COVID ROOC
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Reference Lists

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Module 1

Impact of COVID-19 on Patients with Rheumatologic or Sytemic Dermatologic Diseases

Akiyama S, Hamdeh S, Micic D, et al. Prevalence and clinical outcomes of COVID-19 in patients with autoimmune diseases: a systematic review and meta-analysis. Ann Rheum Dis. October 2020.
https://ard.bmj.com/content/early/2020/10/13/annrheumdis-2020-218946
Accessed December 2, 2000

CDC. Human infection with 2019 novel coronavirus person under investigation (PUI) and case report form. Atlanta, GA: US Department of Health and Human Services, CDC; 2020.
https://www.cdc.gov/coronavirus/2019-ncov/downloads/pui-form.pdf
Assessed November10, 2020

D'Silva K, Jorge A, Lu N, et al. ACR. Outcomes of coronavirus disease 2019 infection among patients living with rheumatic diseases: A matched cohort study from a US Multi-Center Research Network. ACR Convergence Meeting. 2020.
https://acrabstracts.org/abstract/outcomes-of-coronavirus-disease-2019-infection-among-patients- living-with-rheumatic-diseases-a-matched-cohort-study-from-a-us-multi-center-research-network/
Accessed December 14, 2000

Du R, Liang L, Yang C, et al. Predictors of mortality for patients with COVID-19 pneumonia caused by SARS-CoV- 2: a prospective cohort study. Respir J. 2020;55:2000524.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7144257/
Accessed December 9, 2000

Fernandez-Ruiz R, Masson M, Kim MY, et al. Leveraging the United States Epicenter to provide insights on COVID-19 in patients with systemic lupus erythematosus. Arthritis Rheumat. 2020;72:1971-1980.
https://onlinelibrary.wiley.com/doi/10.1002/art.41450
Accessed December 14, 2000

Furlow B, COVACTA trial raises questions about tocilizumab's benefit in COVID-19. Lancet Rheumatol. 2020;2:e59z.
https://doi.org/10.1016/s2665-9913(20)30313-1
Accessed December 9, 2000

Gianfrancesco M, Yazdany J, Robinson PC. Epidemiology and outcomes of novel coronavirus 2019 in patients with immune-mediated inflammatory diseases. Curr Opin Rheum. 2020; 32:434-440.
https://pubmed.ncbi.nlm.nih.gov/32675715/
Accessed October 31, 2000

Kim L, Garg S, O'Halloran A, et al. Risk factors for intensive care unit admission and in-hospital mortality among hospitalized adults identified through the US Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET). Clin Infect Dis. 2020 July 16:ciaa1012.
https://pubmed.ncbi.nlm.nih.gov/32674114/
Accessed December 1, 2000

Lima XT, Cueva MA, Lopez EM, et al. Severe COVID-19 outcomes in patients with psoriasis. J. Eur Acad Dermatol Venereol. 2020;34:776-778.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7436403/
Accessed November 28, 2000.

Mehta B, Pedro S, Ozen G, et al. Serious infection risk in rheumatoid arthritis compared with noninflammatory rheumatic and musculoskeletal diseases: A U.S. national cohort study. RMD Open 2019;5:e000935.
https://rmdopen.bmj.com/content/5/1/e000935
Accessed November 8, 2000.

Mentor A, Korman NJ, Elmets CA, et al. Guidelines of care of the management of psoriasis and psoriatic arthritis. J Am Acad Dermatol. 2011; 65:137-174.
https://pubmed.ncbi.nlm.nih.gov/21306785/
Accessed November 8, 2000.

Michaud K, Wipfler K. Shaw Y, et al. Experiences of patients with rheumatic diseases in the United States during early days of the COVID-19 pandemic. ACR Open Rheumatology. 2020;2:335-343.
https://pubmed.ncbi.nlm.nih.gov/32311836/
Accessed November 4, 2000.

Pablos JL, Abasolo L, Alvaro-Gracia JM, et al. Prevalence of hospital PCR-confirmed COVID-19 cases in patients with chronic inflammatory and autoimmune rheumatic diseases. Ann Rheum Dis. 2020;79:1170-1173.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7299645/
Accessed December 1, 2000.

Smatti MK, Cyprian FS, Gheyath KN, et al. Viruses and autoimmunity: A review of the potential interaction and molecular mechanisms. Viruses. 2019;11:762.
https://pubmed.ncbi.nlm.nih.gov/31430946/
Accessed December 15, 2000.

Sood A. ACR 2020: Infection rate for COVID-19 is low among patients with rheumatic disease on immunosuppressives. 2020.
https://acrabstracts.org/abstract/covid-19-infection-among-patients-with-rheumatic-disease-on-biologic-targeted-therapies-a-systematic-review/
Accessed December 15, 2020

Stradner M, Dejaco C, Zwerwina J, et al. Rheumatic musculoskeletal diseases and COVID-19: A review of the first 6 months of the pandemic. Front Med. October, 2020.
https://www.frontiersin.org/articles/10.3389/fmed.2020.562142/full
Accessed November 28, 2000

Sun X, Wang T, Cai D, et al. Cytokine storm intervention in the early stages of COVID-19 pneumonia. Cytokine Growth Factor Rev. 2020;53:38-42.
https://pubmed.ncbi.nlm.nih.gov/32360420/
Accessed November 20, 200

