

**Supplementary File 1. Excluded literatures in the full-text screening step.**

**Groups were based only on severity [1–43]**

**Epidemiological studies [44–55]**

1. Bao C, Tao X, Cui W, Yi B, Pan T, Young KH, Qian W. SARS-CoV-2 induced thrombocytopenia as an important biomarker significantly correlated with abnormal coagulation function, increased intravascular blood clot risk and mortality in COVID-19 patients. *Exp Hematol Oncol*. 2020; 9:16. <https://doi.org/10.1186/s40164-020-00172-4> PMID:32695551
2. Dang JZ, Zhu GY, Yang YJ, Zheng F. Clinical characteristics of coronavirus disease 2019 in patients aged 80 years and older. *J Integr Med*. 2020; 18:395–400. <https://doi.org/10.1016/j.joim.2020.07.002> PMID:32690444
3. Hundt MA, Deng Y, Ciarleglio MM, Nathanson MH, Lim JK. Abnormal Liver Tests in COVID-19: A Retrospective Observational Cohort Study of 1827 Patients in a Major U.S. Hospital Network. *Hepatology*. 2020; 72:1169–76. <https://doi.org/10.1002/hep.31487> PMID:32725890
4. Okada P, Buathong R, Phuygun S, Thanadachakul T, Parnmen S, Wongboot W, Waicharoen S, Wacharapluesadee S, Uttayamakul S, Vachiraphan A, Chittaganpitch M, Mekha N, Janejai N, et al. Early transmission patterns of coronavirus disease 2019 (COVID-19) in travellers from Wuhan to Thailand, January 2020. *Euro Surveill*. 2020; 25. <https://doi.org/10.2807/1560-7917.ES.2020.25.8.2000097> PMID:32127124
5. Liao D, Zhou F, Luo L, Xu M, Wang H, Xia J, Gao Y, Cai L, Wang Z, Yin P, Wang Y, Tang L, Deng J, et al. Haematological characteristics and risk factors in the classification and prognosis evaluation of COVID-19: a retrospective cohort study. *Lancet Haematol*. 2020; 7:e671–78. [https://doi.org/10.1016/S2352-3026\(20\)30217-9](https://doi.org/10.1016/S2352-3026(20)30217-9) PMID:32659214
6. Nie Y, Li J, Huang X, Guo W, Zhang X, Ma Y, Wang H, Qi M, Tang X, Shen X, Dai X. Epidemiological and clinical characteristics of 671 COVID-19 patients in Henan Province, China. *Int J Epidemiol*. 2020; 49:1085–95. <https://doi.org/10.1093/ije/dyaa081> PMID:32588051
7. Scarfò L, Chatzikonstantinou T, Rigolin GM, Quaresmini G, Motta M, Vitale C, Garcia-Marco JA, Hernández-

**Only described children and youth [56–72]**

**Diagnosis and drug therapy [73–87]**

**Only described pregnant patients [88–101]**

**Reviews [102–113]**

- Rivas JÁ, Mirás F, Baile M, Marquet J, Niemann CU, Reda G, et al. COVID-19 severity and mortality in patients with chronic lymphocytic leukemia: a joint study by ERIC, the European Research Initiative on CLL, and CLL Campus. *Leukemia*. 2020; 34:2354–63. <https://doi.org/10.1038/s41375-020-0959-x> PMID:32647324
8. Sun Y, Dong Y, Wang L, Xie H, Li B, Chang C, Wang FS. Characteristics and prognostic factors of disease severity in patients with COVID-19: the Beijing experience. *J Autoimmun*. 2020; 112:102473. <https://doi.org/10.1016/j.jaut.2020.102473> PMID:32439209
9. Wang B, Wang Z, Zhao J, Zeng X, Wu M, Wang S, Wang T. Epidemiological and clinical course of 483 patients with COVID-19 in Wuhan, China: a single-center, retrospective study from the mobile cabin hospital. *Eur J Clin Microbiol Infect Dis*. 2020; 39:2309–15. <https://doi.org/10.1007/s10096-020-03927-3> PMID:32683596
10. Wu Y, Huang X, Sun J, Xie T, Lei Y, Muhammad J, Li X, Zeng X, Zhou F, Qin H, Shao L, Zhang Q. Clinical Characteristics and Immune Injury Mechanisms in 71 Patients with COVID-19. *MSphere*. 2020; 5:e00362-20. <https://doi.org/10.1128/mSphere.00362-20> PMID:32669467
11. Zhang SY, Lian JS, Hu JH, Zhang XL, Lu YF, Cai H, Gu JQ, Ye CY, Jin CL, Yu GD, Jia HY, Zhang YM, Sheng JF, et al. Clinical characteristics of different subtypes and risk factors for the severity of illness in patients with COVID-19 in Zhejiang, China. *Infect Dis Poverty*. 2020; 9:85. <https://doi.org/10.1186/s40249-020-00710-6> PMID:32641121
12. Cai Q, Huang D, Ou P, Yu H, Zhu Z, Xia Z, Su Y, Ma Z, Zhang Y, Li Z, He Q, Liu L, Fu Y, Chen J, et al. COVID-19 in a Designated Infectious Diseases Hospital Outside Hubei Province, China. *Allergy*. 2020; 75:1742-1752. <https://doi.org/10.1111/all.14309> PMID:32239761
13. Chen G, Wu D, Guo W, Cao Y, Huang D, Wang H, Wang T, Zhang X, Chen H, Yu H, Zhang X, Zhang M, Wu S, et al. Clinical and immunologic features in severe and

