

BAB 5

KESIMPULAN DAN SARAN

5.1. Kesimpulan

Setelah melaksanakan praktik kerja profesi apoteker di apotek maka dapat ditarik kesimpulan sebagai berikut:

1. Memperoleh gambaran dalam pelayanan kefarmasian di apotek sesuai standar dan kode etik sehingga meningkatkan profesionalisme dan integritas.
2. Memperoleh gambaran nyata mengenai aspek manajerial dalam pengelolaan apotek serta proses administrasi yang mendukung operasional apotek.
3. Memperoleh pengalaman langsung dalam berkomunikasi dengan pasien untuk memberikan pelayanan yang informatif dan berorientasi pada keselamatan pasien.

5.2. Saran

Setelah melaksanakan praktik kerja profesi apoteker di apotek maka saran yang diberikan pada calon apoteker adalah sebagai berikut:

1. Harus mempersiapkan diri sebelum PKPA seperti memahami praktik manajerial dan klinis serta aspek hukum dan etik agar proses diskusi atau bimbingan dapat berjalan dengan lancar serta implementasinya sesuai.
2. Harus meningkatkan kemampuan komunikasi dan kompetensi kefarmasian agar pelayanan kefarmasian lebih efektif dan berorientasi pada keselamatan pasien.

DAFTAR PUSTAKA

- American Society of Health-System Pharmacists. 2011, *AHFS Drug Information*, United States of America.
- Aslam, M., Kulasekaran, A., Maraula, G., Coutinho, G., Jacobs, L. & Bopanna, K. 2023, The key role of vitamin C and zinc in throat health and the benefits of regular fortified lozenge use in counteracting discomfort. *International Journal of Medical and Health Research*, **9(1)**: 58–67.
- Azhar, M., Alasmari, M.S., Zamir, A., Saeed, H., Alqahtani, F., Ahmad, T. & Rasool, M.F. 2025, The clinical pharmacokinetics and pharmacodynamics of glimepiride-A systematic review and meta-analysis, *Pharmaceuticals*, **18(1)**.
- Badan Pengawas Obat dan Makanan. 2019, *Peraturan Badan Pengawas Obat dan Makanan Nomor 11 Tahun 2019 tentang Pedoman Pengelolaan Obat-Obat Tertentu yang Sering Disalahgunakan*, Jakarta.
- Badan Pengawas Obat dan Makanan. 2021, *Peraturan Badan Pengawas Obat dan Makanan Nomor 24 Tahun 2021 tentang Pengawasan Pengelolaan Obat, Bahan Obat, Narkotika, Psikotropika, dan Prekursor Farmasi di Fasilitas Pelayanan Kefarmasian*, Jakarta.
- Badan Pengawas Obat dan Makanan. 2022, *Peraturan Badan Pengawas Obat dan Makanan Nomor 14 Tahun 2022 tentang Penarikan dan Pemusnahan Obat yang Tidak Memenuhi Standar dan/atau Persyaratan Keamanan, Khasiat, Mutu, dan Label*, Jakarta.
- Blenkinsopp, Alison., Duerden, Martin., and Blenkinsopp, John. 2022, *Symptoms in the Pharmacy: A Guide to the Management of Common Illnesses, 9th edition*, Wiley Blackwell.
- Borek, AJ, Edwards, G, Santillo, M, Wanat, M, Glogowska, M, Butler, CC, Walker, AS, Hayward, G & Tonkin-Crine. 2023, Re-examining advice

