Treatments for moderate to severe COVID-19: Cochrane evidence

Sarah Chapman and Selena Ryan-Vig for *Evidently Cochrane* 16 March 2022 updated 06 February 2024

References

Antibiotics (Azithromycin)

Burch J and Tort S. For adults hospitalized with moderate to severe COVID-19, what are the effects of azithromycin? Cochrane Library, Cochrane Clinical Answers, 26 October 2021. Web. 27 October 2021. https://doi.org/10.1002/cca.3871

Popp M, Stegemann M, Riemer M, Metzendorf M-I, Romero CS, Mikolajewska A, Kranke P, Meybohm P, Skoetz N, Weibel S. Antibiotics for the treatment of COVID-19. Cochrane Database of Systematic Reviews 2021, Issue 10. Art. No.: CD015025. DOI: 10.1002/14651858.CD015025. Accessed 27 October 2021. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015025/full

Anticoagulants (blood thinners)

Flumignan RLG, Civile VT, Tinôco JD, Pascoal PIF, Areias LL, Matar CF, Tendal B, Trevisani VFM, Atallah ÁN, Nakano LCU. Anticoagulants for people hospitalised with COVID-19. Cochrane Database of Systematic Reviews 2022, Issue 3. Art. No.: CD013739. DOI: 10.1002/14651858.CD013739.pub2. Accessed 17 March 2022. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013739.pub2/full

Tort S, Sharifan A. "How do higher-dose anticoagulants compare with lower-dose for people with moderate to severe COVID-19?" Cochrane Library, Cochrane Clinical Answer, 15 March 2022. Web. 16 March 2022.

https://www.cochranelibrary.com/cca/doi/10.1002/cca.3957/full

Antiplatelet agents

Fischer A-L, Messer S, Riera R, Martimbianco ALC, Stegemann M, Estcourt LJ, Weibel S, Monsef I, Andreas M, Pacheco RL, Skoetz N. Antiplatelet agents for the treatment of adults with COVID-19. Cochrane Database of Systematic Reviews 2023, Issue 7. Art. No.: CD015078. DOI: 10.1002/14651858.CD015078.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015078/full

Care bundles for people with COVID-19 or related conditions in intensive care

Burch J, Tort S. "What evidence is available on care bundles for improving outcomes in people with COVID-19 in the intensive care unit (ICU)?" Cochrane Library, Cochrane

Clinical Answer, 21 January 2021. Web. 12 January 2022. https://www.cochranelibrary.com/cca/doi/10.1002/cca.3506/full

Smith V, Devane D, Nichol A, Roche D. Care bundles for improving outcomes in patients with COVID-19 or related conditions in intensive care – a rapid scoping review. Cochrane Database of Systematic Reviews 2020, Issue 12. Art. No.: CD013819. DOI: 10.1002/14651858.CD013819. Accessed 05 January 2021.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013819/full

Chloroquine or hydroxychloroquine

Gould S, Norris SL. Contested effects and chaotic policies: the 2020 story of (hydroxy) chloroquine for treating COVID-19. Cochrane Database of Systematic Reviews 2021, Issue 1. Art. No.: ED000151. DOI: 10.1002/14651858.ED000151. Available from: https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.ED000151/full

Singh B, Ryan H, Kredo T, Chaplin M, Fletcher T. Chloroquine or hydroxychloroquine for prevention and treatment of COVID-19. Cochrane Database of Systematic Reviews 2021, Issue 2. Art. No.: CD013587. DOI: 10.1002/14651858.CD013587.pub2. Accessed 17 February 2021.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013587.pub2/full

Tort S, Bunt C. "For adults with coronavirus disease 2019 (COVID-19), what are the benefits and harms of hydroxychloroquine?". Cochrane Library, Cochrane Clinical Answers, 5 March 2021. Web. 26 March 2021.