Vaid N, Ardissino M, Reed TAN, et al. Clinical characteristics and outcomes of immunosuppressed patients hospitalized with COVID-19: experience from London. J Intern Med. September, 2020.
https://onlinelibrary.wiley.com/doi/10.1111/joim.13172
Accessed December 1, 2000

Yazdany J. COVID-19 in Rheumatic diseases: A research agenda. Arthritis Rheumatol. 2020;72:1596-1599.
https://pubmed.ncbi.nlm.nih.gov/32705748/
Accessed October 30, 2000

Zhou F, Yu T, du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: A respective cohort study.
Lancet. 2020;395:1054-1062.
https://doi.org/10.1016/S0140-6736(20)30566-3
Accessed November 1, 2000

Module 2

Immunology and Pathophysiology of COVID-19

Arshad S, Kilgore P, Chaudhry SZ, et al. Treatment with hydroxychloroquine, azithromycin, and combination in patients hospitalized with COVID-19. Int J Infect Dis. 2000;97:396-403.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7330574/
Accessed December 1, 2020

Arunachalam PS, Wimmers F, Wok CPK, et al. Systems biological assessment of immunity to mild versus severe COVID-19 infection in humans. Science. 2020; 4;369:1210-1220.
https://pubmed.ncbi.nlm.nih.gov/32788292/
Accessed December 1, 2020

Blanco-Melo D, Nilsson-Payant BE, Liu W. et al. Imbalanced host response to SARS-CoV-2 drives development of COVID-19. Cell. 2020;181:1036-1045.
https://pubmed.ncbi.nlm.nih.gov/32416070/
Accessed November 29, 2020

Borba MGS, Val FFA, Sampaio VS, et al. Effect of high vs low doses of chloroquine diphosphate as adjunctive therapy for patients hospitalized with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection: A randomized clinical trial. JAMA Network Open. 2020;3:e208857.
https://jamanetwork.com/searchresults?author=Vanderson+Souza+Sampaio&q=Vanderson+Souza+S ampaio
Accessed December 1, 2020

Buszko M, Park JH, Verthelyi D, et al. The dynamic changes in cytokine responses in COVID-19: A snapshot of the current state of knowledge. Nat Immunol. 2020;21:1146-1151.
https://doi.org/10.1038/s41590-020-0779-1
Accessed December 1, 202

Chen Z, John Wherry E. T cell responses in patients with COVID-19. Nat Rev Immunol. 2020;20:529-536.
https://www.nature.com/articles/s41577-020-0402-6
Accessed December 1, 2020

Chen, G. Wu D, Guo W, et al. Clinical and immunological features of severe and moderate coronavirus disease 2019. J Clin Invest. 2020;130:2620-2629.
https://www.jci.org/articles/view/137244
Accessed November 23, 2020

Connors J, Levy H. COVID-19 and its implications for thrombosis and anticoagulation. Blood. 2020;135:2033-2040.
https://ashpublications.org/blood/article/135/23/2033/454646/COVID-19-and-its-implications-for- thrombosis-and
Accessed November 1, 2020

Gheblawi M, Wang K, Viveiros A, et al. Angiotensin-converting enzyme 2: SARS-CoV-2 receptor and regulator of the renin-angiotensin system: Celebrating the 20th anniversary of the discovery of ACE2. Circ Res. 2020;126:1456-1474.
https://pubmed.ncbi.nlm.nih.gov/32264791
Accessed December 2,2020

Gupta A, Madhavan MV, Sehgal K, et al. Extrapulmonary manifestations of COVID-19. Nat Med. 2020;26:1017-1032.
https://doi.org/10.1038/s41591-020-0968-3
Accessed November 30, 2020

Hadjadj J, Yatim N, Barnabei L, et al. Impaired type I interferon activity and inflammatory responses in severe COVID-19 patients. Science.2020;369:718-724.
https://pubmed.ncbi.nlm.nih.gov/?term=Yatim+N&cauthor_id=32661059
Accessed December 1, 2020.

Hodell, DA, Venz KA, Charles CD, et al. Pleistocene vertical carbon isotope and carbonate gradients in the South Atlantic sector of the Southern Ocean. Geochemistry, Geophys. Geosystems. 2003;4.
https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2002GC000367
Accessed December 1, 2020

Hu B, Guo H, Zhou P, et al. Characteristics of SARS-CoV-2 and COVID-19. Nat Rev Microbiol. 2020;1-14.
https://www.nature.com/articles/s41579-020-00459-7
Accessed November 22, 2020

Huang, C. Wang Y, Li W, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet. 2020;95:497-506.
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30183-5/fulltext
Accessed November 23, 2020

Iyer AS, Forrest K, Jones FK, Nodoushani A, et al. Persistence and decay of human antibody responses to the receptor binding domain of SARS-CoV-2 spike protein in COVID-19 patients. Sci Immunol.
2020;5:eabe0367.
https://immunology.sciencemag.org/content/5/52/eabe0367
Accessed December 1, 2020

Laing AG, Lorenc A, del Molino del Barrio I, et al. A dynamic COVID-19 immune signature includes associations with poor prognosis. Nat Med. 2020;26:1623-1635.
https://doi.org/10.1038/s41591-020-1038-6
Access December 1, 2020

Lee JS, Park S, et al. Immunophenotyping of covid-19 and influenza highlights the role of type I interferons in development of severe Covid-19. Sci. Immunol. 2000;5:1554.
https://pubmed.ncbi.nlm.nih.gov/32651212/
Accessed December 1, 2020

