

DAFTAR PUSTAKA

- Abosrea, M., Elmasry, H., & Oraby, M. (2020). Gender differences in Diabetic Peripheral Neuropathy. *Egyptian Journal of Medical Research*, 1(1), 55–64. <https://doi.org/10.21608/ejmr.2020.89059>
- Al-Nimer, M., Ali, F., & Al-Ani, F. (2011). Dyslipidemia as a contributory factor in etiopathogenesis of diabetic neuropathy. *Indian Journal of Endocrinology and Metabolism*, 15(2), 110. <https://doi.org/10.4103/2230-8210.81940>
- Alleman, C. J. M., Westerhout, K. Y., Hensen, M., Chambers, C., Stoker, M., Long, S., & van Nooten, F. E. (2015). Humanistic and economic burden of painful diabetic peripheral neuropathy in Europe: A review of the literature. *Diabetes Research and Clinical Practice*, 109(2), 215–225. <https://doi.org/10.1016/j.diabres.2015.04.031>
- Amelia, R., Wahyuni, A. S., & Yunanda, Y. (2019). Diabetic neuropathy among type 2 diabetes mellitus patients at amplas primary health care in Medan city. *Open Access Macedonian Journal of Medical Sciences*, 7(20), 3400–3403. <https://doi.org/10.3889/oamjms.2019.433>
- American Academy of Neurology. (2011). *AAN summary of evidence-based guidelines for clinicians: treatment of painful diabetic neuropathy*. <https://doi.org/10.1212/WNL.0b013e3182166ebe>
- Anonim. (2014). *Avinza (morphine sulfate) extended-release capsules*. [Pfizer.com. https://labeling.pfizer.com/ShowLabeling.aspx?id=876](https://labeling.pfizer.com/ShowLabeling.aspx?id=876)
- Anonim. (2015a). *Tegretol (carbamazepine) chewable tablets*.
- Anonim. (2015b). *Oxycontin (oxycodone hydrochloride) extended-release tablets*.
- Anonim. (2015c). *Lidoderm (lidocaine patch 5%)*.
- Anonim. (2017). *Amitriptyline Hydrochloride Tablets*.
- Anonim. (2020). *Lyrica (pregabalin) capsules*. [Pfizer.com. https://labeling.pfizer.com/showlabeling.aspx?id=561](https://labeling.pfizer.com/showlabeling.aspx?id=561)
- Anonim. (2021). *Neurontin (gabapentin) capsules*. [Pfizer.com. https://labeling.pfizer.com/ShowLabeling.aspx?id=630](https://labeling.pfizer.com/ShowLabeling.aspx?id=630)
- Anonim. (2022). *EFFEXOR XR (venlafaxine extended-release) capsules*. [Pfizer.com. https://labeling.pfizer.com/showlabeling.aspx?id=100](https://labeling.pfizer.com/showlabeling.aspx?id=100)
- Anonim. (2023). *Cymbalta (duloxetine delayed-release capsules)*.
- Anonim. (2024). *Trileptal (oxcarbazepine) film-coated tablets*.
- Åström, M., Thet Lwin, Z. M., Teni, F. S., Burström, K., & Berg, J. (2023). Use of the visual analogue scale for health state valuation: a scoping review. *Quality of Life Research*, 32(10), 2719–2729. <https://doi.org/10.1007/s11136-023-03411-3>
- Athanasakis, K., Petrakis, I., Karampli, E., Vitsou, E., Lyras, L., & Kyriopoulos, J. (2013). Pregabalin versus gabapentin in the management of peripheral

- neuropathic pain associated with post-herpetic neuralgia and diabetic neuropathy: a cost effectiveness analysis for the Greek healthcare setting. *BMC Neurology*, 13(1). <https://doi.org/10.1186/1471-2377-13-56>
- Atisook, R., Euasobhon, P., Saengsanon, A., & Jensen, M. P. (2021). Validity and utility of four pain intensity measures for use in international research. *Journal of Pain Research*, 14, 1129–1139. <https://doi.org/10.2147/JPR.S303305>
- Backonja, M. (1998). Gabapentin for the Symptomatic Treatment of Painful Neuropathy in Patients With Diabetes Mellitus A Randomized Controlled Trial. *JAMA*, 280(21), 1831. <https://doi.org/10.1001/jama.280.21.1831>
- Baderca, F., Timar, B., Popescu, S., Simu, M., Diaconu, L., Velea, I., & TIMAR, R. (2016). Age as an independent factor for the development of neuropathy in diabetic patients. *Clinical Interventions in Aging*, 313. <https://doi.org/10.2147/cia.s97295>
- Bahri, S. L., Darmaningrat, C. I. A. A., Putra, I. W. M., Adzuba, K. K., Paramita, L. K. D. L., Alfarisi, M. D., & Iramayanto, T. (2023). Complications of diabetes mellitus: A review. *Green Medical Journal*, 5(3), 128–136.
- Bansal, D., Gudala, K., Muthyala, H., Esam, H. P., Nayakallu, R., & Bhansali, A. (2014). Prevalence and risk factors of development of peripheral diabetic neuropathy in type 2 diabetes mellitus in a tertiary care setting. *Journal of Diabetes Investigation*, 5(6), 714–721. <https://doi.org/10.1111/jdi.12223>
- Barbano, R. L., Herrmann, D. N., Hart-Gouleau, S., Pennella-Vaughan, J., Lodewick, P. A., & Dworkin, R. H. (2004). Effectiveness, tolerability, and impact on quality of life of the 5% lidocaine patch in diabetic polyneuropathy. *Archives of Neurology*, 61(6), 914–918. <https://doi.org/10.1001/archneur.61.6.914>
- Baron, Ralf, dkk. “Neuropathic Pain: Diagnosis, Pathophysiological Mechanisms, and Treatment.” *The Lancet Neurology*, vol. 9, no. 8, Aug. 2010, pp. 807–819, [https://doi.org/10.1016/s1474-4422\(10\)70143-5](https://doi.org/10.1016/s1474-4422(10)70143-5).
- Berlyna Mey Anggraini, & Okti Sri Purwanti. (2024). The Relationship Between Body Mass Index and Diabetic Neuropathy in Patients With Diabetes Mellitus at the Regional General Hospital dr.Soehadi Prijonegoro Sragen District. *Contagion*, 6(1), 453–453. <https://doi.org/10.30829/contagion.v6i1.19460>
- Bhuanaputra, M. F., Tursina, A., & Kharisma, Y. (2020). Combination of Gabapentin and Vitamin B12 Compared with Gabapentin Monotherapy on Pain Improvement of Diabetic Neuropathy Patients. *Global Medical & Health Communication (GMHC)*, 8(1). <https://doi.org/10.29313/gmhc.v8i1.3676>
- Boulton, A. J. M. (2005). Management of diabetic peripheral neuropathy. *Clinical*