- to complete antibiotic courses: a qualitative study with clinicians and patients, *BJGP Open*, **7(1)**: 1–10
- Brayfield, A. 2014, *Martindale: The Complete Drug Reference*. 38th ed. London: Pharmaceutical Press.
- British National Formulary. 2023, *British National Formulary* 85. London: BMJ Publishing Group.
- British National Formulary for Children. 2019-2020, *BNF for Children 2019-2020*. London: BMJ Group and Pharmaceutical Press.
- Dhaifallah, H. 2025, Azithromycin: A Pharmaceutical Studies & Mechanisms of Action, *International Journal of Pharmaceutical Sciences*, **3(1)**: 376–389.
- DiPiro, J.T., Yee, G.C., Haines, S.T., Nolin, T.D., Ellingrod, V.L. and Posey, L.M. 2023, *DiPiro's Pharmacotherapy: A Pathophysiologic Approach*. 12th ed. New York: McGraw Hill LLC.
- Dominic, M., Srivastava, R., Shah, K., Naik, S.M., Rout, K., Ray, B., Patil, D. & Rana, D. 2025, Azithromycin in the Management of Upper Respiratory Tract Infections (URTIs): Indian Real- Life Experience. *Infection and Drug Resistance*, **18**: 523–531.
- DrugBank. 2023, *Methylprednisolone: Uses, Interactions, Mechanism of Action*. [online] Available at: <https://go.drugbank.com/drugs/DB00959> [Accessed 11 May 2025].
- Drugs.com. 2025a, *Clopidogrel and Glimepiride Interactions*. [online] Available at <https://www.drugs.com/drug-interactions/clopidogrel-with-glimepiride-705-0-1176-0.html> [Accessed 11 May 2025].
- Drugs.com. 2025b, *Cilostazol and Plavix (clopidogrel) Interactions*. [online] Available at: <https://www.drugs.com/drug-interactions/cilostazol-with-plavix-668-0-705-360.html> [Accessed 11

May 2025].

Drugs.com. 2025c, *Paracetamol side effects: Common, severe, long term.*

[online] Available at:

<https://www.drugs.com/sfx/paracetamol-side-effects.html> [Accessed 11 May 2025].

Drugs.com. 2025d, *Triamcinolone: Uses, Dosage, Side Effects, Warnings.*

[online] Available at: <https://www.drugs.com/triamcinolone.html>

[Accessed 13 May 2025].

Glashan, E. & Mahmoud, S.H. 2019, Cough, in S.H. Mahmoud (ed.) *Patient Assessment in Clinical Pharmacy*. Springer Nature Switzerland AG, pp. 67–89.

Głowacka, K. & Wiela-Hojeńska, A. 2021, Pseudoephedrine-Benefits and Risks. *International Journal of Molecular Sciences*, **22(10)**.

Graham, G.G., Davies, M.J., Day, R.O., Mohamudally, A. & Scott, K.F. 2013, The modern pharmacology of paracetamol: therapeutic actions, mechanism of action, metabolism, toxicity and recent pharmacological findings. *Inflammopharmacology*, **21(3)**: 201–232.

He, Y.-L. 2012, Clinical pharmacokinetics and pharmacodynamics of vildagliptin. *Clinical Pharmacokinetics*, **51(3)**: 147–162.

Hermida, R.C., Ayala, D.E. & Calvo, C. 2007, Optimal timing for antihypertensive dosing: focus on valsartan. *Therapeutics and Clinical Risk Management*, **3(1)**: 119–131.

Huang, X., Bao, H., Ding, C., Li, J., Cao, T., Liu, L., Wei, Y., Zhou, Z., Zhang, N., Song, Y., Chen, P., Jiang, C., Xie, L., Qin, X., Zhang, Y., Li, J., Sun, N., Tang, G., Wang, X., Wang, H., Huo, Y. & Cheng, X. 2024, Optimal folic acid dosage in lowering homocysteine: Precision Folic Acid Trial to lower homocysteine (PFAT-Hcy), *European Journal of Nutrition*, **63**: 1513–1528.