Lee JS, Shin EC, Jeong HW, et al. The type I interferon response in COVID-19: Implications for treatment. Nat Rev Immunol. 2020;20:585-586.
https://www.nature.com/articles/s41577-020-00429-3
Accessed December 1, 2020

Liu J, Cao R, Xu M, et al. Hydroxychloroquine, a less toxic derivative of chloroquine, is effective in inhibiting SARS-CoV-2 infection in vitro. Cell Discovery. 2020;6.
https://www.nature.com/articles/s41421-020-0156-0
Accessed December 1, 2020

Mathew D, Giles JR, Baxter AE, et al. Deep immune profiling of COVID-19 patients reveals distinct immunotypes with therapeutic implications. Science. 2020;369:eabc8511.
https://science.sciencemag.org/content/369/6508/eabc8511
Accessed December 3, 2020

Mitjà O, Corbacho-Monné M, Ubals M, et al. Hydroxychloroquine for early treatment of adults with mild covid-19: A randomized-controlled trial. Clin. Infect. Dis. 2020;ciaa1009.
https://pubmed.ncbi.nlm.nih.gov/?term=CorbachoMonn%C3%A9+M&cauthor_id=32674126
Accessed December 1, 2020

Nguyen LS, Dolladille C, Drici M, et al. Cardiovascular toxicities associated with hydroxychloroquine and azithromycin: An analysis of the world health organization pharmacovigilance database. Circulation. 2020;142:303-305.
https://www.ahajournals.org/doi/full/10.1161/CIRCULATIONAHA.120.048238
Accessed December 1, 2020

Park A, Iwasaki A. Type I and Type III Interferons – induction, signaling, evasion, and application to combat COVID-19. Cell Host Microbe. 2020;27:870-878.
https://pubmed.ncbi.nlm.nih.gov/32464097/
Accessed December 1, 2020

Ripperger TJ, Uhrlaub JL, Watanabe M, et al. Orthogonal SARS-CoV-2 serological assays enable surveillance of low prevalence communities and reveal durable humoral immunity. Immunity. 2020;53:925–933.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7554472/
Accessed December 1, 2020

RECOVERY Collaborative Group. Dexamethasone in hospitalized patients with Covid-19 — Preliminary report. N Engl J Med. July 17, 2020.
https://www.nejm.org/doi/full/10.1056/NEJMoa2021436
Accessed December 5, 2020

Risitano AM, Mastellos DC, Huber-Lang M, et al. Complement as a target in COVID-19? Nat Rev Immunol. 2020;20:343-344.
https://www.nature.com/articles/s41577-020-0366-6
Accessed December 1, 2020

Rodda LB, Lauren B, Rodda LB, et al. Functional SARS-CoV-2-specific immune memory persists after mild COVID-19. Cell. 2020; S0092-8674:31565-31568.
https://pubmed.ncbi.nlm.nih.gov/33296701/
Accessed December 2, 2020

Rosenberg ES, Dufort EM, Udo T, et al. Association of treatment with hydroxychloroquine or azithromycin with in-hospital mortality in patients with COVID-19 in New York State. JAMA. 2020;323:24932502.
https://jamanetwork.com/journals/jama/fullarticle/2766117
Accessed December 1, 2020

Seah I, Su X, Lingam G. Revisiting the dangers of the coronavirus in the ophthalmology practice. Eye (Basingstoke). 2020;34:1155-1157.
https://pubmed.ncbi.nlm.nih.gov/32029919/
Accessed December 1, 2020

Skipper CP, Pastick KA, Engen NW, et al. Hydroxychloroquine in - adults with early COVID-19: A randomized trial. Ann Intern Med. 2020;173:623-631.
https://pubmed.ncbi.nlm.nih.gov/32673060/
Access December 1, 2020

Stephens DS, McElrath MJ. COVID-19 and the path to immunity. JAMA. 2020;324:1279-1281.
https://jamanetwork.com/journals/jama/fullarticle/2770758
Accessed December 1, 2020

Vabret N, Britton GJ, Gruber C, et al. Immunology of COVID-19: Current state of the science. Immunity. 2020;52:910-941.
https://www.sciencedirect.com/science/article/pii/S1074761320301837#!
Accessed December 1, 2020

van de Veerdonk FL, Netea MG, van Deuren M, et al. Kallikrein-kinin blockade in patients with COVID-19 to prevent acute respiratory distress syndrome. Elife. 2020; Apr 27;9:e57555.
https://elifesciences.org/articles/57555
Accessed December 1, 2020

Wang, M., Cao, R., Zhang, L. et al. Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro. Cell Res. 2020;30**:**269–271.
https://www.nature.com/articles/s41422-020-0282-0#citeas
Accessed December 1, 2020

Wang Z, Yang B, Li Q, et al. Clinical features of 69 cases with coronavirus disease 2019 in Wuhan, China. Clin Infect Dis. 2020;71:769–777.
https://pubmed.ncbi.nlm.nih.gov/32176772/
Accessed December 1, 2020

Wilk AJ, Rustagi A, Zhao NQ, et al. A single-cell atlas of the peripheral immune response in patients with severe COVID-19. Nat. Med. 2020;26:1070–1076.
https://www.nature.com/articles/s41591-020-0944-y#citeas
Accessed December 1, 2020

Wu C, Chen X, Cai Y, et al. Risk factors associated with acute respiratory distress syndrome and death in patients with coronavirus disease 2019 pneumonia in Wuhan, China. *JAMA Intern Med.* 2020;180:934– 943.
https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2763184
Accessed December 1, 2020

