

REFERENCES

- Ahmed, I., Majeed, A., and Powell, R., 2007. Heparin induced thrombocytopenia: diagnosis and management update. *Postgraduate Medical Journal*, **83**: 575–582.
- Alban, S., 2008. [Natural and synthetic glycosaminoglycans. Molecular characteristics as the basis of distinct drug profiles]. *Hamostaseologie*, **28**: 51–61.
- Alquwaizani, M., Buckley, L., Adams, C., and Fanikos, J., 2013. Anticoagulants: A Review of the Pharmacology, Dosing, and Complications. *Current Emergency and Hospital Medicine Reports*, **1**: 83–97.
- Anand, S.S., Yusuf, S., Pogue, J., Ginsberg, J.S., and Hirsh, J., 2003. Relationship of Activated Partial Thromboplastin Time to Coronary Events and Bleeding in Patients With Acute Coronary Syndromes Who Receive Heparin. *Circulation*, **107**: 2884–2888.
- Basu, D., Gallus, A., Hirsh, J., and Cade, J., 1972. A Prospective Study of the Value of Monitoring Heparin Treatment with the Activated Partial Thromboplastin Time. *New England Journal of Medicine*, **287**: 324–327.
- Bělohávek, J., Dytrych, V., and Linhart, A., 2013. Pulmonary embolism, part I: Epidemiology, risk factors and risk stratification, pathophysiology, clinical presentation, diagnosis and nonthrombotic pulmonary embolism. *Experimental & Clinical Cardiology*, **18**: 129–138.
- Bonenfant, F., Cossette, B., Nault, V., Turgeon, M., Paulin, M., Echenberg, D., *et al.*, 2011. 241 Risk of supratherapeutic APTT in the absence of an initial unfractionated heparin bolus. *Canadian Journal of Cardiology*, **27**: S149.
- Bussey, H., Francis, J.L., and Heparin Consensus Group, 2004. Heparin Overview and Issues. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy*, **24**: .
- Byrne, R.A., Rossello, X., Coughlan, J.J., Barbato, E., Berry, C., Chieffo, A., *et al.*, 2023. 2023 ESC Guidelines for the management of acute coronary syndromes. *European Heart Journal*, **44**: 3720–3826.

- Carson, J.L. and Stanworth, S.J., 2017. Anemia and bleeding in thrombocytopenic patients. *Blood*, **130**: 1178–1179.
- Chambers, D.J., 2019. Principles of intravenous drug infusion. *Anaesthesia & Intensive Care Medicine*, **20**: 61–64.
- Derbalah, A., Duffull, S., Newall, F., Moynihan, K., and Al-Sallami, H., 2019. Revisiting the Pharmacology of Unfractionated Heparin. *Clinical Pharmacokinetics*, .
- Deusenberry, C.M., Bardsley, C., Sharon, M., Hobbs, G.R., Wilson, A.M., and Bardes, J.M., 2023. Low Molecular Weight Heparin Is Superior for Venous Thromboembolism Prophylaxis in High-Risk Geriatric Patients. *The American SurgeonTM*, **89**: 5837–5841.
- Feinbloom, D., Freed, J.A., Carbo, A., Jung, Y., Adra, M., and Herzig, S.J., 2021. Incidence and risk factors for PTT prolongation in patients receiving low-dose unfractionated heparin thromboprophylaxis. *Journal of Thrombosis and Thrombolysis*, **52**: 331–337.
- Flores, B., Trivedi, H.D., Robson, S.C., and Bonder, A., 2017. Hemostasis, bleeding and thrombosis in liver disease. *Journal of translational science*, **3**: 10.15761/JTS.1000182.
- Fritsma, G.A., 2020. Laboratory evaluation of hemostasis, in: *Rodak's Hematology*. Elsevier, page. 765–792.
- Garcia, D.A., Baglin, T.P., Weitz, J.I., and Samama, M.M., 2012. Parenteral Anticoagulants. *Chest*, **141**: e24S-e43S.
- Gray, E., Hogwood, J., and Mulloy, B., 2012. The Anticoagulant and Antithrombotic Mechanisms of Heparin, in: Lever, R., Mulloy, B., and Page, C.P. (Editor), *Heparin - A Century of Progress, Handbook of Experimental Pharmacology*. Springer Berlin Heidelberg, Berlin, Heidelberg, page. 43–61.
- Heestermans, M., Poenou, G., Hamzeh-Cognasse, H., Cognasse, F., and Bertoletti, L., 2022. Anticoagulants: A Short History, Their Mechanism of Action, Pharmacology, and Indications. *Cells*, **11**: 3214.

