

**Supplementary Table 1.** Characteristics of Studies Included in the Meta-analysis.

Study	Region	Study design	Date	Total patients	Recruitment of participants	Diagnosis of SARS-CoV-2 infection	AST (IU/L)	ALT (IU/L)	Total bilirubin (μmol/L)	Average age (years)	Female (%)	Percentage of outpatient, general inpatient, ICU admission	History of liver disease (%)
Huang et al <sup>1</sup>	Wuhan	Case-series	Publication: 1/24/20 Study: 12/16/19 – 1/2/20	41	Patients with laboratory-confirmed 2019-nCoV infection were enrolled from Jin Yintan Hospital in Wuhan, China.	2019-nCoV infection was confirmed by real-time RT-PCR and next-generation sequencing.	<b>Overall:</b> 34.0 ≤40: 63.0% >40: 37.0% <b>ICU:</b> 44.0 ≤40: 38.0% >40: 62.0% <b>Non-ICU:</b> 34.0 ≤40: 75.0% >40: 25.0%	<b>Overall:</b> 32.0 <b>ICU:</b> 49.0 <b>Non-ICU:</b> 27.0	<b>Overall:</b> 11.7 <b>ICU:</b> 14.0 <b>Non-ICU:</b> 10.8	<b>Overall:</b> 49.0 <b>ICU:</b> 49.0 <b>Non-ICU:</b> 49.0	<b>Overall:</b> 27.0 <b>ICU:</b> 15.0 <b>Non-ICU:</b> 32.0	<b>ICU:</b> 31.7 <b>Non-ICU:</b> 68.3	<b>Overall:</b> 2.0 <b>ICU:</b> 0 <b>Non-ICU:</b> 4.0
Chen et al <sup>2</sup>	Wuhan	Case-series	Publication: 1/29/20 Study: 1/1/20–1/20/20	99	Patients with laboratory-confirmed 2019-nCoV infection were enrolled from Jin Yintan Hospital in Wuhan, China.	2019-nCoV infection was confirmed by real-time RT-PCR and next-generation sequencing.	<b>Overall:</b> 34.0 ≤40: 65.0% >40: 35.0%	<b>Overall:</b> 39.0 ≤50: 72.0% >50: 28.0%	<b>Overall:</b> 15.1 ≤21: 82.0% >21: 18.0%	<b>Overall:</b> 55.5 ±13.1	<b>Overall:</b> 32.0	<b>ICU:</b> 23.0 <b>Non-ICU:</b> 77.0	<b>Overall:</b> Digestive system disease 11.0
Chen et al <sup>3</sup>	Wuhan	Case-series	Publication: 2/6/20 Study: 1/20	29	Patients with laboratory-confirmed 2019-nCoV	2019-nCoV infection was confirmed	≤40: 76.0% >40: 24.0%	≤41: 83.0% >41: 17.0%	≤26: 97.0% >26: 3.0%	<b>Overall:</b> 56.0	<b>Overall:</b> 79.0	NA	NA

					infection were enrolled from Tongji Hospital in Wuhan, China.	by real-time RT-PCR.							
Wang et al <sup>4</sup>	Wuhan	Case-series	Publication: 2/7/20 Study: 1/1/20-1/28/20	138	Patients with laboratory-confirmed 2019-nCoV-infected pneumonia were enrolled from Zhongnan hospital.	2019-nCoV infection was confirmed by real-time RT-PCR and next-generation sequencing.	<b>Overall:</b> 31.0 <b>ICU:</b> 52.0 <b>Non-ICU:</b> 29.0	<b>Overall:</b> 24.0 <b>ICU:</b> 35.0 <b>Non-ICU:</b> 23.0	<b>Overall:</b> 9.8 <b>ICU:</b> 11.5 <b>Non-ICU:</b> 9.3	<b>Overall:</b> 56.0 <b>ICU:</b> 66.0 <b>Non-ICU:</b> 51.0	<b>Overall:</b> 63.0 <b>ICU:</b> 14.0 <b>Non-ICU:</b> 49.0	<b>ICU:</b> 26.1 <b>Non-ICU:</b> 73.9	<b>Overall:</b> 2.9 <b>ICU:</b> 0 <b>Non-ICU:</b> 3.9
Liu et al <sup>5</sup>	Shenzhen	Case-series	Publication: 2/9/20 Study: 1/21/20	12	Patients with laboratory-confirmed 2019-nCoV-infected pneumonia, aged 10-72 years, were enrolled from Shenzhen Third People's hospital.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 40.0 ≤45: 83.3% >45: 16.7%	<b>Overall:</b> 31.6 ≤45: 83.3% >45: 16.7%	<b>Overall:</b> 8.9 ≤22: 100.0% >22: 0%	<b>Overall:</b> 53.7	<b>Overall:</b> 33.3	NA	<b>Overall:</b> 0
Chen et al <sup>6</sup>	Wuhan	Case-series	Publication: 2/12/20 Study: 1/20/20-1/31/20	9	Pregnant patients with laboratory-confirmed 2019-nCoV-infected pneumonia, aged 26-40 years, were	2019-nCoV infection was confirmed by quantitative RT-PCR.	<b>Overall:</b> 171.0 ≤35: 66.7% >35: 33.3%	<b>Overall:</b> 253.8 ≤45: 66.7% >45: 33.3%	NA	<b>Overall:</b> 29.9	<b>Overall:</b> 100.0	NA	NA

					enrolled from Zhongnan Hospital of Wuhan University								
Xu et al <sup>7</sup>	Zhejiang	Case-series	Publication: 2/13/20 Study: 1/10/20-1/26/20	62	Patients with laboratory-confirmed 2019-nCoV-infection, aged 10 years and older, were enrolled from seven hospitals in Zhejiang province.	2019-nCoV infection was confirmed by real-time RT-PCR.	<40: 83.9% ≥40: 16.1%	<b>Overall:</b> 22.0	NA	<b>Overall:</b> 41.0	<b>Overall:</b> 43.5	ICU: 1.6 Non-ICU: 98.4	<b>Overall:</b> 11.3
Yao et al <sup>8</sup>	Shaanxi	Case-series	Publication: 2/20/20 Study: 2/21/20-2/21/20	40	Patients with laboratory-confirmed 2019-nCoV-infection, aged 22-83 years, were enrolled from Tangdu Hospital.	2019-nCoV infection was confirmed by real-time RT-PCR.	Combined AST (>46) and ALT elevation: 40.0%	≤66: 47.5% >66: 52.5%	≤20.5: 75% >20.5: 25.0%	<b>Overall:</b> 53.9	<b>Overall:</b> 40.0 Abnormal liver function: 36.4 Normal liver function: 42.9	Severe case with abnormal liver function: 77.3 Severe case with normal liver function: 27.8	<b>Overall:</b> 5.0
Yang et al <sup>9</sup>	Wuhan	Case-series	Publication: 2/21/20 Study: 12/24/19-1/26/20	52	Critically ill patients who admitted to ICU with laboratory-confirmed 2019-nCoV-infected pneumonia were enrolled	2019-nCoV infection was confirmed by real-time RT-PCR or next-generation sequencing.	<b>Overall</b> liver dysfunction (ICU): 28.8% Liver dysfunction in survivor (ICU): 30.0%	<b>Overall</b> liver dysfunction (ICU): 28.8% Liver dysfunction in survivor (ICU): 30.0%	<b>Overall</b> total bilirubin in survivor (ICU): 13.2 <b>Overall</b> total bilirubin in non-	<b>Overall:</b> 59.7 Survivor: 51.9 Non-survivor: 64.6	<b>Overall:</b> 32.7 Survivor: 30.0 Non-survivor: 34.4	ICU: 100.0 Non-ICU: 0 Survivor: 38.5 Non-survivor: 61.5	NA