- moderate Coronavirus Disease 2019. *J Clin Invest*. 2020; 130:2620–29.  
<https://doi.org/10.1172/JCI137244>
14. Chen L, Liu HG, Liu W, Liu J, Liu K, Shang J, Deng Y, Wei S. [Analysis of clinical features of 29 patients with 2019 novel coronavirus pneumonia]. *Zhonghua Jie He He Hu Xi Za Zhi*. 2020; 43:E005. Analysis of clinical features of 29 patients with 2019 novel coronavirus pneumonia PMID:[32026671](https://pubmed.ncbi.nlm.nih.gov/32026671/)
  15. Chu J, Yang N, Wei Y, Yue H, Zhang F, Zhao J, He L, Sheng G, Chen P, Li G, Wu S, Zhang B, Zhang S, et al. Clinical characteristics of 54 medical staff with COVID-19: A retrospective study in a single center in Wuhan, China. *J Med Virol*. 2020; 92:807–13.  
<https://doi.org/10.1002/jmv.25793> PMID:[32222986](https://pubmed.ncbi.nlm.nih.gov/32222986/)
  16. Gao Y, Li T, Han M, Li X, Wu D, Xu Y, Zhu Y, Liu Y, Wang X, Wang L. Diagnostic utility of clinical laboratory data determinations for patients with the severe COVID-19. *J Med Virol*. 2020; 92:791–96.  
<https://doi.org/10.1002/jmv.25770> PMID:[32181911](https://pubmed.ncbi.nlm.nih.gov/32181911/)
  17. Guan WJ, Ni ZY, Hu Y, Liang WH, Ou CQ, He JX, Liu L, Shan H, Lei CL, Hui DS, Du B, Li LJ, Zeng G, et al. Clinical Characteristics of Coronavirus Disease 2019 in China. *N Engl J Med*. 2020; 382:1708–1720.  
<https://doi.org/10.1056/NEJMoa2002032> PMID:[32109013](https://pubmed.ncbi.nlm.nih.gov/32109013/)
  18. Han H, Xie L, Liu R, Yang J, Liu F, Wu K, Chen L, Hou W, Feng Y, Zhu C. Analysis of heart injury laboratory parameters in 273 COVID-19 patients in one hospital in Wuhan, China. *J Med Virol*. 2020; 92:819–23.  
<https://doi.org/10.1002/jmv.25809> PMID:[32232979](https://pubmed.ncbi.nlm.nih.gov/32232979/)
  19. Ji D, Zhang D, Xu J, Chen Z, Yang T, Zhao P, Chen G, Cheng G, Wang Y, Bi J, Tan L, Lau G, Qin E. Prediction for Progression Risk in Patients With COVID-19 Pneumonia: the CALL Score. *Clin Infect Dis*. 2020; 71:1393–99.  
<https://doi.org/10.1093/cid/ciaa414> PMID:[32271369](https://pubmed.ncbi.nlm.nih.gov/32271369/)
  20. Li K, Fang Y, Li W, Pan C, Qin P, Zhong Y, Liu X, Huang M, Liao Y, Li S. CT image visual quantitative evaluation and clinical classification of coronavirus disease (COVID-19). *Eur Radiol*. 2020; 30:4407–16.  
<https://doi.org/10.1007/s00330-020-06817-6> PMID:[32215691](https://pubmed.ncbi.nlm.nih.gov/32215691/)
  21. Li K, Wu J, Wu F, Guo D, Chen L, Fang Z, Li C. The Clinical and Chest CT Features Associated With Severe and Critical COVID-19 Pneumonia. *Invest Radiol*. 2020; 55:327–31.  
<https://doi.org/10.1097/RLI.0000000000000672> PMID:[32118615](https://pubmed.ncbi.nlm.nih.gov/32118615/)
  22. Liu C, Jiang ZC, Shao CX, Zhang HG, Yue HM, Chen ZH, Ma BY, Liu WY, Huang HH, Yang J, Wang Y, Liu HY, Xu D, et al. [Preliminary study of the relationship between novel coronavirus pneumonia and liver function damage: a multicenter study.] *Zhonghua Gan Zang Bing Za Zhi*. 2020; 28:148–52.  