https://www.cochranelibrary.com/cca/doi/10.1002/cca.3553/full

Colchicine

Burch J, Tort S. "What are the effects of colchicine for treatment of moderate to severe COVID-19?" Cochrane Library, Cochrane Clinical Answer, 19 October 2021. Web. 11 January 2022. https://www.cochranelibrary.com/cca/doi/10.1002/cca.3849/full

Mikolajewska A, Fischer A-L, Piechotta V, Mueller A, Metzendorf M-I, Becker M, Dorando E, Pacheco RL, Martimbianco ALC, Riera R, Skoetz N, Stegemann M. Colchicine for the treatment of COVID-19. Cochrane Database of Systematic Reviews 2021, Issue 10. Art. No.: CD015045. DOI: 10.1002/14651858.CD015045. Accessed 18 October 2021. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015045/full

Convalescent plasma

Chapman S. Convalescent plasma to treat people with COVID-19: the evidence so far. *Evidently Cochrane* blog, 15 May 2020 (last updated 03 February 2023) Web. 23 February 2023. Available from: https://www.evidentlycochrane.net/convalescent-plasma/

Iannizzi C, Chai KL, Piechotta V, Valk SJ, Kimber C, Monsef I, Wood EM, Lamikanra AA, Roberts DJ, McQuilten Z, So-Osman C, Jindal A, Cryns N, Estcourt LJ, Kreuzberger N, Skoetz N. **Convalescent plasma for people with COVID-19: a living systematic**

review. Cochrane Database of Systematic Reviews 2023, Issue 2. Art. No.: CD013600. DOI: 10.1002/14651858.CD013600.pub5. Accessed 03 February 2023. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013600.pub5/full

Corticosteroids, given orally or by injection

Wagner C, Griesel M, Mikolajewska A, Metzendorf M-I, Fischer A-L, Stegemann M, Spagl M, Nair AAnil, Daniel J, Fichtner F, Skoetz N. Systemic corticosteroids for the treatment of COVID-19: Equity-related analyses and update on evidence. Cochrane Database of Systematic Reviews 2022, Issue 11. Art. No.: CD014963. DOI: 10.1002/14651858.CD014963.pub2. Accessed 22 November 2022. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD014963.pub2/full

National Institute for Health and Care Excellence. Therapeutics for COVID-19: Section 7.1 Corticosteroids. In: *COVID—19 rapid guideline: managing COVID-19*. London: National Institute for Health and Care Excellence; August 2021. (**NICE NG191**). [Issued 23 March 2021; last updated 10 August 2021]. Available from:

https://www.nice.org.uk/guidance/ng191/resources/fully-accessible-version-of-the-guideline-pdf-pdf-51035553326

Favipiravir

Korula P, Alexander H, John JSara, Kirubakaran R, Singh B, Tharyan P, Rupali P. Favipiravir for treating COVID-19. Cochrane Database of Systematic Reviews 2024, Issue 2. Art. No.: CD015219. DOI: 10.1002/14651858.CD015219.pub2. Accessed 06 February 2024. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015219.pub2/full

Hyperimmune immunoglobulin (concentrated antibodies from people who have recovered from COVID-19 or animals)

Kimber C, Valk SJ, Chai KL, Piechotta V, Iannizzi C, Monsef I, Wood EM, Lamikanra AA, Roberts DJ, McQuilten Z, So-Osman C, Estcourt LJ, Skoetz N. Hyperimmune immunoglobulin for people with COVID-19. Cochrane Database of Systematic Reviews 2023, Issue 1. Art. No.: CD015167. DOI: 10.1002/14651858.CD015167.pub2. Accessed 27 January 2023.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015167.pub2/full

Interleukin-1 blocking medicines

Davidson M, Menon S, Chaimani A, Evrenoglou T, Ghosn L, Graña C, Henschke N, Cogo E, Villanueva G, Ferrand G, Riveros C, Bonnet H, Kapp P, Moran C, Devane D, Meerpohl JJ,