- Hosch, L.M., Breedlove, E.Y., Scono, L.E., and Knoderer, C.A., 2017. Evaluation of an Unfractionated Heparin Pharmacy Dosing Protocol for the Treatment of Venous Thromboembolism in Nonobese, Obese, and Severely Obese Patients. *Annals of Pharmacotherapy*, **51**: 768–773.
- Huang, Y., Ge, H., Wang, X., and Zhang, X., 2022. Association Between Blood Lipid Levels and Lower Extremity Deep Venous Thrombosis: A Population-Based Cohort Study. *Clinical and Applied Thrombosis/Hemostasis*, **28**: 107602962211212.
- Kakkos, S.K., Gohel, M., Baekgaard, N., Bauersachs, R., Bellmunt-Montoya, S., Black, S.A., *et al.*, 2021. Editor's Choice – European Society for Vascular Surgery (ESVS) 2021 Clinical Practice Guidelines on the Management of Venous Thrombosis. *European Journal of Vascular and Endovascular Surgery*, **61**: 9–82.
- Kim, Je Sang, Lee, H.J., Sung, J.D., Kim, H.-J., Lee, S.-Y., and Kim, June Soo, 2014. Monitoring of Unfractionated Heparin Using Activated Partial Thromboplastin Time: An Assessment of the Current Nomogram and Analysis According to Age. *Clinical and Applied Thrombosis/Hemostasis*, **20**: 723–728.
- Lemeshow, S. and 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.
- Lever, R., Mulloy, B., and Page, C.P. (Editor), 2012. *Heparin - A Century of Progress*, Handbook of Experimental Pharmacology. Springer Berlin Heidelberg, Berlin, Heidelberg.
- Little, J.W., Falace, D.A., Miller, C.S., and Rhodus, N.L., 2013. Chapter 24 - Acquired Bleeding and Hypercoagulable Disorders, in: Little, J.W., Falace, D.A., Miller, C.S., and Rhodus, N.L. (Editor), *Little and Falace's Dental Management of the Medically Compromised Patient (Eighth Edition)*. Mosby, St. Louis, page. 409–436.

- McRae, H.L., Militello, L., and Refaai, M.A., 2021. Updates in Anticoagulation Therapy Monitoring. *Biomedicines*, **9**: 262.
- Melloni, C., Alexander, K.P., Chen, A.Y., Newby, L.K., Roe, M.T., Allen LaPointe, N.M., *et al.*, 2008. Unfractionated heparin dosing and risk of major bleeding in non–ST-segment elevation acute coronary syndromes. *American Heart Journal*, **156**: 209–215.
- Nuffer, Z., Rupasov, A., Bekal, N., Murtha, J., and Bhatt, S., 2017. Spectral Doppler ultrasound of peripheral arteries: a pictorial review. *Clinical Imaging*, **46**: 91–97.
- Oduah, E., Linhardt, R., and Sharfstein, S., 2016. Heparin: Past, Present, and Future. *Pharmaceuticals*, **9**: 38.
- Pahwa, R. and Jialal, I., 2024. Atherosclerosis, in: *StatPearls*. StatPearls Publishing, Treasure Island (FL).
- Parker, W.A.E., Storey, R.F., and Ajjan, R.A., 2000. Platelets, Coagulation, and Antithrombotic Therapy in Diabetes, in: Feingold, K.R., Anawalt, B., Blackman, M.R., Boyce, A., Chrousos, G., Corpas, E., *et al.* (Editor), *Endotext*. MDText.com, Inc., South Dartmouth (MA).
- Prandoni, P., Lensing, A.W.A., Piccioli, A., Bernardi, E., Simioni, P., Girolami, B., *et al.*, 2002. Recurrent venous thromboembolism and bleeding complications during anticoagulant treatment in patients with cancer and venous thrombosis. *Blood*, **100**: 3484–3488.
- Prucnal, C.K., Jansson, P.S., Deadmon, E., Rosovsky, R.P., Zheng, H., and Kabrhel, C., 2020. Analysis of Partial Thromboplastin Times in Patients With Pulmonary Embolism During the First 48 Hours of Anticoagulation With Unfractionated Heparin. *Academic Emergency Medicine*, **27**: 117–127.
- Riaz, I.B., Asawaer, M., Riaz, H., Gabriel, W.M., Tabash, I.K., Bilal, J., *et al.*, 2014. Optimal anticoagulation duration of unfractionated and low molecular weight heparin in non-ST elevation acute coronary syndrome: A systematic review of the literature. *International Journal of Cardiology*, **177**: 461–466.