- Diabetes*, 23(1), 9–15. <https://doi.org/10.2337/diaclin.23.1.9>
- Breivik, H., Borchgrevink, P. C., Allen, S. M., Rosseland, L. A., Romundstad, L., Breivik Hals, E. K., Kvarstein, G., & Stubhaug, A. (2008). Assessment of Pain. *British Journal of Anaesthesia*, 101(1), 17–24. <https://doi.org/10.1093/bja/aen103>
- Calabrese, D., Giatti, S., Romano, S., Porretta-Serapiglia, C., Bianchi, R., Milanese, M., Bonanno, G., Caruso, D., Viviani, B., Fabrizio Gardoni, Luis Miguel Garcia-Segura, & Roberto Cosimo Melcangi. (2014). Diabetic neuropathic pain: a role for testosterone metabolites. *Journal of Endocrinology*, 221(1), 1–13. <https://doi.org/10.1530/joe-13-0541>
- Cardinez, N., Lovblom, L. E., Orszag, A., Bril, V., Cherney, D. Z., & Perkins, B. A. (2019). Sex differences in neuropathy & neuropathic pain: A brief report from the Phase 2 Canadian Study of Longevity in Type 1 Diabetes. *Journal of Diabetes and Its Complications*, 33(12), 107397. <https://doi.org/10.1016/j.jdiacomp.2019.06.002>
- Cohen, K., Shinkazh, N., Frank, J., Israel, I., & Fellner, C. (2015). Pharmacological Treatment of Diabetic Peripheral Nueropathy. *P&T*, 40(6), 327–288. <https://doi.org/10.3969/j.issn.1672-8467.2016.05.018>
- Cooper, T. E., Chen, J., Wiffen, P. J., Derry, S., Carr, D. B., Aldington, D., Cole, P., & Moore, R. A. (2017). Morphine for Chronic Neuropathic Pain in Adults (Review). *Cochrane Database of Systematic Reviews*, 2017(5). <https://doi.org/10.1002/14651858.CD007938.pub4>
- Correll, D. J. (2011). The Measurement of Pain: Objectifying the Subjective. *Pain Management, Second Edition*, 191–201. <https://doi.org/10.1016/B978-1-4377-0721-2.00022-2>
- Crasto, W., Patel, V., Davies, M. J., & Khunti, K. (2021). Prevention of Microvascular Complications of Diabetes. *Endocrinology and Metabolism Clinics of North America*, 50(3), 431–455. <https://doi.org/10.1016/j.ecl.2021.05.005>
- Dahlan, M. (2014). *Statistik untuk kedokteran dan kesehatan* (6th ed.).
- Dalton, J. A., & McNaull, F. R. N. (1998). *A call for standardizing the clinical rating of pain intensity using a 0 to 10 rating scale*. 21(1).
- Decroli, E. (2013). *Pathogenesis of Diabetic Neuropathy*. 74, 223–228.
- Dirga, D., Nugroho, A. E., & Pramantara, D. P. (2019). Faktor-Faktor yang Memengaruhi Clinical Outcome Nyeri pada Pasien Diabetes Neuropati di Poliklinik Penyakit Dalam RSUD Kota Yogyakarta. *Jurnal Kefarmasian Indonesia*, 9, 106–113. <https://doi.org/10.22435/jki.v9i2.388>
- Duehmke, R. M., Derry, S., Wiffen, P. J., Bell, R. F., Aldington, D., & Moore, R. A. (2017). Tramadol for neuropathic pain in adults. *Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.cd003726.pub4>