Rada G, Hróbjartsson A, Grasselli G, Tovey D, Ravaud P, Boutron I. Interleukin-1 blocking agents for treating COVID-19. Cochrane Database of Systematic Reviews 2022, Issue 1. Art. No.: CD015308. DOI: 10.1002/14651858.CD015308.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015308/full

Tort S and Ciapponi A. For people with moderate, severe or critical COVID-19 illness, what are the effects of interleukin 1 (IL-1) blocking agents (anakinra or canakinumab)? Cochrane Library, Cochrane Clinical Answers, 27 January 2022. https://doi.org/10.1002/cca.3928

Interleukin-6 blocking medicines

Burch J, El-Nakeep S. "For adults with COVID-19, what are the effects of the interleukin-6 blocking agents tocilizumab and sarilumab?" Cochrane Library, Cochrane Clinical Answers, 8 April 2021. Web. 13 August 2021.

https://www.cochranelibrary.com/cca/doi/10.1002/cca.3607/full

Ghosn L, Chaimani A, Evrenoglou T, Davidson M, Graña C, Schmucker C, Bollig C, Henschke N, Sguassero Y, Nejstgaard CH, Menon S, Nguyen TV, Ferrand G, Kapp P, Riveros C, Ávila C, Devane D, Meerpohl JJ, Rada G, Hróbjartsson A, Grasselli G, Tovey D, Ravaud P, Boutron I. Interleukin-6 blocking agents for treating COVID-19: a living systematic review. *Cochrane Database of Systematic Reviews* 2021, Issue 3. Art. No.: CD013881. DOI: 10.1002/14651858.CD013881

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013881/full

Interventions for palliative symptom control in people with COVID-19

Andreas M, Piechotta V, Skoetz N, Grummich K, Becker M, Joos L, Becker G, Meissner W, Boehlke C. Interventions for palliative symptom control in COVID-19 patients. Cochrane Database of Systematic Reviews 2021, Issue 8. Art. No.: CD015061. DOI: 10.1002/14651858.CD015061. Accessed 02 September 2021.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015061/full

Brighton LJ, Miller S, Farquhar M, Booth S, Yi D, Gao W, Bajwah S, Man WD, Higginson IJ, Maddocks M. Holistic services for people with advanced disease and chronic breathlessness: a systematic review and meta-analysis. *Thorax* 2019 Mar;74(3):270-281. doi: 10.1136/thoraxjnl-2018-211589. Available

from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6467249/pdf/thoraxjnl-2018-211589.pdf

Burch J, Tort S. "For people with COVID-19 and terminal disease, what are the effects of pharmacological interventions for palliative symptom control?" Cochrane Library, Cochrane Clinical Answer, 1 September 2021. Web. 11 January 2022. https://www.cochranelibrary.com/cca/doi/10.1002/cca.3816/full

Maddocks M, Brighton LJ, Farquhar M, Booth S, Miller S, Klass L, Tunnard I, Yi D, Gao W, Bajwah S, Man WDC, Higginson IJ. *Holistic services for people with advanced disease and chronic or refractory breathlessness: a mixed-methods evidence synthesis.* Southampton

(UK): NIHR Journals Library; 2019 Jun. Available from: https://njl-admin.nihr.ac.uk/document/download/2029513

Gysels M, Bausewein C, Higginson IJ. Experiences of breathlessness: a systematic review of the qualitative literature. *Palliat Support Care* 2007 Sep;5(3):281-302. doi: 10.1017/s1478951507000454. Available

from: https://www.academia.edu/8631645/Experiences of breathlessness A systematic review of the qualitative literature?email work card=view-paper

Hutchinson A, Barclay-Klingle N, Galvin K, Johnson MJ. Living with breathlessness: a systematic literature review and qualitative synthesis. *Eur Respir J* 2018 Feb 21;51(2):1701477. doi: 10.1183/13993003.01477-2017. Available from: https://erj.ersjournals.com/content/51/2/1701477

