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DAFTAR PUSTAKA

Akalu, Y. dan Birhan, A., 2020. Peripheral Arterial Disease and Its Associated Factors among Type 2 Diabetes Mellitus Patients at Debre Tabor General Hospital, Northwest Ethiopia. *Journal of Diabetes Research*, **2020**: 1–9.

Alay, H., Laloglu, E., dan Kesmez Can, F., 2021. An evaluation of ischaemia-modified albumin levels in the development of diabetic foot ulcer. *International Journal of Clinical Practice*, **75**:

Agistia, N., Mukhtar, H., dan Nasif, H., 2017. Efektifitas Antibiotik pada Pasien Ulkus Kaki Diabetik. *Jurnal Sains Farmasi & Klinis*, **4**: 43.

American Diabetes Association, 2022. *Standards of Medical Care in Diabetes—2022* Abridged for Primary Care Providers. *Clinical Diabetes*, **40**: 10–38.

Amadou, C., Carlier, A., Amouyal, C., Bourron, O., Aubert, C., Couture, T., dkk., 2020. Five-year mortality in patients with diabetic foot ulcer during 2009–2010 was lower than expected. *Diabetes & Metabolism*, **46**: 230–235.

Ansari, P., Akther, S., Khan, J.T., Islam, S.S., Masud, Md.S.R., Rahman, A., dkk., 2022. Hyperglycaemia-Linked Diabetic Foot Complications and Their Management Using Conventional and Alternative Therapies. *Applied Sciences*, **12**: 11777.

Al-Rubeaan, K., Al Derwish, M., Ouizi, S., Youssef, A.M., Subhani, S.N., Ibrahim, H.M., dkk., 2015. Diabetic Foot Complications and Their Risk Factors from a Large Retrospective Cohort Study. *PLOS ONE*, **10**: e0124446.

Armstrong, D.G., Boulton, A.J.M., dan Bus, S.A., 2017. Diabetic Foot Ulcers and Their Recurrence. *New England Journal of Medicine*, **376**: 2367–2375.

Aragón-Sánchez, J., Víquez-Molina, G., López-Valverde, M.E., Aragón-Hernández, C., Aragón-Hernández, J., dan Rojas-Bonilla, J.M., 2025. Clinical Features, Inflammatory Markers, and Limb Salvage in Older Adults with Diabetes-Related Foot Infections. *The International Journal of Lower Extremity Wounds*, **24**: 212–218.

Arya, A., Garg, S., Kumar, S., Meena, L., dan Tripathi, K., 2013. Estimation of lymphocyte apoptosis in patients with chronic, non healing diabetic foot ulcer. *International Journal of Medical Science and Public Health*, **2**: 811.

Aumiller, W.D. dan Harry, A. D., 2015. Pathogenesis and management of diabetic foot ulcers. *Journal of the American Academy of Physician Assistants*, **28**: 28–34.

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Aviatin, M., Sauriasari, R., Yunir, E., dan Risni, H.W., 2023. Evaluation of the Use of Antimicrobial Therapy for Treating Diabetic Foot Infections in an Indonesia Referral Hospital: A Retrospective Cohort Study. *Infection & Chemotherapy*, **55**: 80.

Atik, S. W., Ika, P. S., 2020. Hubungan Rasionalitas Penggunaan Antibiotik Terhadap Outcome Klinik Pada Pasien Ulkus Diabetik Bangsal Rawat Inap di RSUP Dr. Sardjito Yogyakarta. *Tesis*, MClinPharm., Universitas Gadjah Mada, Yogyakarta.

Badan Pusat Statistik, 2025. Indeks Harga Konsumen 150 Kabupaten/Kota di Indonesia Tahun 2024. Jakarta: BPS RI.

Bahati, R., Kitua, D., Selestine, L., Mwanga, A., Urio, M., Mchele, G., dkk., 2025. Factors influencing the severity of diabetic foot ulcers: a cross-sectional study. *BMC Endocrine Disorders*, **25**: 76.

Baty, M., Chimoriya, R., James, S., Kritharides, L., Behdasht, S., Suryawanshi, A., dkk., 2025. Diabetes in Peripheral Artery Disease: Prevalence, Complications, and Polypharmacy. *Journal of Clinical Medicine*, **14**: 1383.

Bennett, K. D., Nasqidashvili, T., Saunders, J., Swaby, L., dan Wilson, C., 2021. A Retrospective Study of the Microbiology of Diabetic Foot Infections at a Community Hospital in Bermuda. *International Journal of Diabetes and Endocrinology*, **6**: 76.

Bhonsle, H.S., Korwar, A.M., Kote, S.S., Golegaonkar, S.B., Chougale, A.D., Shaik, M.L., dkk., 2012. Low Plasma Albumin Levels Are Associated with Increased Plasma Protein Glycation and HbA1c in Diabetes. *Journal of Proteome Research*, **11**: 1391–1396.

Boulton, A., Armstrong, D., Krisner, R., Attinger, C., Lavery, L., Lipsky, B., dkk., 2018. Diagnosis and Management of Diabetic Foot Complications. *ADA Clinical Compendia*, **2018**: 1–20.

