

BAB 5

KESIMPULAN DAN SARAN

Berdasarkan hasil penelitian tentang studi efektivitas remdesivir pada pasien Covid-19 gejala sedang di instalasi rawat inap rumah sakit Gotong Royong Surabaya, diambil kesimpulan sebagai berikut,

5.1 Kesimpulan

1. Remdesivir signifikan secara statistik berpengaruh terhadap durasi rawat inap pasien Covid-19 gejala sedang yang dirawat di rumah sakit ($p = 0,046$).
2. Remdesivir tidak signifikan secara statistik berpengaruh terhadap tingkat kematian pasien Covid-19 gejala sedang yang dirawat di rumah sakit ($p = 0,113$).

5.2 Saran

Berdasarkan pembahasan dan kesimpulan yang telah diuraikan, berikut saran yang dapat digunakan sebagai bahan masukan,

1. Perlu dilakukan penelitian lebih lanjut untuk mengetahui pengaruh karakteristik pasien, derajat keparahan penyakit, komorbiditas terhadap efektivitas remdesivir pada pasien Covid-19 yang dirawat di rumah sakit.
2. Jumlah sampel yang tergolong tidak besar dan sumber sampel hanya dari satu institusi kesehatan belum cukup menggambarkan populasi pasien Covod-19 di Indonesia. Oleh karena itu, perlu dilakukan penelitian yang serupa dengan melibatkan jumlah sampel yang lebih besar dengan ratio sampel yang lebih seimbang, multisenter, serta dirancang dengan desain penelitian dan analisis

data yang lebih baik untuk mendapatkan angka estimasi efek di populasi yang lebih akurat.

DAFTAR PUSTAKA

- Ali, K., Azher, T., Baqi, M., Binnie, A., Borgia, S., Carrier, F.M., Borgia, S., Chagnon, N., Cheng, M.P., Conly, J., Costiniuk, C., Daley, P., Daneman, N., Durand, M., Farjou, G., Fera, E., Fontela, P., Fralick, M., Geagea, A., Grant, J., Harrison, B.L., Hoang, H., Kelly, E.L., and Keynan, Y., 2022, Remdesivir for the treatment of patients in hospital with Covid-19 in Canada: a randomized controlled trial, *Canadian Medical Association Journal*, **194(7)**: 242-251.
- Alireza, A., Jalilian, M., Ahmadi, P., and Vlaisavljevic, Z., 2020, Diabetes and Covid-19: a systematic review on the current evidences, *Diabetes Research and Clinical Practice*, **10 (8)**: 3-14.
- Alqahtani, J.S., Oyelade, T., Aldhahir, A.M., Alghamdi, S.M., Almehmadi, M., Alqahtani, A.S., and Hurst, J.R., 2020, Prevalence, severity and mortality associated with COPD and smoking in patients with Covid-19: a rapid systematic review and meta-analysis, *PloS One*, **15(5)**: 1-13.
- Ansems, K., Grundeis, F., Dahms, K., Mikolajewska, A., Thieme, V., Piechotta, V., and Fichtner, F., 2021, Remdesivir for the treatment of Covid 19, *Cochrane Database of Systematic Reviews*, **8(11)**: 193.
- Badan Pengawas Obat dan Makanan, BPOM Izinkan Remdesivir untuk Kasus Covid-19 Berat, Diakses pada 10 Mei 2022, <https://www.pom.go.id/new/>.
- Beigel, J. H., Tomashek, K. M., Dodd, L. E., Mehta, A. K., Zingman, B. S., Kalil, A. C., and Lane, H. C., 2020, Remdesivir for the treatment of Covid-19-final report, *New England Journal of Medicine*, **383(19)**: 1813-1826.
- Centers for Disease Control and Prevention, Covid-19, Diakses pada 11 Mei 2022, <https://www.chinacdc.cn/en/>.
- Clerkin, K.J., Fried, J.A., Raikhelkar, J., Sayer, G., Griffin, J.M., Masoumi, A., and Uriel, N., 2020, Covid-19 and cardiovascular disease, *circulation*, **141(20)**: 1648–1655.
- Coomes, E. A., and Haghbayan, H., 2020, Interleukin-6 in Covid-19: a systematic review and meta-analysis, *Medical Virology*, **30(6)**: 1–9.

