

DAFTAR PUSTAKA

1. Shankar-Hari M, Phillips GS, Levy ML, Seymour CW, Liu VX, Deutschman CS, et al. Developing a new definition and assessing new clinical criteria for Septic shock: For the third international consensus definitions for sepsis and septic shock (sepsis-3). *JAMA - J Am Med Assoc.* 2016;315(8):775–87.
2. Fleischmann C, Scherag A, Adhikari N, Hartog C, Tsaganos T, Schlattmann P, et al. Assessment of global incidence and mortality of hospital-treated sepsis. Current estimates and limitations. *Am J Respirat Crit Care Med.* 2016;193(3):259– 72.
3. Sari DP, Lubis HS, Ginting Y. Koagulasi Intravaskular Diseminata pada Sepsis. *Cermin Dunia Kedokteran.* 2017;44(9): 623-7
4. Umar I, Sujud RW. Hemostasis dan Disseminated Intravascular Coagulation (DIC). *Journal of Anaesthesia and Pain.* 2020;1(2): 19-32
5. Huang X, Hu H, Sun T, et al. Plasma Endothelial Glycocalyx Components as a Potential Biomarker for Predicting the Development of Disseminated Intravascular Coagulation in Patients With Sepsis. *Journal of Intensive Care Medicine.* 2020;10:1-10
6. Patterson EK, Cepinskas G and Fraser DD .Endothelial Glycocalyx Degradation in Critical Illness and Injury. *Front. Med.* 2022;9: 1-13
7. Katayama S, Koyama K, Shima J, et al. Thrombomodulin, Plasminogen Activator Inhibitor-1 and Protein C Levels, and Organ Dysfunction in Sepsis. *Crit Care Expl.* 2019; 1:e0013
8. Hoshino K, Kitamura T, Nakamura Y, et al. Usefulness of plasminogen activator inhibitor-1 as a predictive marker of mortality in sepsis Hoshino et al. *Journal of Intensive Care.* 2017;5:42
9. Tipoe TL, Wu WKK, Chung L, Gong M, Dong M, Liu T, Roever L, Ho J, Wong MCS, Chan MTV, Tse G, Wu JCY and Wong SH. Plasminogen Activator Inhibitor 1 for Predicting Sepsis Severity and Mortality Outcomes: A Systematic Review and Meta-Analysis. *Front. Immunol.* 2018; 9:1218.
10. Chappell D, Jacob M. Role of the glycocalyx in fluid management: small things matter. *Best Pract Res Clin Anaesthesiol.* 2014;28:227–34

11. Tojo MY. Endothelial glycocalyx damage as a systemic inflammatory microvascular endotheliopathy in . COVID-19. *Biomedical journal*.2020; 399(4):1-3
12. Iba T, Levy H. Derangement of the endothelial glycocalyx in sepsis. *Journal of Thrombosis and Haemostasis*.2019;17: 283–294
13. Takehara K, Murakami T, Arai KK, et al. Evaluation of the effect of recombinant thrombomodulin on a lipopolysaccharide-induced murine sepsis model. *Experimental and Therapeutic Medicine*. 2017; 13: 2969-2974
14. Boron M, Martin TH, Keil J, et al. Circulating Thrombomodulin: Release Mechanisms, Measurements, and Levels in Diseases and Medical Procedures. *TH Open*.2022;6:e194–e212.
15. Santosa B, Kisdjamiatun RMD, Ermin T, et al. Korelasi Kadar Plasminogen Activator Inhibitor-1 (PAI-1) Plasma dengan Enzim Transaminase Serum pada Demam Berdarah Dengue. *Sari Pediatri*.2010;12(1):6-10
16. Madoiwa S. Recent advances in disseminated intravascular coagulation: endothelial cells and fibrinolysis in sepsis-induced DIC *Journal of Intensive Care*.2015;3:8
17. Ince C, Mayeux PR, Nguyen T, Gomez H, Kellum JA, Gustavo A, et al. The Endothelium in Sepsis. *Shock*.2016; 45(3): 259–270.