<https://doi.org/10.3760/cma.j.issn.1007-3418.2020.02.003> PMID:[32077660](https://pubmed.ncbi.nlm.nih.gov/32077660/)
  23. Liu KC, Xu P, Lv WF, Qiu XH, Yao JL, Gu JF, Wei W. CT manifestations of coronavirus disease-2019: A retrospective analysis of 73 cases by disease severity. *Eur J Radiol*. 2020; 126:108941.  
<https://doi.org/10.1016/j.ejrad.2020.108941> PMID:[32193037](https://pubmed.ncbi.nlm.nih.gov/32193037/)
  24. Liu M, He P, Liu HG, Wang XJ, Li FJ, Chen S, Lin J, Chen P, Liu JH, Li CH. [Clinical characteristics of 30 medical workers infected with new coronavirus pneumonia]. *Zhonghua Jie He He Hu Xi Za Zhi*. 2020; 43:209–14. Clinical characteristics of 30 medical workers infected with new coronavirus pneumonia PMID:[32164090](https://pubmed.ncbi.nlm.nih.gov/32164090/)
  25. Liu W, Tao ZW, Wang L, Yuan ML, Liu K, Zhou L, Wei S, Deng Y, Liu J, Liu HG, Yang M, Hu Y. Analysis of factors associated with disease outcomes in hospitalized patients with 2019 novel coronavirus disease. *Chin Med J (Engl)*, 2020; 133:1032–1038.  
<https://doi.org/10.1097/CM9.0000000000000775>. PMID:[32118640](https://pubmed.ncbi.nlm.nih.gov/32118640/)
  26. Lo IL, Lio CF, Cheong HH, Lei CI, Cheong TH, Zhong X, Tian Y, Sin NN. Evaluation of SARS-CoV-2 RNA shedding in clinical specimens and clinical characteristics of 10 patients with COVID-19 in Macau. *Int J Biol Sci*. 2020; 16:1698–707.  
<https://doi.org/10.7150/ijbs.45357> PMID:[32226287](https://pubmed.ncbi.nlm.nih.gov/32226287/)
  27. Mo P, Xing Y, Xiao Y, Deng L, Zhao Q, Wang H, Xiong Y, Cheng Z, Gao S, Liang K, Luo M, Chen T, Song S, et al., Clinical characteristics of refractory COVID-19 pneumonia in Wuhan, China. *Clin Infect Dis*, 2020. [Epub ahead of print].  
<https://doi.org/10.1093/cid/ciaa270> PMID:[32173725](https://pubmed.ncbi.nlm.nih.gov/32173725/)
  28. Peng YD, Meng K, Guan HQ, Leng L, Zhu RR, Wang BY, He MA, Cheng LX, Huang K, Zeng QT. [Clinical characteristics and outcomes of 112 cardiovascular disease patients infected by 2019-nCoV.] *Zhonghua Xin Xue Guan Bing Za Zhi*. 2020; 48:E004.  
<https://doi.org/10.3760/cma.j.cn112148-20200220-00105> PMID:[32120458](https://pubmed.ncbi.nlm.nih.gov/32120458/)
  29. Qian ZP, Mei X, Zhang YY, Zou Y, Zhang ZG, Zhu H, Guo HY, Liu Y, Ling Y, Zhang XY, Wang JF, Lu HZ. [Analysis of baseline liver biochemical parameters in 324 cases with novel coronavirus pneumonia in Shanghai area]. *Zhonghua Gan Zang Bing Za Zhi*. 2020; 28:E005.  
<https://doi.org/10.3760/cma.j.cn501113-20200229-00076> PMID:[32270660](https://pubmed.ncbi.nlm.nih.gov/32270660/)
  30. Qin C, Zhou L, Hu Z, Zhang S, Yang S, Tao Y, Xie C, Ma K, Shang K, Wang W, Tian DS. Dysregulation of immune response in patients with COVID-19 in Wuhan, China. *Clin Infect Dis*. 2020; 71:762–768.

