

DAFTAR PUSTAKA

1. Faria I, Thivalapill N, Makin J, Puyana JC, Raykar N. Bleeding, Hemorrhagic Shock, and the Global Blood Supply. *Crit Care Clin.* 2022;38(4):775–93.
2. James A, Abback PS, Pasquier P, Ausset S, Duranteau J, Hoffmann C, et al. The conundrum of the definition of haemorrhagic shock: a pragmatic exploration based on a scoping review, experts’ survey and a cohort analysis. *European Journal of Trauma and Emergency Surgery.* 2022;48(6):4639–49.
3. Faria I, Thivalapill N, Makin J, Puyana JC, Raykar N. Bleeding, Hemorrhagic Shock, and the Global Blood Supply. *Crit Care Clin.* 2022;38(4):775–93.
4. Turker FS. Hemorrhagic Shock. In: *Clinical Management of Shock - The Science and Art of Physiological Restoration.* 2019. p. 1–21.
5. Cannon JW. Hemorrhagic Shock. *N Engl J Med.* 2018;378(1):370–9.
6. Latif RK, Clifford SP, Baker JA, Lenhardt R, Haq MZ, Huang J, et al. Traumatic hemorrhage and chain of survival. *Scand J Trauma Resusc Emerg Med.* 2023;31(1):1–18.
7. Cannon JW. Hemorrhagic Shock. *N Engl J Med.* 2018;378(1):370–9.
8. James A, Abback PS, Pasquier P, Ausset S, Duranteau J, Hoffmann C, et al. The conundrum of the definition of haemorrhagic shock: a pragmatic exploration based on a scoping review, experts’ survey and a cohort analysis. *European Journal of Trauma and Emergency Surgery.* 2022;48(6):4639–49.
9. Turker FS. Hemorrhagic Shock. In: *Clinical Management of Shock - The Science and Art of Physiological Restoration.* 2019. p. 1–21.
10. Supandji M, Budipratama D, Pradian E. Strategi Resusitasi pada Traumatik Syok Hemoragik. *Anesthesia & Critical Care.* 2015;33(3):218–24.
11. Ramadhani DNA, Luqmanasari E. Hemorrhagic Post-Partum: Syok Hemorrhagik ec Late Hemorrhagic Post Partum. *Jurnal Kebidanan Manna.* 2022;1(2):57–62.
12. Bonanno FG. Management of Hemorrhagic Shock: Physiology Approach, Timing and Strategies. *J Clin Med.* 2023;12(1):1–31.
13. Langeland H, Lyng O, Aadahl P, Skjærvold NK. The coherence of macrocirculation, microcirculation, and tissue metabolic response during nontraumatic hemorrhagic shock in swine. *Physiol Rep.* 2017;5(7):1–9.
14. Bonanno FG. Management of Hemorrhagic Shock: Physiology Approach, Timing and Strategies. *J Clin Med.* 2023;12(1):1–31.
15. Langeland H, Lyng O, Aadahl P, Skjærvold NK. The coherence of macrocirculation, microcirculation, and tissue metabolic response during nontraumatic hemorrhagic shock in swine. *Physiol Rep.* 2017;5(7):1–9.
16. Khanna AK, Karamchandani K. Macrocirculation and Microcirculation: The “batman and Superman” Story of Critical Care Resuscitation. *Anesth Analg.* 2021;132(1):280–3.
17. Legrand M, van der Horst ICC, De Jong A. Serial lactate measurements to guide resuscitation: more evidence not to? *Intensive Care Med.* 2024;50(5):728–30.

18. Krzych ŁJ, Czempik PF. Effect of fluid resuscitation with balanced solutions on platelets: In vitro simulation of 20% volume substitution. *Cardiol J*. 2018;25(2):254–9.
19. Allegretti AS, Parada XV, Endres P, Zhao S, Krinsky S, St. Hillien SA, et al. Urinary NGAL as a Diagnostic and Prognostic Marker for Acute Kidney Injury in Cirrhosis: A Prospective Study. *Clin Transl Gastroenterol*. 2021;12(5):E00359.