18. Levi M, Scully M, Singer M. The Role of ADAMTS13 in the Coagulopathy of Sepsis. *Journal of Thrombosis dan Haemostasis*.2018;16(4): 646-51
19. Peigne V, Azoulay E, Coquet I, et al. The prognostic value of ADAMTS13 (a disintegrin and metalloprotease with thrombospondin type 1 repeats, member 13) deficiency in septic shock patients involves interleukin-6 and is not dependent on disseminated intravascular coagulation. *Critical Care*.2013;17:R273
20. Singh K, Kwong AC, Madarati H, Kunasekaran S, Sparring T, Fox-Robichaud AE, et al. Characterization of ADAMTS13 and von Willebrand factor levels in septic and non-septic ICU patients. *PLoS ONE*.2021; 16(2): e0247017
21. Sullivan RC, Rockstrom MD, Schmidt EP. Endothelial glycocalyx degradation during sepsis: Causes and Consequences. *Matrix Biology Plus*. 2021;12:1-12
22. Van der Heijden J et al. Plasma hyaluronan, hyaluronidase activity and endogenous hyaluronidase inhibition in sepsis: an experimental and clinical cohort Study. *Intensive Care Medicine Experimental*.2021;9:53

23. Singer, M., Deutschman, C.S., Seymour, C.W., Shankar- Hari, M., Annane, D., Bauer, M., Bellomo, R., Bernard, G. R., Chiche, J.-D., Coopersmith, C.M., Hotchkiss, R.S., Levy, M.M., Marshall, J.C., Martin, G.S., Opal, S.M., Rubenfeld, G.D., van der Poll, T., Vincent, J.-L., Angus, D.C. The third international consensus definitions for sepsis and septic shock (Sepsis-3). *JAMA*.2016;315:801– 810.
24. Pape T, Hunkemoller AM, Kumpers P. Targeting the “sweet spot” in septic shock – A perspective on the endothelial glycocalyx regulating proteins Heparanase-1 and -2. *Matrix Biology Plus*. 2021;12:100095-109
25. Stahl et al. . Effects of therapeutic plasma exchange on the endothelial glycocalyx in septic shock. *Intensive Care Medicine Experimental*.2021;9:57
26. Walker SC, Richter RP, Zheng L, et al. Increased Plasma Hyaluronan Levels are Associated With Acute Traumatic Coagulopathy. *Shock*. 2022 Jan 1;57(1):113-117
27. Pollmann S, Scharnetzki D, Manikowski D, Lenders M and Brand E. Endothelial Dysfunction in Fabry Disease Is Related to Glycocalyx Degradation. *Front. Immunol*. 2021;12:789142.
28. Chia PY, Teo A and Yeo TW. Overview of the Assessment of Endothelial Function in Humans. *Front. Med*.2020; 7:542567.
29. Rajendran P, Rengarajan T, Thangavel J. The Vascular Endothelium and Human Diseases. *Int. J. Biol. Sci*.2013; 9(10):1057-1069.
30. Koch J, Hijmans RS, Ossa Builes M, Dam WA, Pol RA, Bakker SJL, Pas HH, Franssen CFM and van den Born J. Direct Evidence of Endothelial Dysfunction and Glycocalyx Loss in Dermal Biopsies of Patients With Chronic Kidney Disease and Their Association With Markers of Volume Overload. *Front. Cell Dev. Biol*.2021; 9:733015.
31. Jackson G. Endothelial function and dysfunction. *Int J Clin Pract*.2004;58(5):431
32. Qu J, Cheng Y, Wu W, Yuan L and Liu X. Glycocalyx Impairment in Vascular Disease: Focus on Inflammation. *Front. Cell Dev. Biol*.2021; 9:730621.