- James, P.A., Oparil, S., Carter, B.L., Cushman, W.C., Dennison-Himmelfarb, C., Handler, J., Lackland, D.T., LeFevre, M.L., MacKenzie, T.D., Ogedegbe, O., Smith, S.C. Jr, Svetkey, L.P., Taler, S.J., Townsend, R.R., Wright, J.T. Jr & Ortiz, E. 2014, 2014 evidence-based guideline for the management of high blood pressure in adults: Report from the panel members appointed to the Eighth Joint National Committee (JNC 8), *JAMA*, **311(5)**: 507–520.
- Kalantzi, K. et al. 2021, Efficacy and safety of adjunctive cilostazol to clopidogrel-treated diabetic patients with symptomatic lower extremity artery disease in the prevention of ischemic vascular events, *Journal of the American Heart Association*
- Kantar, A., Klimek, L., Cazan, D., Sperl, A., Sent, U. & Mesquita, M. 2020, An overview of efficacy and safety of ambroxol for the treatment of acute and chronic respiratory diseases with a special regard to children. *Multidisciplinary Respiratory Medicine*, **15**.
- Katzung, B.G. 2018, *Basic & Clinical Pharmacology. 14th ed.* New York: McGraw-Hill Education.
- Kurtovic, J. and Riordan, S.M. 2003, Paracetamol-induced hepatotoxicity at recommended dosage. *Journal of Internal Medicine*, **253(2)**: 240–243.
- Lacy, C.F., Armstrong, L.L., Goldman, M.P. & Lance, L.L. 2008, *Drug Information Handbook. 17th ed.* Hudson, OH: Lexi- Comp and American Pharmacists Association.
- Lentz, S.R. 2005, Mechanisms of homocysteine-induced atherothrombosis, *Journal of Thrombosis and Haemostasis*, **3(8)**: 1646–1654.
- Lewanczuk, R. & Tobe, S.W. 2007, More medications, fewer pills: Combination medications for the treatment of hypertension. *Canadian Journal of Cardiology*, **23(7)**: 547-551
- Li, Y., Huang, T., Zheng, Y., Muka, T., Troup, J. & Hu, F.B. 2016, Folic acid

supplementation and the risk of cardiovascular diseases: A meta-analysis of randomized controlled trials, *Journal of the American Heart Association*, **5(7)**.

Majelis Etik dan Disiplin Apoteker Indonesia. 2022, *Kode Etik dan Pedoman Disiplin Apoteker Indonesia*, Jakarta: Majelis Etik dan Disiplin Apoteker Indonesia.

Maruyama, H., Fukuoka, T., Deguchi, I., Ohe, Y., Nagoya, H., Kato, Y., Horiuchi, Y., Hayashi, T. & Tanahashi, N. 2013, Dual antiplatelet therapy clopidogrel with low-dose cilostazol intensifies platelet inhibition in patients with ischemic stroke, *Internal Medicine*, **52(10)**: 1043–1047.

Menkes RI. 2016, *Peraturan Menteri Kesehatan Republik Indonesia Nomor 73 Tahun 2016 tentang Standar Pelayanan Kefarmasian di Apotek*, Jakarta: Republik Indonesia.

Menkes RI. 2017, *Peraturan Menteri Kesehatan Republik Indonesia Nomor 9 Tahun 2017 tentang Apotek*, Jakarta: Republik Indonesia.

Menkes RI. 2018, *Peraturan Menteri Kesehatan Republik Indonesia Nomor 26 Tahun 2018 tentang Pelayanan Perizinan Berusaha Terintegrasi secara Elektronik Sektor Kesehatan*, Jakarta: Republik Indonesia.

Menkes RI. 2021, *Peraturan Menteri Kesehatan Republik Indonesia Nomor 14 Tahun 2021 tentang Standar Kegiatan Usaha dan Produk pada Penyelenggaraan Perizinan Berusaha Berbasis Risiko Sektor Kesehatan*, Jakarta: Republik Indonesia.

Menkes RI. 2023, *Peraturan Menteri Kesehatan Republik Indonesia Nomor 5 Tahun 2023 tentang Narkotika, Psikotropika, dan Prekursor Farmasi*, Jakarta: Republik Indonesia.

Menkes RI. 2022, *Peraturan Menteri Kesehatan Republik Indonesia Nomor*

- 28 Tahun 2022 tentang Perubahan Penggolongan, Pembatasan, dan Kategori Obat, Jakarta: Republik Indonesia. Menkes RI. 1993, *Keputusan Menteri Kesehatan Republik Indonesia Nomor: 925/MENKES/PER/X/1993 tentang Daftar Perubahan Golongan Obat No. 1*, Jakarta: Republik Indonesia.
- Menkes RI. 1997, *Keputusan Menteri Kesehatan Republik Indonesia Nomor: 1527/Men.Kes/SK/XII/1997 tentang Daftar Perubahan Golongan Obat No. 2*, Jakarta: Republik Indonesia.
- Menkes RI. 1999, *Keputusan Menteri Kesehatan Republik Indonesia Nomor: 1175/Menkes/SK/X/1999 tentang Daftar Perubahan Golongan Obat No. 3*, Jakarta: Republik Indonesia.
- MIMS. 2025, *Bisoprolol: Drug Information*, [online], <https://www.mims.com/indonesia/drug/info/bisoprolol/patientmedicine/patientmedicine>, [Accessed 15 May 2025]. MIMS Indonesia. 2025a, *Ambroxol: Drug Information*. [online] Available at: <https://www.mims.com/indonesia/drug/info/ambroxol/> [Accessed 11 May 2025].
- MIMS Indonesia. 2025b, *Azithromycin: Drug Information*. [online] Available at: <https://www.mims.com/indonesia/drug/info/azithromycin/azithromycin>. [Accessed 15 May 2025].
- MIMS Indonesia. 2025c, *Cilostazol: Drug Information*, [online], <https://www.mims.com/indonesia/drug/info/cilostazol?mtype=generic> [Accessed 15 May 2025].
- MIMS Indonesia. 2025d, *Clopidogrel: Drug Information*. [online] Available at:

