

## Auszug aus der Literatur

### Trauma

1. David JS, James A, Orion M, Selves A, Bonnet M, Glasman P, Vacheron CH, Raux M. Thromboelastometry-guided Haemostatic Resuscitation in Severely Injured Patients: A Propensity Score-matched Study Crit Care. 2023 Apr 13;27(1):141.
2. Maegele M. [Viscoelasticity-based point of care coagulation diagnostics in the context of resuscitation room management of severely injured and bleeding trauma patients: Diagnostics and treatment of trauma-induced coagulopathy]. Unfallchirurgie (Heidelb). 2023 Jul;126(7):542-551.
3. Wang IJ, Park SW, Bae BK, Lee SH, Choi HJ, Park SJ, Ahn TY, Goh TS, Lee MJ, Yeom SR. FIBTEM Improves the Sensitivity of Hyperfibrinolysis Detection in Severe Trauma Patients: A Retrospective Study Using Thromboelastometry. Sci Rep. 2020 Apr 24;10(1):6980.
4. Lammers DT, Marenco CW, Morte KR, Bingham JR, Martin MJ, Eckert MJ. Viscoelastic Testing in Combat Resuscitation: Is it Time for a new Standard? J Trauma Acute Care Surg. 2020 Jul;89(1):145-152.
5. Bugaev N, Como JJ, Golani G, Freeman JJ, Sawhney JS, Vatsaas CJ, Yorkgitis BK, Kreiner LA, Garcia NM, Aziz HA, Pappas PA, Mahoney EJ, Brown ZW, Kasotakis G. Thromboelastography and Rotational Thromboelastometry in Bleeding Patients with Coagulopathy: Practice Management Guideline from the Eastern Association for the Surgery of Trauma. J Trauma Acute Care Surg. 2020 Dec;89(6):999-1017.
6. Peng HT, Nascimento B, Tien H, et al. A Comparative Study of Viscoelastic Hemostatic Assays and Conventional Coagulation Tests in Trauma Patients Receiving Fibrinogen Concentrate. Clin Chim Acta. 2019;495:253-62.
7. Gratz J, Gütting H, Thorn S, Brazinova A, Görlinger K, Schäfer N, Schöchl H, Stanworth S, Maegele M. Protocolised Thromboelastometric-Guided Haemostatic Management in Patients with Traumatic Brain Injury: A Pilot Study. Anaesthesia. 2019 Jul;74(7):883-890.
8. Innerhofer P, Fries D, Mittermayr M, Innerhofer N, von Langen D, Hell T, Gruber G, Schmid S, Friesenecker B, Lorenz IH, Ströhle M, Rastner V, Trübsbach S, Raab H, Tremi B, Wally D, Treichl B, Mayr A, Kranewitter C, Oswald E. Reversal of Trauma-Induced Coagulopathy Using First-Line Coagulation Factor Concentrates or Fresh Frozen Plasma (RETIC): A Single-Centre, Parallel-Group, Open-Label, Randomised Trial Lancet Haematol. 2017 Jun;4(6):e258-e271.
9. Stein P, Kaserer A, Sprengel K, Wanner GA, Seifert B, Theusinger OM, Spahn DR. Change of Transfusion and Treatment Paradigm in Major Trauma Patients Anaesthesia. 2017 Nov;72(11):1317-1326.
10. Gonzalez E, Moore EE, Moore HB, et al. Goal-directed Hemostatic Resuscitation of Trauma-induced Coagulopathy: A Pragmatic Randomized Clinical Trial Comparing a Viscoelastic Assay to Conventional Coagulation Assays. Ann Surg. 2016;263(6):1051-9.
11. Nardi G, Agostini V, et al. Trauma-induced Coagulopathy: Impact of the Early Coagulation Support Protocol on Blood Product Consumption, Mortality and Costs. Crit Care. 2015;19(1):83.
12. Schöchl H, Cotton B, Inaba K, Nienaber U, Fischer H, Voelckel W, Solomon C. FIBTEM Provides Early Prediction of Massive Transfusion in Trauma. Crit Care. 2011;15(6):R265.

