	53
205	Saleemi S, 2020 <sup>205</sup>	Saudi Arabia	51	48.33, 27.46	23
206	Shang Y, 2020 <sup>206</sup>	China	307	44.67, 16.39	164
207	Sun D, 2020 <sup>207</sup>	China	84	45.33, 12.07	37
208	Wang D (c), 2020 <sup>208</sup>	China	143	54.67, 20.97	73
209	Wang F, 2020 <sup>209</sup>	China	323	46, 19.36	154

210	Wang S, 2020 <sup>210</sup>	China	605	58, 15.6	322
211	Yang J, 2020 <sup>211</sup>	China	37	32.32, 15.71	24
212	Yue H, 2020 <sup>212</sup>	China	86	42.1, 17.57	38
213	Zhang SY, 2020 <sup>213</sup>	China	788	NA	407
214	Zhang Y, 2020 <sup>214</sup>	China	258	63.33, 10.44	138
215	Zhao K, 2020 <sup>215</sup>	China	619	58.2, 13.1	309
216	Fan S, 2020 <sup>216</sup>	China	86	66.6, 11.1	54
217	Hernández-Fernández F, 2020 <sup>217</sup>	Spain	1683	66.9, 11.8	18
218	García-Azorín D, 2020 <sup>218</sup>	Spain	576	67.18, 14.75	326
219	Liu M, 2020 <sup>219</sup>	China	30	35, 8	10
220	Qin W, 2020 <sup>220</sup>	China	582	63, 12.63	293
221	Sun C, 2020 <sup>221</sup>	China	150	45, 16	67
222	Teich VD, 2020 <sup>222</sup>	Brazil	510	39.9, 13.6	290
223	Xie W, 2020 <sup>223</sup>	China	75	58.1, 15.9	41
224	Xu M, 2020 <sup>224</sup>	China	23	46.17, 9.09	15
225	Zeng YL, 2020 <sup>225</sup>	China	49	52.82, 18.12	26
226	Zhang MQ, 2020 <sup>226</sup>	China	9	33, 28.86	5
227	Chen L, 2020 <sup>227</sup>	China	29	53.67, 41.33	21
228	Liu C, 2020 <sup>228</sup>	China	278	48.1, 17	130
229	Lu XF, 2020 <sup>229</sup>	China	141	48.33, 58.42	77
230	Zhu Q, 2020 <sup>230</sup>	China	64	67.33, 7.58	36
231	Zou W, 2020 <sup>231</sup>	China	63	46.71, 16	32
232	Casas-Rojo JM, 2020 <sup>232</sup>	Spain	15111	63.13, 62.27	8643
233	Fakiri K El, 2020 <sup>233</sup>	Morocco	74	8.06, 12.72	34
234	Gotzinger F, 2020 <sup>234</sup>	Multicentric	582	5.83, 8.55	311
235	Guo CX, 2020 <sup>235</sup>	China	341	7, 10.41	183
236	Korkmaz MF, 2020 <sup>236</sup>	Turkey	81	9.25, 9	48
237	Mamishi S, 2020 <sup>237</sup>	Iran	24	6.33, 4.73	11
238	Qui H, 2020 <sup>238</sup>	China	36	8.3, 3.5	23
239	Romani L, 2020 <sup>239</sup>	Italy	43	8.01, 13.02	24
240	Song X, 2020 <sup>240</sup>	USA	54	10.99, 17.62	25
241	Sun D, 2020 <sup>241</sup>	China	8	6.62, 6.34	6
242	Swann OV, 2020 <sup>242</sup>	UK	651	6.2, 9.95	367
243	Zhao Y, 2020 <sup>243</sup>	China	23	5.7, 3.8	9

244	Dang JZ, 2020 <sup>244</sup>	China	17	88.2, 2.75	12
245	Knopp P, 2020 <sup>245</sup>	UK	217	80, 6.8	134
246	Li P, 2020 <sup>246</sup>	China	204	74.33, 26.13	100
247	Al-Mutair A, 2020 <sup>247</sup>	Saudi Arabia	401	38.16 (13.43)	321
248	Almalki ZS, 2020 <sup>248</sup>	Saudi Arabia	458	38.82 (12.86)	398
249	An P, 2020 <sup>249</sup>	China	205	54 (22-77)	122
250	Ayaz A, 2020 <sup>250</sup>	Pakistan	66	50.6 (19.1)	40
251	Baghaei P, 2020 <sup>251</sup>	Iran	127	55 (45-63)	97
252	Bouzid D, 2020 <sup>252</sup>	France	268	59 (49-73)	190
253	Buckner FS, 2020 <sup>253</sup>	USA	105	69 (23-97)	53
254	Caronna E, 2020 <sup>254</sup>	Spain	130	53.9 (16.4)	64
255	Chen HJ, 2020 <sup>255</sup>	China	34	54.5 (11.8)	21
256	Chen Y (b), 2020 <sup>256</sup>	China	208	64 (55-69)	101
257	Chi Q, 2020 <sup>257</sup>	China	17	53.5 (13.4)	9
258	Cobb NL, 2020 <sup>258</sup>	USA	65	60.4 (15.7)	46
259	Deng LS, 2020 <sup>259</sup>	China	83	53 (3-80)	35
260	Du H, 2020 <sup>260</sup>	China	164	61.8 (13.6)	84
261	Emami A, 2020 <sup>261</sup>	Iran	6147		
262	Fu F, 2020 <sup>262</sup>	China	55	45 (20-67)	33
263	Gao J, 2020 <sup>263</sup>	China	96	43 (40-46.6)	44
264	He S, 2020 <sup>264</sup>	China	420	56 (43-63.75)	207
265	Higuchi T, 2020 <sup>265</sup>	Japan	57	52 (35-69.5)	32
266	Homayounieh F, 2020 <sup>266</sup>	Iran	90	59.58 (15.98)	58
267	Hong JM, 2020 <sup>267</sup>	China	41	39.9 (15-83)	
268	Hong L, 2020 <sup>268</sup>	China	67	45 (15.2)	36
269	Ibrahim OR, 2020 <sup>269</sup>	Nigeria	45	43 (16)	39
270	Jiang J, 2020 <sup>270</sup>	China	36	41 (30-55)	18
271	Jin XH, 2020 <sup>271</sup>	China	146	47 (4-86)	77
272	Jourdes A, 2020 <sup>272</sup>	France	263	65 (54-76)	155
273	Kadiane-Oussou NJ, 2020 <sup>273</sup>	France	114	56.7 (20)	48
274	Kaeuffer C, 2020 <sup>274</sup>	France	1045	66.3 (16)	612
275	Khraise NW, 2020 <sup>275</sup>	Jordan	108	36.4 (17.1)	45
276	Kim KH, 2020 <sup>276</sup>	Uzbekistan	1030	36 (26-47)	588
277	Kumar A, 2020 <sup>277</sup>	India	91	44 (15-82)	61