Boulton, A.J.M., Armstrong, D.G., Albert, S.F., Frykberg, R.G., Hellman, R., Kirkman, M.S., dkk., 2008. Comprehensive Foot Examination and Risk Assessment. *Diabetes Care*, **31**: 1679–1685.

Bonnet, E., Maulin, L., Senneville, E., Castan, B., Fourcade, C., Loubet, P., dkk., 2024. Clinical practice recommendations for infectious disease management of diabetic foot infection (DFI) – 2023 SPILF. *Infectious Diseases Now*, **54**: 104832.

Burgess, J.L., Wyant, W.A., Abdo Abujamra, B., Kirsner, R.S., dan Jozic, I., 2021. Diabetic Wound-Healing Science. *Medicina*, **57**: 1072.

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Cao, J., Wang, J., Zhang, S., dan Gao, G., 2024. Association between anemia and diabetic lower extremity ulcers among US outpatients in the National Health and Nutrition Examination Survey: a retrospective cross-sectional study. *Frontiers in Endocrinology*, **15**: 1387218.

Chand, G., Mishra, A.K., Kumar, S., dan Agarwal, A., 2012. Diabetic foot. *Clinical Queries: Nephrology*, **1**: 144–150.

Choi, S. K., Cheol, K. K., Dong, I. J., Myung, C. L., Jee, N. K., Hyun, G. C., Dong, H. S., Soon, H. K., 2022, Factors Associated.With A Prolonged Length Of Hospital Stay In Patients With Diabetic Foot: A Single-Center Retrospective Study. *Archieves of Plastic Surgery. 44: 539.544.*

Callaghan, B.C., Xia, R., Reynolds, E., Banerjee, M., Rothberg, A.E., Burant, C.F., dkk., 2016. Association Between Metabolic Syndrome Components and Polyneuropathy in an Obese Population. *JAMA Neurology*, **73**: 1468.

Carcione, D., Siracusa, C., Sulejmani, A., Leoni, V., dan Intra, J., 2021. Old and New Beta-Lactamase Inhibitors: Molecular Structure, Mechanism of Action, and Clinical Use. *Antibiotics*, **10**: 995.

Ciarambino, T., Crispino, P., Leto, G., Mastrolorenzo, E., Para, O., dan Giordano, M., 2022. Influence of Gender in Diabetes Mellitus and Its Complication. *International Journal of Molecular Sciences*, **23**: 8850.

Clay, P.G., Graham, M.R., Lindsey, C.C., Lamp, K.C., Freeman, C., dan Glaros, A., 2004. Clinical efficacy, tolerability, and cost savings associated with the use of open-label metronidazole plus ceftriaxone once daily compared with ticarcillin/clavulanate every 6 hours as empiric treatment for diabetic lower-extremity infections in older males. *The American Journal of Geriatric Pharmacotherapy*, **2**: 181–189.

Clayton, W. dan Tom, A. E., 2009. A Review of the Pathophysiology, Classification, and Treatment of Foot Ulcers in Diabetic Patients. *Clinical Diabetes*, **27**: 52–58.

Crass, R.L. dan Manjunath, P. P., 2019. Pharmacokinetics and Pharmacodynamics of β-Lactamase Inhibitors. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy*, **39**: 182–195.

Dardari, D., Franc, S., Charpentier, G., Orlando, L., Bobony, E., Bouly, M., Xhaard, I., Amrous, Z., Ly Sall, K., Detournay, B., Penfornis, A., 2023. Hospital stays and costs of telemedical monitoring versus standard follow- up for diabetic foot ulcer: an open-label randomised controlled study. *The Lancet Regional Health - Europe*, **32**: 100686.

Dinh, T.L. dan Veves, A., 2005. A Review of the Mechanisms Implicated in the

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Pathogenesis of the Diabetic Foot. *The International Journal of Lower Extremity Wounds*, **4**: 154–159.

DiPiro, J.T., Yee, G. C., Posey, L. M., Haines, S. T., Nolin, T. D., Ellingrod, V. 2020. Pharmacotherapy: A Pathophysiologic Approach, Eleventh edition. ed. *McGraw Hill Medical*, New York.

Dominic, D., Ramani, P. T., Sajan, M. G., 2024.Antibiotic Prescribing Trends In Diabetic Foot Infections: A Study From A Tertiary Care Hospital In Kerala. *International Journal of Academic Medicine and Pharmacy*. 6: 522-527.

Etebu, E. dan Arikekpar, I., 2016. Antibiotics: Classification and mechanisms of action with emphasis on molecular perspectives. *International Journal of Applied Microbiology and Biotechnology Research.* 4 : 90-101.

Ezeani, I.U., Ugwu, E.T., Adeleye, F.O., Gezawa, I.D., Okpe, I.O., dan Enamino, M.I., 2020. Determinants of wound healing in patients hospitalized for diabetic foot ulcer: results from the MEDFUN study. *Endocrine Regulations*, **54**: 207–216.