- <https://www.mims.com/indonesia/drug/info/clopidogrel?mtype>
[Accessed 11 May 2025].
- MIMS Indonesia. 2025e, *Methylprednisolone: Patient Medicine Information*. [online] Available at:
<https://www.mims.com/indonesia/drug/info/methylprednisolone/patientmedicine/patientmedicine> [Accessed 11 May 2025]
- MIMS Indonesia, 2025f. *Pseudoephedrine*. [online] Available at:
<https://www.mims.com/indonesia/drug/info/pseudoephedrine>
[Accessed 13 May 2025].
- MIMS Indonesia. 2025g, *Vildagliptin: Drug Information*, [online],
<https://www.mims.com/indonesia/drug/info/vildagliptin?mtype=generic>, [Accessed 15 May 2025].
- Nimkar, A.P., Phuse, A.S., Somnathe, D.N., Kohale, N.B. & Sawarkar, H.S. 2024, Exploring Paracetamol: A Review Of Clinical Efficacy, Safety & Future Directions. *International Journal of Creative Research Thoughts (IJCRT)*, **12(11)**: e285–e291.
- Perkeni. 2021, *Pedoman Pengelolaan dan Pencegahan Diabetes Melitus Tipe 2 di Indonesia 2021*, PB. Perkeni.
- Poznyak, A.V., Litvinova, L., Poggio, P., Sukhorukov, V.N. & Orekhov, A.N. 2022, Effect of Glucose Levels on Cardiovascular Risk. *Cells*, **11(19)**.
- Presiden Republik Indonesia. 2011, *Undang-Undang Republik Indonesia Nomor 24 Tahun 2011 tentang Badan Penyelenggara Jaminan Sosial*, Jakarta.
- Presiden Republik Indonesia. 2023, *Undang-Undang Republik Indonesia Nomor 17 Tahun 2023 tentang Kesehatan*, Jakarta. Preston, C.L. 2015, *Stockley's Drug Interactions Pocket Companion*. London:

Pharmaceutical Press.

- Ruiz, B., Romo, K.G., Teruel, J., Dendy, J. & Iqbal, Q.Z. 2022, A case of hypoglycemia with concomitant use of a sulfonylurea and clopidogrel, *Cureus*, **14**(6).
- Siddiqui, N., Husain, A., Chaudhry, L., Alam, M.S., Mitra, M. & Bhasin, P.S. 2011, Pharmacological and pharmaceutical profile of valsartan: A review, *Journal of Applied Pharmaceutical Science*, **1**(4): 12–19.
- Soyoye, D.O., Abiodun, O.O., Ikem, R.T., Kolawole, B.A. & Akintomide, A.O. 2021, Diabetes and peripheral artery disease: A review. *World Journal of Diabetes*, **12**(6): 827-838. StatPearls. 2024, *Bisoprolol*. [online] *NCBI Bookshelf*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK551623/> [Accessed 11 May 2025].
- StatPearls, 2025a, *Loratadine*. [online] Available at: <https://www.ncbi.nlm.nih.gov/books/NBK542278/> [Accessed 13 May 2025].
- StatPearls, 2025b, *Triamcinolone*. [online] Available at: <https://www.ncbi.nlm.nih.gov/sites/books/NBK544309/> [Accessed 13 May 2025].
- Wang, Y., Jin, Y., Wang, Y., Li, L., Liao, Y., Zhang, Y. & Yu, D. 2019, The effect of folic acid in patients with cardiovascular disease: A systematic review and meta-analysis, *Medicine*, **98**(37).