

BAB 5

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Dari hasil penelitian Pola Penggunaan Obat Bronkodilator Pada Pasien Penyakit Paru Obstruktif Kronik di Rumah Sakit Umum Daerah Kabupaten Sidoarjo pada periode Januari 2019 sampai dengan Desember 2019, dapat disimpulkan sebagai berikut:

1. Penggunaan bronkodilator tunggal sebanyak 15 pasien (31%), sedangkan kombinasi sebanyak 34 pasien (69%).
2. Rute pemberian bronkodilator intravena pada 35 pasien (46%), nebul pada 34 pasien (44%), sedangkan oral pada 8 pasien (10%).
3. Penggunaan tunggal, paling banyak yakni aminofilin ($2 \times 240\text{mg}$) i.v pada 14 pasien (93%), sedangkan penggunaan kombinasi bronkodilator paling banyak yakni Aminofilin ($2 \times 240\text{mg}$) i.v + Ipratropium bromide/Salbutamol ($3 \times 0,52\text{mg}/3,01\text{mg}$) nebul + Budesonid ($3 \times 0,5\text{mg}$) nebul pada 22 pasien (65%).
4. Pergantian pola paling banyak yakni Ipratropium bromide/Salbutamol ($3 \times 0,52\text{mg}/3,01\text{mg}$) nebul + Aminofilin ($2 \times 240\text{mg}$) i.v + Budesonid ($3 \times 0,5\text{mg}$) nebul $\rightarrow$ Aminofilin ($2 \times 240\text{mg}$) i.v pada 7 pasien (32%).
5. Lama pemberian terapi paling banyak diberikan selama 1-4 hari pengobatan pada 21 pasien (58%).

5.2 Saran

1. Penggunaan bronkodilator pada pasien PPOK di Rumah Sakit Umum Daerah Kabupaten Sidoarjo memerlukan peran serta dari

tenaga kefarmasian dalam meningkatkan optimalisasi terapi dan dalam rangka meningkatkan kualitas hidup pasien.

2. Untuk mendapatkan hasil yang optimal diperlukan penelitian yang bersifat prospektif dengan jumlah sampel yang lebih besar agar peneliti dapat melihat secara langsung perkembangan kondisi pasien.
3. Diperlukan penulisan rekam medis kesehatan (RMK) yang lebih lengkap, sehingga didapatkan data yang lebih baik untuk penelitian selanjutnya.

DAFTAR PUSTAKA

- Akcora, B., Celikkaya, M. E. and Ozer, C. 2017, Bronchoscopy for foreign body aspiration and effects of nebulized albuterol and budesonide combination. *Pakistan Journal of Medical Sciences*, **33(1)**: 81.
- Badan Penelitian Dan Pengembangan Kesehatan, 2013, *Riset Kesehatan Dasar*, Jakarta: Kementerian Kesehatan Republik Indonesia.
- Barakat, M. F., McDonald, H. I., Collier, T. J., Smeeth, L., Nitsch, D. and Quint, J. K. 2015, Acute kidney injury in stable COPD and at exacerbation. *International journal of chronic obstructive pulmonary disease*, **10**: 2067.
- Blanco, I., Diego, I., Bueno, P., Maldonado, F.C. and Miravittles, M. 2019, Geographic distribution of COPD prevalence in the World displayed by Geographic Information System maps, *European Respiratory Journal*.
- Bonini, M. and Usmani, O. S., 2015, The importance of inhaler devices in the treatment of COPD, *COPD Research and Practice*, **1**: 1-9.
- Broaddus, V.C., Mason, R.C., Ernst, J.D., King Jr, T. E., Lazarus, S. C., Murray, J. F. and Nadel, J.A. 2016. Murray and Nadel's Textbook of Respiratory Medicine. *Elsevier Health Sciences*, 6th ed, 3-92.
- Chen, C. H., Lai, C. C., Wang, Y. H., Wang, C. Y., Wang, H. C., Yu, C. J. and Chen, L. 2018, The Impact of Sepsis on the Outcomes of COPD Patients: A Population-Based Cohort Study. *Journal of clinical medicine*, **7(11)**: 393.
- DITJEN P2P, 2015, *Rencana Aksi Program Pengendalian Penyakit dan Penyehatan Lingkungan*, Jakarta: Direktorat Jendral Pengendalian Penyakit dan Penyehatan Lingkungan.
- Dong, Y. H., Hsu, C. L., Li, Y. Y., Chang, C. H. and Lai, M. S. 2015, Bronchodilators use in patients with COPD. *International journal of chronic obstructive pulmonary disease*, **10**: 1769–1779.
- Donohue, J. F., Betts, K. A., Du, E. X., Altman, P., Goyal, P., Keininger, D. L., Signorovitch, J. E. 2017, Comparative efficacy of long-acting β 2-agonists as monotherapy for chronic obstructive pulmonary disease: a network meta-analysis, *International journal of chronic obstructive pulmonary disease*, **12**: 367–381.