					from Jin Yin-tan hospital.		Liver dysfunction in non-survivor (ICU): 28.0%	Liver dysfunction in non-survivor (ICU): 28.0%	survivor (ICU): 19.5				
Lei et al <sup>10</sup>	Chongqing	Case-series	Publication: 2/23/20 Study: 1/20/20-2/3/20	51	Patients with laboratory-confirmed 2019-nCoV infection were enrolled from Chongqing University Three Gorges Hospital and were followed up until 2/11/20.	2019-nCoV infection was confirmed by RT-PCR.	<b>Overall:</b> 21.0 <b>Non-severe:</b> 21.0 <b>Severe:</b> 29.0	<b>Overall:</b> 18.0 <b>Non-severe:</b> 18.0 <b>Severe:</b> 26.0	NA	<b>Overall:</b> 45.0 <b>Severe:</b> 52.0 <b>Non-severe:</b> 44.0	<b>Overall:</b> 37.3 <b>Severe:</b> 42.9 <b>Non-severe:</b> 36.4	NA	<b>Severe Hepatitis B:</b> 2.0
Shi et al <sup>11</sup>	Wuhan	Case-series	Publication: 2/24/20 Study: 12/20/19-1/23/20	81	Patients with laboratory-confirmed 2019-nCoV-infected pneumonia were enrolled from Jinyintan or Tongji hospital.	2019-nCoV infection was confirmed by real-time RT-PCR or next-generation sequencing.	<b>Overall:</b> 40.8 ≤40: 47.0% >40: 53.0%	<b>Overall:</b> 46.2	<b>Overall:</b> 11.9	<b>Overall:</b> 49.5 ± 11.0	<b>Overall:</b> 48.0	NA	<b>Overall:</b> 9.0
Cao et al <sup>12</sup>	Hubei	Case-series	Publication: 2/25/20 Study: 1/1/20-2/16/20	128	Patients with laboratory-confirmed 2019-nCoV were enrolled	2019-nCoV infection was confirmed by real-	<b>Overall:</b> 30.6 Non-severe: 28.0	<b>Overall:</b> 31.4 Non-severe: 28.9	NA	<b>Overall:</b> NA	<b>Overall:</b> 53.1 Non-severe: 55.1	NA	NA

					from Xiangyang Number One hospital.	time RT-PCR.	Severe: 44.0	Severe: 43.9			Severe: 42.9		
Yang et al <sup>13</sup>	Zhejiang	Case-series	Publication: 2/26/20 Study: 1/17/20-2/10/20	149	Patients with laboratory-confirmed 2019-nCoV infection were enrolled from three tertiary hospitals of Wenzhou.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 23.0 ≤40: 81.9% >40: 18.1%	<b>Overall:</b> 20.0 ≤64: 87.9% >64: 12.1%	<b>Overall:</b> 9.9 ≤24: 97.3 >24: 2.7%	<b>Overall:</b> 45.1	<b>Overall:</b> 45.6	General inpatient: 100.0	<b>Overall</b> digestive system disease: 5.4
Huang et al <sup>14</sup>	Wuhan	Case-series	Publication: 2/27/20 Study: 12/21/19-1/28/20	34	Patients with laboratory-confirmed 2019-nCoV infection, aged 26-88 years, were enrolled from Zhongnan hospital and were followed up until 1/29/20.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall</b> elevated : 20.6% <b>Overall</b> normal: 79.4%	<b>Overall</b> elevated: 23.5% <b>Overall</b> normal: 76.5%	<b>Overall</b> elevated: 8.8% <b>Overall</b> normal: 91.2%	<b>Overall:</b> 56.2	<b>Overall:</b> 58.8	ICU: 23.5 General inpatient: 76.5	<b>Overall:</b> 2.9
Fan et al <sup>15</sup>	Shanghai	Case-series	Publication: 2/28/20 Study: 1/20/20-1/31/20	148	Patients with laboratory-confirmed 2019-nCoV infection, aged 15-88 years, were enrolled from Shanghai Public Health	2019-nCoV infection was confirmed by real-time RT-PCR.	≤35: 78.4% >35: 21.6%	≤40: 81.8% >40: 18.2%	≤20.5: 93.9% >20.5: 6.1%	<b>Overall:</b> 50.0	<b>Overall:</b> 50.7	NA	<b>Overall:</b> 5.4 Abnormal liver function: 4.0 Normal liver function: 1.4

					Clinical Center, and were followed up until 2/19/20.								
Guan et al <sup>16</sup>	China	Case-series	Publication: 2/28/20 Study: 12/11/19-1/31/20	1,099	Patients with laboratory-confirmed 2019-nCoV were enrolled from 552 hospitals in 30 provinces, autonomous regions and municipalities in China.	2019-nCoV infection was confirmed by sequencing or real-time RT-PCR.	≤40: 77.8% >40: 22.2%	≤40: 78.7% >40: 21.3%	≤17.1: 89.5% >17.1: 10.5%	<b>Overall:</b> 47.0	<b>Overall:</b> 41.9	<b>ICU:</b> 5.0 <b>Non-ICU:</b> 95.0	<b>Overall:</b> Hepatitis B infection 2.1
Liu et al <sup>17</sup>	Wuhan	Case-series	Publication: 2/28/20 Study: 12/30/19-1/15/20	78	Patients with laboratory-confirmed 2019-nCoV infected pneumonia were enrolled from three tertiary hospitals in Wuhan.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 20.5	<b>Overall:</b> 18.1	NA	<b>Overall:</b> 38.0 Improve ment/stabilization group: 37.0 Progression group: 66.0	<b>Overall:</b> 50.0 Improv ement/stabiliza tion group: 52.5 Progres sion group: 36.4	General inpatient: 100.0	NA
Wu et al <sup>18</sup>	Jiangsu	Case-series	Publication: 2/29/20 Study: 1/22/20-2/14/20	80	Patients with laboratory-confirmed 2019-nCoV were enrolled from the three hospital in	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 30.0 ≤39: 96.2% >39:3.8 %	<b>Overall:</b> 24.0 ≤38: 96.2% >38:3.8%	<b>Overall:</b> 6.6 ≤12: 98.8% >12: 1.2%	<b>Overall:</b> 46.1 ± 15.4	<b>Overall:</b> 51.3	NA	<b>Overall:</b> Chronic liver disease: 1.3 Digestive system disease: 1.3