278	Li X (c), 2020 <sup>278</sup>	China	52	36 (19-66), 6.33 (0-15)	28
279	Lima MA, 2020 <sup>279</sup>	Brazil	57	41.4 (10.4)	26
280	Lin L, 2020 <sup>280</sup>	China	78	66.5 (53.75- 70)	38
281	Liu H, 2020 <sup>281</sup>	China	40	40 (30-47)	7
282	Liu J (b), 2020 <sup>282</sup>	China	214	68 (59-76)	119
283	Liu M, 2020 <sup>283</sup>	China	122	48 (15)	61
284	Liu W, 2020 <sup>284</sup>	China	140	36 (30.75- 43.25)	44
285	de Magalhaes JJF, 2020 <sup>285</sup>	Brazil	557	47 (32-68)	253
286	Mirfazeli FS, 2020 <sup>286</sup>	Iran	201	51.84 (16.57)	119
287	Morikawa M, 2020 <sup>287</sup>	Japan	154	44 (32-56)	94
288	Novelli L, 2020 <sup>288</sup>	Italy	508	66.3 (15.8)	368
289	Pugliese L, 2020 <sup>289</sup>	Italy	92	63 (52.3- 78.5)	66
290	Qui Z, 2020 <sup>290</sup>	China	64	48.5 (10-77)	38
291	Raberahona M, 2020 <sup>291</sup>	Madagascar	1288	38 (26-52)	626
292	Ren C, 2020 <sup>292</sup>	China	422	47 (33-60)	201
293	Shi JC, 2020 <sup>293</sup>	China	105	42 (22-64)	57
294	Sun JT, 2020 <sup>294</sup>	China	99	52 (42-62), 70.5 (61.25- 80.75)	60
295	Sun L, 2020 <sup>295</sup>	China	55	44 (34-56)	31
296	Tian J, 2020 <sup>296</sup>	China	120	52.3 (17.4)	60
297	Vial MR, 2020 <sup>297</sup>	Chile	381	39 (31-49)	183
298	Vilke GM, 2020 <sup>298</sup>	USA	330		
299	Wang C, 2020 <sup>299</sup>	China	169	45 (34.5-55)	86
300	Wang J (a), 2020 <sup>300</sup>	China	297	38 (31.25- 54), 48 (36.5- 57), 47 (34.25-57.75)	164
301	Wang J (b), 2020 <sup>301</sup>	China	342	44.5 (32-57)	112
302	Wang Z (b), 2020 <sup>302</sup>	China	293	59.2 (42.8- 73.1)	138
303	Wei Y (b), 2020 <sup>303</sup>	China	628	53 (14.8)	296
304	Wu B, 2020 <sup>304</sup>	China	91	50 (14)	52
305	Xiao J, 2020 <sup>305</sup>	China	243	47 (20-89)	105
306	Xie L, 2020 <sup>306</sup>	China	49	41 (33-56)	26
307	Zayet S, 2020 <sup>307</sup>	France	70	56.7 (19.3)	29