20. Legrand M, van der Horst ICC, De Jong A. Serial lactate measurements to guide resuscitation: more evidence not to? *Intensive Care Med*. 2024;50(5):728–30.
21. Krzych ŁJ, Czempik PF. Effect of fluid resuscitation with balanced solutions on platelets: In vitro simulation of 20% volume substitution. *Cardiol J*. 2018;25(2):254–9.
22. Allegretti AS, Parada XV, Endres P, Zhao S, Krinsky S, St. Hillien SA, et al. Urinary NGAL as a Diagnostic and Prognostic Marker for Acute Kidney Injury in Cirrhosis: A Prospective Study. *Clin Transl Gastroenterol*. 2021;12(5):E00359.
23. Yu LQ, Meng CC, Jin X, Cai J. Clinical study of sodium bicarbonated Ringer's solution on fluid resuscitation of patients with hemorrhagic shock. *Eur Rev Med Pharmacol Sci*. 2022;26(5):1535–42.
24. Casey JD, Brown RM, Semler MW. Resuscitation Fluids. *Curr Opin Crit Care*. 2018;24(6):512–8.
25. Casey JD, Brown RM, Semler MW. Resuscitation Fluids. *Curr Opin Crit Care*. 2018;24(6):512–8.
26. Hirata N. Fluid resuscitation with hydroxyethyl starch in perioperative acute hemorrhagic shock. *J Anesth*. 2020;34(3):317–9.
27. Hardiyanti R, Muchtar F, Arif SK, Palinrungi AS, Nurdin H. The resuscitation effect of Ringer's lactate compared to a combination of Ringer's lactate/6% HES (130/0.4) with a ratio 2:1 on plasma syndecan-1 level as a marker of endothelial glycocalyx degradation in patients with hemorrhagic shock. *Crit Care Shock*. 2024;27(3):117–24.
28. Wu XQ, Li ZB, Chen WX, Wen DL, Zhang ZH, Xiong XM. The influence of different resuscitation solution on lactic acid accumulation after hemorrhagic shock: A network meta-analysis. *Eur Rev Med Pharmacol Sci*. 2019;12(15):6707–17.
29. Gupta B, Ghosh A, Ray A, Halder P, Piplai G. Comparative Study between Ringer's Lactate and Gelofusine as Preloading Infusion in Spinal Anaesthesia for Prevention of Hypotension. *Journal of College of Medical Sciences-Nepal*. 2021;17(4):360–7.
30. Andrianova N V, Buyan MI, Brezgunova AA, Cherkesova KS, Zorov DB, Plotnikov EY. Hemorrhagic Shock and Mitochondria: Pathophysiology and Therapeutic Approaches. *Int J Mol Sci*. 2025;26(1843):1–18.
31. Meza Monge K, Rosa C, Sublette C, Pratap A, Kovacs EJ, Idrovo JP. Navigating Hemorrhagic Shock: Biomarkers, Therapies, and Challenges in Clinical Care. *Biomedicines*. 2024;12(12):1–26.
32. Supandji M, Budipratama D, Pradian E. Strategi Resusitasi pada Traumatik

- Syok Hemoragik. *Anesthesia & Critical Care*. 2015;33(3):218–24.
33. Meza Monge K, Rosa C, Sublette C, Pratap A, Kovacs EJ, Idrovo JP. Navigating Hemorrhagic Shock: Biomarkers, Therapies, and Challenges in Clinical Care. *Biomedicines*. 2024;12(12):1–26.
34. Laurent S, Agabiti-Rosei C, Bruno RM, Rizzoni D. Microcirculation and Macrocirculation in Hypertension: A Dangerous Cross-Link? *Hypertension*. 2022;79(3):479–90.
35. Muzaffar SN, Pradhan A, Siddiqui SS, Roy S, Suresh T. Monitoring Macro- and Microcirculation in the Critically Ill: A Narrative Review. *Avicenna J Med*. 2023;13(03):138–50.