Zhang Q, Bastard P, Liu Z, et al. Inborn errors of type I IFN immunity in patients with life-threatening COVID-19. Science. 2020;370(6515):eabd4570.
https://pubmed.ncbi.nlm.nih.gov/32972995/
Accessed December 1, 2020

Zhou F, Yu, T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: A retrospective cohort study. Lancet. 2020;395:1054-1062.
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30566-3/fulltext
Accessed December 1, 2020

Zhou Z, Ren L, Zhang L, et al. Heightened Innate immune responses in the respiratory tract of COVID-19 patients. Cell Host Microbe. 2020;27:883-890.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7196896/
Accessed December 3, 2020

Module 3

Management of Rheumatic Diseases during the COVID-19 Pandemic

Abella BS, Jolkovsky EL, Biney BT, et al. Efficacy and safety of hydroxychloroquine vs placebo for pre- exposure sars-cov-2 prophylaxis among health care workers: A randomized clinical trial. JAMA Intern Med. Published online September 30, 2020.
https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2771265
Accessed November 19, 2020

Arad U, Tzadok S, Amir S, et al. The cellular immune response to influenza vaccination is preserved in rheumatoid arthritis patients treated with rituximab. Vaccine. 2011;11;29:1643-1648.
https://pubmed.ncbi.nlm.nih.gov/21211590/
Accessed October 1, 2020

Benjamin O, Bansal P, Goyal A, et al. Disease modifying Anti-rheumatic drugs (DMARDs) [Updated 2020 Jul 4]. In: Stat Pearls [Internet]. Treasure Island (FL): Stat Pearls Publishing; 2020.
https://www.ncbi.nlm.nih.gov/books/NBK507863/
Accessed October 20, 2020

Boulware DR, Pullen MF, Bangdiwala AS, et al. A randomized trial hydroxychloroquine as postexposure prophylaxis for COVID-19. N Engl J Med 2020; 383:517-525.
https://www.nejm.org/doi/full/10.1056/nejmoa2016638
Accessed October 2, 2020

Cantini F, Niccoli L, Matarrese D, et al. Baricitinib therapy in COVID-19: A pilot study on safety and clinical impact. J Infect. 2020;81:318-356.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7177073/
Accessed October 1, 2020

Cavalcanti AB, Zampiera FG, Rosa RG, et al. Hydroxychloroquine with or without azithromycin in mild-to-moderate Covid-19. N Engl J Med. 2020;383:2041-2052.
https://www.nejm.org/doi/full/10.1056/nejmoa2019014
Accessed November 10, 2020

Chen MH, Chen MH, Liu CY, et al. Hepatitis B virus reactivation in rheumatoid arthritis patients undergoing biologics treatment. J Infect Dis. 2017;215:566-573.
https://pubmed.ncbi.nlm.nih.gov/28011918/
Accessed October 16, 2020

Curtis JR, Xie F, Yang S, et al. Risk for herpes zoster in tofacitinib-treated rheumatoid arthritis patients with and without concomitant methotrexate and glucocorticoids. Arthritis Care Res. 2019;71:1249-1254.
https://onlinelibrary.wiley.com/doi/abs/10.1002/acr.23769
Accessed October 14, 2020

Dixon WG, Abrahamowicz M, Beauchamp M, et al. Immediate and delayed impact of oral glucocorticoid therapy on risk of serious infection in older patients with rheumatoid arthritis: A nested case-control analysis. Ann Rheum Dis. 2012;71:1128-1133.
https://pubmed.ncbi.nlm.nih.gov/22241902/
Accessed on November 2, 2020

Fernandez-Ruiz R, Masson M, Kim MY, et al. Leveraging the United States epicenter to provide insights on COVID-19 in patients with systemic lupus erythematosus. Arthritis Rheumatol. 2020;72:1971-1980.
https://pubmed.ncbi.nlm.nih.gov/32715660/
Accessed November 16, 2020

Fredi M, Cavazzana I, Moschetti L, et al. Rheumatology COVID-19 Study Group. COVID-19 in patients with rheumatic diseases in northern Italy: a single-centre observational and case-control study. Lancet Rheumatol. 2020;2:e549-e556.
https://pubmed.ncbi.nlm.nih.gov/32838307/
Accessed November 15, 2020

Furlow B. CONVACTA trial raises questions about tocilizumab's benefit in COVID-19. Lancet Rheumatol. 2020;2e592.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7480990/
Accessed October 1, 2020

George MD, Baker JF, Winthrop K, et al. Risk for serious infection with low-dose glucocorticoids in patients with rheumatoid arthritis. Ann Intern Med. 2020;173:870-878.
https://pubmed.ncbi.nlm.nih.gov/32956604/
Accessed December 1, 2020

Gianfrancesco M, Hyrich KL, Al-Adely S, et al. COVID-19 Global Rheumatology Alliance. Characteristics associated with hospitalisation for COVID-19 in people with rheumatic disease: data from the COVID- 19 Global Rheumatology Alliance physician-reported registry. Ann Rheum Dis. 2020;79:859-866.
https://pubmed.ncbi.nlm.nih.gov/32471903/
Accessed November 18, 2020

Haberman RH, Castillo R, Chen A, et al. COVID-19 in patients with inflammatory arthritis: a prospective study on the effects of comorbidities and disease-modifying antirheumatic drugs on clinical outcomes. Arthritis Rheumatol. 2020;72:1981-1989.
https://pubmed.ncbi.nlm.nih.gov/32725762/
Accessed November 17, 2020