- Fabbian, F., De Giorgi, A., Manfredini, F., Lamberti, N., Forcellini, S., Storari, A., Gallerani, M., Caramori, G. and Manfredini, R. 2016, Impact of renal dysfunction on in-hospital mortality of patients with severe chronic obstructive pulmonary disease: a single-center Italian study. *International urology and nephrology*, **48**(7): 1121-1127.
- Faiz, O. and Moffat, D. 2002, *Anatomy at a Glance*, Diterjemahkan dari Bahada Inggris oleh Annisa Rahmalia, Penerbit Erlangga, Jakarta.
- Gaude, G. S., Rajesh, B. P., Chaudhury, A. and Hattiholi, J. 2015, Outcomes associated with acute exacerbations of chronic obstructive pulmonary disorder requiring hospitalization. *Lung India: Official Organ of Indian Chest Society*, **32**(5): 465.
- GOLD, 2018, Global Strategy for The Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease, USA: Global Initiative for Chronic Obstructive Lung Disease, Inc.
- GOLD, 2019, Pocket Guide To COPD Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease, USA: Global Initiative for Chronic Obstructive Lung Disease, Inc.
- Kaushal, M., Shah, P. S., Shah, A. D., Francis, S. A., Patel, N. V. and Kothari, K. K. 2016, Chronic obstructive pulmonary disease and cardiac comorbidities: A cross-sectional study. *Lung India: official organ of Indian Chest Society*, **33**(4): 404.
- Masturoh, I. dan Anggita, N.T. 2018, Metodologi Penelitian Kesehatan, *Pusat Pendidikan Sumber Daya Manusia*.
- Park, S. B., and Khattar, D. 2019, Tachypnea. StatPearls Publishing, Treasure Island
- Singh, D., Zhu, C. Q., Sharma, S., Church, A. and Kalberg, C. J. 2015, Daily variation in lung function in COPD patients with combined albuterol and ipratropium: results from a 4-week, randomized, crossover study. *Pulmonary Pharmacology & Therapeutics*, **31**: 85-91.
- Standring, S. 2016, 'Thorax', in Spratt, J. D., Gray's Anatomy *The Anatomical Basis of Clinical Practice*, 41st ed., Elsevier, Canada, pp 953-966.
- Seeley, R., Regan, J., and Russo, A. 2011. Seeley's Anatomy & Physiology, 10th edition, Mc Graw Hill, New York, 811-857.

- Spina, D., and Page, C. P. 2016, Xanthines and phosphodiesterase inhibitors. In *Pharmacology and Therapeutics of Asthma and COPD*. Springer, Cham, pp 63-91.
- Suissa, S., Dell’Aniello, S., Ernst, P. 2018, Comparative effectiveness of LABA-ICS versus LAMA as initial treatment in COPD targeted by blood eosinophils: a population-based cohort study, *The Lancet Respiratory Medicine*.
- Taherdoost, Hamed. 2016, Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. Available at SSRN: <https://ssrn.com/abstract=3205035> or <http://dx.doi.org/10.2139/ssrn.3205035>
- Thomas, V., Gefen, E., Gopalan, G., Mares, R., McDonald, R., Ming, S. W. and Price, D. B. 2017, Ipratropium/Salbutamol Comparator Versus Originator for Chronic Obstructive Pulmonary Disease Exacerbations: USA Observational Cohort Study Using the Clinformatics TM Health Claims Database.
- Vanfleteren, L., Fabbri, L. M., Papi, A., Petruzzelli, S., and Celli, B. 2018, Triple therapy (ICS/LABA/LAMA) in COPD: time for a reappraisal. *International journal of chronic obstructive pulmonary disease*, **13**: 3971–3981.
- Waugh, A. and Grant, A. 2014, *Ross and Wilson: Anatomy & Physiology in Health and Illness*, 12th ed., Elseiver, London.
- Weinberger, S. 2014. *Pulmonary Anatomy and Physiology: The Basic in Principle of Pulmonary Medicine*. Elsevier, London.
- WHO, 2019. *Borden of COPD*. Chronic respiratory diseases. Diakses 18 Agustus 2019. <https://www.who.int/respiratory/copd/burden/en/>,
- Williams, D.M. And Bourdet, S.V. 2015, ‘Respiratory Disorders: Chronic Obstructive Pulmonary Disease’, in Schwinghammer, T.L., *Pharmacotherapy Handbook: A Approach*, 9th ed, MC Graw-Hill, New York, pp 835-843.
- Yokoba, M., Ichikawa, T., Takakura, A., Ishii, N., Kurosaki, Y., Yamada, Y., Tsukushi, T., Masuda, N., Easton, P. A. and Katagiri, M. 2015, Aminophylline increases respiratory muscle activity during hypercapnia in humans. *Pulmonary pharmacology & therapeutics*, **30**: 96-101.

Zulkarni, R., Nessa, N., and Athifah, Y. 2019, Analisis Ketepatan Pemilihan dan Penentuan Regimen Obat pada Pasien Penyakit Paru Obstruktif Kronis (PPOK). *Jurnal Sains Farmasi & Klinis*, **6(2)**: 158-163.