Edwards, D. I, 1993. Nitrimidazole Drugs – Action and Resistance Mechanism of Action. *Journal of Antimicrobial Chemotherapy.* 31: 9-20.

Fan, Z., Liu, Y., Xie, H., Yang, Q., Zhang, G., Zhang, P., dkk., 2025. Analysis of risk factors for foot ulcers in diabetes patients with neurovascular complications. *BMC Public Health*, **25**: 792.

Frykberg, R.G., Zgonis, T., Armstrong, D.G., Driver, V.R., Giurini, J.M., Kravitz, S.R., dkk., 2006. Diabetic Foot Disorders: A Clinical Practice Guideline (2006 Revision). *The Journal of Foot and Ankle Surgery*, **45**: S1–S66.

Ghobadi, A., Ahmadi Sarbarzeh, P., Jalilian, M., Abdi, A., dan Manouchehri, S., 2020. Evaluation of Factors Affecting the Severity of Diabetic Foot Ulcer in Patients with Diabetes Referred to a Diabetes Centre in Kermanshah. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy*, **Volume 13**: 693–703

Gupta, N., Rohan, V., Radha, K. D., Kavitha, R., Shankar, P. 2020. Cost-Effectiveness Analysis and Decision Modelling: A Tutorial for Clinicians. *Jornal of Clinical and Experimental Hepatology.* **10**(2): 177-184.

Handayani R. 2020. Metodologi Penelitian Sosial. Yogyakarta : Truss Media Grafika.

Hadi, P., Rampal, S., Neela, V.K., Cheema, M.S., Sarawan Singh, S.S., Kee Tan, E., Sinniah, A., 2023. Distribution of Causative Microorganisms in Diabetic Foot Infections: A Ten-Year Retrospective Study in a Tertiary Care Hospital in Central Malaysia. *Antibiotics*, **12**: 687.

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Harkless, L., Boghossian, J., Pollak, R., Caputo, W., Dana, A., Gray, S., dkk., 2005. An Open-Label, Randomized Study Comparing Efficacy and Safety of Intravenous Piperacillin/Tazobactam and Ampicillin/Sulbactam for Infected Diabetic Foot Ulcers. *Surgical Infections*, **6**: 27–40.

Harris, C.M., Abougergi, M.S., dan Wright, S.M., 2019. Clinical outcomes among morbidly obese patients hospitalized with diabetic foot complications. *Clinical Obesity*, **9**: e12285.

Hicks, C.W., Selvarajah, S., Mathioudakis, N., Sherman, R.L., Hines, K.F., Black, J.H., Abularrage, C. J., 2016. Burden of Infected Diabetic Foot Ulcers on Hospital Admissions and Costs. *Annals of Vascular Surgery*, **33**: 149–158.

Hicks, C.W. dan Elizabeth, S., 2019. Epidemiology of Peripheral Neuropathy and Lower Extremity Disease in Diabetes. *Current Diabetes Reports*, **19**: 86.

Hu, Y., Bakhotmah, B.A., Alzahrani, O.H., Wang, D., Hu, F.B., dan Alzahrani, H.A., 2014. Predictors of diabetes foot complications among patients with diabetes in Saudi Arabia. *Diabetes Research and Clinical Practice*, **106**: 286–294.

Hsu, L., Le, L., Lee, Y. P., 2023. Analysis of Risk Factor of Infection in Diabetic Foot Patients. *International Wound Journal.* 1-17.

Iversen, M.M., Tell, G.S., Riise, T., Hanestad, B.R., Østbye, T., Graue, M., dkk., 2009. History of Foot Ulcer Increases Mortality Among Individuals With Diabetes. *Diabetes Care*, **32**: 2193–2199.

Jarosiková, R., Adla, T., Turza, P., Dubsky, M., Wosková, V., Sojáková, D., dkk., 2025. Small Artery Disease as a Predictor of Wound Healing in Patients with Diabetic Foot After Revascularization. *The International Journal of Lower Extremity Wounds*, 15347346251323938.

Jeyaraman, K., Berhane, T., Hamilton, M., Chandra, A.P., dan Falhammar, H., 2019. Mortality in patients with diabetic foot ulcer: a retrospective study of 513 cases from a single Centre in the Northern Territory of Australia. *BMC Endocrine Disorders*, **19**: 1.

Jia, G. dan James, R. S., 2021. Hypertension in Diabetes: An Update of Basic Mechanisms and Clinical Disease. *Hypertension*, **78**: 1197–1205.

Jia, L., Parker, C.N., Parker, T.J., Kinnear, E.M., Derhy, P.H., Alvarado, A.M., dkk., 2017. Incidence and risk factors for developing infection in patients presenting with uninfected diabetic foot ulcers. *PLOS ONE*, **12**: e0177916.

Jodheea-Jutton, A., Hindocha, S., dan Bhaw-Luximon, A., 2022. Health economics of diabetic foot ulcer and recent trends to accelerate treatment. *The Foot*, **52**: 101909.