Horby P, Mafham M, Linsell L, et al. Effect of hydroxychloroquine in hospitalized patients with Covid-19. N Engl J Med. 2020;383:2030-2040.
https://www.nejm.org/doi/pdf/10.1056/NEJMoa2022926?articleTools=true
Accessed November 2, 2020

Mikuls TR, Johnson SR, Fraenkel L, et al. American College of Rheumatology Guidance for the Management of Rheumatic Disease in Adult Patients During the COVID-19 Pandemic: Version 2. Arthritis Rheumatol. 2020 Sep;72:e1-e12.
https://pubmed.ncbi.nlm.nih.gov/32734689/
Accessed October 1, 2020

Pablos JL, Abasolo L, Alvaro-Gracia JM. Prevalence of hospital PCR-confirmed COVID-19 cases in patients with chronic inflammatory and autoimmune rheumatic diseases. Ann Rheum Dis. 2020; 79:1170-1173.
https://pubmed.ncbi.nlm.nih.gov/32532753/
Accessed November 24, 2020

Park JK, YJ Lee, Shin K, et al. Impact of temporary methotrexate discontinuation for 2 weeks on immunogenicity of seasonal influenza vaccination in patients with rheumatoid arthritis: a randomised clinical trial. Ann Rheum Dis. 2018;77:898-904.
https://ard.bmj.com/content/77/6/898
Accessed October 5, 2020

Recovery Collaborative Group. Dexamethasone in hospitalized patients with Covid-19. N Engl Med. September 17, 2020.
https://www.nejm.org/doi/full/10.1056/NEJMoa2021436
Accessed October 15, 2020

Ridker PM, Everett BM, Prodhan A, et al. Low-dose methotrexate for the prevention of atherosclerotic events. N Engl J Med. 2019;380:752-762.
https://www.nejm.org/doi/full/10.1056/NEJMoa1809798
Accessed October 20, 2020

Rondaan C, Furer V, Heijstek MW, et al. Efficacy, immunogenicity and safety of vaccination in adult patients with autoimmune inflammatory rheumatic diseases: a systematic literature review for the 2019 update of EULAR recommendations. RMD Open. 2019;5:e001035.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6744079/
Accessed September 28, 2020

Rosas I, Bräu N, Waters M, et al. Tocilizumab in hospitalized patients with COVID-19 pneumonia. MedRxiV. September 12, 2020.
https://www.medrxiv.org/content/10.1101/2020.08.27.20183442v2
Accessed September 30, 2020

Salama C, Han J, Yau L, et al. Tocilizumab in patients hospitalized with Covid-19 pneumonia. N Engl J Med 2021;84:20-30.
https://www.nejm.org/doi/full/10.1056/NEJMoa2030340
Accessed January 14 2021

Singh JA, Cameron C, Norbaloochi S, et al. Risk of serious infection in biologic treatment of patients with rheumatoid arthritis. A systemic review and meta-analysis. Lancet. 2015;386:258-265.
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)61704-9/fulltext
Accessed October 25, 2020

Stone JH, Frigault MJ, Serling-Boyd NJ, et al. Efficacy of tocilizumab in patients hospitalized with Covid-19. N Engl J Med 2020;383:2333-2344.
https://www.nejm.org/doi/full/10.1056/NEJMoa2028836
Accessed November 2, 2020

Winthrop KL, Silverfield J, Racewicz A, et al. The effect of tofacitinib on pneumococcal and influenza vaccine responses in rheumatoid arthritis. Ann Rheum Dis. 2016;75:687-695.
https://ard.bmj.com/content/annrheumdis/75/4/687.full.pdf
Accessed November 9, 2020

Yun H, Xie, F, Delzell E, et al. Comparative risk of hospitalized infection associated with biologic agents in rheumatoid arthritis patients enrolled in Medicare. Arthritis Rheumat. 2016;68:56-66.
https://pubmed.ncbi.nlm.nih.gov/26315675/
Accessed October 15, 2020

Module 4

Dermatologic Issues with COVID-19

Brunasso AMG, Massone C. Teledermatologic monitoring for chronic cutaneous autoimmune diseases with smartworking during COVID-19 emergency in a tertiary center in Italy. Dermatologic Therapy.2020;33:e13495.
https://onlinelibrary.wiley.com/toc/15298019/2020/33/4
Accessed October 1, 2020

Droesch C, Do MH, DeSancho M, et al. Livedoid and purpuric skin eruptions associated with coagulopathy in severe COVID-19. JAMA Dermatol. 2020;156:1-3.
https://jamanetwork.com/journals/jamadermatology/fullarticle/2768760
Accessed October 1, 2020

Estébanez A, Pérez-Santiago L, Silva E, et al. Cutaneous manifestations in COVID-19: A new contribution. J Eur Acad Dermatol Venereol. 2020;34:e250 e251 **https://pubmed.ncbi.nlm.nih.gov/32294264/**
Accessed November 1, 2020

Forand RL. Dermatologic manifestations persist in COVID-19 'long-haulers. European Academy of Dermatology and Venereology Congress. 2020.
https://www.healio.com/news/dermatology/20201029/dermatologic-manifestations-persist-in-covid19-longhaulers
Accessed October 1, 2020