36. Khanna AK, Karamchandani K. Macrocirculation and Microcirculation: The “batman and Superman” Story of Critical Care Resuscitation. *Anesth Analg*. 2021;132(1):280–3.
37. Laurent S, Agabiti-Rosei C, Bruno RM, Rizzoni D. Microcirculation and Macrocirculation in Hypertension: A Dangerous Cross-Link? *Hypertension*. 2022;79(3):479–90.
38. Muzaffar SN, Pradhan A, Siddiqui SS, Roy S, Suresh T. Monitoring Macro- and Microcirculation in the Critically Ill: A Narrative Review. *Avicenna J Med*. 2023;13(03):138–50.
39. Guven G, Hilty MP, Ince C. Microcirculation: Physiology, Pathophysiology, and Clinical Application. *Blood Purif*. 2020;49(1–2):143–50.
40. Guven G, Hilty MP, Ince C. Microcirculation: Physiology, Pathophysiology, and Clinical Application. *Blood Purif*. 2020;49(1–2):143–50.
41. Chipman AM, Jenne C, Wu F, Kozar RA. Contemporary resuscitation of hemorrhagic shock: What will the future hold? *Am J Surg*. 2020;220(3):580–8.
42. Chipman AM, Jenne C, Wu F, Kozar RA. Contemporary resuscitation of hemorrhagic shock: What will the future hold? *Am J Surg*. 2020;220(3):580–8.
43. Zhao H, Zhu Y, Zhang J, Wu Y, Xiang X, Zhang Z, et al. The Beneficial Effect of HES on Vascular Permeability and Its Relationship With Endothelial Glycocalyx and Intercellular Junction After Hemorrhagic Shock. *Front Pharmacol*. 2020;11(May):1–19.
44. Wu XQ, Li ZB, Chen WX, Wen DL, Zhang ZH, Xiong XM. The influence of different resuscitation solution on lactic acid accumulation after hemorrhagic shock: A network meta-analysis. *Eur Rev Med Pharmacol Sci*. 2019;12(15):6707–17.
45. Gupta B, Ghosh A, Ray A, Halder P, Piplai G. Comparative Study between Ringer’s Lactate and Gelofusine as Preloading Infusion in Spinal Anaesthesia for Prevention of Hypotension. *Journal of College of Medical Sciences-Nepal*. 2021;17(4):360–7.
46. Yu LQ, Meng CC, Jin X, Cai J. Clinical study of sodium bicarbonated Ringer’s solution on fluid resuscitation of patients with hemorrhagic shock. *Eur Rev Med Pharmacol Sci*. 2022;26(5):1535–42.
47. Arshed S, Pinsky MR. Applied Physiology of Fluid Resuscitation in Critical Illness. *Crit Care Clin*. 2018;34(2):267–77.

48. Zhao H, Zhu Y, Zhang J, Wu Y, Xiang X, Zhang Z, et al. The Beneficial Effect of HES on Vascular Permeability and Its Relationship With Endothelial Glycocalyx and Intercellular Junction After Hemorrhagic Shock. *Front Pharmacol.* 2020;11(May):1–19.
59. Glover PA, Rudloff E, Kirby R. Hydroxyethyl starch: A review of pharmacokinetics, pharmacodynamics, current products, and potential clinical risks, benefits, and use. *Journal of Veterinary Emergency and Critical Care.* 2014;24(6):642–61.
50. Hepworth-Warren KL. Revisiting the use of hydroxyethyl starch solutions in equine fluid therapy. *Equine Vet Educ.* 2021;33(8):436–43.
51. Reinhart K. Why Are We Still Debating Hydroxyethyl Starch Solutions? High Quality and Volume of Evidence of Harm is Conclusive Konrad. *Anesthesia & Critical Care.* 2020;38(1):1–14.
52. Hepworth-Warren KL. Revisiting the use of hydroxyethyl starch solutions in equine fluid therapy. *Equine Vet Educ.* 2021;33(8):436–43.