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
Alfita Rahmawati, Prof. Dr. apt. Tri Murti Andayani, Sp. FRS; Dr. apt. Nanang Munif Yasin, M.Pharm
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Kemenkes. 2020. Pedoman Nasional Pelayanan Kedokteran Tatalaksana DM tipe 2 Dewasa. Jakarta : Kemenkes RI.

Kemenkes RI. 2013. Buku Pedoman Farmakoekonomi. Jakarta: Kemenkes RI.

Kemenkes RI. 2019. Laporan Nasional RISKESDAS 2018. Jakarta: Kemenkes RI.

Kemenkes RI. 2020. Modul Pelatihan Analisis Farmakoekonomi di Pelayanan Kesehatan. Jakarta : Kemenkes RI

Kemenkes RI. 2021. PMK No. 28 Th 2021 ttg Pedoman Penggunaan Antibiotik. Jakarta: Kemenkes RI.

Kim, D. D., Anirban, B. 2021. How Does Cost-Effectiveness Analysis Inform Health Care Decision. *AMA Journal of Ethic.* 23(8): E639-647.

Kim, T. G., Sang, Y. M., Moon, S. P., Soon, S. K., Ki, J. J., Taesung, L., Baek, K. K., Chan, Y., Kyoung, M. L., . 2015. Factors Affecting Length of Hospital.Stay and Mortality in Infected Diabetic Foot Ulcers Undergoing Surgical Drainage without Major Amputation. *Journal Korean Medical Science.* 31: 120-124.

Kumar, R., Singh, S.K., Agrawal, N.K., Kumar, U., Kumar, S., C, S., dkk., 2023. The Prevalence of Anemia in Hospitalized Patients With Diabetic Foot Ulcer (DFU) and the Relationship Between the Severity of Anemia and the Severity of DFU. *Cureus*.

Lavery, L.A., Armstrong, D.G., Wunderlich, R.P., Mohler, M.J., Wendel, C.S., dan Lipsky, B.A., 2006. Risk Factors for Foot Infections in Individuals With Diabetes. *Diabetes Care*, **29**: 1288–1293.

Lemeshow, S. dan World Health Organization (Editor), 1990. *Adequacy of Sample Size in Health Studies*. Published on behalf of the World Health Organization by Wiley ; Distributed in the U.S.A., Canada, and Japan by Liss, Chichester [England] ; New York : New York, NY, USA.

Lee, S.H., Kim, S.H., Kim, K.B., Kim, H.S., dan Lee, Y.K., 2024. Factors Influencing Wound Healing in Diabetic Foot Patients. *Medicina*, **60**: 723.

Lee, Y. M., Pei, R. L., Hon, K. S., 2024. Oral Antidiabetic Therapy Versus Early Insulinization On Glycemic Control In Newly Diagnozed Type 2 Diabetes Patients: A Retrospective Matched Cohort Study. *Scientific Reports*. 14: 1-9.

Leone, F., Morandotti, M. G., Sanna, A., Ravizzola, G., Colombrita, D., Pinzi, G., Turano, R., Menozzi, M. G., Lecchini, R., Viani, I., Avanzini, P., 1990. A Multicentre Study to Evaluate the Effect of Sulbactam/Ampicillin Combination on Anaerobic Micro-organisms. *The Journal of International*

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Medical Research. 18: 191-200.

Lin, C., Liu, J., dan Sun, H., 2020. Risk factors for lower extremity amputation in patients with diabetic foot ulcers: A meta-analysis. *PLOS ONE*, **15**: e0239236.

Lin, C., Tian, J., Zhang, Z., Zheng, C., dan Liu, J., 2025. Risk factors associated with the recurrence of diabetic foot ulcers: A meta-analysis. *PLOS ONE*, **20**: e0318216.

Lipsky, B.A., Armstrong, D.G., Citron, D.M., Tice, A.D., Morgenstern, D.E., dan Abramson, M.A., 2005. Ertapenem versus piperacillin/tazobactam for diabetic foot infections (SIDESTEP): prospective, randomised, controlled, double-blinded, multicentre trial. *The Lancet*, **366**: 1695–1703.

Lipsky, B.A., Senneville, É., Abbas, Z.G., Aragón-Sánchez, J., Diggle, M., Embil, J.M., dkk., 2020. Guidelines on the diagnosis and treatment of foot infection in persons with diabetes (IWGDF 2019 update). *Diabetes/Metabolism Research and Reviews*, **36**: e3280.

Lipsky, B.A., Berendt, A.R., Cornia, P.B., Pile, J.C., Peters, E.J.G., Armstrong, D.G., dkk., 2012. 2012 Infectious Diseases Society of America Clinical Practice Guideline for the Diagnosis and Treatment of Diabetic Foot Infectionsa. *Clinical Infectious Diseases*, **54**: e132–e173.

Lobmann, R., Grünerbel, A., Lawall, H., Lüdemann, C., Morbach, S., Tigges, W., dkk., 2020. Impact of wound duration on diabetic foot ulcer healing: evaluation of a new sucrose octasulfate wound dressing. *Journal of Wound Care*, **29**: 543–551.