33. Drost CC , Rovas A and Kumpers P . Protection and rebuilding of the endothelial glycocalyx in sepsis – Science or fiction? *Matrix Biology Plus*. 2021;12:1-15
34. Hatanaka K, Ito T, Madokoro Y, Kamikokuryo C, Niiyama S, Yamada S, Maruyama I and Kakihana Y. Circulating *Syndecan-1* as a Predictor of Persistent Thrombocytopenia and

- Lethal Outcome: A Population Study of Patients With Suspected Sepsis Requiring Intensive Care. *Front. Cardiovasc. Med.*2021; 8:730553.
35. Vollenberg, R.; Tepasse, P.-R.; Ochs, K.; Floer, M.; Strauss, M.; Rennebaum, F.; Kabar, I.; Rovas, A.; Nowacki, T. Indications of Persistent Glycocalyx Damage in Convalescent COVID-19 Patients: A Prospective Multicenter Study and Hypothesis. *Viruses.*2021;13:2324.
 36. Belinskaia, D.A.; Voronina, P.A.; Shmurak, V.I.; Jenkins, R.O.; Goncharov, N.V. Serum Albumin in Health and Disease: Esterase, Antioxidant, Transporting and Signaling Properties. *Int. J. Mol. Sci.*2021;22:10318.
 37. Jin J, Fang F, Gao W, Chen H, Wen J, Wen X and Chen J. The Structure and Function of the Glycocalyx and Its Connection With Blood-Brain Barrier. *Front. Cell. Neurosci.*2021; 15:739699.
 38. V. Masola, N. Greco, G. Gambaro, et al. Heparanase as active player in endothelial glycocalyx remodeling. *Materials Biology* 13.2022;100097
 39. Fernández-Sarmiento J, Flórez S, Alarcón-Forero LC, Salazar-Peláez LM, Garcia-Casallas J, Mulett H, Acevedo L and Salamanca C. Case Report: Endothelial Glycocalyx Damage in Critically ill Patients With SARS-CoV-2-Related Multisystem Inflammatory Syndrome (MIS-C). *Front. Pediatr.*2021; 9:726949.
 40. Mahmoud M, Cancel L and Tarbell JM. Matrix Stiffness Affects Glycocalyx Expression in Cultured Endothelial Cells. *Front. Cell Dev. Biol.*2021; 9:731666.
 41. Zhang et al. *Syndecan-1*, an indicator of endothelial glycocalyx degradation, predicts outcome of patients admitted to an ICU with COVID-19. *Molecular Medicine.*2021;27:151
 42. Yang R, Chen M, Zheng J, Li X and Zhang X. The Role of Heparin and Glycocalyx in Blood– Brain Barrier Dysfunction. *Front. Immunol.*2021;12:754141
 43. Preeze HN, Aldous C, Hayden MR, Kruger HG, Lin J. Pathogenesis of COVID-19 described through the lens of an undersulfated and degraded epithelial and endothelial glycocalyx. *FASEB J.* 2022;36(1):e22052
 44. Iba T, Levy JH. Sepsis-induced Coagulopathy and Disseminated Intravascular Coagulation. *Anesthesiology.* 2020;1(212):1238–45

45. Walborn AT, Hoppensteadt D. The Molecular Pathophysiology of Sepsis-Associated Disseminated Intravascular Coagulation and Its Pharmacologic Modulation. 2018;10789511:407.
46. Zaragoza JJ, Espinoza-Villafuerte M V. Current approach to disseminated intravascular coagulation related to sepsis - organ failure type. *World J Hematol.* 2017;6(1):11.
47. Zeerleder S, Hack CE, Wuillemin WA. Disseminated intravascular coagulation in sepsis. *Chest.* 2005;128(4):2864-75.
48. Iba T, Connors JM, Nagaoka I, Levy JH. Recent advances in the research and management of sepsis-associated DIC. *Int J Hematol.*2021;113(1):24–33.
49. Iba T, Levy JH, Raj A, Warkentin TE. Advance in the management of sepsis-induced coagulopathy and disseminated intravascular coagulation. *J Clin Med.* 2019;8(5).