Ivermectin

Burch J, Tort S, Bunt C. "Does administering post-exposure ivermectin prevent COVID-19 infection in asymptomatic close household contacts?" Cochrane Library, Cochrane Clinical Answers, 29 July 2021. Web. 13 August 2021. https://www.cochranelibrary.com/cca/doi/10.1002/cca.3775/full

Burch J, Tort S, Bunt C. "For adults with mild or moderate symptomatic COVID-19, what are the effects of ivermectin?" Cochrane Library, Cochrane Clinical Answers, 29 July 2021. Web. 13 August 2021. https://www.cochranelibrary.com/cca/doi/10.1002/cca.3774/full

Cochrane. Ivermectin for preventing and treating COVID-19. Cochrane.org, 28 July 2021. Web. 28 July 2021. https://www.cochrane.org/news/ivermectin-preventing-and-treating-covid-19

Popp M. Ivermectin for preventing and treating COVID-19Cochrane Library, Cochrane podcasts, 17 August 2021. Web. 10 March 2022.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015017.pub2/related-content/podcast/73270/

Popp M, Reis S, Schießer S, Hausinger RIlona, Stegemann M, Metzendorf M-I, Kranke P, Meybohm P, Skoetz N, Weibel S. Ivermectin for preventing and treating COVID-19. Cochrane Database of Systematic Reviews 2022, Issue 6. Art. No.: CD015017. DOI: 10.1002/14651858.CD015017.pub3. Accessed 24 June 2022.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015017.pu b3/full

Janus kinase inhibitors

Kramer A, Prinz C, Fichtner F, Fischer A-L, Thieme V, Grundeis F, Spagl M, Seeber C, Piechotta V, Metzendorf M-I, Golinski M, Moerer O, Stephani C, Mikolajewska A, Kluge S, Stegemann M, Laudi S, Skoetz N. Janus kinase inhibitors for the treatment of COVID-19. Cochrane Database of Systematic

Monoclonal antibodies

Burch J, Tort S. "For adults hospitalized with moderate to severe COVID-19, what are the effects of SARS-CoV-2-neutralising monoclonal antibodies (alone or combined)?" Cochrane Library, Cochrane Clinical Answer, 6 September 2021. Web. 11 January 2022. https://www.cochranelibrary.com/cca/doi/10.1002/cca.3819/full

Kreuzberger N. Are laboratory-made, COVID-19-specific monoclonal antibodies an effective treatment for COVID-19? Cochrane Library, Cochrane Podcasts, 22 September 2021. Web. 14 October 2021.

https://www.cochrane.org/podcasts/10.1002/14651858.CD013825.pub2

Kreuzberger N, Hirsch C, Chai KL, Tomlinson E, Khosravi Z, Popp M, Neidhardt M, Piechotta V, Salomon S, Valk SJ, Monsef I, Schmaderer C, Wood EM, So-Osman C, Roberts DJ, McQuilten Z, Estcourt LJ, Skoetz N. SARS-CoV-2-neutralising monoclonal antibodies for treatment of COVID-19. Cochrane Database of Systematic Reviews 2021, Issue 9. Art. No.: CD013825. DOI: 10.1002/14651858.CD013825.pub2. Accessed 14 October 2021. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013825.pub2/full

Nirmatrelvir combined with ritonavir

Reis S, Metzendorf M-I, Kuehn R, Popp M, Gagyor I, Kranke P, Meybohm P, Skoetz N, Weibel S. Nirmatrelvir combined with ritonavir for preventing and treating COVID-19. Cochrane Database of Systematic Reviews 2023, Issue 11. Art. No.: CD015395. DOI: 10.1002/14651858.CD015395.pub3. Accessed 11 December 2023. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015395.pub3/full

Oxygen therapy for adults in intensive care with acute respiratory distress syndrome (ARDS)