Madsen, U. R., Hyldig, N., Juel, K. 2022. Outcome in Patients With Chronic Leg Wounds in Denmark: A Nationwide Register-based Cohort Study. *International Wound Journal.* 19: 156-168.

Magliano, D. J. dan Boyko, E.J., 2021. IDF Diabetes Atlas 10th Edition. Brussels: International Diabetes Federation.

Matsuura, G.T. dan Barg, N., 2013. Update on the Antimicrobial Management of Foot Infections in Patients With Diabetes. *Clinical Diabetes*, **31**: 59–65.

Mansour, A., Mousa, M., Abdelmannan, D., Tay, G., Hassoun, A., dan Alsafar, H., 2023. Microvascular and macrovascular complications of type 2 diabetes mellitus: Exome wide association analyses. *Frontiers in Endocrinology*, .

Margolis, D.J., Allen-Taylor, L., Hoffstad, O., dan Berlin, J.A., 2002. Diabetic Neuropathic Foot Ulcers. *DIABETES CARE*, **25**.

Margolis, D.J., Kantor, J., dan Berlin, J.A., 1999. Healing of diabetic neuropathic

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

foot ulcers receiving standard treatment. A meta-analysis. *Diabetes Care*, **22**: 692–695.

Mattheson, E. M., Scott, W. B., Russell, S. B., 2021. Diabetes-Related Foot Infections : Diagnosis and treatment. American Academy of Family Physician. 104(4): 1-9.

McKinnon, P.S., Paladino, J.A., Grayson, M.L., Gibbons, G.W., dan Karchmer, A.W., 1997. Cost-Effectiveness of Ampicillin/Sulbactam Versus Imipenem/Cilastatin in the Treatment of Limb-Threatening Foot Infections in Diabetic Patients. *Clinical Infectious Diseases*, **24**: 57–63.

McDermott, K., Fang, M., Boulton, A.J.M., Selvin, E., dan Hicks, C.W., 2023. Etiology, Epidemiology, and Disparities in the Burden of Diabetic Foot Ulcers. *Diabetes Care*, **46**: 209–221.

Monteiro-Soares, M., Hamilton, E.J., Russell, D.A., Srisawasdi, G., Boyko, E.J., Mills, J.L., dkk., 2024. Guidelines on the classification of foot ulcers in people with diabetes (IWGDF 2023 update). *Diabetes/Metabolism Research and Reviews*, **40**: e3648.

Moras, E., Mohammad, I. K., David, D. S., Moinuddin, S., Sivaguha, Y. P., Kruti, D. G., Carl, J. L., Mahboob, A., Raman, S., Chayakrit, K., 2024. Pharmacotherapy And Revascularization Strategies Of Peripheral Artery Disease. *Current Problem in Cardiology.* 49: 1-13.

Morelli, M.K., Son, A.H., Bitar, Y., dan Hecker, M.T., 2023. Fear of Missing Organisms (FOMO): the discordance among broad-spectrum empiric antibiotic therapy, microbiologic results, and definitive antibiotic therapy for diabetic foot infections and lower extremity osteomyelitis. *Antimicrobial Stewardship & Healthcare Epidemiology*, **3**: e186.

Mishra, S.C., Chhatbar, K.C., Kashikar, A., dan Mehndiratta, A., 2017. Diabetic foot. *BMJ*, j5064.

Nishio, Y., Yoriko, T., Ikuro, K., Hiroto, T., 2021. Influence of Peripheral Arterial Disease on Wound Healing in Heel Pressure Ulcers. *Kobe Journal Medical Science*. 67(4): E146-E154.

Noor, S., Zubair, M., Ahmad, J. 2015. Diabetic Foot Ulcer : A Review on Patophysiology, Classification and Microbial Etiology. *Diabetes & Metabolic Syndrome : Clinical Research & Reviews.* 192-199.

Oktorina, R., Aria, W., Ervina, Y. H. 2019. Faktor Yang Berhubungan dengan Perilaku Pencegahan Ulkus Diabetikum Pada Penderita Diabetes Melitus. *Real in Noursing Journal.* 2(3): 108-117.

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
Alfita Rahmawati, Prof. Dr. apt. Tri Murti Andayani, Sp. FRS; Dr. apt. Nanang Munif Yasin, M.Pharm
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Patil, S. V. dan Roshan, R. M., 2016. Comparison of efficacy of levofloxacin-metronidazole combination versus ceftriaxone in cases of moderate diabetic foot infection. *Internsational Journal of Basic and Clinical Pharmacology*, 1775–1779.

PERKENI. 2021. Pedoman Pengelolaan dan Pencegahan Diabetes Melitus Tipe 2 di Indonesia. Jakarta : PERKENI.

Perry, T.R. dan Jerome, J. S., 2001. Clinical Use of Ceftriaxone. *Clinical Pharmacokinetics.* 40(9): 685-694.

Pratama, V., Risni, H.W., Yunir, E., dan Sauriasari, R., 2022. A Systematic Review of Randomized Controlled Trials of Antibiotic Use in Diabetic Foot Ulcer Infections: Focus on Clinical Cure. *Infection & Chemotherapy*, **54**: 125.