308	Zhang L (b), 2020 308	China	34	49.21 (7-88)	19
309	Zhang N, 2020 <sup>309</sup>	China	60	64.4 (11)	43
310	Bach I, 2020 <sup>310</sup>	USA	683	61.13 (15.39)	397
311	Battaglini D, 2020 311	Italy	94	61.6 (11.1)	74
312	Cantador E, 2020 312	Spain	1419		
313	Chachkhiani D, 2020 <sup>313</sup>	USA	250	60 (15)	113
314	Foresti C, 2020 <sup>314</sup>	Italy	1832		
315	Frontera JA, 2020 315	USA	4491	70.39 (14.29)	2607
316	John S, 2020 <sup>316</sup>	UAE	591		
317	Kacem I, 2020 <sup>317</sup>	Tunisia	646	42.17 (17.58)	348
318	Keller E, 2020 <sup>318</sup>	Switzerland	32		
319	Lang M, 2020 <sup>319</sup>	USA	468		
320	Lin E, 2020 <sup>320</sup>	USA	2054	64 (50-75)	1171
321	Liotta EM, 2020 <sup>321</sup>	USA	509	58.5 (16.9)	281
322	Requena M, 2020 322	Spain	2050		
323	Salahuddin H, 2020 <sup>323</sup>	USA	574	62.8 (17.6)	276
324	Shekhar R, 2020 324	USA	90		
325	Siegler JE, 2020 <sup>325</sup>	USA, Spain, Egypt, Romania	14483		
326	Yao X, 2020 <sup>326</sup>	China	2474	61 (15.7)	1235
327	Wang YX, 2020 <sup>327</sup>	China	90	53.9 (16.92)	54
328	O'Reilly GM (b), 2020 <sup>328</sup>	Australia	255	58 (22)	130
329	Bellan M, 2020 <sup>329</sup>	Italy	407	71 (58-80)	239
330	Chen SL, 2020 <sup>330</sup>	China	1168	43.5 (32-57)	560
331	Horvath L, 2020 331	Australia	102	45 (17-87)	
332	Huang H, 2020 <sup>332</sup>	China	125	44.87 (18.55)	63
333	Rokni M, 2020 <sup>333</sup>	Iran	233	49.8	149
334	Shah NN, 2020 <sup>334</sup>	India	655	32.7 (10.1)	414
335	Bayesheva D, 2020 335	Kazakhstan	650	7.1 (6.1)	366
336	Bhumbra S, 2020 336	USA	19	5 (0.8-16)	14
337	Cai J, 2020 <sup>337</sup>	China	49	11.5 (5.12)	28
338	Chen J, 2020 <sup>338</sup>	China	12	14.5 (9.25- 15.75)	6

339	Duramaz BB, 2020 339	Turkey	43	-	17
340	Li K, 2020 <sup>340</sup>	China	72	2 (0-11)	
341	Parri N, 2020 <sup>341</sup>	Italy	170	3.75 (0.33-10.7)	95
342	Yilmaz K, 2020 <sup>342</sup>	Turkey	105	9.05 (5.47)	54
343	BaĞ SoytAŞ R, 2020 <sup>343</sup>	Turkey	218	75.3 (70-81)	112
344	Davis P, 2020 <sup>344</sup>	Scotland	222	82 (56-99)	74
345	Gan JM, 2020 <sup>345</sup>	UK	122	81 (8)	51
346	Hwang J, 2020 <sup>346</sup>	South Korea	340	77.32 (7.25), 74.39 (6.70)	129
347	Kennedy M, 2020 <sup>347</sup>	USA	817	77.7 (8.2)	386
348	Mendes A, 2020 <sup>348</sup>	Switzerland	235	86.3 (6.5)	102
349	Vrillon A, 2020 <sup>349</sup>	France	76	90 (86-92)	34
350	Zhou J, 2020 <sup>350</sup>	China	118	70.6 (6.9), 73.1 (7.3)	53

**Abbreviations:** NA- Not available; USA- United States of America; UK- United Kingdom





3 0	Xu YH, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Hig h	Hig h	Hig h	Hig h	Lo w	Hig h	Lo w	Moderate
3 1	Yang W, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
3 2	Yang X, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w							
3 3	Yin S, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w
3 4	Huang C, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w							
3 5	Zhang G, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w							
3 6	Zhao XY, 2020	Hig h	Moderate	Lo w	Moderate	Hig h	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Moderate
3 7	Zheng Y, 2020 a	Hig h	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
3 8	Wan S, 2020	Hig h	Hig h	Lo w	Moderate	Lo w	Moderate							
3 9	Qian GQ, 2020	Hig h	Moderate	Lo w	Moderate	Hig h	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Moderate
4 0	Hu Z, 2020	Hig h	Moderate	Lo w	Moderate	Moderate	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Moderate
4 1	Wu J, 2020 a	Hig h	Hig h	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Moderate
4 2	Xu XW, 2020	Hig h	Hig h	Lo w	Moderate	Hig h	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Moderate
4 3	Zhang X, 2020	Hig h	Hig h	Moderate	Moderate	Moderate	Lo w	Moderate	Lo w	Hig h	Hig h	Lo w	Lo w	Moderate
4 4	Cai Q, 2020	Hig h	Lo w											
4 5	Kong I, 2020	Hig h	Hig h	Hig h	Moderate	Hig h	Lo w	Hig h	Hig h	Hig h	Hig h	Lo w	Hig h	Hig h
4 6	Gupta N, 2020	Lo w	Moderate	Lo w	Moderate	Moderate	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w

4 7	Kara das O, 2020	Hig h	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate
4 8	Beltran- Corbellini A, 2020	Lo w	Moder ate	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Moder ate	Hig h	Lo w	Lo w	Lo w	Lo w
4 9	Lechien JR, 2020a	Lo w	Moder ate	Lo w	Moder ate	Moder ate	Hig h	Hig h	Hig h	Hig h	Lo w	Lo w	Lo w	Lo w	Moder ate
5 0	Han R, 2020	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Moder ate	Hig h	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
5 1	Lo IL, 2020	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
5 2	Du Y, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w
5 3	Han X, 2020	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w	Lo w
5 4	Lian J, 2020a	Lo w	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
5 5	Shi S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Hig h	Lo w	Lo w
5 6	Lei P, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w
5 7	Zhen g F, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
5 8	Wang Z, 2020a	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Moder ate	Moder ate	Lo w	Lo w	Lo w
5 9	Bhatraju PK, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w
6 0	Chang D, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Hig h	Hig h	Hig h	Moder ate	Hig h	Lo w	Lo w	Lo w
6 1	Xu X, 2020a	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w	Lo w

