

DAFTAR PUSTAKA

- Adams F., Jordan J., Schaller K., Luft F.C., Boschmann M. 2005. Blood Flow in Subcutaneous Adipose Tissue Depends on Skin-Fold Thickness. *Horm. Metab. Res.* 37:68-73.
- Akkus O., Oguz A., Uzunlulu M., Kizilgul M. 2012. Evaluation of Skin and Subcutaneous Adipose Tissue Thickness for Optimal Insulin Injection. *J. Diabetes Metab.* 3(8);1-5.
- Alam D.S., Chowdhury M.A.H. 2016. *Overweight* and Abdominal obesity as Determinants of Undiagnosed Diabetes and Pre-Diabetes in Bangladesh. *BMC Obesity* 3(19):1-12.
- Ardilouze J.L., Sotornik R., Dennis L.A., Fielding B.A., Frayn K.N., Karpe F. 2012. Failure to Increase Postprandial Blood Flow in Subcutaneous Adipose Tissue is Associated with Tissue Resistance to Adrenergic Stimulation. *Diabetes & Metabolism*;38:327-33.
- Ariza-Andraca C. R., Altamirano-Bustamante E., Frati-Munari A. C., Altamirano-Bustamante P., Graef-Sánchez A. 1991. Delayed Insulin Absorption Due to Subcutaneous Edema. *Archivos de Investigación Médica* 22(2):229-33.
- Aronoff S.L., Berkowitz K., Shreiner B., Want L. 2004. Glucose Metabolism and Regulation: Beyond Insulin and Glucagon. *Diabetes Spectrum* 17(3):183-90.
- Australian Diabetes Educators Association, 2015. Clinical Guiding Principles for Subcutaneous Injection Technique. Dickinson and Company : Canberra.
- Bahendeka S., Kaushik R., Swai A.B. EADSG Guidelines: Insulin Storage and Optimisation of Injection Technique in Diabetes Management. *Diabetes Ther* 2019:1-26.
- Bantle J.P., Neal L., Frankamp L.M. 1993. Effects of the Anatomical Region Used for Insulin Injections on Glycemia in Type I Diabetes Subjects. *Diabetes Care* 16(12):1592-7.
- Blanco M., Hernandez M. T., Strauss K. W., Amaya M. 2013. Prevalence and Risk Factors of Lipohypertrophy in Insulin Injecting Patients With Diabetes. *Diabetes & Metabolism* 39(5):445-53.
- Boden G., Ruiz J., Urbain J.L., Chen X. 1996. Evidence for A Circadian Rhythm of Insulin Secretion. *Physiology* E246-52.
- Brawn A, 2018. *Factors That Affect Blood Glucose*. DiaTribe Foundation.
- Cengiz E. Weinzimer S.A., Sherr J.L., Tichy E.M., Carria L., Cappiello D., et al. 2014. Faster in and Daster Out: Accelerating Insulin Absorption and Action by Insulin Infusion Site Warming. *Diabetes Technology & Therapeutics* 16(1):20-5.

- Dahlan M.S, 2010. *Besar Sampel dan Cara Pengambilan Sampel*. Salemba Medika, Jakarta.
- De Galan B.E., Engwerda E. E. C., Abbink E. J., Tack C. J. 2013. Body Mass Index and The Efficacy of Needle-Free Jet Injection for The Administration of Rapid-Acting Insulin Analogs, A Post Hoc Analysis. *Diabetes, Obesity and Metabolism* 15(1):84–6.
- Famulla S., Hovelmann U., Fische A., Coester H., Hermanski L., Kaltheuner M., et al. 2016. Insulin Injection Into Lipohypertrophic Tissue: Blunted and More Variable Insulin Absorption and Action and Impaired Postprandial Glucose Control. *Diabetes Care* 39(9):1486–92.
- Faulenbach M., Uthoff H., Schwegler K., Spinass G.A., Schmid C., Wiesli P. 2012. Effect of Psychological Stress on Glucose Control in Patient with Type 2 Diabetes. *Diabet. Med.* 12;29:128-31.
- Frayn K.N., Humphreys S.M. 2012. Metabolic Characteristics of Human Subcutaneous Abdominal Adipose Tissue After Overnight Fast. *Am. J. Physiol. Endocrinol. Metab.* 302: E468–75.
- Frayn K.N., Karpe K. 2014. Regulation of Human Subcutaneous Adipose Tissue Blood Flow. *International Journal of Obesity* 38:1019-26.
- Frayn K.N., Karpe K., Fielding B.A., Macdonald I.A., Coppack S.W. 2003. Integrative Physiology of Human Adipose Tissue. *International Journal of Obesity* 27:875–8.
- Freckmann G., Schmid C., Baumstark A., Pleus S., Link M., Haug C. 2012. System Accuracy Evaluation of 43 Blood Glucose Monitoring Systems for Self-Monitoring of Blood Glucose according to DIN EN ISO 15197. *Journal of Diabetes Science and Technology* 6(5):1060-75.
- Frid A. H., Kreugel G., Grassi G., Halimi S., Hicks D., Hirsch L.J., et al. 2016. New Insulin Delivery Recommendations. *Mayo Clinic Proceedings* 91(9):1231–55.
- Galloway J.A., Spradlin T., Nelson R.L., Wentworth M., Davidson J.A., Swarner J.L. 1981. Factors Influencing The Absorption, Serum Insulin Concentration, and Blood Glucose Responses After Injections of Regular Insulin and Various Insulin Mixtures. *Diabetes Care* 4(3):366–76.
- Gibney M.A., Arce C.H., Byron K.J., Hirsch L.J. 2010. Skin and Subcutaneous Adipose Layer Thickness in Adults with Diabetes at Sites Used for Insulin Injections: Implications for Needle Length Recommendations. *Current Medical Research & Opinion* ;26(6):1519-30.
- Gin H., Hanaire-Broutin H. 2005. Reproducibility and Variability in The Action of Injected Insulin. *Diabetes & Metabolism* 31(1):7–13.
- Grabowski T., Marczak M., Okoniewska K. 2016. Pharmacokinetics Definition in Regulatory Documents: Transfer from Small Molecules Into Biologics. *Int. J. Pharmacokinet.* 1(1):9–11.