					Jiangsu province.								
Zhang et al <sup>19</sup>	Beijing	Case-series	Publication: 3/4/20 Study: NA	56	Patients with laboratory-confirmed 2019-nCoV were enrolled from the Fifth Medical Center of PLS General Hospital in Beijing.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 28.6	NA	NA	NA	NA	NA	<b>Overall:</b> 3.6
Zhou et al <sup>20</sup>	Wuhan	Case-series	Publication: 3/9/20 Study: 12/29/19-1/31/20	191	Patients with laboratory-confirmed 2019-nCoV-infection, aged 18-87 years, were enrolled from Jinyintan hospital and Wuhan Pulmonary hospital.	2019-nCoV infection was confirmed by real-time RT-PCR or next-generation sequencing.	NA	<b>Overall:</b> 30.0 Survivor: 27.0 Non-survivor: 40.0 ≤40: 68.8% >40: 31.2%	NA	<b>Overall:</b> 56.0 Survivor: 52.0 Non-survivor: 69.0	<b>Overall:</b> 37.7 Survivor: 40.9 Non-survivor: 29.6	General inpatient: 73.8 <b>ICU:</b> 26.2	NA
Li et al <sup>21</sup>	Beijing	Case-series	Publication: 3/10/20 Study: 1/21/20-2/29/20	85	Patients with laboratory-confirmed 2019-nCoV infection were enrolled from Beijing You'an hospital.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 29.0 Combined AST and ALT elevation: 38.8%	<b>Overall:</b> 28.0 Elevated ALT: 38.8% Normal ALT: 61.2%	<b>Overall:</b> 9.2 Elevated ALT: 11.8 Normal ALT: 8.7	<b>Overall:</b> 49.0 ALT elevation group: 59.0 ALT normal group: 44.5	<b>Overall:</b> 9.2 ALT elevation group: 54.5 ALT normal group: 57.7	NA	<b>Overall:</b> 7.0 ALT elevation group: 9.1 ALT normal group: 5.8
Zhao et al <sup>22</sup>	Anhui	Case-control study	Publication: 3/12/20 Study:	34 (19 cases with positive	Cases were laboratory-confirmed	2019-nCoV infection was	Case: 34.9	Case: 36.4 ≤50: 72.2	NA	Case: 48.0	Case: 42.1	NA	Case: 5.3 Control: 0

			1/23/20-2/5/20	2019-nCoV and 15 controls with negative 2019-nCoV)	2019-nCoV-infected pneumonia enrolled from Second Affiliated Hospital of Anhui Medical University and Suzhou Municipal Hospital.  Controls were laboratory-confirmed 2019-nCoV-negative pneumonia enrolled from the same hospital.	confirmed by real-time RT-PCR.	≤40: 72.2 >40: 27.8  Control: 21.3 ≤40: 100.0 >40: 0	>50:27.8  Control: 21.4 ≤50: 100.0 >50: 0		Control: 35.0	Control: 60.0		
Zhou et al <sup>23</sup>	Wuhan	Case-series	Publication: 3/12/20 Study: 12/20/19-2/9/20	254	Patients with clinically confirmed 2019-nCoV-infected pneumonia were enrolled from the central hospital of Wuhan.	2019-nCoV infection was diagnosed based on clinical criteria of NCIP.	<b>Medical staff</b> GI symptoms: 26.4 Non-GI symptoms: 40.4 <b>Non-medical staff</b> GI symptoms: 47.8 Non-GI symptoms: 53.8	<b>Medical staff</b> GI symptoms: 65.9 Non-GI symptoms: 75.6 <b>Non-medical staff</b> GI symptoms: 64.1 Non-GI symptoms: 46.6	NA	<b>Overall:</b> 50.6	<b>Overall:</b> 54.7	NA	<b>Overall:</b> 1.2 <b>Medical staff</b> GI symptoms: 0 Non-GI symptoms: 1.0 <b>Non-medical staff</b> GI symptoms: 0



													Non-GI symptoms: 2.0
Wu et al <sup>24</sup>	Wuhan	Case-series	Publication: 3/13/20 Study: 12/25/19-2/13/20	198	Patients with laboratory-confirmed 2019-nCoV-infected pneumonia who were admitted in Wuhan Jinyintan Hospital during December 25, 2019 and January 26, 2020 and follow up until February 13, 2020.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 33.0 ≤40: 70.2% >40: 29.8%	<b>Overall:</b> 31.0 ≤40: 78.3% >40: 21.7%	<b>Overall:</b> 11.45 mg/dL ≤14.75: 94.9% >14.75: 5.1%	<b>Overall:</b> 51.0	<b>Overall:</b> 36.3	ICU: 26.4 <b>Non-ICU:</b> 73.6	<b>Overall:</b> 3.5
Zhu et al <sup>25</sup>	Anhui	Cross-sectional study	Publication: 3/13/20 Study: 1/24/20-2/20/20	116 (32 patients with positive 2019-nCoV and 84 patients with negative 2019-nCoV)	Cross-sectional study of patients with clinically suspicious of 2019-nCoV who got laboratory testing at two emergency departments in Anhui	2019-nCoV infection was confirmed by RT-PCR. Test was repeated after 24 hours if the first test was negative.	Positive 2019-nCoV: 31.1 Negative 2019-nCoV: 23.7	Positive 2019-nCoV: 30.1 Negative 2019-nCoV: 23.3	NA	Positive 2019-nCoV: 46.0 Negative 2019-nCoV: 35.0	Positive 2019-nCoV: 53.1 Negative 2019-nCoV: 54.0	NA	Positive 2019-nCoV: 6.3 Negative 2019-nCoV: 3.6
Lo et al <sup>26</sup>	Macau	Case-series	Publication: 3/15/20 Study:	10	Patients with laboratory-confirmed 2019-nCoV	2019-nCoV infection was confirmed	<b>Overall:</b> 20.0 Mild to moderat	<b>Overall:</b> 24.0 Elevated AST or	<b>Overall:</b> 6.0	<b>Overall:</b> 54.0	<b>Overall:</b> 70.0	General inpatient: 100.0	<b>Overall:</b> 10.0