50. Iba T, Umemura Y, Watanabe E, Wada T, Hayashida K, et al. Diagnosis of sepsis-induced disseminated intravascular coagulation and coagulopathy. *Acute Med Surg.* 2019;223–32.
51. Takayama W, Endo A, Morishita K, Otomo Y. Dielectric Blood Coagulometry for the Early Detection of Sepsis-Induced Disseminated Intravascular Coagulation: A Prospective Observational Study. *Crit Care Med.* 2022;50(1):E31–9.
52. Helms J, Severac F, Merdji H, Clere-Jehl R, François B, Mercier E, et al. Performances of disseminated intravascular coagulation scoring systems in septic shock patients. *Ann Intensive Care.*2020;10(1).
53. Gando S, Iba T, Eguchi Y, Ohtomo Y, Okamoto K, Koseki K, et al. A multicenter, prospective validation of disseminated intravascular coagulation diagnostic criteria for critically ill patients: Comparing current criteria. *Crit Care Med.* 2006;34(3):625–31.
54. Levi M, Toh CH, Thachil J, Watson HG. Guidelines for the diagnosis and management of disseminated intravascular coagulation. *Br J Haematol.* 2009;145(1):24–33.
55. Huang, X., Lu, F., Tian, H. et al. Association between plasma glycocalyx component levels and poor prognosis in severe influenza type A (H1N1). *Sci Rep.*2022;12;163.
56. Silva-Filho, Dos-Santos, et al. Total parasite biomass but not peripheral parasitaemia is associated with endothelial and haematological perturbations in *Plasmodium vivax* patients. *eLife* 2021;10:e71351:1-25

57. Dhainaut JF, Yan SB, Cariou A, Mira JP. Soluble thrombomodulin, plasma-derived unactivated protein C, and recombinant human activated protein C in sepsis. *Crit Care Med.* 2002; 30(5 Suppl):S318±24.
58. Faust SN, Heyderman RS, Levin M. Coagulation in severe sepsis: a central role for thrombomodulin and activated protein C. *Crit Care Med.* 2001; 29(7 suppl):S62±8.
59. Levi M, Van Der Poll T. Thrombomodulin in sepsis. *Minerva Anesthesiol.* 2013; 79(3):294±8.
60. Sapru A, Calfee CS, Liu KD, Kangelaris K, Hansen H, Pawlikowska L, et al. Plasma soluble thrombomodulin levels are associated with mortality in the acute respiratory distress syndrome. *Intensive Care Med.* 2015; 41(3):470±8.
61. Orwoll BE, Spicer AC, Zinter MS, Alkhouli MF, Khemani RG, Flori HR, et al. Elevated soluble thrombomodulin is associated with organ failure and mortality in children with acute respiratory distress syndrome (ARDS): a prospective observational cohort study. *Crit Care.* 2015; 19:435.
62. Asakura H, Jokaji H, Saito M, Uotani C, Kumabashiri I, Morishita E, et al. Plasma levels of soluble thrombomodulin increase in cases of disseminated intravascular coagulation with organ failure. *Am J Hematol.* 1991; 38(4):281±7.
63. Lin SM, Wang YM, Lin HC, Lee KY, Huang CD, Liu CY, et al. Serum thrombomodulin level relates to the clinical course of disseminated intravascular coagulation, multiorgan dysfunction syndrome, and mortality in patients with sepsis. *Crit Care Med.* 2008; 36(3):683±9.
64. Mihajlovic DM, Lendak DF, Draskovic BG, Mikic AS, Mitic GP, Cebovic TN, et al. Thrombomodulin is a Strong Predictor of Multiorgan Dysfunction Syndrome in Patients With Sepsis. *Clin Appl Thromb Hemost.* 2015; 21(5):469±74.