Burch J, Weller CD. "For adults in intensive care requiring respiratory support, how does a high-flow nasal cannula compare with standard oxygen therapy and non-invasive (positive-pressure) ventilation (NI[PP]V)?" Cochrane Library, Cochrane Clinical Answer, 6 May 2021. Web. 6 May

2021. https://www.cochranelibrary.com/cca/doi/10.1002/cca.3633/full

Cumpstey AF, Oldman AH, Smith AF, Martin D, Grocott MPW. Oxygen targets in the intensive care unit during mechanical ventilation for acute respiratory distress syndrome: a rapid review. *Cochrane Database of Systematic Reviews* 2020, Issue 9. Art. No.: CD013708. DOI: 10.1002/14651858.CD013708.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013708/full

Lewis SR, Baker PE, Parker R, Smith AF. High-flow nasal cannulae for respiratory support in adult intensive care patients. Cochrane Database of Systematic Reviews 2021, Issue 3. Art. No.: CD010172. DOI: 10.1002/14651858.CD010172.pub3.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD010172.pub3/full

Santa Cruz R, Villarejo F, Irrazabal C, Ciapponi A. High versus low positive end-expiratory pressure (PEEP) levels for mechanically ventilated adult patients with acute lung injury and acute respiratory distress syndrome. Cochrane Database of Systematic Reviews 2021, Issue 3. Art. No.: CD009098. DOI: 10.1002/14651858.CD009098.pub3. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009098.pub3/full

Tort S, Burch J. "For people with acute respiratory distress syndrome (ARDS) requiring mechanical ventilation, how do conservative and liberal oxygen targets compare?" Cochrane Library, Cochrane Clinical Answers, 8 September 2020. Web. 9 September 2020.

https://www.cochranelibrary.com/cca/doi/10.1002/cca.3281/full

Remdesivir

Grundeis F, Ansems K, Dahms K, Thieme V, Metzendorf M-I, Skoetz N, Benstoem C, Mikolajewska A, Griesel M, Fichtner F, Stegemann M. Remdesivir for the treatment of COVID-19. Cochrane Database of Systematic Reviews 2023, Issue 1. Art. No.: CD014962. DOI: 10.1002/14651858.CD014962.pub2. Accessed 26 January 2023. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD014962.pub2/full

National Institute for Health and Care Excellence. Therapeutics for COVID-19: Section 7.1.2 Remdesivir. In: *COVID—19 rapid guideline: Managing COVID-19*. (Version v27.7). 04 January 2023. Web. 26 January 2023.

https://www.nice.org.uk/guidance/ng191/resources/covid19-rapid-guideline-managing-covid19-pdf-51035553326

Vitamin D supplementation

Piechotta V, Stroehlein J. Is vitamin D an effective and safe treatment for COVID-19? Cochrane Library, Cochrane Podcasts, 15 July 2021. Web. 11 January 2022. https://www.cochrane.org/podcasts/10.1002/14651858.CD015043

Piechotta V and Stroehlein JK. Is vitamin D an effective and safe treatment for COVID-19? Cochrane Library, Cochrane podcasts, 15 July 2021. Web. 15 March 2022. https://www.cochrane.org/podcasts/10.1002/14651858.CD015043

Stroehlein JK, Wallqvist J, Iannizzi C, Mikolajewska A, Metzendorf M-I, Benstoem C, Meybohm P, Becker M, Skoetz N, Stegemann M, Piechotta V. Vitamin D supplementation for the treatment of COVID-19: a living systematic review. Cochrane Database of

Systematic Reviews 2021, Issue 5. Art. No.: CD015043. DOI: 10.1002/14651858.CD015043. Accessed 06 August 2021.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015043/full

Further reading:

Chapman S and Ryan-Vig S. Treatments for mild COVID-19: Cochrane evidence. *Evidently Cochrane* blog, 16 March 2022. Web. 16 March 2022. Available from: https://www.evidentlycochrane.net/treatments-for-mild-covid-19-cochrane-evidence