- Eltrikanawati, T. (2021). Science Midwifery The Relationship Of The Duration Of Type 2 Diabetes Mellitus With Peripheral Neuropathy. *Science Midwifery*, *10*(1).
- Endo Pharmaceuticals. (2015). *LIDODERM* □ (*Lidocaine Patch 5%*).
- Euasobhon, P., Atisook, R., Bumrunghatadom, K., Zinboonyahgoon, N., Saisavoey, N., & Jensen, M. P. (2022). Reliability and responsivity of pain intensity scales in individuals with chronic pain. *Pain*, *163*(12), E1184–E1191. <https://doi.org/10.1097/j.pain.0000000000002692>
- Failla, M. D., Beach, P., Atalla, S., Dietrich, M. S., Bruehl, S., Cowan, R. L., & Monroe, T. B. (2023). Gender Differences in Pain Threshold, Unpleasantness, and Descending Pain Modulatory Activation Across the Adult Life Span: A Cross Sectional Study. *The Journal of Pain*, *25*(4). <https://doi.org/10.1016/j.jpain.2023.10.027>
- Faqotunnuriyah, F. (2021). Faktor Risiko Neuropati Diabetik pada Penderita Diabetes Melitus Tipe 2. *Kesmas Indonesia*, *13*(1), 64–76. <https://doi.org/10.20884/1.ki.2021.13.1.3227>
- FDA. (2020). *Prescribing information for Depacon (valproate sodium)*.
- Feldman, E. L., Callaghan, B. C., Pop-Busui, R., Zochodne, D. W., Wright, D. E., Bennett, D. L., Bril, V., Russell, J. W., & Viswanathan, V. (2019). Diabetic neuropathy. *Nature Reviews Disease Primers*, *5*(1). <https://doi.org/10.1038/s41572-019-0092-1>
- Finnerup, Nanna Brix, et al. “Neuropathic Pain: From Mechanisms to Treatment.” *Physiological Reviews*, vol. 101, no. 1, 1 Jan. 2021, pp. 259–301, <https://doi.org/10.1152/physrev.00045.2019>.
- Fowler, M. J. (2011). Microvascular and Macrovascular Complications of Diabetes. *Clinical Diabetes*, *29*(3), 116–122. <https://doi.org/10.2337/diaclin.29.3.116>
- Freeman, R., Raskin, P., Hewitt, D. J., Vorsanger, G. J., Jordan, D. M., Xiang, J., & Rosenthal, N. R. (2007). Randomized study of tramadol/acetaminophen versus placebo in painful diabetic peripheral neuropathy. *Current Medical Research and Opinion*, *23*(1), 147–161. <https://doi.org/10.1185/030079906X162674>
- Fujita, Y., Fukushima, M., Suzuki, H., Taniguchi, A., Nakai, Y., Akira Kuroe, Yasuda, K., Hosokawa, M., Yamada, Y., Inagaki, N., & Seino, Y. (2008). Short-term intensive glycemic control improves vibratory sensation in type 2 diabetes. *Diabetes Research and Clinical Practice*, *80*(1), e16–e19. <https://doi.org/10.1016/j.diabres.2007.12.011>
- Gavini, C. K., Bookout, A. L., Bonomo, R., Gautron, L., Lee, S., & Mansuy-Aubert, V. (2018). Liver X Receptors Protect Dorsal Root Ganglia from Obesity-Induced Endoplasmic Reticulum Stress and Mechanical

- Allodynia. *Cell Reports*, 25(2), 271-277.e4.
<https://doi.org/10.1016/j.celrep.2018.09.046>
- Gill, D., Derry, S., Wiffen, P. J., & Moore, R. A. (2011). Valproic acid and sodium valproate for neuropathic pain and fibromyalgia in adults. *Cochrane Database of Systematic Reviews*, 2011(10).
<https://doi.org/10.1002/14651858.CD009183.pub2>
- Goyal, R., Singhal, M., & Jialal, I. (2024). *Type 2 diabetes*. StatPearls [Internet].
<https://doi.org/10.1016/B978-0-12-801238-3.95795-7>
- Hamed, E., & Monem, M. A. (2018). A Review of Diabetic Peripheral Neuropathy Management given Recent Guidelines Updates. *Archives of General Internal Medicine*, 02(04), 1–5.
<https://doi.org/10.4066/2591-7951.1000060>
- Hanna, M., O'Brien, C., & Wilson, M. C. (2008). Prolonged-release oxycodone enhances the effects of existing gabapentin therapy in painful diabetic neuropathy patients. *European Journal of Pain*, 12(6), 804–813.
<https://doi.org/10.1016/j.ejpain.2007.12.010>
- Harati, Y., Gooch, C., Swenson, M., Edelman, S., Greene, D., Raskin, P., Donofrio, P., Cornblath, D., Sachdeo, R., Siu, C. O., & Kamin, M. (1998). Double-blind randomized trial of tramadol for the treatment of the pain of diabetic neuropathy. *Neurology*, 50(6), 1842–1846.
<https://doi.org/10.1212/wnl.50.6.1842>
- Harsa, I. M. S., Andiani, A., Sulistiawati, S., Herawati, L., Hidayati, H. B., & Kuntaman, K. (2024). Comparative Study of Paracetamol vs Paracetamol Plus Acupressure for Pain Relief in Diabetic Neuropathy Patients. *Pharmacognosy Journal*, 16(3), 602–605.
<https://doi.org/10.5530/pj.2024.16.94>
- Heller, G. Z., Manuguerra, M., & Chow, R. (2016). How to analyze the Visual Analogue Scale: Myths, truths and clinical relevance. *Scandinavian Journal of Pain*, 13, 67–75. <https://doi.org/10.1016/j.sjpain.2016.06.012>
- Hicks, C. L., Von Baeyer, C. L., Spafford, P. A., Van Korlaar, I., & Goodenough, B. (2001). The Faces Pain Scale - Revised: Toward a common metric in pediatric pain measurement. *Pain*, 93(2), 173–183.
[https://doi.org/10.1016/S0304-3959\(01\)00314-1](https://doi.org/10.1016/S0304-3959(01)00314-1)
- Hollingshead, J., Dhumke, R., & Cornblath, D. R. (2006). Tramadol for Neuropathic Pain. *The Cochrane Database of Systematic Reviews*, 3.
- Hozumi, J., Sumitani, M., Matsubayashi, Y., Abe, H., Oshima, Y., Chikuda, H., Takeshita, K., & Yamada, Y. (2016). Relationship between Neuropathic Pain and Obesity. *Pain Research and Management*, 2016, 1–6.
<https://doi.org/10.1155/2016/2487924>
- Huang, D., Refaat, M., Mohammedi, K., Jayyousi, A., Al Suwaidi, J., & Abi