			1/21/20-2/16/20		infection, aged 15 years and above, were enrolled from Centro Hospitalar Conde de São Januário in Macau.	by real time RT-PCR.	e group: 19.0 Severe group: 24.0 Elevated AST or ALT: 20.0%	ALT: 20.0%					
Mo et al <sup>27</sup>	Wuhan	Case-series	Publication: 3/16/20 Study: 1/1/20-2/5/20	155	Patients with laboratory-confirmed 2019-nCoV-infected pneumonia were enrolled from Zhongnan hospital	2019-nCoV infection was confirmed by virus nucleic acid detection kit.	<b>Overall:</b> 32.0 General group: 32.0 Refractory group: 37.0	<b>Overall:</b> 23.0 General group: 20.0 Refractory group: 28.0	NA	<b>Overall:</b> 54.0 General group: 46.0 Refractory group: 61.0	<b>Overall:</b> 44.5 General group: 55.6 Refractory group: 35.3	NA	<b>Overall:</b> 4.5 General group: 2.9 Refractory group: 5.9
Gao et al <sup>28</sup>	Fuyang	Case-series	Publication: 3/17/20 Study: 1/23/20-2/2/20	43	Patients with laboratory-confirmed 2019-nCoV infection, aged 19-70 years, were enrolled from Fuyang Second people's hospital.	2019-nCoV infection was confirmed by real time RT-PCR.	Severe group: 27.8 Mild group: 33.2	Severe group: 27.0 Mild group: 24.5	NA	<b>Overall:</b> 43.7 Severe group: 45.2 Mild group: 43.0	<b>Overall:</b> 39.5 Severe group: 40.0 Mild groups: 39.3	NA	NA
Jin et al <sup>29</sup>	Zhejiang	Case-series	Publication: 3/17/20 Study: 1/17/20-2/8/20	651	Patients with laboratory-confirmed 2019-nCoV with gastrointestinal symptoms (nausea,	2019-nCoV infection was confirmed by real-time RT-PCR.	GI symptoms: 29.4 No GI symptoms: 24.4  Liver injury	GI symptoms: 25.0 No GI symptoms: 21.5	GI symptoms: 10.0 No GI symptoms: 9.6	<b>Overall:</b> 46.1 GI symptoms: 46.1 ± 14.2 No GI sympto	<b>Overall:</b> 50.0 GI symptoms: 50.0 No GI sympto	<b>ICU:</b> GI symptoms: 6.8 No GI symptoms: 2.1 <b>Non-ICU:</b>	GI symptoms: 10.8 No GI symptoms: 3.0

					vomiting or diarrhea) were enrolled. Data were collected by the Health Commission of Zhejiang Province in designated hospitals.		(AST> 40 or ALT > 50) GI symptoms: 17.6% No GI symptoms: 8.8%			ms: 45.1 ± 14.5	ms: 50.0	GI symptoms: 93.2 No GI symptoms: 97.9	
Qian et al <sup>30</sup>	Zhejiang	Case-series	Publication: 3/17/20 Study: 1/20/20-2/11/20	91 (88 patients with laboratory-confirmed 2019-nCoV and 3 cases with clinical-confirmed 2019-nCoV)	Patients with laboratory-confirmed and clinical-confirmed 2019-nCoV infection, aged 5-96 years, were enrolled from five hospitals in Zhejiang.	2019-nCoV infection was confirmed by real-time RT-PCR, clinical symptoms and chest CT findings.	<b>Overall:</b> 21.0 ≤40: 90.1% >40: 9.9% Severe group: 27.0 Mild group: 21.0	<b>Overall:</b> 18.0 ≤50: 92.3% >50: 7.7% Severe group: 19.9 Mild group: 18.0	NA	<b>Overall:</b> 50.0 Severe group: 66.0 Mild group: 49.0	<b>Overall:</b> 59.3	ICU: 9.9 Non-ICU: 90.1	NA
Luo et al <sup>31</sup>	Wuhan	Case-series	Publication: 3/18/20 Study: 1/1/20-2/20/20	183	Patients with laboratory-confirmed 2019-nCoV with gastrointestinal symptoms who admitted in Zhongnan Hospital of Wuhan University were enrolled.	2019-nCoV infection was confirmed by real-time RT-PCR.	GI symptoms: 65.8 ± 12.7	GI symptoms: 66.4 ± 13.2	NA	<b>Overall:</b> 53.8	<b>Overall:</b> 44.0	NA	NA

Pan et al <sup>32</sup>	Wuhan	Case-series	Publication: 3/18/20 Study: 1/18/20-2/28/20	201	Patients with laboratory-confirmed 2019-nCoV who admitted from 3 hospitals in Hubei province including Wuhan Hanan, Wuhan Union, and Huanggang Central hospital were enrolled.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 31.4 GI sympto ms: 35.1 No GI sympto ms: 27.5	<b>Overall:</b> 36.0 GI sympto ms: 42.2 No GI sympto ms: 29.5	<b>Overall:</b> 13.7 mmol/L GI sympto ms: 13.8 mmol/L No GI sympto ms: 13.5 mmol/L	<b>Overall:</b> 52.9 ± 16.0 GI sympto ms: 52.2 ± 15.9 No GI sympto ms: 53.6 ± 16.0	<b>Overall:</b> 47.5 GI sympto ms: 46.6 No GI sympto ms: 48.5	<b>Overall:</b> 7.8 GI symptoms: 5.9 No GI symptoms: 9.9	<b>Overall</b> Digestive system diseases: 3.4 GI symptoms: 3.9 No GI symptoms: 3.0
Wan et al <sup>33</sup>	Northeast Chongqing	Case-series	Publication: 3/18/20 Study: 1/23/20-2/8/20	135	Patients with laboratory-confirmed 2019-nCoV-infection who admitted to the Chongqing University Three Gorges Hospital were enrolled.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 33.4 ≤40: 77.8 >40: 22.2 <b>Mild cases:</b> 22.4 ≤40: 84.0 >40: 16.0 <b>Severe cases:</b> 33.6 ≤40: 62.5 >40: 37.5	<b>Overall:</b> 26.0 Mild cases: 21.7 Severe cases: 26.6	<b>Overall:</b> 8.6 Mild cases: 8.6 Severe cases: 9.8	<b>Overall:</b> 47.0 Mild cases: 44.0 Severe cases: 56.0	<b>Overall:</b> 46.7 Mild cases: 45.3 Severe cases: 47.5	<b>Overall:</b> 1.5 Mild cases: 1.0 Severe cases: 2.5	NA
Arentz et al <sup>34</sup>	Washington	Case-series	Publication: 3/19/20	21	Patients with laboratory-	2019-nCoV infection	<b>Overall (ICU):</b>	<b>Overall (ICU):</b>	<b>Overall (ICU):</b>	<b>Overall:</b> 70.0	<b>Overall:</b> 48.0	<b>ICU:</b> 100.0 <b>Non-ICU:</b> 0	NA