53. Glover PA, Rudloff E, Kirby R. Hydroxyethyl starch: A review of pharmacokinetics, pharmacodynamics, current products, and potential clinical risks, benefits, and use. *Journal of Veterinary Emergency and Critical Care.* 2014;24(6):642–61.
54. Hirata N. Fluid resuscitation with hydroxyethyl starch in perioperative acute hemorrhagic shock. *J Anesth.* 2020;34(3):317–9.
55. Mangino MJ, Liebrecht L, Plant V, Limkemann A. Crystalloid and Colloid Resuscitation: Hypertonic Saline, Starches, Polymers, and Gelatins. In: *Crystalloid and Colloid Resuscitation.* 2017. p. 1–30.
56. Sivanesan SS, Azad MAK, Schneider EK, Ahmed MU, Huang J, Wang J, et al. Gelofusine Ameliorates Colistin-Induced Nephrotoxicity. *Antimicrob Agents Chemother.* 2017;61(12):1–7.
57. Sivanesan SS, Azad MAK, Schneider EK, Ahmed MU, Huang J, Wang J, et al. Gelofusine Ameliorates Colistin-Induced Nephrotoxicity. *Antimicrob Agents Chemother.* 2017;61(12):1–7.
58. Luo Y, Pan Q, Li F. Decreased 68Ga-NOTA-exendin-4 renal uptake in patients pretreated with Gelofusine infusion: a randomized controlled study. *J Pancreatol.* 2020;3(3):161–6.
69. Luo Y, Pan Q, Li F. Decreased 68Ga-NOTA-exendin-4 renal uptake in patients pretreated with Gelofusine infusion: a randomized controlled study. *J Pancreatol.* 2020;3(3):161–6.
60. Vincent J-L, Moore FA, Bellomo R, Marrini JJ. *Textbook of Critical Care* Eight Edition. *Critical Care.* 2024. 1–2004 p.
61. Marino PL. *Marino's The ICU Book* Fifth Edition. 2025. 1–947 p.
62. Gupta S, Sankar J. Advances in Shock Management and Fluid Resuscitation in Children. *Indian J Pediatr.* 2023;90(3):280–8.
63. Khodashahi R, Sarjamee S. Early lactate area scores and serial blood lactate levels as prognostic markers for patients with septic shock: a systematic review. *Infect Dis.* 2020;52(7):451–63.
64. Levitt DG, Levitt JE, Levitt MD. Quantitative Assessment of Blood Lactate in Shock: Measure of Hypoxia or Beneficial Energy Source. *Biomed Res Int.*

- 2020;1–24.
65. Johnson MC, Alarhayem A, Convertino V, Carter R, Chung K, Stewart R, et al. Comparison of compensatory reserve and arterial lactate as markers of shock and resuscitation. *Journal of Trauma and Acute Care Surgery*. 2017;83(4):603–8.
66. Heldeweg MLA, Langer T, Duška F. Guiding resuscitation in shock: base excess or lactate? *Crit Care*. 2024;28(1):4–5.
67. Heldeweg MLA, Langer T, Duška F. Guiding resuscitation in shock: base excess or lactate? *Crit Care*. 2024;28(1):4–5.
68. Kattan E, Hernández G. The role of peripheral perfusion markers and lactate in septic shock resuscitation. *Journal of Intensive Medicine*. 2022;2(1):17–21.
79. Johnson MC, Alarhayem A, Convertino V, Carter R, Chung K, Stewart R, et al. Comparison of compensatory reserve and arterial lactate as markers of shock and resuscitation. *Journal of Trauma and Acute Care Surgery*. 2017;83(4):603–8.
70. Soller B, Zou F, Prince MD, Dubick MA, Sondeen JL. Comparison of noninvasive ph and blood lactate as predictors of mortality in a swine hemorrhagic shock with restricted volume resuscitation model. *Shock*. 2015;44:90–5.