Pratama, V., 2022. 'Analisis Efektivitas Biaya Antara Ampisilin/Sulbaktam dan Non-Ampisilin/ Sulbaktam pada Pasien Infeksi Kaki Diabetik Rawat Inap di RSUPN Dr. Cipto Mangunkusumo', *Tesis*, MPharm., Universitas Indonesia, Jakarta.

Prompers, L., Huijberts, M., Apelqvist, J., Jude, E., Piaggesi, A., Bakker, K., dkk., 2008. Delivery of care to diabetic patients with foot ulcers in daily practice: results of the Eurodiale Study, a prospective cohort study. *Diabetic Medicine*, **25**: 700–707.

Prompers, L., Huijberts, M., Apelqvist, J., Jude, E., Piaggesi, A., Bakker, K., dkk., 2007. High Prevalency Ischemiia, Infection, and Serious Comorbidity in patients With Diabetic Foot Disease in Europe baseline Results From Eurodiale Study. *Diabetologia.* 50: 18-25.

Puspitasari, I M., Dewi, L., Rano, K. S., Auliya, A. S., 2021 - Cost-Effectiveness Analysis of Chemoradiation and Radiotherapy Treatment for Stage IIB and IIIB Cervical Cancer Patients. *International Journal of Women Health.* 13: 221-229.

Rampal, S., Ganesan, T., Sisubalasingam, N., Neela, V.K., Tokgöz, M.A., Arunasalam, A., dkk., 2021. Local Trends of Antibiotic Prescriptions for Necrotizing Fasciitis Patients in Two Tertiary Care Hospitals in Central Malaysia. *Antibiotics*, **10**: 1120.

Rahayu, A., Afdhal, A.F., Hasan, D., Suwarna, F., dan Meila, O., 2020. Analisis Efektivitas Biaya Terapi Antihipertensi Kombinasi Tetap Di Satu Rumah Sakit Jakarta Selatan. *JURNAL MANAJEMEN DAN PELAYANAN FARMASI (Journal of Management and Pharmacy Practice)*, **10**: 1.

Rahayuningsih, N., Pratiwi, A.L., dan Pebiansyah, A., 2022. COST-EFFECTIVENESS ANALYSIS OF ANTIBIOTIC USAGE IN DIABETIC

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

FOOT ULCUS PATIENTS IN DOKTER SOEKARDJO TASIKMALAYA HOSPITAL. *International Journal of Applied Pharmaceutics*, 123–126.

Rastogi, A., Satinath, M., Jay, P. S., Arun, M., Amritava, G., Sujjet, J., Arun, B. 2020. Intensive Glycemic Control for Diabetic Foot Ulcer Healing: A Multicentric, Randomized, Parallel Arm, Single-Blind, Controlled Study Protocol (INGLOBE Study). *The International Journal of Lower Extremity Wounds*. 1-7.

Rodríguez-Valiente, M., Fuente-Mora, C., Sánchez-Gálvez, J., Ortín-Pérez, M., Pardo-Ríos, M., Sánchez-Sáez, J.M., dkk., 2025. Cellular therapy for the peripheral arterial disease treatment: Protocol for a systematic review and meta-analysis. *PLOS ONE*, **20**: e0314070.

Rubitschung, K., Sherwood, A., Crisologo, A.P., Bhavan, K., Haley, R.W., Wukich, D.K., dkk., 2021. Pathophysiology and Molecular Imaging of Diabetic Foot Infections. *International Journal of Molecular Sciences*, **22**: 11552.

Schaper, N.C., Van Netten, J.J., Apelqvist, J., Bus, S.A., Fitridge, R., Game, F., dkk., 2024. Practical guidelines on the prevention and management of diabetes-related foot disease (IWGDF 2023 update). *Diabetes/Metabolism Research and Reviews*, **40**: e3657.

Sable-Morita, S., Okura, M., Tanikawa, T., Kawashima, S., Tokuda, H., dan Arai, H., 2021. Associations between diabetes-related foot disease, diabetes, and age-related complications in older patients. *European Geriatric Medicine*, **12**: 1003–1009.

Sari, Y.O., Almasdy, D., dan Fatimah, A., 2018. Evaluasi Penggunaan Antibiotik Pada Pasien Ulkus Diabetikum di Instalasi Rawat Inap (IRNA) Penyakit Dalam RSUP Dr. M. Djamil Padang. *Jurnal Sains Farmasi & Klinis*, **5**: 102.

Senneville, É., Albalawi, Z., Van Asten, S.A., Abbas, Z.G., Allison, G., Aragón-Sánchez, J., dkk., 2024. IWGDF/IDSA guidelines on the diagnosis and treatment of diabetes-related foot infections (IWGDF/IDSA 2023). *Diabetes/Metabolism Research and Reviews*, **40**: e3687.

Setiyanto, R. dan Iin, S., 2020. Penggunaan Antibiotik untuk Penanganan Ulkus dan Gangren Diabetikum Pasien Rawat Inap di Rumah Sakit. *Jurnal Pharmascience*, **7**: 99.