			Study: 2/20/20- 3/2/20		confirmed 2019-nCoV- infection who admitted to ICU at Evergreen hospital were enrolled.	was confirmed by real- time RT- PCR.	273.0	108.0	0.6 mg/dL				
Chen et al <sup>35</sup>	Shangh ai	Case- series	Publication: 3/19/20 Study: 1/20/20- 2/6/20	249	Patients with laboratory- confirmed 2019-nCoV- infection were enrolled from Shanghai Public Health Clinical Center and were followed up until 2/25/20	2019-nCoV infection was confirmed by real- time RT- PCR for SARS-CoV- 2.	<b>Overall:</b> 25.0	<b>Overall:</b> 23.0	NA	<b>Overall:</b> 51.0	<b>Overall:</b> 49.4	<b>ICU:</b> 8.8 <b>Non-ICU:</b> 91.2	NA
Su et al <sup>36</sup>	Jinan	Case- series	Publication: 3/20/20 Study: 1/24/20- 2/24/20	9	Children with laboratory- confirmed 2019-nCoV- infection who admitted to Jinan Infectious Diseases hospital were enrolled.	2019-nCoV infection was confirmed by real- time RT- PCR.	<b>Overall:</b> 32.0	<b>Overall:</b> 15.2	NA	<b>Overall:</b> 3.5	<b>Overall:</b> 66.7	NA	NA

Ye et al <sup>37</sup>	Wuhan	Case-series	Publication: 3/20/20 Study: 1/8/20-2/10/20	5	Patients with laboratory-confirmed 2019-nCoV-pneumonia who admitted to Zhongnan hospital were enrolled.	2019-nCoV infection was confirmed by quantitative RT-PCR.	<b>Overall:</b> 21.2 Elevated AST: 0% Normal: 100.0%	<b>Overall:</b> 17.2 Elevated ALT: 0% Normal: 100.0%	NA	<b>Overall:</b> 32.4	<b>Overall:</b> 62.0	NA	NA
Zhang et al <sup>38</sup>	Zhejiang	Case-series	Publication: 3/20/20 Study: 1/17/20-2/8/20	645	Patients with laboratory-confirmed 2019-nCoV-infection were enrolled from hospitals in Zhejiang province.	2019-nCoV infection was confirmed by real-time RT-PCR.	Normal imaging group: 25.7 ± 15.5 Abnormal imaging group: 30.1 ± 20.4	Normal imaging group: 25.5 ± 20.0 Abnormal imaging group: 29.4 ± 25.7	Normal imaging group: 9.1 ± 4.9 Abnormal imaging group: 11.3 ± 8.0	Normal imaging group: 34.9 ± 14.2 Abnormal imaging group: 46.7 ± 13.8	Normal imaging group: 54.2 Abnormal imaging group: 48.5	Normal imaging group: <b>ICU:</b> 0% <b>Non-ICU:</b> 100.0% Abnormal imaging group: <b>ICU:</b> 0.7% <b>Non-ICU:</b> 99.3%	Normal imaging group: 2.8 Abnormal imaging group: 4.0
Deng et al <sup>39</sup>	Wuhan	Case-series	Publication: 3/20/20	225	Fatal and recovered patients with laboratory-confirmed 2019-nCoV-infection were enrolled from two tertiary hospitals in Wuhan.	2019-nCoV infection was confirmed by RT-PCR.	Death group: 34.0 Recovered group: 22.0	Death group: 22.0 Recovered group: 18.7	NA	<b>Death group:</b> 69.0 <b>Recovered group:</b> 40.0	NA	NA	NA
Zhou et al <sup>40</sup>	Wuhan	Case-series	Publication: 3/21/20 Study: 2/5/20-2/13/20	34	Patients with laboratory-confirmed severe and very severe	2019-nCoV infection was confirmed by real-	Severe: 32.0 Very severe: 44.0	Severe: 34.0 Very severe: 49.0	NA	Severe: 63.0 Very severe: 67.0	Severe: 53.8 Very severe: 37.5	NA	NA

					2019-nCoV-infection who admitted to the West District of Union hospital of Tongji Medical College were enrolled.	time RT-PCR.							
Tang et al <sup>41</sup>	Wuhan	Case-control	Publication: 3/24/20 Study: 12/24/19-2/7/20	148 (73 patients with laboratory-confirmed 2019-nCoV and 75 cases with influenza A H1N1 infection)	Patients with laboratory-confirmed 2019-nCoV-infection who admitted at Wuhan Pulmonary hospital were enrolled.	Presence of SARS-CoV-2 in sample from respiratory tract or blood	<b>Overall:</b> 25.5	<b>Overall:</b> 34.5	<b>Overall:</b> 9.8	<b>Overall:</b> 67.0	<b>Overall:</b> 38.4	NA	NA
Lian et al <sup>42</sup>	Zhejiang	Case-series	Publication: 3/25/20 Study: 1/17/20-2/12/20	788	Patients with laboratory-confirmed 2019-nCoV-infection were enrolled from Zhejiang province.	2019-nCoV infection was confirmed by real-time RT-PCR.	Age<60: 24.0 Age≥60: 28.0	Age<60: 22.0 Age≥60: 21.0	Age<60: 9.5 Age≥60: 9.7	Age<60: 41.2±11.4 Age≥60: 68.3±7.3	Age<60: :46.5 Age≥60: :57.4	Age<60: 9.6 Age≥60: 1.4	Age<60: 3.8 Age≥60: 4.4
Shi et al <sup>43</sup>	Wuhan	Case-series	Publication: 3/25/20 Study: 1/20/20-2/10/20	416	Patients with laboratory-confirmed 2019-nCoV-infection admitted in	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 30.0 With cardiac injury: 40.0	<b>Overall:</b> 28.0 With cardiac injury: 29.0	NA	<b>Overall:</b> 64.0 With cardiac injury: 74.0	<b>Overall:</b> 50.7 With cardiac injury: 46.3	NA	NA