71. Sohn CH, Kim YJ, Seo DW, Won HS, Shim JY, Lim KS, et al. Blood lactate concentration and shock index associated with massive transfusion in emergency department patients with primary postpartum haemorrhage. *Br J Anaesth*. 2018;121(2):378–83.
72. Khodashahi R, Sarjamee S. Early lactate area scores and serial blood lactate levels as prognostic markers for patients with septic shock: a systematic review. *Infect Dis*. 2020;52(7):451–63.
73. Dubin A, Silva C, Calvo G, Valli J, Fariña O, Estenssoro E, et al. End-tidal CO2 pressure in the monitoring of cardiac output during canine hemorrhagic shock. *J Crit Care*. 1990;5(1):42–6.
74. Grundler W, Weil MH, Rackow EC. Arteriovenous carbon dioxide and pH gradients during cardiac arrest. *Circulation*. 1986;74(5):1071–4.
75. Vallet B, Pinsky MR, Cecconi M. Resuscitation of patients with septic shock: please “mind the gap”! Vol. 39, *Intensive care medicine*. United States; 2013. p. 1653–5.
76. Cuschieri J, Rivers EP, Donnino MW, Katilius M, Jacobsen G, Nguyen HB, et al. Central venous-arterial carbon dioxide difference as an indicator of cardiac index. *Intensive Care Med*. 2005;31(6):818–22.
77. Nassar B, Badr M, Van Grunderbeeck N, Temime J, Pepy F, Gasan G, et al. Central venous-to-arterial PCO(2) difference as a marker to identify fluid responsiveness in septic shock. *Sci Rep*. 2021;11(1):17256.
78. Saludes P, Proença L, Gruartmoner G, Enseñat L, Pérez-Madrugal A, Espinal C, et al. Central venous-to-arterial carbon dioxide difference and the effect of venous hyperoxia: A limiting factor, or an additional marker of severity in shock? *J Clin Monit Comput*. 2017;31(6):1203–11.
89. Valenzuela Espinoza ED, Pozo MO, Kanoore Edul VS, Furche M, Motta

- MF, Risso Vazquez A, et al. Effects of short-term hyperoxia on systemic hemodynamics, oxygen transport, and microcirculation: An observational study in patients with septic shock and healthy volunteers. *J Crit Care*. 2019;53:62–8.
80. Dubin A, Pozo MO, Kanoore Edul VS, Risso Vazquez A, Enrico C. Poor agreement in the calculation of venoarterial PCO₂ to arteriovenous O₂ content difference ratio using central and mixed venous blood samples in septic patients. *J Crit Care*. 2018;48:445–50.
 81. Dubin A, Ferrara G, Kanoore Edul VS, Martins E, Canales HS, Canullán C, et al. Venoarterial PCO₂-to-arteriovenous oxygen content difference ratio is a poor surrogate for anaerobic metabolism in hemodilution: an experimental study. *Ann Intensive Care*. 2017;7(1):65.
 82. Jakob SM, Kosonen P, Ruokonen E, Parviainen I, Takala J. The Haldane effect--an alternative explanation for increasing gastric mucosal PCO₂ gradients? *Br J Anaesth*. 1999;83(5):740–6.
 83. Cherniack NS, Longobardo GS. Oxygen and carbon dioxide gas stores of the body. *Physiol Rev*. 1970;50(2):196–243.
 84. Caminos Eguillor JF, Ferrara G, Kanoore Edul VS, Buscetti MG, Canales HS, Lattanzio B, et al. Effects of Systemic Hypothermia on Microcirculation in Conditions of Hemodynamic Stability and in Hemorrhagic Shock. *Shock*. 2021;55(5):686–92.
 85. Mesquida J, Saludes P, Gruartmoner G, Espinal C, Torrents E, Baigorri F, et al. Central venous-to-arterial carbon dioxide difference combined with arterial-to-venous oxygen content difference is associated with lactate evolution in the hemodynamic resuscitation process in early septic shock. *Crit Care*. 2015;19(1):126.