- Dehelean, C.A., Lazureanu, V., Coricovac, Marcovici, L., Pinzaru, Codruta, L., Mioc, M., Oancea, R., Coricovac, D., and Aristidis M., 2020, SARS-CoV-2: repurposed drugs and novel therapeutic approaches-ansights into chemical structure-biological activity and toxicological screening, *Journal of Clinical Medicine*, **9(7)**: 1-40.
- Dhar, C. and Oommen, 2020, Epidemiology of Covid-19, *Journal of Digestive Endoscopy*, **11(1)**: 1-7.
- Eastman, R.T., Roth, J.S., Brimacombe, K.R., Simeonov, A., Shen, M., and Patnaik, S., 2020, Remdesivir: a seview of its discovery and development leading to amergency use authorization for treatment of Covid-19, *ACS Central Science*, **20(6)**: 672–683.
- Gombart, A. F., Pierre, A., and Maggini, S., 2020, A review of micronutrients and the immune system working in harmony to reduce the risk of infection, *Nutrients*, **12(1)**: 1-36.
- Grein, J., Ohmagari, N., Shin, D., Diaz, G., Asperges, E., Castagna, A., and Lescure, F.X, 2020, Compassionate use of remdesivir for patients with severe Covid-19, *New England Journal of Medicine*, **382(24)**: 2327–2336.
- Holshue, M.L., Debolt, C., Lindquist, S., Lofy, K.H., Wiesman, J., and Bruce, H., 2020, First case of 2019 novel coronavirus in the United States, *New England Journal Medicine*, **382(10)**: 929-936.
- Hongchao, P., Richard, P., Ana, M.H.R., and Marie, P.P., 2022, Remdesivir and three other drugs for hospitalised patients with Covid-19: final results of the WHO Solidarity randomised trial and updated meta analyses, *Lancet*, **399 (10)**: 1941-1953.
- Humeniuk, R., Mathias, A., Cao, H., Osinusi, A., Shen, G., Chng, E.,and German, P., 2020, Safety, tolerability, and pharmacokinetics of remdesivir, an antiviral for treatment of Covid-19, in healthy subjects, *Clinical and Translational Science*, **2(13)**: 896–906.
- Jahanshahlu, L., and Rezaei, N., 2020, Monoclonal antibody as a potential anti-Covid-19, *Biomedicine and Pharmacotherapy*, **11(3)**: 1-17.
- Li, J., and Fan, H.G., 2020, Characteristics and mechanism of liver injury in 2019 coronavirus disease, *Journal Clinical Translation Hepatology*, **8(1)**: 13–17.

- Kausar, S., Said, K.F., Ishaq, M.U.R.M., Akram, M., Riaz, M., Rasool, G., and Malik, A., 2021, A review: mechanism of action of antiviral drugs, *International Journal of Immunopathology and Pharmacology*, **35**(2): 1-12.
- Kokic, G., Hillen, H.S., Tegunov, D., Dienemann, C., Seitz, F., Schmitzova, J., and Cramer, P., 2021, Mechanism of SARS-CoV-2 polymerase stalling by remdesivir, *Nature Communications*, **12**(1): 1-7.
- Liu, W., Tao, Z.W., Lei, W., Ming, L.Y., Kui, L., and Ling, Z., 2020, Analysis of factors associated with disease outcomes in hospitalized patients with 2019 novel coronavirus disease, *Clinical Medical Journal*, **133**(10): 1032–1038.
- Mahendra M., Abhishek N., Ranjith K., Shreedhar S., and Padukudru A. M., 2021, Predictors of mortality in patients with severe Covid-19 pneumonia-a retrospective study, *Advances in Respiratory Medicine*, **89**(2): 135-144.
- Maria, Chatburn, E., Higson, S.N., Reynolds, S., Shafran, R., Brigden, A., and Crawley, E., 2020, Rapid systematic review: the impact of social isolation and loneliness on the mental health of children and adolescents in the context of Covid-19, *Journal of the American Academy of Child and Adolescent Psychiatry*, **3**(10): 1-25.
- McGoogan, J.M. and Wu, Z.Y., 2020, Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: summary of a report of 72 314 cases from the Chinese center for disease control and prevention, *The Journal of the American Medical Association*, **23**(10): 1239-1242.
- Mulangu, L.E., Dodd, R.T., Davey J., Mbaya, O.T., Proschan, M., and Mukadi, D., 2019, A randomized, controlled trial of ebola virus disease therapeutics, *New England Journal Medicine*, **381**(24): 2293–2303.
- Naser, F., Al, T., Ladislav, and N., Alhunayan, A., 2020, Remdesivir bringing hope for covid-19 treatment, *Science Pharm*, **88**(2): 1-12.
- National Institute of Health (NIH), Coronavirus disease 2019 (Covid-19) treatment guidelines, Diakses pada 20 Mei 2021, <https://files.covid19treatmentguidelines.nih.gov/guidelines/covid19treatmentguidelines.pdf>.