Seth, A., Attri, A., Kataria, H., Kochhar, S., Seth, S., dan Gautam, N., 2019. Clinical profile and outcome in patients of diabetic foot infection. *International Journal of Applied and Basic Medical Research*, **9**: 14.

Sen, P.,, Tuna, D., Busra, E. 2019. Meta-analysis of Risk Factor For Amputation In Diabetic Foot Infection. *Diabetes Merabolic Research*. 1-16.

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
Alfita Rahmawati, Prof. Dr. apt. Tri Murti Andayani, Sp. FRS; Dr. apt. Nanang Munif Yasin, M.Pharm
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Shi, L., Xue, J., Zhao, W., Wei, X., Zhang, M., Li, L., dkk., 2022. The Prognosis of Diabetic Foot Ulcer is Independent of age A Comparative Analysis of the Characteristics of Patients with Diabetic Foot Ulcer in Different age Groups: A Cross-Sectional Study from China. *The International Journal of Lower Extremity Wounds*, 1-9.

Sivanmaliappan, T.S. dan Sevanan, M., 2011. Antimicrobial Susceptibility Patterns of *Pseudomonas aeruginosa* from Diabetes Patients with Foot Ulcers. *International Journal of Microbiology*, **2011**: 1–4.

Smith-Strøm, H., Iversen, M.M., Igland, J., Østbye, T., Graue, M., Skeie, S., dkk., 2017. Severity and duration of diabetic foot ulcer (DFU) before seeking care as predictors of healing time: A retrospective cohort study. *PLOS ONE*, **12**: e0177176.

Smith, J., Carville, K., Smith, K., Alan, J., 2024. The Impact of Comorbidities on Wound Healing in the Community: The Value of Using Linked Hospital Data. *Wound Practice And Research.* 32(3): 136-144.

Sohn, M., Budiman-Mak, E., Lee, T.A., Oh, E., dan Stuck, R.M., 2011. Significant J-shaped association between body mass index (BMI) and diabetic foot ulcers. *Diabetes/Metabolism Research and Reviews*, **27**: 402– 409.

Soyoye, D.O., Abiodun, O.O., Ikem, R.T., Kolawole, B.A., dan Akintomide, A.O., 2021. Diabetes and peripheral artery disease: A review. *World Journal of Diabetes*, **12**: 827–838.

Søndergaard, L.N., Christensen, A.B., Vinding, A.L., dan Kj, I.L., 2015. Elevated Costs And High One-Year Mortality in Patients With Diabetic Foot Ulcers After Surgery.. *Danish Medical Journal. 1-4.*

Sunjaya, D.B., Lennon, R.J., Shah, V.H., Kamath, P.S., dan Simonetto, D.A., 2019. Prevalence and Predictors of Third-Generation Cephalosporin Resistance in the Empirical Treatment of Spontaneous Bacterial Peritonitis. *Mayo Clinic Proceedings*, **94**: 1499–1508.

Syed Hitam, S. H., Syed Hitam, S.A., Hospital USM, Health Campus, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia, Hassan, S.A., 2019. The Significant Association between Polymicrobial Diabetic Foot Infection and Its Severity and Outcomes. *Malaysian Journal of Medical Sciences*, **26**: 107–114.

Syauta, D., Mulawardi, Prihantono, Hendarto, J., Mariana, N., Sulmiati, dkk., 2021. Risk factors affecting the degree of diabetic foot ulcers according to Wagner classification in diabetic foot patients. *Medicina Clínica Práctica*, **4**: 100231.

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
Alfita Rahmawati, Prof. Dr. apt. Tri Murti Andayani, Sp. FRS; Dr. apt. Nanang Munif Yasin, M.Pharm
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Suba, Z., 2013. Low Estrogen Exposure and/or Defective Estrogen Signaling Induces Disturbances in Glucose Uptake and Energy Expenditure. *Journal of Diabetes & Metabolism*, **04**: 1-10.

Stancu, B., Ilyés, T., Farcas, M., Coman, H.F., Chiș, B.A., dan Andercou, O.A., 2022. Diabetic Foot Complications: A Retrospective Cohort Study. *International Journal of Environmental Research and Public Health*, **20**: 187.

Thomason, G., Gooday, C., Nunney, I., dan Dhatariya, K., 2024. The Association of HbA1c Variability with 12 Week and 12 Month Outcomes on Diabetes Related Foot Ulcer Healing. *Diabetes Therapy*, **15**: 2223–2232

Tong, T., Yang, C., Tian, W., Liu, Z., Liu, B., Cheng, J., dkk., 2020. Phenotypes And Outcomes in Middle-aged Patients with Diabetic Foot Ulcers: a Retrospective Cohort Study. *Journal of Foot and Ankle Research*, **13**: 24.

Tjandrawinata, R.R., 2016. Peranan Farmakoekonomi dalam Penentuan Kebijakan yang Berkaitan dengan Obat-Obatan. *Working Paper of Dexa Medica Group.* doi:10.5281/zenodo.49404.