- Khalil, C. (2017). Macrovascular Complications in Patients with Diabetes and Prediabetes. *BioMed Research International*, 2017. <https://doi.org/10.1155/2017/7839101>
- IDF. (2021). Diabetes Report 2000 — 2045. In *International Diabetes Federation*. International Diabetes Federation. (2024). *About diabetes*. International Diabetes Federation. <https://doi.org/10.1097/00017285-199701000-00009>
- Julyana Medeiros Dantas, Mariana, Alves, L., Batista, S., Caroline Serafim Dagostin, & Daniel Campinho Schachter. (2023). Monotherapy Versus Combination Therapy in the Treatment of Painful Diabetic Neuropathy: A Systematic Review and Meta-analysis. *Clinical Drug Investigation*, 43(12), 905–914. <https://doi.org/10.1007/s40261-023-01318-y>
- Juster-Switlyk, K., & Smith, A. G. (2016). Updates in Diabetic Peripheral Neuropathy. *F1000Research*, 5(0), 1–7. <https://doi.org/10.12688/f1000research.7898.1>
- Kaewput, W., Thongprayoon, C., Rangsin, R., Jindarat, S., Narindrarangkura, P., Bathini, T., Mao, M. A., & Cheungpasitporn, W. (2020). The Association between Serum Uric Acid and Peripheral Neuropathy in Patients with Type 2 Diabetes Mellitus: A Multicenter Nationwide CrossSectional Study. *Korean Journal of Family Medicine*, 41(3), 189–194. <https://doi.org/10.4082/kjfm.18.0205>
- Kamel, S. R., Hamdy, M., Abo Omar, H. A. S., Kamal, A., Ali, L. H., & Abd Elkarim, A. H. (2015). Clinical Diagnosis of Distal Diabetic Polyneuropathy Using Neurological Examination Scores: correlation with nerve conduction studies. *Egyptian Rheumatology and Rehabilitation*, 42(3), 128–136. <https://doi.org/10.4103/1110-161x.163945>
- Karedath, J., Batool, S., Arshad, A., Khalique, S., Raja, S., Lal, B., Anirudh Chunchu, V., & Hirani, S. (2022). The Impact of Vitamin B12 Supplementation on Clinical Outcomes in Patients With Diabetic Neuropathy: A Meta-Analysis of Randomized Controlled Trials. *Cureus*. <https://doi.org/10.7759/cureus.31783>
- Kaur, H., Hota, D., Bhansali, A., Dutta, P., Bansal, D., & Chakrabarti, A. (2011). A comparative evaluation of amitriptyline and duloxetine in painful diabetic neuropathy: A randomized, double-blind, cross-over clinical trial. *Diabetes Care*, 34(4), 818–822. <https://doi.org/10.2337/dc10-1793>
- Kemenkes BKPK. (2023). *Survei Kesehatan Indonesia (SKI) 2023 Dalam Angka*. Kementerian Kesehatan Republik Indonesia.
- Kemenkes RI. (2014). *Situasi dan Analisis Diabetes*. Pusat Data Dan Informasi Kementerian Kesehatan Republik Indonesia.
- Kemenkes RI. (2016). Diabetes Fakta dan Angka. In *Kementrian Kesehatan Republik Indonesia*. Kementerian Kesehatan Republik Indonesia.