### Herz- und Gefäßchirurgie

13. Karanjkar A, Kapoor PM, Sharan S, Bhardwaj V, Malik V, Hasija S, Choudhury A, Chowdhury UK, Rajashekhar P. A Prospective Randomized Clinical Trial of Efficacy of Algorithm-based Point-of-Care guided Hemostatic Therapy in Cyanotic Congenital Heart Disease Surgical Patients. J Card Crit Care TSS. 2020;3:8-16.

14. Haensig M, Kempfert J, Kempfert PM, Girdauskas E, Borger MA, Lehmann S. Thrombelastometry Guided Blood-Component Therapy After Cardiac Surgery: A Randomized Study. *BMC Anesthesiol.* 2019 Nov 6;19(1):201.
15. Monaco F, Barucco G, Nardelli P, Licheri M, Notte C, De Luca M, Mattioli C, Melissano G, Chiesa R, Zangrillo A. Editor's Choice - A Rotational Thromboelastometry Driven Transfusion Strategy Reduces Allogenic Blood Transfusion During Open Thoraco-abdominal Aortic Aneurysm Repair: A Propensity Score Matched Study. *Eur J Vasc Endovasc Surg.* 2019 Jul;58(1):13-22.
16. Mace H, Lightfoot N, McCluskey S, Selby R, Roy D, Timoumi T, Karkouti K. Validity of Thromboelastometry for Rapid Assessment of Fibrinogen Levels in Heparinized Samples During Cardiac Surgery: A Retrospective, Single-center, Observational Study. *J Cardiothorac Vasc Anesth.* 2016 Jan;30(1):90-5.
17. Deppe AC, Weber C, Zimmermann J, Kuhn EW, Slottosch I, Liakopoulos OJ et al. Point-of-care thromboelastography/ thromboelastometry based coagulation management in cardiac surgery: a meta-analysis of 8332 patients. *J Surg Res* 2016; 203: 424-33.
18. Karkouti K, McCluskey SA, Callum J et al. Evaluation of a novel transfusion algorithm employing point-of-care coagulation assays in cardiac surgery: a retrospective cohort study with interrupted time-series analysis. *Anesthesiology.* 2015; 122(3):560-70.
19. Nakayama Y, Nakajima Y, Tanaka KA et al Thromboelastometry-guided intraoperative haemostatic management reduces bleeding and red cell transfusion after paediatric cardiac surgery. *Br J Anaesth.* 2015; 114(1):91-102.
20. Pearse BL, Smith I, Faulkner D et al. Protocol guided bleeding management improves cardiac surgery patient outcomes. *Vox Sang.* 2015; 109(3): 267-79.
21. Dimitrova-Karamfilova A, Patokova Y, Solarova T, Petrova I and Natchev G. Rotation Thromboelastography for Assessment of Hypercoagulation and Thrombosis in Patients with Cardiovascular Diseases. *Journal of Life Sciences* 6 (2012) 28-35.
22. Weber CF, Görlinger K, Meininger D, Herrmann E, Bingold T, Moritz A, Cohn LH, Zacharowski K. Point-of-Care Testing: A Prospective, Randomized Clinical Trial of Efficacy in Coagulopathic Cardiac Surgery Patients. *ANESTESIOLOGY.* 2012 Sep;117(3):531-47.
23. Görlinger K, Dirkmann D, Hanke AA et al. First-line therapy with coagulation factor concentrates combined with point-of-care coagulation testing is associated with decreased allogeneic blood transfusion in cardiovascular surgery: a retrospective, single-center cohort study. *Anesthesiology.* 2011; 115(6): 1179-91.