6 2	Liu Y, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
6 3	Zhou F, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
6 4	Han YN, 2020	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
6 5	Cao J, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
6 6	Zhao W, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
6 7	Li X, 2020 a	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Hig h	Hig h	Hig h	Lo w	Hig h	Lo w	Moder ate
6 8	Feng Y, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
6 9	Lei Z, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
7 0	Zhan g R, 2020	Hig h	Moder ate	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Hig h	Lo w	Moder ate	Lo w	Moder ate
7 1	Barra sa H, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
7 2	Li YK, 2020	Hig h	Hig h	Hig h	Moder ate	Hig h	Moder ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h
7 3	Chen TL, 2020	Lo w	Moder ate	Lo w	Hig h	Moder ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate
7 4	Chu J, 2020	Hig h	Hig h	Hig h	Hig h	Moder ate	Hig h	Moder ate	Hig h	Lo w	Lo w	Moder ate	Lo w	Hig h
7 5	Chen g Z, 2020	Lo w	Moder ate	Lo w	Hig h	Moder ate	Hig h	Moder ate	Hig h	Hig h	Lo w	Lo w	Lo w	Moder ate
7 6	Goyal P, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Lo w
7 7	Chen J, 2020 a	Lo w	Moder ate	Lo w	Hig h	Moder ate	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Moder ate
7 8	Escal era- Antez ana JP, 2020	Lo w	Moder ate	Lo w	Hig h	Moder ate	Moder ate	Hig h	Hig h	Hig h	Hig h	Lo w	Lo w	Moder ate











1 6 1	Gatti M, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
1 6 2	Gu J, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Hig h	Hig h	Lo w	Lo w	Lo w	Lo w
1 6 3	Kuza n TY, 2020	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Moderate	Hig h	Hig h	Lo w	Lo w	Lo w	Lo w
1 6 4	Li J, 2020 a	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
1 6 5	Li J, 2020 b	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Hig h	Moderate	Lo w	Lo w
1 6 6	Lian J, 2020 b	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
1 6 7	Liu Y, 2020 b	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Hig h	Moderate	Lo w	Lo w
1 6 8	Moon SS, 2020	Lo w	Moderate	Moderate	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Lo w	Moderate	Lo w	Lo w
1 6 9	Tabata a S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
1 7 0	Tan JY, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Moderate	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
1 7 1	Wang H, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Hig h	Hig h	Lo w	Lo w	Lo w	Lo w
1 7 2	Wang W, 2020 b	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
1 7 3	Wang X, 2020 c	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Hig h	Moderate	Lo w	Lo w
1 7 4	Xu H, 2020	Lo w	Moderate	Moderate	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
1 7 5	Ye H, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
1 7 6	Zha L, 2020	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Hig h	Moderate	Lo w	Lo w

1 7 7	Zhan g L, 2020 a	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
1 7 8	Zhou H, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
1 7 9	Zhua ng Y, 2020	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Lo w	Hig h	Lo w	Lo w
1 8 0	Lechi en JR, 2020 b	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Moderate	Lo w	Lo w	Lo w
1 8 1	Roths tein A, 2020	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
1 8 2	Chary E, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Hig h	Moderate	Lo w	Lo w
1 8 3	Scullen T, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Lo w	Moderate	Lo w	Lo w
1 8 4	Aggar wal A, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
1 8 5	Alsof ayan YM, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Hig h	Moderate	Lo w	Lo w
1 8 6	Carig nan A, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Moderate	Hig h	Hig h	Lo w	Lo w	Lo w
1 8 7	Chen FF, 2020	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Hig h	Hig h	Lo w	Lo w
1 8 8	Chen J, 2020 c	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
1 8 9	Chen Y, 2020 a	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Hig h	Moderate	Lo w	Lo w
1 9 0	Duan X, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
1 9 1	Eason N, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Hig h	Lo w	Lo w	Lo w

1 9 2	Fu Y, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Mo der ate	Mo der ate	Lo w	Lo w
1 9 3	Gao X, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Lo w	Mo der ate	Lo w	Lo w
1 9 4	Gaur A, 2020	Lo w	Lo w	Lo w	Lo w	Mo der ate	Mo der ate	Mo der ate	Lo w	Hig h	Lo w	Mo der ate	Lo w	Lo w
1 9 5	Gupta S, 2020	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
1 9 6	Jalees i M, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Mo der ate	Lo w	Hig h	Lo w	Mo der ate	Lo w	Lo w
1 9 7	Li G, 2020	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Hig h	Lo w	Lo w	Lo w
1 9 8	Li W, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
1 9 9	Marti n-Sanch ez FJ, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Mo der ate	Lo w	Lo w	Lo w
2 0 0	Meng H, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w
2 0 1	O'Reil ly GM, 2020 a	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Mo der ate	Lo w	Lo w	Lo w
2 0 2	Samr ah SM, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Hig h	Mo der ate	Lo w	Lo w
2 0 3	Kham is F, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Mo der ate	Lo w	Lo w	Lo w
2 0 4	Salee mi S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Mo der ate	Hig h	Lo w	Lo w
2 0 5	Shan g Y, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Lo w	Hig h	Lo w	Lo w
2 0 6	Sun D, 2020	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w
2 0 7	Wang D,	Lo w	Mo der ate	Mo der ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w