- Kemenkes RI. (2023). Keputusan Menteri Kesehatan Republik Indonesia Nomor Hk.01.07/Menkes/2197/2023 Tentang Formularium Nasional. 1–219
- Kementerian Kesehatan RI. (2020). *Pedoman Nasional Pelayanan Kedokteran Tata Laksana Diabetes Melitus Tipe 2 Dewasa*.
- Kementerian Kesehatan RI. (2024). *Penyakit Diabetes Melitus*. Kementerian Kesehatan RI.
- Kharroubi, A. T., & Darwish, H. M. (2015). Diabetes Mellitus: The Epidemic of The Century. *World Journal of Diabetes*, 6(6), 850–867. <https://doi.org/10.4239/wjd.v6.i6.850>
- Kimura, S., & Kontani, H. (2009a). Demonstration of antiallodynic effects of the cyclooxygenase-2 inhibitor meloxicam on established diabetic neuropathic pain in mice. *Journal of Pharmacological Sciences*, 110(2), 213–217. <https://doi.org/10.1254/jphs.09006sc>
- Kochar, D. K., Rawat, N., Agrawal, R. P., Vyas, A., Beniwal, R., Kochar, S. K., & Garg, P. (2004). Sodium valproate for painful diabetic neuropathy: A randomized double-blind placebo-controlled study. *QJM: An International Journal of Medicine*, 97(1), 33–38. <https://doi.org/10.1093/qjmed/hch007>
- Krebs, E. E., Carey, T. S., & Weinberger, M. (2007). Accuracy of the pain numeric rating scale as a screening test in primary care. *Journal of General Internal Medicine*, 22(10), 1453–1458. <https://doi.org/10.1007/s11606-007-0321-2>
- Kulkantrakorn, K., Lorsuwansiri, C., & Meesawatsom, P. (2013). 0.025% Capsaicin Gel for the Treatment of Painful Diabetic Neuropathy: A Randomized, Double-Blind, Crossover, Placebo-Controlled Trial. *Pain Practice*, 13(6), 497–503. <https://doi.org/10.1111/papr.12013>
- Labib MY Bima, M., Rahmayani, F., & Mutiara, H. (2023). Diagnostik, Faktor Risiko, dan Tatalaksana Neuropati Diabetik. *Diagnosis, Faktor Risiko, Dan Tatalaksana Medula* |, 13(April), 59.
- Landrum, O., Marcondes, L., Egharevba, T., & Gritsenko, K. (2023). Painful diabetic peripheral neuropathy of the feet: integrating prescription-strength capsaicin into office procedures. *Pain Management*, 13(10), 613–626. <https://doi.org/10.2217/pmt-2023-0028>
- Lesser, H., Sharma, U., LaMoreaux, L., & Poole, R. M. (2004). Pregabalin relieves symptoms of painful diabetic neuropathy: A randomized controlled trial. *Neurology*, 63(11), 2104–2110. <https://doi.org/10.1212/01.WNL.0000145767.36287.A1>
- Lindsay, T. J., Rodgers, B. C., Savath, V., & Hettinger, K. (2010). Treating diabetic peripheral neuropathic pain. *American Family Physician*, 82(2), 151–158.
- Liu, X., Xu, Y., An, M., & Zeng, Q. (2019). The risk factors for diabetic peripheral neuropathy: A meta-analysis. *PLoS ONE*, 14(2), 1–16.

<https://doi.org/10.1371/journal.pone.0212574>

- Lu, Y., Xing, P., Cai, X., Luo, D., Li, R., Lloyd, C., Sartorius, N., & Li, M. (2020a). Prevalence and Risk Factors for Diabetic Peripheral Neuropathy in Type 2 Diabetic Patients From 14 Countries: Estimates of the INTERPRET-DD Study. *Frontiers in Public Health*, 8. <https://doi.org/10.3389/fpubh.2020.534372>
- Lucier, J., & Mathias, P. M. (2024). *Type 1 Diabetes*. StatPearls [Internet]. <https://doi.org/10.1016/B978-0-7020-8165-1.00071-X>
- Mardastuti, Y., Asmedi, A., & Gofir, A. (2016). Diabetic Neuropathy Symptom-Indonesian version and Diabetic Neuropathy Examination-Indonesian version as score diagnostic. *Berkala Neurosains*, 15, 55–65.
- Meijer, J. W. G., Bosma, E., Lefrandt, J. D., Links, T. P., Smit, A. J., Stewart, R. E., Van Der Hoeven, J. H., & Hoogenberg, K. (2003). Clinical diagnosis of diabetic polyneuropathy with the diabetic neuropathy symptom and diabetic neuropathy examination scores. *Diabetes Care*, 26(3), 697–701. <https://doi.org/10.2337/diacare.26.3.697>
- Mildawati, N., Diani, A., Wahid, P., Ilmukeperawatan, & Fakultaskedokteran. (2019). *HUBUNGAN USIA, JENIS KELAMIN DAN LAMA MENDERITA DIABETES DENGAN KEJADIAN NEUROPATI PERIFER DIABETIK (Relationship Between Age, Gender and Duration Of Diabetes Patients With The Incidence Of Diabetic Peripheral Neuropathy)*.
- Miranda, H. F., Sierralta, F., Aranda, N., Poblete, P., Noriega, V., & Prieto, J. C. (2018). Synergism between gabapentin-tramadol in experimental diabetic neuropathic pain. *Fundamental & Clinical Pharmacology*, 32(6), 581–588. <https://doi.org/10.1111/fcp.12400>
- Miró, J., Huguet, A., Nieto, R., Paredes, S., & Baos, J. (2005). Evaluation of reliability, validity, and preference for a pain intensity scale for use with the elderly. *Journal of Pain*, 6(11), 727–735. <https://doi.org/10.1016/j.jpain.2005.06.005>
- Moore, R. A., Chi, C. C., Wiffen, P. J., Derry, S., & Rice, A. S. C. (2015). Oral nonsteroidal anti-inflammatory drugs for neuropathic pain. *Cochrane Database of Systematic Reviews*, 2015(10). <https://doi.org/10.1002/14651858.CD010902.pub2>
- Moore, R. A., Wiffen, P. J., Derry, S., & Rice, A. S. C. (2014). Gabapentin for chronic neuropathic pain and fibromyalgia in adults. *Cochrane Database of Systematic Reviews*, 2017(3). <https://doi.org/10.1002/14651858.CD007938.pub3>
- Moosaie, F., Ghaemi, F., Mechanick, J. I., Shadnoush, M., Firouzabadi, F. D., Kermanchi, J., Poopak, A., Esteghamati, S., Forouzanfar, R., Abhari, S. M.