					Renmin hospital.		No cardiac injury: 29.0	No cardiac injury: 28.0		No cardiac injury: 60.0	No cardiac injury: 51.8		
Zheng et al <sup>44</sup>	Wuhan	Case-series	Publication: 3/25/20 Study: 2/1/20-2/10/20	25	Children aged 1 month – 14 years with laboratory-confirmed 2019-nCoV infection admitted in 10 public hospitals in Wuhan.	2019-nCoV infection was confirmed by real-time RT-PCR.	NA	<b>Overall:</b> 12.0	NA	<b>Overall:</b> 3.0	<b>Overall:</b> 44.0	NA	NA
Chen et al <sup>45</sup>	Wuhan	Case-series	Publication: 3/26/20 Study: 1/13/20-2/28/20	274	Patients with laboratory-confirmed 2019-nCoV were enrolled from Tongji hospital.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 30.0 ≤40: 69.0% >40: 31.0% Deaths: 45.0 ≤40: 38.0% >40: 62.0% Recovered: 25.0 ≤40: 48.0% >40: 52.0%	<b>Overall:</b> 23.0 ≤40: 78.0% >40: 22.0% Deaths: 28.0 ≤40: 73.0% >40: 27.0% Recovered: 20.0 ≤40: 81.0% >40: 19.0%	<b>Overall:</b> 9.6 mmol/L Deaths: 12.6 mmol/L Recovered: 8.4 mmol/L	<b>Overall:</b> 62.0 Death: 68.0 Recovered: 51.0	<b>Overall:</b> 38.0 Death: 27.0 Recovered: 45.0	NA	HBsAg positive <b>Overall:</b> 4.0 Deaths: 4.0 Recovered: 4.0  Gastrointestinal disease: <b>Overall:</b> 1.0 Deaths: 1.0 Recovered: 1.0  Acute liver injury: <b>Overall:</b> 5.0 Deaths: 9.0 Recovered: 2.0
Zhang et al <sup>46</sup>	Wuhan	Case-series	Publication: 3/26/20 Study:	95	Patients with laboratory-confirmed 2019-nCoV-	2019-nCoV infection was confirmed	<b>Overall</b> <40: 52.6%	<b>Overall</b> <40: 45.3%	NA	<b>Overall:</b> 49.0	<b>Overall:</b> 44.2	NA	NA



			1/16/20-2/25/20		infected pneumonia were enrolled from Wuhan Xinzhou District People's Hospital and were followed up until 3/2/20.	by real-time RT-PCR.	40-80: 35.8% >80: 11.6% <b>Non-severe:</b> <40: 60.3% 40-80: 30.2% >80: 9.5% <b>Severe:</b> <40: 37.5% 40-80: 46.9% >80: 15.6%	40-80: 28.4% >80: 26.3% <b>Non-severe:</b> <40: 55.6% 40-80: 22.2% >80: 22.2% <b>Severe:</b> <40: 25.0% 40-80: 40.6% >80: 34.4%						
Chen et al <sup>47</sup>	Wuhan	Case-series	Publication: 3/27/20 Study: 12/2019-1/27/20	21	Patients with laboratory-confirmed 2019-nCoV-infected pneumonia who were admitted at Tongji hospital.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 27.0 ≤40: 71.4 >40: 28.6 Moderate cases: 24.0 ≤40: 100.0 >40: 0 Severe cases: 47.0 ≤40: 54.5 >40: 45.5	<b>Overall:</b> 26.0 Moderate cases: 16.0 Severe cases: 42.0	<b>Overall:</b> 8.8 Moderate cases: 7.8 Severe cases: 8.8	<b>Overall:</b> 56.0 Moderate cases: 52.0 Severe cases: 61.0	<b>Overall:</b> 19.0 Moderate cases: 30.0 Severe cases: 9.1	NA	NA	
Lescure et al <sup>48</sup>	Paris and Bordeaux	Case-series	Publication: 3/27/20 Study:	5	Patients with laboratory-confirmed 2019-nCoV	2019-nCoV infection was confirmed	<b>Overall:</b> 41.0	<b>Overall:</b> 26.6	NA	<b>Overall:</b> 47.0	<b>Overall:</b> 40.0	<b>ICU:</b> 60.0 <b>Non-ICU:</b> 40.0	NA	

			1/24/20-1/29/20		who admitted into Bichat-Claude Bernard University Hospital and Pellegrin University Hospital.	by real-time RT-PCR.							
Zhang et al <sup>49</sup>	Tianjin	Case-series	Publication: 3/29/20 Study: 2/3/20-2/17/20	3	Children with laboratory-confirmed 2019-nCoV were enrolled from The Children's Hospital of Tianjin.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 26.0	<b>Overall:</b> 21.7	NA	<b>Overall:</b> 7.7	<b>Overall:</b> 0	NA	NA
Easom et al <sup>50</sup>	United Kingdom	Case-series	Publication: 3/29/20 Study: 1/29/20-2/24/20	20	Patients with laboratory-confirmed 2019-nCoV, aged 0-76 years, were enrolled from Regional infectious unit in the UK.	2019-nCoV infection was confirmed by real-time RT-PCR.	NA	<b>Elevated ALT:</b> 10%	NA	<b>Overall:</b> 42.5	<b>Overall:</b> 52.9	NA	NA
Wang et al <sup>51</sup>	Wuhan	Case-series	Publication: 3/30/20 Study: 1/1/20-2/6/20	339	Elderly patients with laboratory-confirmed 2019-nCoV were enrolled from Renmin	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 32.0 <b>Abnormal liver function:</b> 28.3%	<b>Overall:</b> 27.0 <b>Abnormal liver function:</b> 28.3%	NA	<b>Overall:</b> 69.0	<b>Overall:</b> 51.0	NA	<b>Overall:</b> 0.6