Tresierra-Ayala, M.Á. dan García Rojas, A., 2017. Association between peripheral arterial disease and diabetic foot ulcers in patients with diabetes mellitus type 2. *Medicina Universitaria*, **19**: 123–126.

Uçkay, I., Yogarasa, V., Waibel, F.W.A., Seiler-Bänziger, A., Kuhn, M., Sahli, M., dkk., 2022. Nutritional Interventions May Improve Outcomes of Patients Operated on for Diabetic Foot Infections: A Single-Center Case-Control Study. *Journal of Diabetes Research*, **2022**: 1–6.

Van Netten, J.J., Bus, S.A., Apelqvist, J., Lipsky, B.A., Hinchliffe, R.J., Game, F., dkk., 2020. Definitions and criteria for diabetic foot disease. *Diabetes/Metabolism Research and Reviews*, **36**: e3268.

Vanherwegen, A.-S., Lauwers, P., Lavens, A., Doggen, K., Dirinck, E., dan on behalf of the Initiative for Quality Improvement and Epidemiology in multidisciplinary Diabetic Foot Clinics (IQED-Foot) Study Group, 2023. Sex differences in diabetic foot ulcer severity and outcome in Belgium. *PLOS ONE*, **18**: e0281886.

Varughese, R., H.V, Sowmya, K.O, Swetha, dan Mathew, M., 2023. Prescription auditing and assessment of medication adherence patterns in patients with diabetic foot ulcer. *Journal of Diabetes & Metabolic Disorders*, **22**: 1255–1261.

Vinik, A.I., Nevoret, M.-L., Casellini, C., dan Parson, H., 2013. Diabetic Neuropathy. *Endocrinology and Metabolism Clinics of North America*, **42**:

UNIVERSITAS
GADJAH MADA
Cost Effectiveness Of Analysis Antibiotik Ceftriaxone-Metronidazole dan Ampisilin Sulbaktam Pada Pasien Infeksi Ulkus Kaki Diabetikum Rawat Inap di RSUP Dr. Sardjito Yogyakarta
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

747–787.

Víquez-Molina, G., Aragón-Sánchez, J., Villalobos-Vargas, M., Alvarado-Prado, R., dan Romero-Zuñiga, J.J., 2025. Risk Factors Associated with Failure of Toe Amputation in Diabetic Foot Infections. *The International Journal of Lower Extremity Wounds*, **24**: 135–142.

Wang, Y., Wang, C., dan Zheng, L., 2024. Bibliometric analysis of systematic review and meta-analysis on diabetic foot ulcer. *Heliyon*, **10**: e27534.

Woods, T.-J., Tesfay, F., Speck, P., dan Kaambwa, B., 2020. Economic evaluations considering costs and outcomes of diabetic foot ulcer infections: A systematic review. *PLOS ONE*, **15**: e0232395.

Wright, A., Stephen, W., Janath, D. S., J. Simon, B. 2023. Systemic Antimicrobial Therapy for Diabetic Foot Infections: An Overview of Systematics Reviews. *Antibiotics.* **12** (1041): 1-16.

WHO. URL: https://www.who.int/news-room/fact-sheets/detail/diabetes (diakses tanggal 30/3/2024).

Yavuz, D.G., 2022. Classification, Risk Factor and Clinical Presentation Diabetic Neuropathy. *Diabetic Neuropathy*. 1–9.

Yammine, K., Hayek, F., dan Assi, C., 2021. Is there an association between anemia and diabetic foot ulcers: A systematic review and meta-analysis. *Wound Repair and Regeneration*, **29**: 432–442.

Yotsu, R.R., Pham, N.M., Oe, M., Nagase, T., Sanada, H., Hara, H., dkk., 2014. Comparison of characteristics and healing course of diabetic foot ulcers by etiological classification: Neuropathic, ischemic, and neuro-ischemic type. *Journal of Diabetes and its Complications*, **28**: 528–535.

Yoon, J.L., Cho, J.J., Park, K.M., Noh, H.M., dan Park, Y.S., 2015. Diagnostic Performance of Body Mass Index Using the Western Pacific Regional Office of World Health Organization Reference Standards for Body Fat Percentage. *Journal of Korean Medical Science*, **30**: 162.

Yotsapon, T., Jeeraphan, S., Sirinate, K., Sriural, P., Taweesak, S., Somkiet, M., Siriwan, B., Soontaree, N., Thep, H., 2015. Changing The Patterns Of Hospitalized Diabetic Foot Ulcer (DFU) Over A 5-Year Period In A Multi-disciplinary Setting In Thailand. BMC Endocrine Disorder. 20:89. 1-11

Zakin, E., Abrams, R., dan Simpson, D.M., 2019. Diabetic Neuropathy. *Seminars in Neurology*, **39**: 560–569.

Zhang, P., Lu, J., Jing, Y., Tang, S., Zhu, D., dan Bi, Y., 2017. Global epidemiology of diabetic foot ulceration: a systematic review and meta- analysis. *Annals of Medicine*, **49**: 106–116.