- Gradel A. K. J., Porsgaard T., Lykkesfeldt J., Seested T., Gram-Nielsen S., Kristensen N.R., *et al.* 2018. Factors Affecting the Absorption of Subcutaneously Administered Insulin: Effect on Variability. *Journal of Diabetes Research* :1-17.
- Gregory R., Edward S., Yateman N.A. 1991. Demonstration of Insulin Transformation Products in Insulin Vials by High-Performance Liquid Chromatography. *Diabetes Care* 14(1):42-8.
- Gronlund B., Frandsen H., Lauritzen M., Nielsen S.L., Madsbad S. 1991. Effect of Insulin-Induced Hypoglycaemia on Absorption of Unmodified Insulin After Subcutaneous or Intramuscular Injection. *Diabetic Medicine* 8(1):13-7.
- Hajheydari Z., Kashi Z., Akha O., Akbarzadeh S. 2011. Frequency of Lipodystrophy Induced by Recombinant Human Insulin. *European Review for Medical and Pharmacological Sciences* 5(10):1196-201.
- Harrison T.R., Resnick W.R., Wintrobe M.M., Thorn G.W., Adams R.D., Beeson P.B., *et al.* 2015. Harrison's Principle of Internal Medicine 19th Edition. McGraw-Hill Education, New York.
- Heinemann L. 2010. Insulin Absorption from Lipodystrophic Areas: A (Neglected) Source of Trouble For Insulin Therapy?. *Journal of Diabetes Science and Technology* 4(3):750-53.
- Heinonen I., Bucci M., Kemppainen J., Knuuti J., Nuutila P., Boushel R., *et al.* 2012. Regulation of Subcutaneous Adipose Tissue Blood Flow During Exercise in Humans. *Journal of Applied Physiology* 112(6):1059-63.
- Hildebrandt P., Birch K., Sestoft L., Nielsen S.L. 1985. Orthostatic Changes in Subcutaneous Blood Flow and Insulin Absorption. *Diabetes Research* 2(4):187-190.
- Hildebrandt P., Sejrsen P., Nielsen S. L., Birch K., Sestoft L. 1985. Diffusion and Polymerization Determines The Insulin Absorption From Subcutaneous Tissue in Diabetic Patients. *Scandinavian Journal of Clinical and Laboratory Investigation* 45(8):685-90.
- International Diabetes Federation (IDF), 2013. *IDF Diabetes Atlas Sixth Edition, International Diabetes Federation (IDF)*. International Organization for Standardization (ISO) 15197.
- Johansson U.B., Amsberg S., Hannerz L., Wredling R., Adamson U, Arnqvist H.J., *et al.* 2005. Impaired Absorption of Insulin Aspart from Lipohypertrophic Injection Sites. *Diabetes Care* 28(8):2025-7.
- Kelly S.J., Ismail M. 2015. Stress and Type 2 Diabetes: A Review of How Stress Contributes to the Development of Type 2 Diabetes. *Annu. Rev. Public Health* 36:30.1-22.
- Klemp P., Staberg B., Madsbad S., Kolendorf K. 1982. Smoking Reduces Insulin Absorption From Subcutaneous Tissue. *B.M.J.* 284(6311):237.