Freeman EE, McMahon DE, Lipoff JB. The spectrum of COVID-19 associated dermatologic manifestations: An international registry of 716 patients from 31 countries. Am Acad Dermatol. 202:83;1118-1129.
https://www.jaad.org/article/S0190-9622(20)32126-5/pdf
November 1, 2020

Galván Casas C, Català A, Carretero Hernández G, et al. Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases. Br J Dermatol. 2020 183:71-77.
https://pubmed.ncbi.nlm.nih.gov/32348545/
November 1, 2020

Guan W, Ni Z, Hu Y, et al. Clinical characteristics of coronavirus disease 2019 in China. N Engl J Med 2020; 382:1708-1720.
https://www.nejm.org/doi/full/10.1056/nejmoa2002032

Madigan LM, Micheletti RG, Shinkai K. How dermatologists can learn and contribute at the leading edge of the COVID-19 Global Pandemic. *JAMA Dermatol.* 2020;156:733-734.
https://jamanetwork.com/journals/jamadermatology/fullarticle/2765612
Accessed October 1, 2020

Manalo IF, Smith MK, Cheeley J, et al. A dermatologic manifestation of COVID-19: Transient livedo reticularis. J Am Acad Dermatol. 2020;83:700.
https://pubmed.ncbi.nlm.nih.gov/32283229/
Accessed October 1, 2020

Niaki OZ, Anadkat, MJ, Chen ST, et al. Navigating immunosuppression in a pandemic: A guide for the dermatologist from the COVID Task Force of the Medical Dermatology Society and Society of Dermatology Hospitalists. J Am Acad Dermatol. 2020;83:1150-1159.
https://www.jaad.org/article/S0190-9622(20)31149-X/fulltext
Accessed October 1, 2020

Recalcati S. Cutaneous manifestations in COVID-19: A first perspective. J Eur Acad Dermatol Venereol. 2020;34:e212-e213.
https://pubmed.ncbi.nlm.nih.gov/32215952/
November 1, 2020

Singh H, Kaur H, Singh K, Sen CK. Cutaneous manifestations of COVID-19: a systematic review. Adv Wound Care (New Rochelle). 2021;10:51-80.
https://pubmed.ncbi.nlm.nih.gov/33035150/
Accessed January 5, 2021

Module 5

The Spectrum of COVID-19 in Children and Adolescents

AAP. COVID-19 Testing Guidance. March 5, 2021.
https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-testing-guidance/
Accessed March 20, 2021

Anderson EM, Diorio C, Goodwin EC, et al. Severe acute respiratory syndrome-Coronavirus-2 (SARS-CoV-2) antibody responses in children with multisystem inflammatory syndrome in children (MIS-C) and mild and severe coronavirus disease 2019 (COVID-19). J Pediatric Infect Dis Soc, 2020; piaa161.
https://academic.oup.com/jpids/advance-article/doi/10.1093/jpids/piaa161/6017296
Accessed December 23, 2020

Batu ED, Özen S. Implications of COVID-19 in pediatric rheumatology. Rheumatol Int. 2020;40:1193-1213.
https://link.springer.com/article/10.1007/s00296-020-04612-6
Accessed December 20, 2020

Baeck M, Herman A. COVID toes: where do we stand with the current evidence? Int J Infect Dis. 2021;102:53-55.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7566763/
Accessed March 2, 2021

Chiotos K, Bassiri H, Behrens EM, et al. Multisystem inflammatory syndrome in children during the coronavirus 2019 pandemic: A case series. J Pediatric Infect Dis Soc. 2020;9:393-398.
https://pubmed.ncbi.nlm.nih.gov/32463092/
Accessed January 18, 2021

Cunningham JW, Vaduganathan M, Claggett BL et al. Clinical outcomes in young US adults hospitalized with COVID-19. JAMA Intern. Med. 2021;181:379-381.
https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2770542
Accessed March 22, 2021

DeBiasi RL, Song X, Delaney M, et al. Severe coronavirus disease-2019 in children and young adults in the Washington, DC, Metropolitan Region. J Pediatr. 2020;223:199-203.
https://www.jpeds.com/article/S0022-3476%2820%2930581-3/fulltext
January 22, 2021

Diorio C, Henriskson SE, Vella LA, et al. Multisystem inflammatory syndrome in children and COVID-19 are distinct presentations of SARS–CoV-2. J Clin Invest. 2020;130:5967-5975.
https://www.jci.org/articles/view/140970
Accessed March 20, 2021

Diorio C, McNerney KO, Lambert M, et al. Evidence of thrombotic microangiopathy in children with SARS-CoV-2 across the spectrum of clinical presentations. Blood Advances. 2020;4:6051-6063.
https://pubmed.ncbi.nlm.nih.gov/33290544/
Accessed March 20, 2021

Feldstein LH, Rose EB, Horwitz SM, et al. Multisystem inflammatory syndrome in U.S. children and adolescents. N Engl J Med. 2020;383:334-346.
https://www.nejm.org/doi/full/10.1056/NEJMoa2021680
Accessed February 5, 2021

Frankenstein Z, Alon U, Cohen I. The immune-body cytokine network defines a social architecture of cell interactions. Biology Direct. 2006:1,1-15.
https://pubmed.ncbi.nlm.nih.gov/17062134/
Accessed December 20, 2020

Henderson LA, Canna SW, Friedman KG, et al. American College of Rheumatology Clinical Guidance for Multisystem Inflammatory Syndrome in Children Associated With SARS–CoV-2 and Hyperinflammation in Pediatric COVID-19: Version 2. Arthritis Rheumat. 2020;72:1791-1805.
https://onlinelibrary.wiley.com/doi/10.1002/art.41616
Accessed December 20, 2020