<https://doi.org/10.1093/cid/ciaa248>

PMID:32161940

31. Qu R, Ling Y, Zhang YH, Wei LY, Chen X, Li XM, Liu XY, Liu HM, Guo Z, Ren H, Wang Q. Platelet-to-lymphocyte ratio is associated with prognosis in patients with coronavirus disease-19. *J Med Virol.* 2020; 92:1533–41. <https://doi.org/10.1002/jmv.25767> PMID:32181903
32. Tian S, Hu N, Lou J, Chen K, Kang X, Xiang Z, Chen H, Wang D, Liu N, Liu D, Chen G, Zhang Y, Li D, et al. Characteristics of COVID-19 infection in Beijing. *J Infect.* 2020; 80:401–06. <https://doi.org/10.1016/j.jinf.2020.02.018> PMID:32112886
33. Wan S, Xiang Y, Fang W, Zheng Y, Li B, Hu Y, Lang C, Huang D, Sun Q, Xiong Y, Huang X, Lv J, Luo Y, et al. Clinical features and treatment of COVID-19 patients in northeast Chongqing. *J Med Virol.* 2020; 92:797–806. <https://doi.org/10.1002/jmv.25783> PMID:32198776
34. Wang D, Hu B, Hu C, Zhu F, Liu X, Zhang J, Wang B, Xiang H, Cheng Z, Xiong Y, Zhao Y, Li Y, Wang X, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China. *JAMA.* 2020; 323:1061-1069. <https://doi.org/10.1001/jama.2020.1585> PMID:32031570
35. Wang X, Fang J, Zhu Y, Chen L, Ding F, Zhou R, Ge L, Wang F, Chen Q, Zhang Y, Zhao Q. Clinical characteristics of non-critically ill patients with novel coronavirus infection (COVID-19) in a Fangcang Hospital. *Clin Microbiol Infect.* 2020; 26:1063–68. <https://doi.org/10.1016/j.cmi.2020.03.032> PMID:32251842
36. Wu J, Li W, Shi X, Chen Z, Jiang B, Liu J, Wang D, Liu C, Meng Y, Cui L, Yu J, Cao H, Li L. Early antiviral treatment contributes to alleviate the severity and improve the prognosis of patients with novel coronavirus disease (COVID-19). *J Intern Med.* 2020; 288:128–38. <https://doi.org/10.1111/joim.13063> PMID:32220033
37. Xie H, Zhao J, Lian N, Lin S, Xie Q, Zhuo H. Clinical characteristics of non-ICU hospitalized patients with coronavirus disease 2019 and liver injury: A retrospective study. *Liver Int.* 2020; 40:1321–26. <https://doi.org/10.1111/liv.14449> PMID:32239591
38. Xu YH, Dong JH, An WM, Lv XY, Yin XP, Zhang JZ, Dong L, Ma X, Zhang HJ, Gao BL. Clinical and computed tomographic imaging features of novel coronavirus pneumonia caused by SARS-CoV-2. *J Infect.* 2020; 80:394–400. <https://doi.org/10.1016/j.jinf.2020.02.017> PMID:32109443
39. Yuan J, Zou R, Zeng L, Kou S, Lan J, Li X, Liang Y, Ding X, Tan G, Tang S, Liu L, Liu Y, Pan Y, Wang Z. The correlation between viral clearance and biochemical outcomes of 94 COVID-19 infected discharged patients. *Inflamm Res.* 2020; 69:599–606. <https://doi.org/10.1007/s00011-020-01342-0> PMID:32227274
40. Zhang JJ, Dong X, Cao YY, Yuan YD, Yang YB, Yan YQ, Akdis CA, Gao YD. Clinical characteristics of 140 patients infected with SARS-CoV-2 in Wuhan, China. *Allergy.* 2020; 75:1730-1741. <https://doi.org/10.1111/all.14238> PMID:32077115
41. Zhang Y, Zheng L, Liu L, Zhao M, Xiao J, Zhao Q. Liver impairment in COVID-19 patients: a retrospective analysis of 115 cases from a single center in Wuhan city, China. *Liver Int.* 2020; 40:2095-2103. <https://doi.org/10.1111/liv.14455> PMID:32239796
42. Zhao J, Yuan Q, Wang H, Liu W, Liao X, Su Y, Wang X, Yuan J, Li T, Li J, Qian S, Hong C, Wang F, et al. Antibody responses to SARS-CoV-2 in patients of novel coronavirus disease 2019. *Clin Infect Dis.* 2020; 71:2027–34. PMID:32221519
43. Zheng C, Wang J, Guo H, Lu Z, Ma Y, Zhu Y, Xia D, Wang Y, He H, Zhou J, Wang Y, Fei M, Yin Y, et al, and Anhui Medical team members of National aid to prevent and treat novel coronavirus pneumonia in Wuhan. Risk-adapted Treatment Strategy For COVID-19 Patients. *Int J Infect Dis.* 2020; 94:74–77. <https://doi.org/10.1016/j.ijid.2020.03.047> PMID:32229257
44. Jia J, Hu X, Yang F, Song X, Dong L, Zhang J, Jiang F, Gao R. Epidemiological characteristics on the clustering nature of COVID-19 in Qingdao City, 2020: a descriptive analysis. *Disaster Med Public Health Prep.* 2020; 31:1–5. <https://doi.org/10.1017/dmp.2020.59> PMID:32228732
45. Li XQ, Cai WF, Huang LF, Chen C, Liu YF, Zhang ZB, Yuan J, Li TG, Wang M. [Comparison of epidemic characteristics between SARS in 2003 and COVID-19 in 2020 in Guangzhou]. *Zhonghua Liu Xing Bing Xue Za Zhi.* 2020; 41:634–37. Comparison of epidemic characteristics between SARS in 2003 and COVID-19 in 2020 in Guangzhou PMID:32159317
46. Liang WH, Guan WJ, Li CC, Li YM, Liang HR, Zhao Y, Liu XQ, Sang L, Chen RC, Tang CL, Wang T, Wang W, He QH, et al. Clinical characteristics and outcomes of hospitalised patients with COVID-19 treated in Hubei (epicentre) and outside Hubei (non-epicentre): a nationwide analysis of China. *Eur Respir J.* 2020; 55:2000562. <https://doi.org/10.1183/13993003.00562-2020> PMID:32269086
47. Park SE. Epidemiology, virology, and clinical features of severe acute respiratory syndrome -coronavirus-2