## **Geburtshilfe**

24. Katz D, Farber M, Getrajdman C, Hamburger J, Reale S, Butwick A. The role of viscoelastic hemostatic assays for postpartum hemorrhage management and bedside intrapartum care. *Am J Obstet Gynecol.* 2024 Mar;230(3S):S1089-S1106.
25. Bell SF, de Lloyd L, Preston N, Collins PW. Managing the Coagulopathy of Postpartum Hemorrhage: An Evolving Role for Viscoelastic Hemostatic Assays. *J Thromb Haemost.* 2023 Aug;21(8):2064-2077.
26. Massoth C, Wenk M, Meybohm P, Kranke P. Coagulation Management and Transfusion in Massive Postpartum Hemorrhage. *Curr Opin Anaesthesiol.* 2023 Jun 1;36(3):281-287.
27. Khanna P, Sinha C, Singh AK, Kumar A, Sarkar S. The Role of Point of Care Thromboelastography (TEG) and Thromboelastometry (ROTEM) in Management of Primary Postpartum Haemorrhage: A Meta-Analysis and Systematic Review. *Saudi J Anaesth.* 2023 Jan-Mar;17(1):23-32.
28. Bell SF, Roberts TCD, Pereira JFM, De Lloyd L, Amir Z, James D, Jenkins PV, Collis RE, Collins PW. The Sensitivity and Specificity of Rotational Thromboelastometry (ROTEM) to Detect Coagulopathy during Moderate and Severe Postpartum Haemorrhage: A Prospective Observational Study. *Int J Obstet Anesth.* 2022 Feb;49:103238.
29. McNamara H, Kenyon C, Smith R, Malliah S, Barclay P. Four Years' Experience of a ROTEM®-guided Algorithm for Treatment of Coagulopathy in Obstetric Haemorrhage. *Anaesthesia.* 2019 Aug;74(8):984-991.

30. Snegovskikh D, Souza D, Walton Z, Dai F, Rachler R, Garay A, Snegovskikh VV, Braverman FR, Norwitz ER. Point-of-Care Viscoelastic Testing Improves the Outcome of Pregnancies Complicated by Severe Postpartum Hemorrhage. *J Clin Anesth.* 2018 Feb;44:50-56.
31. Collins PW, Cannings-John R, Bruynseels D, Mallaiah S, Dick J, Elton C, Weeks AD, Sanders J, Aawar N, Townson J, Hood K, Hall JE, Collis RE. Viscoelastometric-guided early fibrinogen concentrate replacement during postpartum haemorrhage: OBS2, a double-blind randomized controlled trial. *Br J Anaesth.* 2017 Sep 1;119(3):411-421.
32. Collis R. Coagulation Point-of-Care Testing on the Labour Ward Should Be Mandatory. *Int J Obstet Anesth.* 2016 Aug;27:66-9.
33. Mallaiah S, Barclay P, Harrod I, Chevannes C, Bhalla A. Introduction of an algorithm for ROTEM-guided fibrinogen concentrate administration in major obstetric haemorrhage *Anaesthesia* 2015, 70, 166–175
34. Collins PW, Lilley G, Bruynseels D, Laurent DB, Cannings-John R, Precious E, Hamlyn V, Sanders J, Alikhan R, Rayment R, Rees A, Kaye A, Hall JE, Paranjothy S, Weeks A, Collis RE. Fibrin-based Clot Formation as an Early and Rapid Biomarker for Progression of Postpartum Hemorrhage: A Prospective Study. *Blood.* 2014 Sep 11;124(11):1727-36.