Kim L, Whitaker M, O'Halloran A, et al. Hospitalization rates and characteristics of children aged <18 years hospitalized with laboratory-confirmed COVID-19 — COVID-NET, 14 States, March 1–July 25, 2020. MMWR Morb Mortal Wkly Rep. 2020;69:1081-1088.
https://www.cdc.gov/mmwr/volumes/69/wr/mm6932e3.htm
Accessed December 21, 2021

Wahezi DM, Lo MS, Rubinstein TB, et al. American College of Rheumatology Guidance for the Management of Pediatric Rheumatic Disease During the COVID-19 Pandemic: Version 1. Arthritis Rheum. 2020;72,1809-1819.
https://onlinelibrary.wiley.com/doi/10.1002/art.41455
Accessed January 9, 2021

Zimmerman P, Curtis N. Coronavirus infections in children including COVID-19. Pediatric Infect Dis J. 2020:30:355-368.
https://pubmed.ncbi.nlm.nih.gov/32310621/
Accessed March 20, 2021

Module 6

Non-Pharmacologic Management of Rheumatic Diseases during the COVID-19 Pandemic

Altena E, Baglioni C, Espie CA, et al. Dealing with sleep problems during home confinement due to the COVID-19 outbreak: Practical recommendations from a task force of the European CBT-I Academy. J Sleep Res. 2020;29:e13052.
https://doi.org/10.1111/jsr.13052
Accessed February 1, 2021

Bryson WJ. Circadian rhythm sleep-wake disorders and the COVID-19 pandemic. J Clin Sleep Med. 2020;16:1423.
https://jcsm.aasm.org/doi/10.5664/jcsm.8540
Accessed February 1, 2021

Cellini N, Canale, N, Mion G, et al. Changes in sleep pattern, sense of time and digital media use during COVID-19 lockdown in Italy. J Sleep Res. 2020;29;e13074.
https://doi.org/10.1111/jsr.13074
Accessed February 1, 2021

Craig CL, Marshall AL, Sjöström M, et al. International physical activity questionnaire: 12-country reliability and validity. Med Sci Sports Exerc. 2003;35;1381-3195/
https://doi.org/10.1249/01.MSS.0000078924.61453.FB
Accessed January 11, 2021

D'Silva KM, Serling-Boyd N, Wallwork R, et al. Clinical characteristics and outcomes of patients with coronavirus disease 2019 (COVID-19) and rheumatic disease: a comparative cohort study from a US 'hot spot.' Ann Rheum Dis. 2020;79:1156-1162.
https://ard.bmj.com/content/79/9/1156
Accessed December 30, 2020

Das G, Mukherjee N, Ghosh S. Neurological insights of COVID-19 pandemic. CS Chem Neurosci. 2020;11:1206-1209.
https://doi.org/10.1021/acschemneuro.0c00201
Accessed February 2, 2021

Di Pauli F, Stefani A, Holzknecht E, et al. Dream content in patients with sleep apnea: A prospective sleep laboratory study. J Clin Sleep Med. 2018;14:41-46.
https://doi.org/10.5664/jcsm.6876
Accessed February 1, 2021

Graham EL, Clark JR, Orban ZS, et al. Persistent neurologic symptoms and cognitive dysfunction in non-hospitalized Covid-19 "long haulers." Ann Clin Transl Neurol. 2021.
https://onlinelibrary.wiley.com/doi/10.1002/acn3.51350
Access March 25, 2021

Hartley S, Colas des Francs C, Aussert, F. et al. The effects of quarantine for SARS-CoV-2 on sleep: An online survey. Encephale. 2020 46: S53-S59.
https://doi.org/10.1016/j.encep.2020.05.003
Accessed February 1, 2021

Huang Y, Zhao, N. Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: A web-based cross-sectional survey. Psychiatry Res. 2020;288:112954.
https://doi.org/10.1016/j.psychres.2020.112954
Accessed February 1, 2021

Hui DS, Azhar EI, Madani TA, et al. The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health - The latest 2019 novel coronavirus outbreak in Wuhan, China. IJID. 2020;91:264-266.
https://doi.org/10.1016/j.ijid.2020.01.009
Accessed January 31, 2021

Killgore WDS, Cloonan SA, Taylor EC, Fernandez F, Grandner MA, Dailey NS. Suicidal ideation during the COVID-19 pandemic: The role of insomnia. Psychiatry Res. 2020;290:113134.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7255187/
Accessed January 25, 2021

Malm C, Sjödin B, Sjöberg B, et al. Leukocytes, cytokines, growth factors and hormones in human skeletal muscle and blood after uphill or downhill running: leukocytes, cytokines and hormones in response to physical exercise. J Physiol. 2004;556:983-1000.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1664987/
Accessed February 1, 2021

Meira e Cruz M, Miyazawa M, Gozal D. Putative contributions of circadian clock and sleep in the context of SARS-CoV-2 infection. Eur Respir J. 2020; 55:2001023.
https://erj.ersjournals.com/content/erj/55/6/2001023.full.pdf
Accessed January 25, 2021

Morin CM, Carrier J. The acute effects of the COVID-19 pandemic on insomnia and psychological symptoms. Sleep Med. 2021;77:346-347.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7274952
Accessed March 15, 2021