- F., Mansournia, M. A., Khosravi, A., Gholami, E., Nakhjavani, M., & Esteghamati, A. (2022). Obesity and Diabetic Complications: A Study from the Nationwide Diabetes Report of the National Program for Prevention and Control of Diabetes (NPPCD-2021) Implications for Action on Multiple Scales. *Primary Care Diabetes*, *16*(3), 422–429. <https://doi.org/10.1016/j.pcd.2022.03.009>
- Morgan, J., Magwood, K., Smith, J., Jenkins, M. R., McGregor, A. J., & Quesnelle, K. M. (2024). Sex and gender differences in pain perception and management in clinical settings. *All Life*, *17*(1). <https://doi.org/10.1080/26895293.2024.2367421>
- Naqvi, I. H., Talib, A., Akhter, S. T., Abdi, S. R., Rizvi, S. N. Z., & Ubaid, M. (2018). Peripheral Neuropathy and Vasculopathy; Frequency and Associated Risk Factors in Newly Diagnosed Treatment Naive Type 2 Diabetes. *Open Journal of Endocrine and Metabolic Diseases*, *08*(05), 125–136. <https://doi.org/10.4236/ojemd.2018.85013>
- National Diabetes Information Clearinghouse. (2013). Diabetic neuropathies : The nerve damage of diabetes. *National Diabetes Information Clearinghouse*, 1–7.
- National Institute of Diabetes and Digestive and Kidney Diseases. (2024). *Proximal Neuropathy*. Department of Health and Human Services. <https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/nerve-damage-diabetic-neuropathies/proximal-neuropathy>
- Niesters, M., Proto, P. L., Aarts, L., Sarton, E. Y., Drewes, A. M., & Dahan, A. (2014). Tapentadol potentiates descending pain inhibition in chronic pain patients with diabetic polyneuropathy. *British Journal of Anaesthesia*, *113*(1), 148–156. <https://doi.org/10.1093/bja/aeu056>
- Ossipov, M. H., Jerussi, T. P., Ren, K., Sun, H., & Porreca, F. (2000). Differential effects of spinal (R)-ketoprofen and (S)-ketoprofen against signs of neuropathic pain and tonic nociception: evidence for a novel mechanism of action of (R)-ketoprofen against tactile allodynia. *Pain*, *87*(2), 193–199. [https://doi.org/10.1016/s0304-3959\(00\)00280-3](https://doi.org/10.1016/s0304-3959(00)00280-3)
- Padilla, A., Descorbeth, M., Almeyda, A. L., Payne, K., & De Leon, M. (2011). Hyperglycemia magnifies Schwann cell dysfunction and cell death triggered by PA-induced lipotoxicity. *Brain Research*, *1370*, 64–79. <https://doi.org/10.1016/j.brainres.2010.11.013>
- Pamungkas, R. A., & Usman, A. M. (2021). Panduan praktis screening resiko diabetes dan neuropathy. In *Panduan Praktis Screening Resiko Diabetes dan Neuropathy* (Vol. 1). KHD Production.
- Pangribowo, S. (2020). Tetap Produktif, Cegah, dan Atasi Diabetes Melitus. In *Kementerian Kesehatan RI. Kementerian Kesehatan Republik Indonesia*.

- Pathak A, Sharma S, & Jensen M. (2018). The utility and validity of pain intensity rating scales for use in developing countries. *Pain Reports*, 3, 1–8.
- Pebrianti, S., Nugraha, B. A., & Shalahuddin, I. (2020). Manajemen nyeri neuropati pada pasien diabetes melitus tipe 2: Studi literatur. *Holistik Jurnal Kesehatan*, 14(2), 276–282. <https://doi.org/10.33024/hjk.v14i2.2828>
- Perhimpunan Dokter Spesialis Saraf Indonesia. (2016). *Panduan Praktik Klinis Neurologi*.
- Petropoulos, I. N., Ponirakis, G., Khan, A., Almuhammad, H., Gad, H., & Malik, R. A. (2018). Diagnosing diabetic neuropathy: Something old, something new. *Diabetes and Metabolism Journal*, 42(4), 255–269. <https://doi.org/10.4093/dmj.2018.0056>
- Pickering, Gisèle, et al. “An Algorithm for Neuropathic Pain Management in Older People.” *Drugs & Aging*, vol. 33, no. 8, Aug. 2016, pp. 575–583, <https://doi.org/10.1007/s40266-016-0389-7>. Accessed 10 Feb. 2020.
- Pinzon, R., Pitaloca Fatimah, & Meliala, L. (2016). Skrining Polineuropati Diabetik dalam Praktik Klinik. *Jurnal Kedokteran Indonesia Medika*, XII(12), 654–657.
- Quintanilla Rodriguez, B. S., Vadakekut, E. S., & Mahdy, H. (2023). *Gestational diabetes*. StatPearls [Internet]. <https://www.ncbi.nlm.nih.gov/books/NBK545196/>
- Rahmi, A. S., Syafrita, Y., & Susanti, R. (2022). Hubungan Lama Menderita DM Tipe 2 Dengan Kejadian Neuropati Diabetik. *Jurnal JMJ*, 10(1), 20–25.
- Riskesmas. (2018). Riset Kesehatan Dasar. In *Riset Kesehatan Dasar*.
- Rivani, S., Faizah, N., & Hasanudin, M. (2024). Evaluasi Penggunaan Terapi Obat Antinyeri pada Pasien Diabetik Neuropatik di Instalasi Rawat Jalan RSU Queen Latifa Kulon Progo Drug Use Evaluation of Pain Management in Diabetic Neuropathy Patients at Outpatient Installation of RSU Queen Latifa Kulon Progo. *Jurnal Farmasi Indonesia*, 2(1).
- Rodriguez, Tori. “Pain Management Challenges in Severely Obese Patients.” *Clinical Pain Advisor*, 26 Jan. 2018, www.clinicalpainadvisor.com/features/pain-management-challenges-in-severely-obese-patients/?utm_source=chatgpt.com. Accessed 19 May 2025.
- Saul, H., Deeney, B., Imison, C., & Tesfaye, S. (2023). Combination therapy for painful diabetic neuropathy is safe and effective. *BMJ*, p866. <https://doi.org/10.1136/bmj.p866>
- Septy, D., Christanty, T., Pambudi, P., Nurikhwan, P., Dafif, M., Bakhriansyah, M., Program, S., Kedokteran, P., Sarjana, F., & Kedokteran. (2022). *LITERATURE REVIEW: PENGARUH PEMBERIAN MECOBALAMIN TERHADAP PERBAIKAN KLINIS PASIEN DENGAN NEUROPATI PERIFER*.