- Roth, G.A., Abate, D., Abate, K.H., Abay, S.M., Abbafati, C., Abbasi, N., *et al.*, 2018. Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*, **392**: 1736–1788.
- Schünemann, H.J., Cushman, M., Burnett, A.E., Kahn, S.R., Beyer-Westendorf, J., Spencer, F.A., *et al.*, 2018. American Society of Hematology 2018 guidelines for management of venous thromboembolism: prophylaxis for hospitalized and nonhospitalized medical patients. *Blood Advances*, **2**: 3198–3225.
- Shikdar, S., Vashisht, R., and Bhattacharya, P.T., 2024. International Normalized Ratio (INR), in: *StatPearls*. StatPearls Publishing, Treasure Island (FL).
- Silvain, J., Beygui, F., Barthelemy, O., Pollack, C., Cohen, M., Zeymer, U., *et al.*, 2012. Efficacy and safety of enoxaparin versus unfractionated heparin during percutaneous coronary intervention: systematic review and meta-analysis. *BMJ*, **344**: e553–e553.
- Smythe, M.A., Priziola, J., Dobesh, P.P., Wirth, D., Cuker, A., and Wittkowsky, A.K., 2016. Guidance for the practical management of the heparin anticoagulants in the treatment of venous thromboembolism. *Journal of Thrombosis and Thrombolysis*, **41**: 165–186.
- Stevens, S.M., Woller, S.C., Kreuziger, L.B., Bounameaux, H., Doerschug, K., Geersing, G.-J., *et al.*, 2021. Antithrombotic Therapy for VTE Disease. *Chest*, **160**: e545–e608.
- Streiff, M.B., Agnelli, G., Connors, J.M., Crowther, M., Eichinger, S., Lopes, R., *et al.*, 2016. Guidance for the treatment of deep vein thrombosis and pulmonary embolism. *Journal of Thrombosis and Thrombolysis*, **41**: 32–67.
- Tan, S., White, H.D., and Layland, J., 2022. Heparin use in acute coronary syndromes and cardiovascular interventions: habit or evidence based? *European Heart Journal*, **43**: 1008–1011.

- Thomas, B.R., Tj, C., Sabu, N., Es, L., Baby, N., K, M., *et al.*, 2018. Prescribing Pattern of Cardiovascular Drugs - A Prospective Observational Study. *Indian Journal of Pharmacy Practice*, **10**: 287–292.
- Thygesen, K., Alpert, J.S., Jaffe, A.S., Chaitman, B.R., Bax, J.J., Morrow, D.A., *et al.*, 2019. Fourth universal definition of myocardial infarction (2018). *European Heart Journal*, **40**: 237–269.
- Timmis, A., Vardas, P., Townsend, N., Torbica, A., Katus, H., De Smedt, D., *et al.*, 2022. European Society of Cardiology: cardiovascular disease statistics 2021. *European Heart Journal*, **43**: 716–799.
- Tiryaki, F., Nutescu, E.A., Hennenfent, J.A., Karageanes, A.M., Koesterer, L.J., Lambert, B.L., *et al.*, 2011. Anticoagulation therapy for hospitalized patients: Patterns of use, compliance with national guidelines, and performance on quality measures. *American Journal of Health-System Pharmacy*, **68**: 1239–1244.
- Ucar, E.Y., Akgun, M., Araz, O., Tas, H., Kerget, B., Meral, M., *et al.*, 2015. Comparison of LMWH Versus UFH for Hemorrhage and Hospital Mortality in the Treatment of Acute Massive Pulmonary Thromboembolism After Thrombolytic Treatment: Randomized Controlled Parallel Group Study. *Lung*, **193**: 121–127.
- Umerah, C. o and Momodu, I.I., 2024. Anticoagulation, in: *StatPearls*. StatPearls Publishing, Treasure Island (FL).
- Waheed, S.M., Kudaravalli, P., and Hotwagner, D.T., 2024. Deep Vein Thrombosis, in: *StatPearls*. StatPearls Publishing, Treasure Island (FL).
- Warnock, L.B. and Huang, D., 2024. Heparin, in: *StatPearls*. StatPearls Publishing, Treasure Island (FL).
- Weitz, D.S. and Weitz, J.I., 2010. Update on heparin: what do we need to know? *Journal of Thrombosis and Thrombolysis*, **29**: 199–207.
- Yang, Q.-Y., Ouyang, J., and Yang, J.-D., 2018. Sepsis as an important risk factor for gastrointestinal bleeding in acute coronary syndrome patients. *Medicine*, **97**: e12273.