- Nelson, L., Stephanie, M., Nathan, Z., Scott, K., and Lori, Z.R.N., 2021, Burden of noninfluenza respiratory viral infections in adults admitted to hospital: analysis of a multiyear Canadian surveillance cohort from 2 centres, *Canadian Medical Association Journal*, **193(13)**: 439-446.
- Okoli, G. N., Rabbani, R., Copstein, L., Al-Juboori, A., Askin, N., & Abou-Setta, A. M., 2021, Remdesivir for coronavirus disease 2019 (Covid-19): a systematic review with meta-analysis and trial sequential analysis of randomized controlled trials, *Infectious Diseases*, **53(9)**: 691-699.
- Paul, A., Gao, M., Lindson, N., Hartmann, B.J., Watkinson, P., Young, D., and Hippisley, C. J., 2021, Association between pre-existing respiratory disease and its treatment, and severe Covid-19: a population cohort study, *The Lancet Respiratory Medicine*, **9(8)** :909–923.
- Popov, D., 2020, Treatment of covid-19 infection, a rationale for current and future pharmacological approach, *EC Pulmonol Respiratory Medicine*, **2(9)**: 38-58.
- Rajendran, K., Narayanasamy, K., Rangarajan, J., Rathinam, J., Natarajan, M., and Ramachandran, A., 2020, Convalescent plasma transfusion for the treatment of Covid-19: Systematic review, *Journal of Medical Virology*, **20(9)**: 1-9.
- Satuan Tugas Covid-19, Peta Sebaran Covid-19 di Indonesia, Diakses pada 10 Mei 2022, <https://covid19.go.id/>.
- Scohy, A., Ananthrajah, A., Bodéus, M., Kabamba, M.B., Verroken, A., Rodriguez, V.H., 2020, Low performance of rapid antigen detection test as frontline testing for Covid-19 diagnosis, *Journal Clinical Virology*, **12 (5)** :10-25.
- See, K., Adam, S., Ho, J.H., Iqbal, Z., Turkington, P., Razvi, S., and Syed, A., 2020, Obesity: A critical risk factor in the Covid-19 pandemic, *Clinical Obesity*, **12 (4)**: 1-11.
- Shi, L., Wang, L., Xu, R., Zhang, C., Xie, Y., and Liu, K., 2021, Mesenchymal stem cell therapy for severe Covid-19, *Signal Transduction and Targeted Therapy*, **6(1)**: 1-5.
- Simet and Sisson, J.H, 2015, Alcohol's effects on lung health and immunity, *Alcohol Res*, **37 (1)**: 199–208.

- Spinner, C. D., Gottlieb, R. L., Criner, G. J., Arribas, L.J.R., Cattelan, A.M., and Soriano, V.A., 2020, Effect of Remdesivir vs standard care on clinical status at 11 days in patients with moderate Covid-19, *American Medical Association*, **9(10)**: 1-10.
- Sugiyono, 2010, *Metode Penelitian Kuantitatif Kualitatif*, CV Alfabeta, Bandung.
- Sun, D., 2020, Remdesivir for Treatment of Covid-19: Combination of pulmonary and IV administration may offer additional benefit, *The AAPS Journal*, **22(4)**: 1-7.
- Peto, R., Pan, H., Peto, R., Karim, Q., Alejandria, M., and Henao, R.A.M., 2020, Repurposed antiviral drugs for Covid-19-interim WHO solidarity trial results, *The New England Journal of Medicine*, **384(6)**: 497-511.
- Udugama, B., Kadhiresan, P., Kozlowski, H.N., Malekjahani, A., and Osborne, M., Li, V.Y.C., 2020, Diagnosing Covid-19: the disease and tools for detection, *ACS Nano*, **14(4)** :3822–3835.
- Wang, Y., Zhang, D., Du, G., Du, R., Zhao, J., Jin, Y., and Wang, C., 2022, Remdesivir in adults with severe Covid-19: a randomised, double-blind, placebo-controlled, multicentre trial, *The Lancet*, **395(10)**: 1569–1578.
- Ye, M., Fu, D., Ren, Y., Wang, F., Wang, D., and Zhang, F., 2020, Treatment with convalescent plasma for COVID-19 patients in Wuhan, China, *Journal of Medical Virology*, **20(5)**: 1-12.
- World Health Organization, Coronavirus Disease-19 (Covid-19) Dashboard, 2020, Diakses pada 10 Mei 2022, <https://covid19.who.int/>.