- Sethi, Y., Uniyal, N., Vora, V., Agarwal, P., Murli, H., Joshi, A., Patel, N., Chopra, H., Hasabo, E. A., & Kaka, N. (2023). Hypertension the “Missed Modifiable Risk Factor” for Diabetic Neuropathy: a Systematic Review. *Current Problems in Cardiology*, 48(4), 101581. <https://doi.org/10.1016/j.cpcardiol.2022.101581>
- Setiawan, M. H., Komarudin, R., & Kholifah, D. N. (2022). Pengaruh Kepercayaan, Tampilan Dan Promosi Terhadap Keputusan Pemilihan Aplikasi Marketplace. *Jurnal Infotech*, 4(2), 141.
- Sharma, S., Palanchoke, J., Reed, D., & Haxby Abbott, J. (2017). Translation, cross-cultural adaptation and psychometric properties of the Nepali versions of numerical pain rating scale and global rating of change. *Health and Quality of Life Outcomes*, 15(1), 1–11. <https://doi.org/10.1186/s12955-017-0812-8>
- Shy, M. E., Frohman, E. M., So, Y. T., Arezzo, J. C., Cornblath, D. R., Giuliani, M. J., Kincaid, J. C., Ochoa, J. L., Parry, G. J., & Weimer, L. H. (2003). Quantitative sensory testing: Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology [1] (multiple letters). *American Academy of Neurology*, 60(6), 898–904. <https://doi.org/10.1212/WNL.61.11.1628>
- Sihotang, H. (2023). Metode Penelitian Kuantitatif. In *Pusat Penerbitan dan Pencetakan Buku Perguruan Tinggi Universitas Kristen Indonesia Jakarta*.
- Silviana, M., Tugasworo, D., & Belladonna, M. (2021). Efficacy of Vitamin B1, B6, and B12 Forte Therapy in Peripheral Neuropathy Patients. *Diponegoro International Medical Journal*, 2(1), 14–19. <https://doi.org/10.14710/dimj.v2i1.9549>
- Simpson, D. M., Robinson-Papp, J., Van, J., Stoker, M., Jacobs, H., Snijder, R. J., Schregardus, D. S., Long, S. K., Lambourg, B., & Katz, N. (2017). Capsaicin 8% Patch in Painful Diabetic Peripheral Neuropathy: A Randomized, Double-Blind, Placebo-Controlled Study. *Journal of Pain*, 18(1), 42–53. <https://doi.org/10.1016/j.jpain.2016.09.008>
- Smith, A. G., & Singleton, J. R. (2013). Obesity and hyperlipidemia are risk factors for early diabetic neuropathy. *Journal of Diabetes and Its Complications*, 27(5), 436–442. <https://doi.org/10.1016/j.jdiacomp.2013.04.003>
- Soegondo, S., Soewondo, P., & Subekti, I. (2009). *Penatalaksanaan Diabetes Melitus Terpadu*. Balai Penerbit FKUI.
- Stecker, M. M., & Stevenson, M. (2017). Modulating peripheral nerve damage from hyperglycemia/anoxia. *Muscle & Nerve*, 55(5), 735–740. <https://doi.org/10.1002/mus.25401>
- Sugimoto, K., Yasujima, M., & Yagihashi, S. (2008). Role of advanced glycation