	2020 c													
2 0 8	Wang F, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	
2 0 9	Wang S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Hig h	Mo der ate	Lo w	Lo w
2 1 0	Yang J, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Hig h	Hig h	Hig h	Lo w	Hig h	Mo der ate	Mo der ate
2 1 1	Yue H, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Mo der ate	Hig h	Lo w	Lo w
2 1 2	Zhan g SY, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
2 1 3	Zhan g Y, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w
2 1 4	Zhao K, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
2 1 5	Fan S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Hig h	Mo der ate	Lo w	Lo w
2 1 6	Hern ández - Ferná ndez F, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
2 1 7	Garcí a- Azorí n D, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
2 1 8	Liu M, 2020 a	Mo der ate	Lo w	Lo w	Lo w	Lo w	Mo der ate	Mo der ate	Hig h	Lo w	Lo w	Mo der ate	Mo der ate	Mo der ate
2 1 9	Qin W, 2020	Lo w	Mo der ate	Mo der ate	Lo w	Mo der ate	Lo w	Hig h	Lo w	Hig h	Hig h	Mo der ate	Lo w	Mo der ate
2 2 0	Sun C, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
2 2 1	Teich VD, 2020	Mo der ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w

2 2 2	Xie W, 2020	Mo der ate	Mo der ate	Mo der ate	Lo w	Mo der ate	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Mo der ate
2 2 3	Xu M, 2020	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w						
2 2 4	Zeng YL, 2020	Lo w	Mo der ate	Mo der ate	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Lo w	Mo der ate	Lo w	Mo der ate
2 2 5	Zhan g MQ, 2020	Mo der ate	Lo w	Lo w	Lo w	Lo w	Mo der ate	Mo der ate	Hig h	Hig h	Lo w	Lo w	Lo w	Lo w
2 2 6	Chen L, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Lo w	Mo der ate	Lo w	Lo w
2 2 7	Liu C, 2020	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Mo der ate	Hig h	Hig h	Lo w	Lo w	Lo w	Lo w
2 2 8	Lu XF, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Lo w	Mo der ate	Lo w	Lo w
2 2 9	Zhu Q, 2020	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
2 3 0	Zou W, 2020	Mo der ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w
2 3 1	Casas -Rojo JM, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Mo der ate	Lo w	Lo w	Hig h	Mo der ate	Lo w	Lo w
2 3 2	Al- Mutai r A, 2020	Lo w	Lo w	Lo w	Mo der ate	Mo der ate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
2 3 3	Alma ki ZS, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Hig h	Hig h	Lo w	Lo w
2 3 4	An P, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w						
2 3 5	Ayaz A, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w						
2 3 6	Bagh aei P, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w						
2 3 7	Bouzi d D, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
2 3 8	Buck ner	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w						

	FS, 2020													
2 3 9	Caron na E, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
2 4 0	Chen HJ, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
2 4 1	Chen Y, 2020 b	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
2 4 2	Chi Q, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
2 4 3	Cobb NL, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
2 4 4	Deng LS, 2020	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Lo w
2 4 5	Du H, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
2 4 6	Ema mi A, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
2 4 7	Fu F, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Lo w	Hig h	Lo w	Lo w
2 4 8	Gao J, 2020	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
2 4 9	He S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Hig h	Hig h	Lo w	Lo w
2 5 0	Higuchi T, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
2 5 1	Homa youni eh F, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
2 5 2	Hong JM, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
2 5 3	Hong L, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
2 5 4	Ibrah im OR, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w

2 5 5	Jiang J, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Moderate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
2 5 6	Jin XH, 2020	Lo w	Lo w	Lo w	yea	Lo w	Lo w	Moderate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
2 5 7	Jourde s A, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
2 5 8	Kadia ne- Ouss ou NJ, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
2 5 9	Kaeuf fer C, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
2 6 0	Khrai se NW, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Hig h	Hig h	Lo w	Lo w
2 6 1	Kim KH, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
2 6 2	Kuma r A, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Moderate	Lo w	Lo w	Hig h	Hig h	Lo w	Lo w
2 6 3	Li X, 2020 c	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
2 6 4	Lima MA, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Hig h	Lo w	Hig h	Hig h	Lo w	Lo w
2 6 5	Lin L, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
2 6 6	Liu H, 2020	Lo w	Lo w	Lo w	Moderate	Moderate	Moderate	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
2 6 7	Liu J, 2020 b	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
2 6 8	Liu M, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Moderate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
2 6 9	Liu W, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
2 7 0	de Maga lhaes JJF, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w



2 8 7	Wang Z, 2020 b	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Moderate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
2 8 8	Wei Y, 2020 b	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
2 8 9	Wu B, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
2 9 0	Xiao J, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
2 9 1	Xie L, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
2 9 2	Zayet S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
2 9 3	Zhang L, 2020 b	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
2 9 4	Zhang N, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
2 9 5	Bach I, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
2 9 6	Battagliini D, 2020	Lo w	Lo w	Lo w	Moderate	Moderate	Lo w	Moderate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
2 9 7	Candardor E, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
2 9 8	Chachkhiani D, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Lo w	Hig h	Hig h	Hig h	Lo w	Lo w
2 9 9	Fores ti C, 2020	Lo w	Lo w	Moderate	Moderate	Moderate	Lo w	Hig h	Hig h	Moderate	Hig h	Lo w	Lo w	Moderate
3 0 0	Front era JA, 2020	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
3 0 1	John S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w