- Krentz A.J., Bailey C.J. 2005. Oral Antidiabetic Agents Current Role in Type 2 Diabetes Mellitus. *Drugs* 65(3):385-411.
- Linde B. 1986. Dissociation of Insulin Absorption and Blood Flow During Massage of A Subcutaneous Injection Site. *Diabetes Care* 9(6):570-4.
- Lindholm A., Jacobsen L.V. 2001. Clinical Pharmacokinetics and Pharmacodynamics of Insulin Aspart. *Clin. Pharmacokinet.* 40(9):641-59.
- Lumb A.N., Gallen I.W. 2009. Insulin Dose Adjustment and Exercise in Type 1 Diabetes: What do We Tell The Patient?. *The British Journal of Diabetes & Vascular Disease* 9(6):273-7.
- Manaf A., 2014. *Insulin: Mekanisme Sekresi dan Aspek Metabolisme dalam Buku Ajar Ilmu Penyakit Dalam Edisi VI*. Pusat Penerbitan Departemen Ilmu Penyakit Dalam, Jakarta.
- Mane K., Chaluvvaraju K.C., Niranjan M.S., Zaranappa, Manjutej T.R. 2012. Review of Insulin and its Analogues in Diabetes Mellitus. *Journal of Basic and Clinical Pharmacy* 3(2):283-93.
- Martenson A. 2013. *Nova StatStrip Glucose and β -Ketone Hospital Meter System*. Nova Biomedical Corporation, Swedia.
- McDonald T.A., Zepeda M.L., Tomlinson M.J., Bee W.H., Ivens I.A. 2010. Subcutaneous Administration of Biotherapeutics: Current Experience in Animal Models. *Current Opinion in Molecular Therapeutics* 12(4):461-70.
- Medscape, 2019. *Medscape Reference*. Aplikasi Medscape.
- Nikkhah A. 2014. Circadian Synchrony of Insulin and Intake Patterns: Towards A Rational Anti-Obesity Theory. *Endocrinol. Metab. Syndr.* 3(2):1-2.
- Owens D.R., Coates P.A., Luzio S.D., Joroen P.T, Kurzhals R. 1990. The Variability of The Absorption of Subcutaneously Injected Insulin :Effect of Injection Technique and Relation with Brittleness. *Diabetic Medicine* 7;499-505.
- Perkumpulan Endokrinologi Indonesia, 2018. *Panduan Pemantauan Gula Darah bagi Diabetisi*. Perkumpulan Endokrinologi Indonesia : Jakarta.
- Pledger J., Hicks D., Kirkland F., Sown S. 2012. Importance of injection technique in diabetes. *Journal of Diabetes Nursing* 16(4):53-8.
- Punthakee Z., Goldenberg R., Ronald K. 2018. Definition, Classification and Diagnosis of Diabetes, Prediabetes and Metabolic Syndrome. *Can. J. Diabetes* 42(supp1):S11-5.
- Purnamasari D. 2014. *Diagnosis dan Klasifikasi Diabetes Melitus dalam Buku Ajar Ilmu Penyakit Dalam Edisi VI*. Pusat Penerbitan Departemen Ilmu Penyakit Dalam, Jakarta
- Riddle M.C., Bakris G., Blonde L., Boulton A.J.M., D'Alessio D., Groot M.S.A., et al. 2018. Standards of Medical Care in Diabetes. *Diabetes Care* 41(1):1-150.

- Saltiel-Berzin R., Cypress M., & Gibney M. 2012. Translating the research in insulin injection technique: Implications for practice. *The Diabetes Educator* 38(5):p.635-43.
- Santosa A., Rosa E.M. 2014. Efektivitas Lokasi dan Waktu Injeksi Insulin Terhadap Pengendalian Kadar Gula Darah 2 Jam Setelah Makan pada Penderita Diabetes Melitus. *Muhammadiyah Journal of Nursing* 128-36.
- Soeborg T., Rasmussen C.H., Mosekilde E., Colding-Jorgensen M. 2012. Bioavailability and Variability of Biphasic Insulin Mixtures. *European Journal of Pharmaceutical Sciences* 46(4):198–208.
- Soelistijo S.A. Lindarto D., Decroli E., Permana H., Sucipto K.W., Kusnadi Y., *et al.*, 2019. Konsensus Pengelolaan dan Pencegahan Diabetes Melitus Tipe 2 di Indonesia. PB Perkeni, Jakarta.
- Ter Braak E.W., Woodworth J.R., Bianchi R.I., Cerimele B., Erkelens W., Thijssen J.H.H., *et al.* 1996. Injection Site Effects on the Pharmacokinetics and Glucodynamics of Insulin Lispro and Regular Insulin. *Diabetes Care* 19(12):1437-40.
- Tonyushkina K., Nichols J. 2009. Glucose meters: A Review of Technical Challenges to Obtaining Accurate Results. *J Diabetes Sci. Technol.* 3(4):971–80.
- Turner R.C., Cull C.A., Frighi V., Holman B.R. 1999. Glycemic Control with Diet, Sulfonylurea, Metformin or Insulin in Patients with Type 2 Diabetes Mellitus. *JAMA* 281(21):2005-15.
- Vardar B., Kizilci S. 2007. Incidence of Lipohypertrophy in Diabetic Patients and A Study of Influencing Factors. *Diabetes Research and Clinical Practice* 77(2):231–6.
- Vora J.P., Burch A., Peters J.R., Owens D.R. 1992. Relationship Between Absorption of Radiolabeled Soluble Insulin, Subcutaneous Blood Flow, and Anthropometry. *Diabetes Care* 15(11):1484–93.
- World Health Organization, 2016. *Global Report on Diabetes*. World Health Organization, Perancis.