65. Ware LB, Mark D, Eisner, B, et al Significance of Von Willebrand Factor in Septic and Nonseptic Patients with Acute Lung Injury *Am J Respir Crit Care Med* Vol 170. pp 766–772, 2004
66. van Hinsbergh VW. Endothelium–role in Regulation of Coagulation and Inflammation. *Semin Immunopathol.* 2012; 34(1):93–106.
67. Gaudette, S., Hughes, D. & Boller, M. The endothelial glycocalyx: Structure and function in health and critical illness. *J. Vet. Emerg. Crit. Care.* 2020; 30(2):117–134

68. Levi M, van der Poll T. Coagulation and sepsis. *Thromb Res.* 2017;149:38-44.
69. Slofstra SH, Spek CA, ten Cate H. Disseminated intravascular coagulation. *Hematol J.* 2003;4:295-302.
70. Iba T, Nisio MD, Levy JH, Kitamura N, Thachil J. New criteria for sepsis-induced coagulopathy (SIC) following the revised sepsis definition: a retrospective analysis of a nationwide survey. *BMJ Open.* 2017;7:e017046
71. Rodrigues AT, et al. Association between thrombomodulin and high mobility group box 1 in sepsis patients. *World J Crit Care Med.*2020; 9(4): 63-73.
72. Saoraya J, Wongsamita L, Srisawat N, Musikatavorn K. Plasma *syndecan-1* is associated with fluid requirements and clinical outcomes in emergency department patients with sepsis. *American Journal of Emergency Medicine.*2021; 42: 83–89
73. Madoiwa S, et al. Plasminogen Activator Inhibitor 1 Promotes a Poor Prognosis in Sepsis-Induced Disseminated Intravascular Coagulation. *Int J Hematol.* 2006;84:398-405.
74. Sallisalmi M, Tenhunen J, Yang R, Oksala N and Pettilä V. Vascular adhesion protein-1 and *syndecan-1* in septic shock. *Acta Anaesthesiol Scand.*2012; 56: 316–322
75. Ilyina Y, Fot E, Kuzkov V, Kirov M. The glycocalyx shedding influences hemodynamic and metabolic response to fluid load in septic shock. *Turk J Anaesthesiol Reanim.* 2022;50(2):94-100.
76. Elnomany AA, Hodeib H, Elbaradey GF ,and Sweilam MA. Study of Plasminogen Activator Inhibitor-1 (PAI-1) as Prognostic Marker in Sepsis. *Journal of Advances in Medicine and Medical Research.*2021; 33(18): 81-86.
77. Matsumoto H, et al. The clinical importance of a cytokine network in the acute phase of sepsis. *Scientific Reports.*2018; 8:13995.
78. Liu C, Suo S, Luo L, Chen X, Ling C, Cao S. SOFA Score in relation to Sepsis: Clinical Implications in Diagnosis, Treatment, and Prognostic Assessment. *Comput Math Methods Med.* 2022 Aug 10;2022:7870434
79. Levi M, De Jonge E, Van der Poll T. Sepsis and disseminated intravascular coagulation. *J Thromb Thrombolysis.*2003; 16:43–47.
80. Lin J-J, Hsiao H-J, Chan O-W, Wang Y, Hsia S-H, Chiu C-H. Increased serum thrombomodulin level is associated with disease severity and mortality in pediatric sepsis. *PloS ONE.* 2017; 12(8): e0182324

81. Knoebl P. Blood coagulation disorders in septic patients. *Wien Med Wochenschr.*2010; 160:129-38.
82. Mao JY, Zhang JH, Cheng W, Chen JW and Cui N. Effects of Neutrophil Extracellular Traps in Patients With Septic Coagulopathy and Their Interaction With Autophagy. *Front. Immunol.* 2021;12:757041
83. Hatanaka K, Ito T, Madokoro Y, Kamikokuryo C, Niiyama S, Yamada S, Maruyama I and Kakihana Y. Circulating *Syndecan-1* as a Predictor of Persistent Thrombocytopenia and Lethal Outcome: A Population Study of Patients With Suspected Sepsis Requiring Intensive Care. *Front. Cardiovasc. Med.*2021; 8:730553.