- (SARS-CoV-2; Coronavirus Disease-19). *Clin Exp Pediatr*; 2020.
48. Qiu YY, Wang SQ, Wang XL, Lu WX, Qiao D, Li JB, Gu YY, Zeng Y, Chen Y, Bai WZ, Xu BL, Han TW. [Epidemiological analysis on a family cluster of COVID-19.] *Zhonghua Liu Xing Bing Xue Za Zhi*. 2020; 41:506–09.  
<https://doi.org/10.3760/cma.j.cn112338-20200221-00147> PMID:[32133831](https://pubmed.ncbi.nlm.nih.gov/32133831/)
  49. Wang L, Gao YH, Lou LL, Zhang GJ. The clinical dynamics of 18 cases of COVID-19 outside of Wuhan, China. *Eur Respir J*. 2020; 55:2000398.  
<https://doi.org/10.1183/13993003.00398-2020> PMID:[32139464](https://pubmed.ncbi.nlm.nih.gov/32139464/)
  50. Wu WS, Li YG, Wei ZF, Zhou PH, Lyu LK, Zhang GP, Zhao Y, He HY, Li XY, Gao L, Zhang XM, Liu H, Zhou N, et al. [Investigation and analysis on characteristics of a cluster of COVID-19 associated with exposure in a department store in Tianjin]. *Zhonghua Liu Xing Bing Xue Za Zhi*. 2020; 41:489–93. Investigation and analysis on characteristics of a cluster of COVID-19 associated with exposure in a department store in Tianjin PMID:[32133830](https://pubmed.ncbi.nlm.nih.gov/32133830/)
  51. Zheng Y, Xiong C, Liu Y, Qian X, Tang Y, Liu L, Leung EL, Wang M. Epidemiological and clinical characteristics analysis of COVID-19 in the surrounding areas of Wuhan, Hubei Province in 2020. *Pharmacol Res*. 2020; 157:104821.  
<https://doi.org/10.1016/j.phrs.2020.104821> PMID:[32360481](https://pubmed.ncbi.nlm.nih.gov/32360481/)
  52. Giesen C, Diez-Izquierdo L, Saa-Requejo CM, Lopez-Carrillo I, Lopez-Vilela CA, Seco-Martinez A, Prieto MT, Malmierca E, Garcia-Fernandez C, and COVID Epidemiological Surveillance and Control Study Group. Epidemiological characteristics of the COVID-19 outbreak in a secondary hospital in Spain. *Am J Infect Control*. 2020; 50:196–6553(20)30700-8.  
<https://doi.org/10.1016/j.ajic.2020.07.014> PMID:[32663494](https://pubmed.ncbi.nlm.nih.gov/32663494/)
  53. Khamis F, Al Rashidi B, Al-Zakwani I, Al Wahaibi AH, Al Awaidy ST. Epidemiology of COVID-19 Infection in Oman: Analysis of the First 1304 Cases. *Oman Med J*. 2020; 35:e145.  
<https://doi.org/10.5001/omj.2020.60> PMID:[32647593](https://pubmed.ncbi.nlm.nih.gov/32647593/)
  54. Lee JY, Hong SW, Hyun M, Park JS, Lee JH, Suh YS, Kim DH, Han SW, Cho CH, Kim HA, and Epidemiological and Clinical Characteristics of Coronavirus Disease 2019 in Daegu, South Korea. Epidemiological and clinical characteristics of coronavirus disease 2019 in Daegu, South Korea. *Int J Infect Dis*. 2020; 98:462–66.  
<https://doi.org/10.1016/j.ijid.2020.07.017> PMID:[32702415](https://pubmed.ncbi.nlm.nih.gov/32702415/)
  55. Tsou TP, Chen WC, Huang AS, Chang SC, Chen WC, Huang AS, Su CP, Tsou TP, Lee PH, Chan PC, Wu HH, Huang ST, Su WJ, et al, and Taiwan COVID-19 Outbreak Investigation Team. Epidemiology of the first 100 cases of COVID-19 in Taiwan and its implications on outbreak control. *J Formos Med Assoc*. 2020; 119:1601–07.  
<https://doi.org/10.1016/j.jfma.2020.07.015> PMID:[32718892](https://pubmed.ncbi.nlm.nih.gov/32718892/)
  56. Feng K, Yun YX, Wang XF, Yang GD, Zheng YJ, Lin CM, Wang LF. [Analysis of CT features of 15 Children with 2019 novel coronavirus infection]. *Zhonghua Er Ke Za Zhi*. 2020; 58:E007. Analysis of CT features of 15 Children with 2019 novel coronavirus infection PMID:[32061200](https://pubmed.ncbi.nlm.nih.gov/32061200/)
  57. Qiu H, Wu J, Hong L, Luo Y, Song Q, Chen D. Clinical and epidemiological features of 36 children with coronavirus disease 2019 (COVID-19) in Zhejiang, China: an observational cohort study. *Lancet Infect Dis*. 2020; 20:689–96.  
[https://doi.org/10.1016/S1473-3099\(20\)30198-5](https://doi.org/10.1016/S1473-3099(20)30198-5) PMID:[32220650](https://pubmed.ncbi.nlm.nih.gov/32220650/)
  58. Shen Q, Guo W, Guo T, Li J, He W, Ni S, Ouyang X, Liu J, Xie Y, Tan X, Zhou Z, Peng H. Novel coronavirus infection in children outside of Wuhan, China. *Pediatr Pulmonol*. 2020; 55:1424-1429.  
<https://doi.org/10.1002/ppul.24762> PMID:[32259403](https://pubmed.ncbi.nlm.nih.gov/32259403/)
  59. Sun D, Li H, Lu XX, Xiao H, Ren J, Zhang FR, Liu ZS. Clinical features of severe pediatric patients with coronavirus disease 2019 in Wuhan: a single center's observational study. *World J Pediatr*. 2020; 16:251–59.  
<https://doi.org/10.1007/s12519-020-00354-4> PMID:[32193831](https://pubmed.ncbi.nlm.nih.gov/32193831/)
  60. Wang D, Ju XL, Xie F, Lu Y, Li FY, Huang HH, Fang XL, Li YJ, Wang JY, Yi B, Yue JX, Wang J, Wang LX, et al. [Clinical analysis of 31 cases of 2019 novel coronavirus infection in children from six provinces (autonomous region) of northern China.] *Zhonghua Er Ke Za Zhi*. 2020; 58:269-74.  
<https://doi.org/10.3760/cma.j.cn112140-20200225-00138> PMID:[32118389](https://pubmed.ncbi.nlm.nih.gov/32118389/)
  61. Wang XF, Yuan J, Zheng YJ, Chen J, Bao YM, Wang YR, Wang LF, Li H, Zeng JX, Zhang YH, Liu YX, Liu L. [Retracted: clinical and epidemiological characteristics of 34 children with 2019 novel coronavirus infection in Shenzhen]. *Zhonghua Er Ke Za Zhi*. 2020; 58:E008. Retracted: Clinical and epidemiological characteristics of 34 children with 2019 novel coronavirus infection in Shenzhen PMID:[32062875](https://pubmed.ncbi.nlm.nih.gov/32062875/)
  62. Xia W, Shao J, Guo Y, Peng X, Li Z, Hu D. Clinical and CT features in pediatric patients with COVID-19 infection: different points from adults. *Pediatr Pulmonol*. 2020; 55:1169–74.  
<https://doi.org/10.1002/ppul.24718> PMID:[32134205](https://pubmed.ncbi.nlm.nih.gov/32134205/)