					Hospital of Wuhan University, who were followed until 3/5/20.								
Bhatraju et al <sup>52</sup>	Seattle	Case-series	Publication: 3/30/20 Study: 1/19/20-3/9/20	24	Patients aged ≥ 18 years with laboratory-confirmed 2019-nCoV were enrolled from the nine hospital ICUs	2019-nCoV infection was confirmed by real-time RT-PCR.	≤40: 59.0% >40: 41.0%	≤40: 68.0% >40: 32.0%	Highest bilirubin (mg/dL) level: 0.6	<b>Overall:</b> 64.0 ± 18.0	<b>Overall:</b> 38.0	<b>ICU:</b> 100.0 <b>Non-ICU:</b> 0	NA
Lin et al <sup>53</sup>	Zhuhai	Case-series	Publication: 4/2/20 Study: 1/17/20-2/15/20	95	Patients with laboratory-confirmed 2019-nCoV were enrolled from the Fifth Affiliated Hospital of Sun Yat-sen University.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> ≤35 (female) or 40 (male): 95.8% >35 (female) or 40 (male): 4.2%	<b>Overall:</b> ≤40 (female) or 50 (male): 94.7% >40 (female) or 50 (male): 5.3%	<b>Overall:</b> ≤24: 76.8% >24: 23.2%	<b>Overall:</b> 45.3 ± 18.3 <b>GI symptoms:</b> 48.0 ± 17.1 <b>No GI symptoms:</b> 41.1 ± 19.5	<b>Overall:</b> 52.6 <b>GI symptoms:</b> 53.4 <b>No GI symptoms:</b> 51.4	NA	NA
Xie et al <sup>54</sup>	Wuhan	Case-series	Publication: 4/2/20 Study: 2/2/20-2/23/20	79	Patients with laboratory-confirmed 2019-nCoV were enrolled from non-ICU ward in Jinyintan hospital.	2019-nCoV infection was confirmed by real-time RT-PCR.	<b>Overall:</b> 30.0 <b>Moderate pneumonia:</b> 28.0 <b>Severe pneumonia:</b> 35.0 <b>Liver injury</b>	<b>Overall:</b> 34.0 <b>Moderate pneumonia:</b> 30.0 <b>Severe pneumonia:</b> 36.5 <b>Liver injury</b>	<b>Overall:</b> 13.6 <b>Moderate pneumonia:</b> 13.9 <b>Severe pneumonia:</b> 12.7 <b>Liver injury</b>	<b>Overall:</b> 60.0 <b>Moderate pneumonia:</b> 59.0 <b>Severe pneumonia:</b> 62.5 <b>Liver injury</b>	<b>Overall:</b> 44.3 <b>Moderate pneumonia:</b> 49.0 <b>Severe pneumonia:</b> 35.7 <b>Liver injury</b>	<b>ICU:</b> 0 <b>Non-ICU:</b> 100.0	NA

							<b>group:</b> 59.0 <b>No liver injury group:</b> 25.0	<b>group:</b> 74.0 <b>No liver injury group:</b> 23.0	<b>group:</b> 59.0 <b>No liver injury group:</b> 25.0	<b>group:</b> 62.0 <b>No liver injury group:</b> 56.0	<b>group:</b> 27.6 <b>No liver injury group:</b> 55.3		
Zhang et al <sup>55</sup>	Wuhan	Case-control study	Publication: 4/2/20 Study: 1/18/20-2/22/20	229 (115 cases with positive 2019-nCoV and 114 controls with community-acquired pneumonia)	Cases were laboratory-confirmed 2019-nCoV-infected pneumonia enrolled from Zhongnan hospital of Wuhan University.  Control were patients with community-acquired pneumonia admitted at the same hospital from 1/22/20-2/22/20.	2019-nCoV infection was confirmed by RT-PCR.	<b>Case Overall:</b> 28.3 ≤40: 85.2% 40-120: 14.8% >120: 0% <b>Mild group:</b> 24.4 ≤40: 94.0% 40-120: 6.0% >120: 0% <b>Severe group:</b> 64.6 ≤40: 61.3% 40-120: 38.7% >120: 0% <b>ICU:</b> 41.0  <b>Control Overall:</b> 33.7 ≤40: 78.1% 40-120: 19.3% >120: 2.6%	<b>Case Overall:</b> 25.7 ≤50: 90.4% 50-150: 8.7% >150: 0.9% <b>Mild group:</b> 21.2 ≤50: 96.4% 40-120: 6.0% >120: 0% <b>Severe group:</b> 37.9 ≤50: 74.2% 50-150: 22.6% >150: 3.2% <b>ICU:</b> 32.1  <b>Control Overall:</b> 26.3 ≤50: 88.6% 50-150: 11.4%	<b>Case Overall:</b> 11.3 ≤21: 93.9% 21-31.5: 6.1% <b>Mild group:</b> 10.3 ≤21: 96.4% 21-31.5: 3.6% >31.5: 0% <b>Severe group:</b> 14.1 ≤21: 83.9% 21-31.5: 12.9% >31.5: 3.2% <b>ICU:</b> 17.0  <b>Control:</b> 12.7 ≤21: 96.4% 21-31.5: 3.6%	<b>Case Overall:</b> 49.5 <b>Mild group:</b> 44.0 <b>Severe group:</b> 64.6  <b>Control Overall:</b> 61.1	<b>Case Overall:</b> 57.4 <b>Mild group:</b> 65.5 <b>Severe group:</b> 35.5  <b>Control Overall:</b> 51.8	<b>Case ICU: 6.1%</b> <b>Non-ICU: 93.9%</b>	NA

								>150: 0%					
Han et al <sup>56</sup>	Shaanxi	Case-series	Publication: 4/6/20 Study: 1/31/20-2/16/20	32	Adult and pediatric patients with laboratory-confirmed 2019-nCoV infection were enrolled from Xian Eighth hospital.	2019-nCoV infection was confirmed by clinical and real time RT-PCR.	<b>Adult</b> ≤40: 80.0% >40: 20.0% <b>Children</b> ≤50: 57.1% >50: 42.9%	<b>Adult</b> ≤50: 84.0% >50: 16.0% <b>Children</b> ≤37: 85.7% >37: 14.3%	<b>Adult</b> ≤17.1: 72.0% >17.1: 28.0% <b>Children</b> ≤34.2: 85.7% >34.2: 14.3%	<b>Adults:</b> 44.0 <b>Children:</b> 1.3	<b>Adult:</b> 52.0 <b>Children:</b> 42.9	<b>General inpatient:</b> 100.0	NA
Fu et al <sup>57</sup>	China	Case-series	Publication: 4/6/20	350	Patients with laboratory-confirmed 2019-nCoV infection were enrolled from Union Hospital of Huazhong University of Science and Technology and Second People's Hospital of Fuyang City.	2019-nCoV infection was confirmed by real time RT-PCR.	<b>Overall:</b> 24.0 <b>Elevated AST:</b> 19.5% <b>Non-severe:</b> 26.0 <b>Severe:</b> 29.0 <b>Critical ill:</b> 49.0	<b>Overall:</b> 23.0 <b>Elevated ALT:</b> 19.5% <b>Non-severe:</b> 22.0 <b>Severe:</b> 23.0 <b>Critical ill:</b> 33.0 <b>Liver disease:</b> 24.5 <b>Without liver disease:</b> 23.0	<b>Non-severe:</b> 10.4 <b>Severe:</b> 10.9 <b>Critical ill:</b> 12.6	NA	<b>Overall:</b> 46.5	NA	<b>Overall:</b> 4.7
Tian et al <sup>58</sup>	Jilin	Case-series	Publication: 4/7/20 Study: 1/21/20-3/5/20	59	Pediatric and adult patients with laboratory-confirmed 2019-nCoV	2019-nCoV infection was confirmed by real time RT-PCR.	<b>Overall:</b> 25.0 ≤40: 83.7 >40: 16.3%	<b>Overall:</b> 25.0 Male ≤50: 83.7 >50: 16.3% Female	<b>Overall:</b> 7.9 ≤23: 98.0% >23: 2.0%	<b>Overall:</b> 41.0	<b>Overall:</b> 42.4	NA	NA