- end products in diabetic nephropathy. *Current Pharmaceutical Design*, 14(10), 953–961. <https://doi.org/10.2174/138161208784139774>
- Sugiyono. (2020). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Tandon, M., Singh, A., Saluja, V., Dhankhar, M., Pandey, C. K., & Jain, P. (2016). Validation of a new “objective pain score” vs. “Numeric rating scale” for the evaluation of acute pain: A comparative study. *Anesthesiology and Pain Medicine*, 6(1), 4–8. <https://doi.org/10.5812/aapm.32101>
- Tao, Y., Zhang, H. Y., MacGilchrist, C., Kirwan, E., & McIntosh, C. (2025). Prevalence and risk factors of painful diabetic neuropathy: A systematic review and meta-analysis. *Diabetes Research and Clinical Practice*, 222, 112099. <https://doi.org/10.1016/j.diabres.2025.112099>
- Tjandrawinata, R. R. (2016). Patogenesis Diabetes Tipe 2 : Resistensi Insulin dan Defisiensi Insulin. *Dexa Laboratories of Biomolecular Sciences (DLBS)*, 1–4.
- Troels Staehelin Jensen. (2023). The pathogenesis of painful diabetic neuropathy and clinical presentation. *Diabetes Research and Clinical Practice*, 206, 110753–110753. <https://doi.org/10.1016/j.diabres.2023.110753>
- van Beek, M., Geurts, J. W., Slangen, R., Schaper, N. C., Faber, C. G., Joosten, E. A., Dirksen, C. D., van Dongen, R. T., van Kuijk, S. M. J., & van Kleef, M. (2017). Severity of Neuropathy Is Associated With Long-term Spinal Cord Stimulation Outcome in Painful Diabetic Peripheral Neuropathy: Five-Year Follow-up of a Prospective Two-Center Clinical Trial. *Diabetes Care*, 41(1), 32–38. <https://doi.org/10.2337/dc17-0983>
- Velentgas, P., Dreyer, N. A., Nourjah, P., Smith, S. R., & Torchia, M. M. (2013). *Developing a Protocol for Observational Comparative Effectiveness Research: A User’s Guide*. AHRQ Publication.
- Verdú, E., Ceballos, D., Vilches, J. J., & Navarro, X. (2000). Influence of aging on peripheral nerve function and regeneration. *Journal of the Peripheral Nervous System*: *JPNS*, 5(4), 191–208. <https://doi.org/10.1046/j.1529-8027.2000.00026.x>
- Vinik, A. I., Park, T. S., Stansberry, K. B., & Pittenger, G. L. (2000). Diabetic neuropathies. *Diabetologia*, 43(8), 957–973. <https://doi.org/10.1007/s001250051477>
- Wandner, L. D., Scipio, C. D., Hirsh, A. T., Torres, C. A., & Robinson, M. E. (2012). The Perception of Pain in Others: How Gender, Race, and Age Influence Pain Expectations. *The Journal of Pain*, 13(3), 220–227. <https://doi.org/10.1016/j.jpain.2011.10.014>
- Widjaya, D. (2007). Diagnosis of Diabetic Neuropathy in Course and Workshop on Neurophysiology in Clinical Practice. *Kongres Nasional PERDOSSI Ke-6*, 20–39.
- Wiffen, Philip J, et al. “Gabapentin for Chronic Neuropathic Pain in Adults.”

- Cochrane Database of Systematic Reviews*, vol. 6, no. 6, 9 June 2017, <https://doi.org/10.1002/14651858.cd007938.pub4>.
- Wiffen, P. J., Derry, S., Moore, R. A., & Rice, A. S. C. (2014). Carbamazepine for chronic neuropathic pain and fibromyalgia in adults. *Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.CD007938.pub3>
- Wiffen, P. J., Knaggs, R., Derry, S., Cole, P., Phillips, T., & Moore, R. A. (2016). Paracetamol (acetaminophen) with or without codeine or dihydrocodeine for neuropathic pain in adults. *Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.cd012227.pub2>
- Wilkinson, I. D., Teh, K., Francesa Heiberg-Gibbons, Awadh, M., Kelsall, A., Pallai Shillo, Sloan, G., Tesfaye, S., & Dinesh Selvarajah. (2020). Determinants of Treatment Response in Painful Diabetic Peripheral Neuropathy: A Combined Deep Sensory Phenotyping and Multimodal Brain MRI Study. *Diabetes*, 69(8), 1804–1814. <https://doi.org/10.2337/db20-0029>
- Williamson, A., & Hoggart, B. (2005). Pain: A review of three commonly used pain rating scales. *Journal of Clinical Nursing*, 14(7), 798–804. <https://doi.org/10.1111/j.1365-2702.2005.01121.x>
- Xu, Q., Pan, J., Yu, J., Liu, X., Liu, L., Zuo, X., Wu, P., Deng, H., Zhang, J., & Ji, A. (2013). Meta-analysis of methylcobalamin alone and in combination with lipoic acid in patients with diabetic peripheral neuropathy. *Diabetes Research and Clinical Practice*, 101(2), 99–105. <https://doi.org/10.1016/j.diabres.2013.03.033>
- Yagihashi, S., Yamagishi, S.-I., & Wada, R. (2007). Pathology and pathogenetic mechanisms of diabetic neuropathy: Correlation with clinical signs and symptoms. *Diabetes Research and Clinical Practice*, 77(3), S184–S189. <https://doi.org/10.1016/j.diabres.2007.01.054>
- Yavuz, D. G. (2022). Classification, risk factors, and clinical presentation diabetic neuropathy. In *Diabetic Neuropathy*. INC. <https://doi.org/10.1016/B978-0-12-820669-0.00014-1>
- Yusuf, S., Okuwa, M., Irwan, M., Rassa, S., Laitung, B., Thalib, A., Kasim, S., Sanada, H., Nakatani, T., & Sugama, J. (2016). Prevalence and Risk Factor of Diabetic Foot Ulcers in a Regional Hospital, Eastern Indonesia. *Open Journal of Nursing*, 06(01), 1–10. <https://doi.org/10.4236/ojn.2016.61001>
- Zhou, M., Chen, N., He, L., Yang, M., Zhu, C., & Wu, F. (2017). Oxcarbazepine for neuropathic pain. *Cochrane Database of Systematic Review*.
- Zhu, J., Hu, Z., Luo, Y., Liu, Y., Luo, W., Du, X., Luo, Z., Hu, J., & Peng, S. (2023). Diabetic peripheral neuropathy: pathogenetic mechanisms and treatment. *Frontiers in Endocrinology*, 14(January), 1–17. <https://doi.org/10.3389/fendo.2023.1265372>
- Zhulhajsyirah, Z., Wahyudin, E., & Tammas, J. (2018). Efektivitas Dan Efek

Samping Penggunaan Gabapentin Pada Pasien Neuropati Diabetik Di Rsup Dr. Wahidin Sudirohusodo Makassar. *Majalah Farmasi Dan Farmakologi*, 22(2), 44–47. <https://doi.org/10.20956/mff.v22i2.5699>