63. Zheng F, Liao C, Fan QH, Chen HB, Zhao XG, Xie ZG, Li XL, Chen CX, Lu XX, Liu ZS, Lu W, Chen CB, Jiao R, et al. Clinical Characteristics of Children with Coronavirus Disease 2019 in Hubei, China. *Curr Med Sci.* 2020; 40:275-280.  
<https://doi.org/10.1007/s11596-020-2172-6>  
PMID:[32207032](https://pubmed.ncbi.nlm.nih.gov/32207032/)
64. Zhou Y, Yang GD, Feng K, Huang H, Yun YX, Mou XY, Wang LF. [Clinical features and chest CT findings of coronavirus disease 2019 in infants and young children]. *Zhongguo Dang Dai Er Ke Za Zhi.* 2020; 22:215-20. Clinical features and chest CT findings of coronavirus disease 2019 in infants and young children  
PMID:[32204756](https://pubmed.ncbi.nlm.nih.gov/32204756/)
65. Zhu L, Wang J, Huang R, Liu L, Zhao H, Wu C, Zhu C. Clinical characteristics of a case series of children with coronavirus disease 2019. *Pediatr Pulmonol.* 2020; 55:1430-32.  
<https://doi.org/10.1002/ppul.24767> PMID:[32270592](https://pubmed.ncbi.nlm.nih.gov/32270592/)
66. Zhang L, Peres TG, Silva MV, Camargos P. What we know so far about Coronavirus Disease 2019 in children: A meta-analysis of 551 laboratory-confirmed cases. *Pediatr Pulmonol.* 2020; 55:2115-27.  
<https://doi.org/10.1002/ppul.24869> PMID:[32519809](https://pubmed.ncbi.nlm.nih.gov/32519809/)
67. Göttinger F, Santiago-García B, Noguera-Julián A, Lanaspá M, Lancella L, Calò Carducci FI, Gabrovská N, Velizarova S, Prunk P, Osterman V, Krivec U, Lo Vecchio A, Shingadia D, et al, and ptbnet COVID-19 Study Group. COVID-19 in children and adolescents in Europe: a multinational, multicentre cohort study. *Lancet Child Adolesc Health.* 2020; 4:653-61.  
[https://doi.org/10.1016/S2352-4642\(20\)30177-2](https://doi.org/10.1016/S2352-4642(20)30177-2)  
PMID:[32593339](https://pubmed.ncbi.nlm.nih.gov/32593339/)
68. Lee PY, Day-Lewis M, Henderson LA, Friedman KG, Lo J, Roberts JE, Lo MS, Platt CD, Chou J, Hoyt KJ, Baker AL, Banzon TM, Chang MH, et al. Distinct clinical and immunological features of SARS-CoV-2-induced multisystem inflammatory syndrome in children. *J Clin Invest.* 2020; 130:5942-50.  
<https://doi.org/10.1172/JCI141113>  
PMID:[32701511](https://pubmed.ncbi.nlm.nih.gov/32701511/)
69. Bialek S, Gierke R, Hughes M, McNamara LA, Pilishvili T, Skoff T, and CDC COVID-19 Response Team. Coronavirus Disease 2019 in Children - United States, February 12-April 2, 2020. *MMWR Morb Mortal Wkly Rep.* 2020; 69:422-26.  
<https://doi.org/10.15585/mmwr.mm6914e4>  
PMID:[32271728](https://pubmed.ncbi.nlm.nih.gov/32271728/)
70. Chen XB, Du SH, Lu JC, Tan XH, Li DR, Yue X, Wang Q, Wang HJ, Qiao DF. Retrospective Analysis of 61 Cases of Children Died of Viral Pneumonia. *Fa Yi Xue Za Zhi.* 2020; 36:164-68. PMID:[32530160](https://pubmed.ncbi.nlm.nih.gov/32530160/)
71. Liu H, Liu F, Li J, Zhang T, Wang D, Lan W. Clinical and CT imaging features of the COVID-19 pneumonia: focus on pregnant women and children. *J Infect.* 2020; 80:e7-13.  
<https://doi.org/10.1016/j.jinf.2020.03.007>  
PMID:[32171865](https://pubmed.ncbi.nlm.nih.gov/32171865/)
72. Su L, Ma X, Yu H, Zhang Z, Bian P, Han Y, Sun J, Liu Y, Yang C, Geng J, Zhang Z, Gai Z. The different clinical characteristics of corona virus disease cases between children and their families in China - the character of children with COVID-19. *Emerg Microbes Infect.* 2020; 9:707-13.  
<https://doi.org/10.1080/22221751.2020.1744483>  
PMID:[32208917](https://pubmed.ncbi.nlm.nih.gov/32208917/)
73. Huang G, Gong T, Wang G, Wang J, Guo X, Cai E, Li S, Li X, Yu Y, Lin L. Timely Diagnosis and Treatment Shortens the Time to Resolution of Coronavirus Disease (COVID-19) Pneumonia and Lowers the Highest and Last CT Scores From Sequential Chest CT. *AJR Am J Roentgenol.* 2020; 215:367-73.  
<https://doi.org/10.2214/AJR.20.23078> PMID:[32223665](https://pubmed.ncbi.nlm.nih.gov/32223665/)
74. Li L, Qin L, Xu Z, Yin Y, Wang X, Kong B, Bai J, Lu Y, Fang Z, Song Q, Cao K, Liu D, Wang G, et al. Artificial Intelligence Distinguishes COVID-19 from Community Acquired Pneumonia on Chest CT. *Radiology.* 2020; 30:200905.  
<https://doi.org/10.1148/radiol.2020200905>
75. Mardani R, Ahmadi Vasmehjani A, Zali F, Gholami A, Mousavi Nasab SD, Kaghazian H, Kaviani M, Ahmadi N, and Laboratory Parameters in Detection of COVID-19 Patients with Positive RT-PCR. Laboratory Parameters in Detection of COVID-19 Patients with Positive RT-PCR; a Diagnostic Accuracy Study. *Arch Acad Emerg Med.* 2020; 8:e43. PMID:[32259132](https://pubmed.ncbi.nlm.nih.gov/32259132/)
76. Xiong Z, Fu L, Zhou H, Liu JK, Wang AM, Huang Y, Huang X, Yi B, Wu J, Li CH, Quan J, Li M, Leng YS, et al. [Construction and evaluation of a novel diagnosis process for 2019-Corona Virus Disease]. *Zhonghua Yi Xue Za Zhi.* 2020; 100:1223-1229.  
<https://doi.org/10.3760/cma.j.cn112137-20200228-00499> PMID:[32157849](https://pubmed.ncbi.nlm.nih.gov/32157849/)
77. Zhu W, Xie K, Lu H, Xu L, Zhou S, Fang S. Initial clinical features of suspected coronavirus disease 2019 in two emergency departments outside of Hubei, China. *J Med Virol.* 2020; 92:1525-32.  
<https://doi.org/10.1002/jmv.25763> PMID:[32167181](https://pubmed.ncbi.nlm.nih.gov/32167181/)
78. Luo P, Liu Y, Qiu L, Liu X, Liu D, Li J. Tocilizumab treatment in COVID-19: A single center experience. *J Med Virol.* 2020; 92:814-18.  
<https://doi.org/10.1002/jmv.25801> PMID:[32253759](https://pubmed.ncbi.nlm.nih.gov/32253759/)
79. Cao Y, Wei J, Zou L, Jiang T, Wang G, Chen L, Huang L, Meng F, Huang L, Wang N, Zhou X, Luo H, Mao Z, et al.