 86. Elmer J, Jeong K, Abebe KZ, Francis X, Murugan R, Callaway CW, et al. Serum NGAL predicts survival after resuscitation from cardiac arrest. *Crit Care Med*. 2016;44(1):111–9.
 87. Romejko K, Markowska M, Niemczyk S. The Review of Current Knowledge on Neutrophil Gelatinase-Associated Lipocalin (NGAL). *Int J Mol Sci*. 2023;24(13):1–23.
 88. Romejko K, Markowska M, Niemczyk S. The Review of Current Knowledge on Neutrophil Gelatinase-Associated Lipocalin (NGAL). *Int J Mol Sci*. 2023;24(13):1–23.
 89. Dufour-Gaume F, Frescaline N, Cardona V, Prat NJ. Danger signals in traumatic hemorrhagic shock and new lines for clinical applications. *Front Physiol*. 2023;13(January):1–13.
 90. Dufour-Gaume F, Frescaline N, Cardona V, Prat NJ. Danger signals in traumatic hemorrhagic shock and new lines for clinical applications. *Front Physiol*. 2023;13(January):1–13.
 91. Khawaja S, Jafri L, Siddiqui I, Hashmi M, Ghani F. The utility of neutrophil gelatinase-associated Lipocalin (NGAL) as a marker of acute kidney injury (AKI) in critically ill patients. *Biomark Res*. 2019;7(1):10–5.
 92. Voth M, Verboket R, Henrich D, Marzi I. L-FABP and NGAL are novel biomarkers for detection of abdominal injury and hemorrhagic shock. *Injury*.

- 2023;54(5):1246–56.
93. Vincent JL, e Silva AQ, Couto L, Taccone FS. The value of blood lactate kinetics in critically ill patients: A systematic review. Vol. 20, Critical Care. BioMed Central Ltd.; 2016.
 94. Bakker J, Nijsten WN, Jansen TC. Clinical use of lactate monitoring in critically ill patients [Internet]. 2013. Available from: <http://www.annalsofintensivecare.com/content/3/1/12>
 95. Abdullah G, Nadeem MA, Sikandar K, Sheharyar M, Shahid HK, Sakrani RA, et al. Comparison of fluid resuscitation strategies in hemorrhagic shock: Crystalloid vs Blood products [Internet]. 2025. Available from: <http://medrxiv.org/lookup/doi/10.1101/2025.03.17.25324130>
 96. Haase M, Haase-Fielitz A. Can novel biomarkers complement best possible clinical assessment for early acute kidney injury diagnosis? Vol. 58, Journal of the American College of Cardiology. Elsevier USA; 2011. p. 2310–2.
 97. Devarajan P. Neutrophil gelatinase-associated lipocalin: A promising biomarker for human acute kidney injury. Vol. 4, Biomarkers in Medicine. 2010. p. 265–80.
 98. Keitel J, Hussmann B, Lendemans S, De Groot H, Rohrig R. Comparison of Malated Ringer's with Two Other Balanced Crystalloid Solutions in Resuscitation of Both Severe and Moderate Hemorrhagic Shock in Rats. Biomed Res Int. 2015;2015.
 99. Zhang Y ming, Gao B, Wang J uan, Sun X de, Liu X wen. Effect of Hypotensive Resuscitation with a Novel Combination of Fluids in a Rabbit Model of Uncontrolled Hemorrhagic Shock. PLoS One. 2013;8(6).
 100. Hussmann B, Lendemans S, De Groot H, Rohrig R. Volume replacement with Ringer-lactate is detrimental in severe hemorrhagic shock but protective in moderate hemorrhagic shock: studies in a rat model [Internet]. 2014. Available from: <http://ccforum.com/content/18/1/R5>
 101. Béchir M, Puhan MA, Fasshauer M, Schuepbach RA, Stocker R, Neff TA. Early fluid resuscitation with hydroxyethyl starch 130/0.4 (6%) in severe burn injury: a randomized, controlled, double-blind clinical trial [Internet]. 2013. Available from: <http://ccforum.com/content/17/6/R299>
 102. Tyagi A, Verma G, Luthra A et al. Risk of early postoperative acute kidney injury with stroke volume variation-guided tetrastarch versus Ringer's lactate. Saudi J Anaesth. 2019;13:9–15.