84. Zhang, X. L., Wu, C., Song, J., Gotte, M. & Sorokin, L. *Syndecan-1*, a cell surface proteoglycan, negatively regulates initial leukocyte recruitment to the brain across the choroid plexus in murine experimental autoimmune encephalomyelitis. *J. Immunol.*2013; 191, 4551–4561
85. Masuda T, Shoko T, and Deguchi Y. Clinical Investigation of Coagulation Markers for Early Detection of Sepsis-Induced Disseminated Intravascular Coagulation: A Single-Center, Prospective Observational Study. *Thrombosis/Hemostasis* 2018, Vol. 24(7) 1082-1087
86. Wada H, Nobori T, Watanabe R, Shiku H, and Surugawa N. Plasma Levels of Plasminogen Activator Inhibitor-1 (PAI-1) and Thrombin Activatable Fibrinolysis Inhibitor (TAFI) in Patients with Disseminated Intravascular Coagulation (DIC) . *Turk J Haematol.*2002;19(2):235-237
87. Ikeda M, et al. Circulating *syndecan-1* predicts the development of disseminated intravascular coagulation in patients with sepsis. *Journal of critical care.*2017; 17:30721-30729
88. Zhang J, et al. Identification of soluble thrombomodulin and tissue plasminogen activator-inhibitor complex as biomarkers for prognosis and early evaluation of septic shock and sepsis-induced disseminated intravascular coagulation . *Ann Palliat Med.*2021;10(10):10170-10184
89. Meng S, et al. Preliminary study of microparticle coagulation properties in septic patients with disseminated intravascular coagulation. *Journal of International Medical Research.*2021;49(5) 1–13

90. Vincent Peigne, Elie Azoulay, Isaline Coquet, Eric Mariotte, Michael Darmon, et al.. The prognostic value of ADAMTS13 (a disintegrin and metalloprotease with thrombospondin type 1 repeats, member 13) deficiency in septic shock patients involves interleukin-6 and is not dependent on disseminated intravascular coagulation.. *Critical Care*.2013;17(6):R273
91. Aird WC. The role of the endothelium in severe sepsis and multiple organ dysfunction syndrome. *Blood*.2003;101(10):3765–77.
92. Uchimido R, Schmidt EP, Shapiro NI. The glycocalyx: a novel diagnostic and therapeutic target in sepsis. *Crit Care*. 2019;23:16.
93. Zhang Q and Li cs. Risk stratification and prognostic evaluation of endothelial cell-specific molecule1, von Willebrand factor, and a disintegrin-like and metalloprotease with thrombospondin type 1 motif for sepsis in the emergency department: An observational study.*Experimental and Therapeutic Medicine*.2019; 17: 4527-4535
94. Weinbaum S, Tarbell JM, Damiano ER. The structure and function of the endothelial glycocalyx layer. *Annu Rev Biomed Eng*.2007; 9: 121–67.
95. Teng YH, Aquino RS, Park PW. Molecular functions of *syndecan-1* in disease. *Matrix Biol*. 2012; 31(1): 3–16.
96. Chelazzi C, Villa G, Mancinelli P, De Gaudio AR, Adembri C. Glycocalyx and sepsis-induced alterations in vascular permeability. *Crit Care*. 2015;19:1–7.
97. Suzuki K, et al. Serum *syndecan-1* reflects organ dysfunction in critically ill patients *Scientific Reports*.2021; 11:8864
98. Johansson PI, Stensballe J, Rasmussen LS, Ostrowski SR. A high admission *syndecan-1* level, a marker of endothelial glycocalyx degradation, is associated with inflammation, protein C depletion, fibrinolysis, and increased mortality in trauma patients. *Ann Surg*. 2011;254(2):194-200
99. Fitzgerald ML, Wang Z, Park PW, Murphy G, Bernfield M. Shedding of *syndecan-1* and -4 ectodomains is regulated by multiple signaling pathways and mediated by a TIMP-3-sensitive metalloproteinase. *J Cell Biol*.2000; 148: 811–24.