- Ruxolitinib in treatment of severe coronavirus disease 2019 (COVID-19): A multicenter, single-blind, randomized controlled trial. *J Allergy Clin Immunol*. 2020; 146:137–146.e3.  
<https://doi.org/10.1016/j.jaci.2020.05.019>  
 PMID:32470486
80. Lecronier M, Beurton A, Burrel S, Haudebourg L, Deleris R, Le Marec J, Virolle S, Nemlaghi S, Bureau C, Mora P, De Sarcus M, Clovet O, Duceau B, et al. Comparison of hydroxychloroquine, lopinavir/ritonavir, and standard of care in critically ill patients with SARS-CoV-2 pneumonia: an opportunistic retrospective analysis. *Crit Care*. 2020; 24:418.  
<https://doi.org/10.1186/s13054-020-03117-9>  
 PMID:32653015
81. Olender SA, Perez KK, Go AS, Balani B, Price-Haywood EG, Shah NS, Wang S, Walunas TL, Swaminathan S, Slim J, Chin B, De Wit S, Ali SM, et al. Remdesivir for Severe COVID-19 versus a Cohort Receiving Standard of Care. *Clin Infect Dis*. 2020;ciaa1041.  
<https://doi.org/10.1093/cid/ciaa1041> PMID:32706859
82. Tong S, Su Y, Yu Y, Wu C, Chen J, Wang S, Jiang J. Ribavirin therapy for severe COVID-19: a retrospective cohort study. *Int J Antimicrob Agents*. 2020; 56:106114.  
<https://doi.org/10.1016/j.ijantimicag.2020.106114>  
 PMID:32712334
83. Yang G, Tan Z, Zhou L, Yang M, Peng L, Liu J, Cai J, Yang R, Han J, Huang Y, He S. Effects of Angiotensin II Receptor Blockers and ACE (Angiotensin-Converting Enzyme) Inhibitors on Virus Infection, Inflammatory Status, and Clinical Outcomes in Patients With COVID-19 and Hypertension: A Single-Center Retrospective Study. *Hypertension*. 2020; 76:51–58.  
<https://doi.org/10.1161/HYPERTENSIONAHA.120.15143> PMID:32348166
84. Yekedüz E, Dursun B, Aydın GÇ, Yazgan SC, Öztürk HH, Azap A, Utkan G, Ürün Y. Clinical course of COVID-19 infection in elderly patient with melanoma on nivolumab. *J Oncol Pharm Pract*. 2020; 26:1289–94.  
<https://doi.org/10.1177/1078155220924084>  
 PMID:32423324
85. Cao B, Wang Y, Wen D, Liu W, Wang J, Fan G, Ruan L, Song B, Cai Y, Wei M, Li X, Xia J, Chen N, et al. A Trial of Lopinavir-Ritonavir in Adults Hospitalized with Severe Covid-19. *N Engl J Med*. 2020; 382:1787–99.  
<https://doi.org/10.1056/NEJMoa2001282>  
 PMID:32187464
86. Monteil V, Kwon H, Prado P, Hagelkrüys A, Wimmer RA, Stahl M, Leopoldi A, Garreta E, Hurtado Del Pozo C, Prosper F, Romero JP, Wirnsberger G, Zhang H, et al. Inhibition of SARS-CoV-2 Infections in Engineered Human Tissues Using Clinical-Grade Soluble Human ACE2. *Cell*. 2020; 181:905–913.e7.  
<https://doi.org/10.1016/j.cell.2020.04.004>  
 PMID:32333836
87. Xu X, Han M, Li T, Sun W, Wang D, Fu B, Zhou Y, Zheng X, Yang Y, Li X, Zhang X, Pan A, Wei H. Effective treatment of severe COVID-19 patients with tocilizumab. *Proc Natl Acad Sci USA*. 2020; 117:10970–75.  
<https://doi.org/10.1073/pnas.2005615117>  
 PMID:32350134
88. Chen H, Guo J, Wang C, Luo F, Yu X, Zhang W, Li J, Zhao D, Xu D, Gong Q, Liao J, Yang H, Hou W, Zhang Y. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. *Lancet*. 2020; 395:809–15.  
[https://doi.org/10.1016/S0140-6736\(20\)30360-3](https://doi.org/10.1016/S0140-6736(20)30360-3)  
 PMID:32151335
89. Chen S, Liao E, Cao D, Gao Y, Sun G, Shao Y. Clinical analysis of pregnant women with 2019 novel coronavirus pneumonia. *J Med Virol*. 2020; 92:1556–61.  
<https://doi.org/10.1002/jmv.25789> PMID:32222119
90. Li N, Han L, Peng M, Lv Y, Ouyang Y, Liu K, Yue L, Li Q, Sun G, Chen L, Yang L. Maternal and neonatal outcomes of pregnant women with COVID-19 pneumonia: a case-control study. *Clin Infect Dis*. 2020; 71:2035-2041.  
<https://doi.org/10.1093/cid/ciaa352> PMID:32249918
91. Schwartz DA. An Analysis of 38 Pregnant Women with COVID-19, Their Newborn Infants, and Maternal-Fetal Transmission of SARS-CoV-2: Maternal Coronavirus Infections and Pregnancy Outcomes. *Arch Pathol Lab Med*. 2020; 144:799–805.  
<https://doi.org/10.5858/arpa.2020-0901-SA>  
 PMID:32180426
92. Yu N, Li W, Kang Q, Xiong Z, Wang S, Lin X, Liu Y, Xiao J, Liu H, Deng D, Chen S, Zeng W, Feng L, Wu J. Clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19 in Wuhan, China: a retrospective, single-centre, descriptive study. *Lancet Infect Dis*. 2020; 20:559–64.  
[https://doi.org/10.1016/S1473-3099\(20\)30176-6](https://doi.org/10.1016/S1473-3099(20)30176-6)  
 PMID:32220284
93. Berthelot N, Lemieux R, Garon-Bissonnette J, Drouin-Maziade C, Martel É, Maziade M. Uptrend in distress and psychiatric symptomatology in pregnant women during the coronavirus disease 2019 pandemic. *Acta Obstet Gynecol Scand*. 2020; 99:848–55.  
<https://doi.org/10.1111/aogs.13925>  
 PMID:32449178
94. Fox NS, Melka S. COVID-19 in Pregnant Women: Case Series from One Large New York City Obstetrical Practice. *Am J Perinatol*. 2020; 37:1002–04.