3 0 2	Kace m I, 2020	Lo w	Lo w	Lo w	Hig h	Hig h	Lo w	Hig h	Hig h	Hig h	Hig h	Hig h	Lo w	Moder ate
3 0 3	Kelle r E, 2020	Lo w	Moder ate	Lo w	Lo w	Moder ate	Moder ate	Hig h	Hig h	Hig h	Lo w	Hig h	Lo w	Moder ate
3 0 4	Lang M, 2020	Lo w	Lo w	Lo w	Moder ate	Moder ate	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
3 0 5	Lin E, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
3 0 6	Liotta EM, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
3 0 7	Requ ena M, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
3 0 8	Salah uddin H, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Hig h	Hig h	Lo w	Lo w
3 0 9	Shek har R, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
3 1 0	Siegle r JE, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Hig h	Lo w	Hig h	Lo w	Lo w
3 1 1	Yao X, 2020	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w
3 1 2	Wang YX, 2020	Moder ate	Hig h	Hig h	Lo w	Lo w	Moder ate	Hig h	Hig h	Lo w	Hig h	Hig h	Hig h	Hig h
3 1 3	O'Reil ly GM, 2020 b	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Lo w	Lo w
3 1 4	Bella n M, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Moder ate	Lo w	Lo w	Hig h	Hig h	Lo w	Lo w
3 1 5	Chen SL, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
3 1 6	Horv ath L, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Moder ate	Lo w	Moder ate	Hig h	Lo w	Lo w	Lo w
3 1 7	Huan g H, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Moder ate	Lo w	Lo w	Hig h	Hig h	Lo w	Lo w

3 1 8	Rokni M, 2020	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
3 1 9	Shah NN, 2020	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Mo der ate	Lo w	Lo w	Hig h	Hig h	Lo w	Lo w
3 2 0	Dang JZ, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w
3 2 1	Knop P, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Hig h	Mo der ate	Lo w	Lo w
3 2 2	Li P, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
3 2 3	BaĞ Soyta Ş R, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
3 2 4	Davis P, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
3 2 5	Gan JM, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Hig h	Hig h	Lo w	Lo w
3 2 6	Hwan g J, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
3 2 7	Kenn edy M, 2020	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Mo der ate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
3 2 8	Mend es A, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
3 2 9	Vrillo n A, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
3 3 0	Zhou J, 2020	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w
3 3 1	Wang L, 2020 b	Hig h	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate
3 3 2	Fakiri K El, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Hig h	Mo der ate	Lo w	Lo w
3 3 3	Gotzi nger F, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Mo der ate	Hig h	Lo w	Lo w

3 3 4	Guo CX, 2020	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Hig h	Mo der ate	Lo w	Lo w
3 3 5	Kork maz MF, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Mo der ate	Lo w	Mo der ate	Lo w	Lo w
3 3 6	Mami shi S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Hig h	Hig h	Lo w	Lo w	Lo w	Lo w
3 3 7	Qui H, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w	Lo w	Lo w	Lo w
3 3 8	Roma ni L, 2020	Mo der ate	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Lo w	Mo der ate	Lo w	Lo w
3 3 9	Song X, 2020	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Hig h	Lo w	Hig h	Hig h	Mo der ate	Lo w	Lo w
3 4 0	Sun D, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Mo der ate	Hig h	Hig h	Lo w	Lo w	Mo der ate	Lo w
3 4 1	Swan n OV, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Hig h	Hig h	Lo w	Lo w	Lo w
3 4 2	Zhao Y, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Hig h	Hig h	Hig h	Mo der ate	Lo w	Lo w
3 4 3	Bayes heva D, 2020	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
3 4 4	Bhum bra S, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w
3 4 5	Cai J, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Mo der ate	Hig h	Lo w	Lo w	Hig h	Lo w	Lo w
3 4 6	Chen J, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
3 4 7	Dura maz BB, 2020	Lo w	Mo der ate	Mo der ate	Lo w	Lo w	Mo der ate	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
3 4 8	Li K, 2020	Lo w	Lo w	Lo w	Lo w	Mo der ate	Lo w	Mo der ate	Hig h	Lo w	Lo w	Hig h	Lo w	Lo w
3 4 9	Parri N, 2020	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w

3	Yilma	Lo w	Lo w	Lo w	Lo w	Moderate	Lo w	Lo w	Lo w	Lo w	Lo w	Hig h	Lo w	Lo w
5	z K, 2020													

**Key:** Point 1- Clear Inclusion criteria in case series; Point 2- Condition measured in a standard, reliable way; Point 3- Valid methods used for identification of the condition; Point 4- Consecutive inclusion of participants; Point 5- Complete inclusion of participants; Point 6- Clear reporting of demographics; Point 7- Clear reporting of clinical information; Point 7.1- Comorbidities; Point 7.2- Stage of disease; Point 7.3- Imaging Information; Point 7.4- Entry point of patient in study; Point 8- Clear reporting of presenting site(s)/clinic(s) demographic information.

**eTable 8:** Benjamini-Hochberg procedure for controlling the false discovery rate

<b>Association of severity of disease and mortality with neurological manifestations</b>	<b>P-values</b>	<b>Benjamini-Hochberg significance</b>	<b>Adjusted Benjamini-Hochberg P-value</b>
Skeletal Muscle Injury & severity of COVID-19	0.0001	significant	0.00115
Myopathy & severity of COVID-19	0.0001	significant	0.00115
Smell Impairment & severity of COVID-19	0.0003	significant	0.0023
Disturbance of consciousness & severity of COVID-19	0.0007	significant	0.004025
Fatigue & severity of COVID-19	0.009	significant	0.03833333 3
Taste Impairment & severity of COVID-19	0.01	significant	0.03833333 3
Acute Confusion/Delirium & severity of COVID-19	0.09	not significant	0.276
Neuralgia & severity of COVID-19	0.11	not significant	0.276
Total Stroke & severity of COVID-19	0.12	not significant	0.276
Neurological manifestations & mortality	0.12	not significant	0.276
Seizure & severity of COVID-19	0.2	not significant	0.41818181 8
Dysautonomia & severity of COVID-19	0.32	not significant	0.55857142 9
Encephalopathy & severity of COVID-19	0.32	not significant	0.55857142 9
Headache & Dizziness & severity of COVID-19	0.34	not significant	0.55857142 9