100. Hayashida K, Chen Y, Bartlett AH, Park PW. *Syndecan-1* is an in vivo suppressor of Gram-positive toxic shock. *J Biol Chem*.2008; 283: 19895–903.

101. Efat A, et al. Thrombo-inflammatory biomarkers to predict sepsis outcome. *International Journal of Immunopathology and Pharmacology*.2021; 35: 1–10
102. Levi M, Poll T: Coagulation in patients with severe sepsis. *Semin Thromb Hemost*.2015; 41(1):9–15.
103. Giri, H., Panicker, S. R., Cai, X., Biswas, I., Weiler, H. & Rezaie, A. R. Thrombomodulin is essential for maintaining quiescence in vascular endothelial cells. *Proceeding of the National Academy of Sciences*. 2021;118(11):e2022248118
104. Mihajlovic DM, Lendak DF, Draskovic BG, et al. Thrombomodulin is a Strong Predictor of Multiorgan Dysfunction Syndrome in Patients With Sepsis. *Clin Appl Thromb Hemost*. 2015;21:469-474
105. Lin SM, Wang YM, Lin HC, et al. Serum thrombomodulin level relates to the clinical course of disseminated intravascular coagulation, multiorgan dysfunction syndrome, and mortality in patients with sepsis. *Crit Care Med*. 2008;36(3):683-689.
106. Dharmasaroja P, Dharmasaroja PA, Sobhon P. Increased plasma thrombomodulin levels in cardioembolic stroke. *Clin Appl Thromb Hemost*. 2012;18(3):289-293.
107. Kim YK, et al. Clinical Significance of von Willebrand Factor-Cleaving Protease (ADAMTS13) Deficiency in Patients with Sepsis Induced Disseminated Intravascular Coagulation. *Infection and Chemoterapy*.2009;41(2)
108. Aibar J, Castro P, Espinosa G, Ferná´ndez S, Herná´ndez C, Rinaudo M, Butjosa M, Ta`ssies D, Reverter JC, Nicola´s JM: ADAMTS-13 in critically ill patients with septic syndromes and noninfectious systemic inflammatory response syndrome. *Shock*.2015; 43(6):556–562.
109. Schwameis M, Schörghofer C, Assinger A, Steiner MM, Jilma B. VWF excess and ADAMTS13 deficiency: a unifying pathomechanism linking inflammation to thrombosis in DIC, malaria, and TTP. *Thromb Haemost*. 2015;113:708-718
110. Budde U, Schneppenheim R, Eikenboom J, Goodeve A, Will K, Drewke E, et al. Detailed von Willebrand factor multimer analysis in patients with von Willebrand disease in the European study, molecular and clinical markers for the diagnosis and management of type 1 von Willebrand disease (MCMDM-1VWD). *J Thromb Haemost*. 2008;6(5):762–71.

111. Zhou G, et al. Elevated endothelial dysfunction related biomarker levels indicate the severity and predict the incidence of sepsis, 07 July 2022, PREPRINT (Version 1) available at Research Square
112. Macdonald S, et al. No association between intravenous fluid volume and endothelial glycocalyx shedding in patients undergoing resuscitation for sepsis in the emergency department . *Scientific Reports*.2022; 12:8733
113. Sun T, Wang Y, Wu X, Cai Y, Zhai T and Zhan Q. Prognostic Value of *Syndecan-1* in the Prediction of Sepsis-Related Complications and Mortality: A Meta-Analysis. *Front. Public Health*.2022;10:870065.
114. Yang, Xiaoyuan & Meegan, Jamie & Jannaway, Melanie & Coleman, Danielle & Yuan, Sarah. A disintegrin and metalloproteinase 15-mediated glycocalyx shedding contributes to vascular leakage during inflammation. *Cardiovascular research*.2018;14:1752-63