 103. Wu X, Li Z, Chen W, Wen D, Zhang Z, Xiong XM. The influence of different resuscitation solution on lactic acid accumulation after hemorrhagic shock: a network meta-analysis. Eur Rev Med Pharmacol Sci. 2019;23(15):6707–17.
 104. Wu CY, Chan KC, Cheng YJ, Yeh YC, Chien CT. Effects of different types of fluid resuscitation for hemorrhagic shock on splanchnic organ microcirculation and renal reactive oxygen species formation. Crit Care. 2015;19(1).
 105. Romejko K, Markowska M, Niemczyk S. The Review of Current Knowledge on Neutrophil Gelatinase-Associated Lipocalin (NGAL). Int J Mol Sci. 2023;24(13):10470.

106. Skrypnyk NI, Gist KM, Okamura K, Montford JR, You Z, Yang H, et al. IL-6-mediated hepatocyte production is the primary source of plasma and urine neutrophil gelatinase-associated lipocalin during acute kidney injury. *Kidney Int.* 2020;97(5):966–79.
107. Voth M, Verboket R, Henrich D, Marzi I. L-FABP and NGAL are novel biomarkers for detection of abdominal injury and hemorrhagic shock. *Injury.* 2023;54(5):1246–56.
108. Dufour-Gaume F, Frescaline N, Cardona V, Prat NJ. Danger signals in traumatic hemorrhagic shock and new lines for clinical applications. *Front Physiol.* 2023;13.
109. Muchtar F, Arif SK, Tanra AH, Santoso A, Wiryana M, Bukhari A, et al. Comparison of the resuscitative effects between lactated ringer and lactated ringer/hydroxyethyl starch 6% (200/0.5) combination to serum lactate level in hemorrhagic shock in *Lepus nigricollis* rabbits. *Critical Care and Shouck Journal.* 2020;23:287–97.
110. Tyagi A, Verma G, Luthra A, Lahan S, Das S, Rai G, et al. Risk of early postoperative acute kidney injury with stroke volume variation-guided tetrastarch versus Ringer's lactate. *Saudi J Anaesth.* 2019;13(1):9–15.
111. Duncan AE, Jia Y, Soltesz E, Leung S, Yilmaz HO, Mao G, et al. Effect of 6% hydroxyethyl starch 130/0.4 on kidney and haemostatic function in cardiac surgical patients: a randomised controlled trial. *Anaesthesia.* 2020;75(9):1180–90.
112. Bradley CR, Bragg DD, Cox EF, El-Sharkawy AM, Buchanan CE, Chowdhury AH, et al. A randomized, controlled, double-blind crossover study on the effects of isoeffective and isovolumetric intravenous crystalloid and gelatin on blood volume, and renal and cardiac hemodynamics. *Clinical Nutrition.* 2020;39(7):2070–9.
113. Ziebart A, Ruemmler R, Möllmann C, Kamuf J, Garcia-Bardon A, Thal SC, et al. Fluid resuscitation-related coagulation impairment in a porcine hemorrhagic shock model. *PeerJ.* 2020;8:e8399.
114. Smart L, Boyd C, Litton E, Pavey W, Vlaskovsky P, Ali U, et al. A randomised controlled trial of succinylated gelatin (4%) fluid on urinary acute kidney injury biomarkers in cardiac surgical patients. *Intensive Care Med Exp.* 2021;9(1):48.
115. Boyd CJ, Claus MA, Rasis AL, Cianciolo R, Bosio E, Hosgood G, et al. Evaluation of biomarkers of kidney injury following 4% succinylated gelatin and 6% hydroxyethyl starch 130/0.4 administration in a canine hemorrhagic shock model. *Journal of Veterinary Emergency and Critical Care.* 2019;29(2):132–42.