Myalgia & severity of COVID-19	0.4	not significant	0.61333333 3
Rhabdomyolysis & severity of COVID-19	0.46	not significant	0.63588235 3
Movement disorder & severity of COVID-19	0.47	not significant	0.63588235 3
Myalgia or Fatigue & severity of COVID-19	0.6	not significant	0.76666666 7
Vision Impairment & severity of COVID-19	0.65	not significant	0.7705
Headache & severity of COVID-19	0.67	not significant	0.7705
Encephalitis & severity of COVID-19	0.79	not significant	0.86523809 5
Dizziness & severity of COVID-19	0.92	not significant	0.96181818 2
Neuropsychiatric disorder & severity of COVID-19	0.99	not significant	0.99

\*False Discovery Rate: 5%

**eTable 9:** Subgroup analysis based on risk of bias for the prevalence of neurological symptoms and diagnoses

S. No	Neurological symptom	No. of studies (N); Prevalence of studies with a low risk of bias; I-square	No. of studies (N); Prevalence of studies with moderate related to risk of bias; I-square	No. of studies (N); Prevalence of studies with high risk of bias; I- square	p-value for test for subgroup differences
<b>Neurological symptoms</b>					
1.	Acute confusion/ delirium	N=17; 11% (95%CI 7 to 16%); I <sup>2</sup> = 98.7%	N=2; 42% (95%CI 7 to 83%); I <sup>2</sup> = 95.5%	-	0.06
2.	Myalgia or Fatigue	N=15; 24% (95%CI 19 to 29%); I <sup>2</sup> = 83.3%	N=6; 43% (95%CI 33 to 53%); I <sup>2</sup> = 78.8%	N=1; 68% (95%CI 48 to 85%)	<b>&lt;0.001</b>
3.	Headache	N=172; 13% (95%CI 11 to 15%); I <sup>2</sup> = 97.1%	N=27; 18% (95%CI 11 to 27%); I <sup>2</sup> =98.4%	N=3; 20% (95%CI 2 to 48%); I <sup>2</sup> =91.9%	0.32
4.	Dizziness	N= 38; 7% (95%CI 5 to 8%); I <sup>2</sup> = 91.3%	N=6; 6% (95%CI 2 to 13%); I <sup>2</sup> =91.5%	N=2; 16% (95%CI 9 to 25%); I <sup>2</sup> =28%	<b>0.02</b>
5.	Disturbance of Consciousness	N=18; 9% (95%CI 6 to 13%); I <sup>2</sup> = 97.1%	N=6; 4% (95%CI 1 to 8%); I <sup>2</sup> = 91.3%	N=1; 1% (95%CI 0 to 5%)	<b>0.009</b>
6.	Smell Impairment	N=41; 18%; (95%CI 12 to 24%); I <sup>2</sup> = 99.1%	N=9; 21% (95%CI 6 to 42%); I <sup>2</sup> = 99.3%	N=1; 33% (95%CI 20 to 48%)	0.11
7.	Taste Impairment	N=30; 19% (95%CI 13 to 27%); I <sup>2</sup> = 98.7%	N=7; 29% (95%CI 12 to 50%); I <sup>2</sup> = 99%	N=1; 36% (95%CI 22 to 51%)	0.10
8.	Vision Impairment	N=8; 4% (95%CI 1 to 10%); I <sup>2</sup> = 95.4%	N=2; 5% (95%CI 2 to 10%); I <sup>2</sup> =81.6%	-	0.70

9.	Seizure	N=12; 1% (95%CI 0.37 to 2%); I <sup>2</sup> = 92%	N=3; 0.41% (95%CI 0 to 2%); I <sup>2</sup> =70.7%	-	0.64
10.	Myalgia	N=171; 20% (95%CI 18 to 22%); I <sup>2</sup> = 97.1%	N=31; 22% (95%CI 14 to 30%); I <sup>2</sup> = 98%	N=5; 31% (95%CI 11 to 55%); I <sup>2</sup> = 92.8%	0.54
11.	Fatigue	N=148; 32% (95%CI 29 to 35%); I <sup>2</sup> = 97.6%	N=18; 32% (95%CI 25 to 40%); I <sup>2</sup> = 92.9%	N=3; 40% (95%CI 15 to 68%); I <sup>2</sup> = 93%	0.87
12.	Smell or Taste Impairment	N=13; 19% (95%CI 10 to 30%); I <sup>2</sup> = 97.6%	N=1; 7% (95%CI 3 to 13%)	-	<b>0.02</b>
<b>Neurological diagnosis</b>					
13.	Total Stroke	N=24; 2% (95%CI 1 to 2%); I <sup>2</sup> = 84.1%	N=5; 3% (95%CI 1 to 8%); I <sup>2</sup> = 90%	-	0.17