					infection were enrolled from three tertiary hospitals in Jilin province. .			≤40: 76.2 >40: 23.8%					
Ji et al <sup>59</sup>	China	Case-series	Publication: 4/8/20 Study: 1/20/20-2/18/20	202	Patients with laboratory-confirmed 2019-nCoV infection who were tested for NAFLD were enrolled from two hospitals in China.	2019-nCoV infection was confirmed by RT-PCR.	<b>Elevated AST:</b> 16.8%	<b>Elevated ALT:</b> 50.0%	<b>Elevated total bilirubin:</b> 8.4%	<b>Overall:</b> 44.5	<b>Overall:</b> 44.1	NA	<b>NAFLD:</b> 37.6 <b>Hepatitis B:</b> 3.5
Lei et al <sup>60</sup>	Wuhan	Case-series	Publication: 4/9/20 Study: 1/22/20-2/12/20	20	Patients with laboratory-confirmed 2019-nCoV infection were enrolled from the Third Affiliated Hospital of Sun Yat-Sen University.	2019-nCoV infection was confirmed by real time RT-PCR.	<b>Elevated AST:</b> 15.0%	<b>Elevated ALT:</b> 20.0%	<b>Elevated total bilirubin:</b> 5.0%	<b>Overall:</b> 43.2	<b>Overall:</b> 50.0	<b>ICU:</b> 23.0 <b>Non-ICU:</b> 77.0	<b>Digestive system disease:</b> 15.0
Qian et al <sup>61</sup>	Shanghai	Case-series	Publication: 4/9/20 Study: 1/20/20-2/24/20	324	Patients with laboratory-confirmed 2019-nCoV-infected pneumonia were enrolled from	2019-nCoV infection was confirmed by real time RT-PCR.	<b>Overall:</b> 29.3 <b>Combined AST and ALT elevation:</b> 10.5% <b>Mild</b>	<b>Overall:</b> 27.9 ≤40: 84.3% >40: 15.7% <b>Mild group:</b> 21.5	<b>Overall:</b> 9.5 ≤17.1: 93.5% >17.1: 6.5% <b>Mild group:</b> 8.0	<b>Overall:</b> 51.0 <b>Mild group:</b> 48.5 <b>Severe group:</b> 65.0	<b>Overall:</b> 48.5 <b>Mild group:</b> 50.7 <b>Severe group:</b> 23.1	NA	<b>Hepatitis B Overall:</b> 6.2 <b>Mild group:</b> 6.0 <b>Severe group:</b> 7.7 <b>Fatty liver:</b>

					Shanghai Public Health Clinical Center.		<b>group:</b> 23.0 <b>Severe group:</b> 34.0	<b>Severe group:</b> 26.0	<b>Severe group:</b> 10.8				<b>Overall:</b> 21.6 <b>Mild group:</b> 20.5 <b>Severe group:</b> 34.6
Cholank eril et al <sup>62</sup>	California	Case-series	Publication: 4/10/20 Study: 3/4/20-3/24/20	65	Patients with laboratory-confirmed 2019-nCoV infection were enrolled from Standford Hospital.	2019-nCoV infection was confirmed by RT-PCR.	<b>Overall:</b> 35.0	<b>Overall:</b> 32.0	<b>Overall:</b> 0.4 mg/dl	<b>Overall:</b> 50.0	<b>Overall:</b> 46.6	<b>ICU:</b> 7.8% <b>General inpatient:</b> 20.7% <b>Outpatient:</b> 71.6%	<b>Overall:</b> 2.8
Petrilli et al <sup>63</sup>	New York City	Case-series	Publication: 4/11/20 Study: 3/1/20-4/2/20	1,582	Hospitalized and outpatient patients with laboratory-confirmed 2019-nCoV infection were enrolled from New York University Langone Health and were followed up until 4/7/20.	2019-nCoV infection was confirmed by real time RT-PCR.	<b>Non-critical:</b> 39.0 <b>Critical:</b> 52.0	<b>Non-critical:</b> 32.0 <b>Critical:</b> 35.0	NA	<b>General inpatient:</b> 62.0 <b>Outpatient:</b> 41.0	<b>General inpatient:</b> 37.4 <b>Outpatient:</b> 61.0	<b>ICU:</b> 15.8 <b>General inpatient:</b> 32.9 <b>Outpatient:</b> 51.3	NA
Cai et al <sup>64</sup>	Shenzhen	Case-series	Publication: 4/14/20 Study: 1/11/20-2/21/20	417	Patients with laboratory-confirmed 2019-nCoV infection were	2019-nCoV infection was confirmed by real time RT-PCR.	<b>Overall:</b> 26.5 <b>Abnormal liver function:</b> 34.0	<b>Overall:</b> 21.0 <b>Abnormal liver function:</b> 27.0	<b>Overall:</b> 10.9 <b>Abnormal liver function:</b> 16.8	<b>Overall:</b> 47.0 <b>Abnormal liver function:</b> 47.0	<b>Overall:</b> 52.5 <b>Abnormal liver</b>	NA	<b>Overall:</b> 5.0 <b>Abnormal liver function:</b> 8.2

					enrolled from the Third People's Hospital of Shenzhen.		<b>Liver injury:</b> 47.2 ≤40: 81.8% 41-80: 16.5% 81-120: 1.4% >120: 0.2%	<b>Liver injury:</b> 47.0 ≤40: 87.1% 41-80: 11.5% 81-120: 1.2% >120: 0.2%	<b>Liver injury:</b> 17.2 ≤17.1: 76.8% 17.2- 34.2: 21.7% 34.3- 51.3: 1.2% >51.3: 0.2%	<b>Liver injury:</b> 53.0	<b>function:</b> 39.8 <b>Liver injury:</b> 33.3		<b>Liver injury:</b> 14.3
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**Abbreviation:** ALP; alkaline phosphatase, ALT; alanine aminotransferase, AST; aspartate aminotransferase, CT; computed tomography, GGT; gamma glutamyl transferase, ICU; intensive care unit, NA; not applicable, NAFLD; nonalcoholic fatty liver disease, NCIP; novel coronavirus-infected pneumonia, nCoV; new corona virus, RT-PCR; real-time polymerase chain reaction, SARS-CoV2; Severe acute respiratory syndrome coronavirus 2

Data are mean (SD) or median (IQR) or n/N (%), where N is the total number of patients with available data.



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