Piepoli MF, Hoes AW, Agewall S, et al. European Guidelines on cardiovascular disease prevention in clinical practice. Eur Heart J. 2016;37:2315-2381.
https://academic.oup.com/eurheartj/article/37/29/2315/1748952
Accessed February 18, 2021

Puccinelli PJ, da Costa TS, Seffrin A, et al. Reduced level of physical activity during COVID-19 pandemic is associated with depression and anxiety levels: an internet-based survey. BMC Public Health. 2021; 21:425.
https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-021-10470-z - citeas
Accessed March 15, 2021

Rogers JP, Chesney E, Oliver D, et al. Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: A systematic review and meta-analysis with comparison to the COVID-19 pandemic. Lancet Psychiatry. 2020;7:611-627.
https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30203-0/fulltext
Accessed February 18, 2021

Sharif K, Watad A, Bragazzi NL, el al. Physical activity and autoimmune diseases: Get moving and manage the disease. Autoimmun Rev. 2018:7:53-72.
https://pubmed.ncbi.nlm.nih.gov/29108826/
Accessed January 5, 2021

Xiao H, Zhang Y, Kong D, et al. The effects of social support on sleep quality of medical staff treating patients with coronavirus disease 2019 (COVID-19) in January and February 2020 in China. Med Sci Monit. 2020;26:e923549.
https://pubmed.ncbi.nlm.nih.gov/32132521/
Accessed February 18, 2021

Zhang C, Yang L, Liu S, et al. Survey of insomnia and related social psychological factors among medical staff involved in the 2019 novel Coronavirus disease outbreak. Front Psychiatry.2020;11:306.
https://doi.org/10.3389/fpsyt.2020.00306
Accessed February 18, 2021

Zhao X, Lan M, Li H, Yang J. Perceived stress and sleep quality among the non-diseased general public in China during the 2019 coronavirus disease: a moderated mediation model. Sleep Med. 2021;77:339-345.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7240276/
Access, March 22, 2021

Module 7

Educating Patients and Their Caregivers during the COVID-19 Pandemic

ACR. COVID-19 Vaccine Clinical Guidance Task Force. COVID-19 Vaccine Clinical Guidance Summary for Patients with Rheumatic and Musculoskeletal Diseases. 2021.
https://www.rheumatology.org/Portals/0/Files/COVID-19-Vaccine-Clinical-Guidance-Rheumatic-Diseases-Summary.pdf
Accessed March 28, 2021

CDC. Key Things to Know About COVID-19 Vaccines. March, 2021.
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/keythingstoknow.html
Accessed March 28, 2021

Czeisler ME, Lane RI, Petrosky E, et al. Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic — United States, June 24-30, 2020. MMWR Morb Mortal Wkly Rep. 2020;69:1049-1057.
https://www.cdc.gov/mmwr/volumes/69/wr/mm6932a1.htm?s_cid=mm6932a1_
Accessed March 3, 2021

Davies NG, Abbott S, Barnard RC, et al. Estimated transmissibility and impact of SARS-CoV-2 lineage B.1.1.7 in England. Science. March, 2021.
https://science.sciencemag.org/content/early/2021/03/03/science.abg3055

Favalli EG, Ingegnoli F, Cimaz R, et al. What is the true incidence of COVID-19 in patients with rheumatic diseases? Ann Rheum Dis. 2021;80:e18.
https://ard.bmj.com/content/annrheumdis/80/2/e18.full.pdf
Accessed March 23, 2021

Gelman L. Getting a COVID-19 vaccine with autoimmune or inflammatory rheumatic disease: New guidance from the American College of Rheumatology. Creaky Joints. 2021
https://creakyjoints.org/living-with-arthritis/coronavirus/covid-19-vaccines/american-college-rheumatology-clinical-guidance-covid-19-vaccine/
Accessed March 23, 2021

Gianfrancesco M, Hyrich KL, Al-Adely S, et al. Characteristics associated with hospitalisation for COVID-19 in people with rheumatic disease: data from the COVID-19 Global Rheumatology Alliance physician-reported registry. Ann Rheum Dis. 2020;79:859-866.
https://ard.bmj.com/content/annrheumdis/79/7/859.full.pdf
Accessed December 23, 2021

Pablos JL, Galindo M, Carmona L, et al. Clinical outcomes of hospitalised patients with COVID-19 and chronic inflammatory and autoimmune rheumatic diseases: a multicentric matched cohort study. Ann Rheum Dis 2020;79:1544-1549.
https://ard.bmj.com/content/annrheumdis/79/12/1544.full.pdf
Accessed December 20, 2021

Pew Research Center. Half of Americans intend to get a COVID-19 vaccine; 19% already have. March, 2021
https://www.pewresearch.org/science/2021/03/05/growing-share-of-americans-say-they-plan-to-get-a-covid-19-vaccine-or-already-have/ps_2021-03-05_covid-19-vaccines_00-01/
Accessed April 2, 2021

Wong LE, Hawkins JE, Langness, S, et al. Where are all the patients? Addressing Covid-19 fear to encourage sick patients to seek emergency care? New Engl J Med. May, 2020.
https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0193
Accessed March 23, 2021

Yazdany J. COVID-19 in Rheumatic Diseases: A Research Agenda. Arthritis Rheumatol. 2020;72:1596-1599.

https://www.rheumatology.org/Portals/0/Files/COVID-19-Vaccine-Clinical-Guidance-Rheumatic-Diseases-Summary.pdf
Accessed January 11, 2021