<https://doi.org/10.1055/s-0040-1712529>

PMID:[32438425](https://pubmed.ncbi.nlm.nih.gov/32438425/)

95. Yan J, Guo J, Fan C, Juan J, Yu X, Li J, Feng L, Li C, Chen H, Qiao Y, Lei D, Wang C, Xiong G, et al. Coronavirus disease 2019 in pregnant women: a report based on 116 cases. *Am J Obstet Gynecol*. 2020; 223:111.e1–14. <https://doi.org/10.1016/j.ajog.2020.04.014> PMID:[32335053](https://pubmed.ncbi.nlm.nih.gov/32335053/)
96. Chen X, Li Y, Wang J, Cai H, Cao H, Sheng J. [Pregnant women complicated with COVID-19: a clinical analysis of 3 cases]. *Zhejiang Da Xue Xue Bao Yi Xue Ban*. 2020; 49:240–44. Pregnant women complicated with COVID-19: a clinical analysis of 3 cases PMID:[32391671](https://pubmed.ncbi.nlm.nih.gov/32391671/)
97. Fox NS, Melka S. COVID-19 in Pregnant Women: Case Series from One Large New York City Obstetrical Practice. *Am J Perinatol*. 2020; 37:1002–04. <https://doi.org/10.1055/s-0040-1712529> PMID:[32438425](https://pubmed.ncbi.nlm.nih.gov/32438425/)
98. Knight M, Bunch K, Vousden N, Morris E, Simpson N, Gale C, O'Brien P, Quigley M, Brocklehurst P, Kurinczuk JJ, and UK Obstetric Surveillance System SARS-CoV-2 Infection in Pregnancy Collaborative Group. Characteristics and outcomes of pregnant women admitted to hospital with confirmed SARS-CoV-2 infection in UK: national population based cohort study. *BMJ*. 2020; 369:m2107. <https://doi.org/10.1136/bmj.m2107> PMID:[32513659](https://pubmed.ncbi.nlm.nih.gov/32513659/)
99. Yang H, Hu B, Zhan S, Yang LY, Xiong G. Effects of SARS-CoV-2 infection on pregnant women and their infants: A retrospective study in Wuhan, China. *Arch Pathol Lab Med*. 2020; 144:1217-1222. <https://doi.org/10.5858/arpa.2020-0232-SA> PMID:[32422078](https://pubmed.ncbi.nlm.nih.gov/32422078/)
100. Yu N, Li W, Kang Q, Xiong Z, Wang S, Lin X, Liu Y, Xiao J, Liu H, Deng D, Chen S, Zeng W, Feng L, Wu J. Clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19 in Wuhan, China: a retrospective, single-centre, descriptive study. *Lancet Infect Dis*. 2020; 20:559–64. [https://doi.org/10.1016/S1473-3099\(20\)30176-6](https://doi.org/10.1016/S1473-3099(20)30176-6) PMID:[32220284](https://pubmed.ncbi.nlm.nih.gov/32220284/)
101. Zhang L, Jiang Y, Wei M, Cheng BH, Zhou XC, Li J, Tian JH, Dong L, Hu RH. [Analysis of the pregnancy outcomes in pregnant women with COVID-19 in Hubei Province]. *Zhonghua Fu Chan Ke Za Zhi*. 2020; 55:166-171. <https://doi.org/10.3760/cma.j.cn112141-20200218-00111> PMID:[32145714](https://pubmed.ncbi.nlm.nih.gov/32145714/)
102. Afshar ZM, Dayani M, Naderi M, Ghanbarveisi F, Shiri S, Rajati F. Fatality rate of COVID-19 in patients with malignancies: a systematic review and meta-analysis. *J Infect*. 2020; 81:e114–16. <https://doi.org/10.1016/j.jinf.2020.05.062> PMID:[32474042](https://pubmed.ncbi.nlm.nih.gov/32474042/)
103. Aikawa T, Takagi H, Ishikawa K, Kuno T. Myocardial injury characterized by elevated cardiac troponin and in-hospital mortality of COVID-19: an insight from a meta-analysis. *J Med Virol*. 2020:jmv.26108. <https://doi.org/10.1002/jmv.26108> PMID:[32484975](https://pubmed.ncbi.nlm.nih.gov/32484975/)
104. Antwi-Amoabeng D, Kanji Z, Ford B, Beutler BD, Riddle MS, Siddiqui F. Clinical outcomes in COVID-19 patients treated with tocilizumab: an individual patient data systematic review. *J Med Virol*. 2020; 92:2516–22. <https://doi.org/10.1002/jmv.26038> PMID:[32436994](https://pubmed.ncbi.nlm.nih.gov/32436994/)
105. Azar KM, Shen Z, Romanelli RJ, Lockhart SH, Smits K, Robinson S, Brown S, Pressman AR. Disparities In Outcomes Among COVID-19 Patients In A Large Health Care System In California. *Health Aff (Millwood)*, 2020; p. 101377hlthaff202000598.
106. Guo X, Zhu Y, Hong Y. Decreased Mortality of COVID-19 With Renin-Angiotensin-Aldosterone System Inhibitors Therapy in Patients With Hypertension: A Meta-Analysis. *Hypertension*. 2020; 76:e13–14. <https://doi.org/10.1161/HYPERTENSIONAHA.120.15572> PMID:[32458694](https://pubmed.ncbi.nlm.nih.gov/32458694/)
107. Shi L, Wang Y, Wang Y, Duan G, Yang H. Dyspnea rather than fever is a risk factor for predicting mortality in patients with COVID-19. *J Infect*. 2020; 81:647–79. <https://doi.org/10.1016/j.jinf.2020.05.013> PMID:[32417316](https://pubmed.ncbi.nlm.nih.gov/32417316/)
108. Singh AK, Khunti K. Assessment of risk, severity, mortality, glycemic control and antidiabetic agents in patients with diabetes and COVID-19: A narrative review. *Diabetes Res Clin Pract*. 2020; 165:108266. <https://doi.org/10.1016/j.diabres.2020.108266> PMID:[32533989](https://pubmed.ncbi.nlm.nih.gov/32533989/)
109. Ufuk F, Savaş R. Chest CT features of the novel coronavirus disease (COVID-19). *Turk J Med Sci*. 2020; 50:664–78. <https://doi.org/10.3906/sag-2004-331> PMID:[32394687](https://pubmed.ncbi.nlm.nih.gov/32394687/)
110. Ahmed SI, Hasan SM, Ahmed T. Obesity is a potential risk factor for covid-19 associated morbidity and mortality in urban Bangladesh. *BMJ*. 2020; 370:m2811. <https://doi.org/10.1136/bmj.m2811> PMID:[32665220](https://pubmed.ncbi.nlm.nih.gov/32665220/)
111. Chanana N, Palmo T, Sharma K, Kumar R, Graham BB, Pasha Q. Sex-derived attributes contributing to SARS-CoV-2 mortality. *Am J Physiol Endocrinol Metab*. 2020; 319:E562–67. <https://doi.org/10.1152/ajpendo.00295.2020> PMID:[32726128](https://pubmed.ncbi.nlm.nih.gov/32726128/)
112. Curigliano G. Cancer Patients and Risk of Mortality for COVID-19. *Cancer Cell*. 2020; 38:161–63. <https://doi.org/10.1016/j.ccell.2020.07.006> PMID:[32710820](https://pubmed.ncbi.nlm.nih.gov/32710820/)

113. de Sousa E, Ligeiro D, Lérias JR, Zhang C, Agrati C, Osman M, El-Kafrawy SA, Azhar EI, Ippolito G, Wang FS, Zumla A, Maeurer M. Mortality in COVID-19 disease patients: correlating the association of major histocompatibility complex (MHC) with severe acute

respiratory syndrome 2 (SARS-CoV-2) variants. *Int J Infect Dis.* 2020; 98:454–59.

<https://doi.org/10.1016/j.ijid.2020.07.016>

PMID:[32693089](https://pubmed.ncbi.nlm.nih.gov/32693089/)