N= Number of studies

**eTable 10:** Subgroup analysis based on risk of bias for the association between severity and neurological symptoms

S. No	Neurological symptom	OR and 95% CI in studies with a low risk of bias; I-square	OR and 95% CI in studies with moderate with risk of bias; I- square	OR and 95% CI in studies with high risk of bias; I-square	p-value for test for subgroup differences
1.	Headache	N=28; (OR 0.88; 95%CI 0.75 to 1.03); I <sup>2</sup> = 0%	N=4; (OR 2.46; 95%CI 0.74 to 8.15); I <sup>2</sup> = 80%	-	0.1
2.	Myalgia	N=28; (OR 1.06; 0.88 to 1.29); I <sup>2</sup> = 36%	N=2; (OR 1.83; 95%CI 0.73 to 4.60); I <sup>2</sup> = 12%	N=1; (OR 0.49; 95% CI 0.04-5.93)	0.43
3.	Fatigue	N=30; (OR 1.24; 95%CI 1.06 to 1.46); I <sup>2</sup> = 22%	N=2; (OR 4.20; 95%CI 0.48 to 36.65); I <sup>2</sup> = 80%	N=1; (OR 0.23; 95%CI 0.05 to 1.08)	0.055
4.	Dizziness	N=10; (OR 1.05; 95%CI 0.68 to 1.62); I <sup>2</sup> = 38%	N=1; (OR 0.56; 95%CI 0.21 to 1.48)	-	0.24

N= Number of studies

**eTable 11:** Month-wise pooled prevalence of headache as a neurological symptom in COVID19 patients

S. No	Month	No. of studies	Pooled events	Pooled Sample size	Pooled prevalence (95% CI)
1.	January	10	471	3308	14% (11 to 19%)
2.	February	69	1135	12875	8% (7 to 10%)
3.	March	60	1901	15035	13% (10 to 17%)
4.	April	37	3107	10959	20% (13 to 29%)
5.	May-June	20	1295	7344	16% (12 to 21%)
6.	July-August-September	6	700	2448	22% (15 to 30%)
<b>Overall</b>		<b>202</b>	<b>8609</b>	<b>51969</b>	<b>13% (12 to 15%)</b>

\*The last month of data extraction from each study was considered for analyzing the pooled prevalence of headache.

**eTable 12:** Prevalence of various neurological symptoms included in the systematic review and meta-analysis of elderly population

S. No	Variables	Number of studies	Pooled Events	Pooled Sample size	Pooled Prevalence (95% CI)	I <sup>2</sup> value
1	Acute Confusion/Delirium	5	433	1454	34% (23 to 46%)	94%
2	Fatigue	9	468	2186	20% (11 to 31%)	96%
3	Myalgia	10	302	2642	11% (7 to 15%)	90%
4	Dizziness	3	84	1211	5% (2 to 9%)	83%
5	Headache	10	161	2398	5% (2 to 8%)	90%
6	*Myalgia or Fatigue	1	60	118	51% (41 to 60%)	-
7	*Headache & Dizziness	1	15	118	13% (7 to 20%)	-
8	Disturbance of Consciousness	1	10	218	5% (2 to 8%)	-
9	Taste Impairment	1	4	76	5% (1 to 3%)	-
10	Smell Impairment	1	1	76	1% (0 to 7%)	-

Studies including data on COVID19 patients aged  $\geq 60$  years were classified as elderly population.

\*These studies did not separate myalgia from fatigue and headache from dizziness.

**eTable 13:** Prevalence of various neurological symptoms included in the systematic review and meta-analysis of young population

S. No	Variables	Number of studies	Pooled Events	Pooled Sample size	Pooled Prevalence (95% CI)	I <sup>2</sup> value
1	*Fatigue or Myalgia	2	16	89	17% (9 to 26%)	0%
2	*Smell or Taste Impairment	2	9	68	13% (6 to 22%)	0%
3	Headache	13	174	1615	10% (5 to 15%)	86%
4	Fatigue	9	168	1431	9% (3 to 18%)	93%
5	Myalgia	5	57	1422	7% (2 to 15%)	92%
6	Seizure	2	30	694	4% (2 to 6%)	0%
7	Smell Impairment	5	11	346	3% (1 to 5%)	0%
8	Dizziness	1	2	12	17% (2 to 48%)	-
9	Disturbance of Consciousness	1	24	651	4% (2 to 5%)	-
10	Taste Impairment	1	2	105	2% (0 to 7%)	-

Studies including data on COVID19 patients aged <18 years were classified as young population.

\*These studies did not separate myalgia from fatigue and smell from taste impairment.

**eTable 14:** Subgroup analysis based on hospitalization status of the patients

S. No	Neurological symptom	N=Number of studies; Pooled prevalence (95%CI) in hospitalized cases	N=Number of studies; Pooled prevalence (95%CI) in non-hospitalized cases	p-value for test for subgroup differences
1	Headache	N=176; 11% (95%CI 10 to 12%)	N=8; 30% (95%CI 23-38%)	<b>&lt;0.0001</b>
2	Dizziness	N=40; 7% (95%CI 6 to 9%)	N=2; 3% (95%CI 0 to 22%)	0.57
3	Smell Impairment	N=35; 11% (95%CI 8 to 15%)	N=4; 50% (95%CI 13 to 86%)	<b>0.03</b>
4	Taste Impairment	N=22; 13% (95%CI 8 to 19%)	N=4; 44% (95%CI 7 to 86%)	0.13
5	Myalgia	N=177; 18% (95%CI 16 to 19%)	N=11; 31% (95%CI 17 to 47%)	0.06
6	Fatigue	N=157; 31% (95%CI 28 to 34%)	N=6; 21% (95%CI 11 to 34%)	0.12
7	Myalgia or Fatigue	N=22; 30% (95%CI 24 to 36%)	N=1; 75% (95%CI 46 to 96%)	<b>0.002</b>
8	Smell or Taste Impairment	N=12; 13% (95%CI 7 to 21%)	N=2; 5% (95%CI 1 to 15%)	0.14

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