### **Transplantation**

35. Maria A, Lal BB, Khanna R, Sood V, Mukund A, Bajpai M, Alam S. Rotational Thromboelastometry-Guided Blood Component Use in Cirrhotic Children Undergoing Invasive Procedures: Randomized Controlled Trial. *Liver Int.* 2022 Nov;42(11):2492-2500.
36. Yoon U, Bartoszko J, Bezinover D, Biancofiore G, Forkin KT, Rahman S, Spiro M, Raptis DA, Kang Y; ERAS4OLT.org Working Group. Intraoperative Transfusion Management, Antifibrinolytic Therapy, Coagulation Monitoring and the Impact on Short-term Outcomes after Liver Transplantation - A Systematic Review of the Literature and Expert Panel Recommendations. *Clin Transplant.* 2022 Oct;36(10):e14637.
37. Yassen KA, Refaat EK, Helal SM, Metwally AA, Youssef SD, Görlinger K. Detection and Quantification of Perioperative Heparin-like Effects by Rotational Thromboelastometry in Living-donor Liver Transplant Recipients – A Prospective Observational Study. *J Anaesthesiol Clin Pharmacol.* 2022. Published: 15-Jun-2022.
38. Gunetilleke B, Welikala ND, Görlinger K. Viscoelastic Haemostatic Test Based Management of Coagulopathy in Liver Transplantation for Cirrhosis. *Sri Lanka J Haematol.* 2021 Jun;13(1):1-9.
39. Mpaili E, Tsilimigras DI, Moris D, Sigala F, Frank SM, Hartmann J, Pawlik TM. Utility of Viscoelastic Coagulation Testing in Liver Surgery: A Systematic Review. *HPB (Oxford).* 2021 Mar;23(3):331-343.
40. Görlinger K, Sakai T, Dirkmann D, Planinsic RM, Yassen K, Saner FH. Bleeding Related to Liver Transplant. In: Teruya J (ed.). *Management of Bleeding Patients.* Springer Int Publ Switzerland; 2nd edition, 2021: 339-359.
41. Görlinger K, Singh PM, Alvarez A. Thromboelastometry-guided Bleeding Management in Liver Transplantation. In: Molmenti EP, de Santibanes M, de Santibanes E (eds.). *Liver Transplantation – Operative Techniques and Medical Management.* Mc Graw Hill; 2021: 359-368.
42. Zamper RPC, Amorim TC, Queiroz VNF, Lira JDO, Costa LGV, Takaoka F, Juffermans NP, Neto AS. Association between Viscoelastic Tests-guided Therapy with Synthetic Factor Concentrates and Allogenic Blood Transfusion in Liver Transplantation: A Before-After Study. *BMC Anesthesiol.* 2018 Dec 22;18(1):198.
43. Shimauchi T, Yamaura K, Higashi M, Abe K, Yoshizumi T, Hoka S. Fibrinolysis in Living Donor Liver Transplantation Recipients Evaluated Using Thromboelastometry: Impact on Mortality. *Transplant Proc.* 2017 Nov;49(9):2117-2121.
44. Carrier FM, Denault AY, Nozza A, Rioux-Massé B, Roy A, Massicotte L. Association between Intraoperative Rotational Thromboelastometry or Conventional Coagulation

Tests and Bleeding in Liver Transplantation: An Observational Exploratory Study. *Anaesth Crit Care Pain Med.* 2020 Dec;39(6):765-770.

45. Dötsch TM, Dirkmann D, Bezinover D, Hartmann M, Treckmann JW, Paul A, Saner FH. Assessment of Standard Laboratory Tests and Rotational Thromboelastometry for the Prediction of Postoperative Bleeding in Liver Transplantation. *Br J Anaesth.* 2017 Sep 1;119(3):402-410.
46. Abuelkasem E, Lu S, Tanaka K, Planinsic R, Sakai T. Comparison between Thrombelastography and Thromboelastometry in Hyperfibrinolysis Detection During Adult Liver Transplantation. *Br J Anaesth.* 2016 Apr;116(4):507-12.
47. Song JG, Jeong SM, Jun IG, Lee HM, Hwang GS. Five-Minute Parameter of Thromboelastometry is Sufficient to Detect Thrombocytopenia and Hypofibrinogenaemia in Patients undergoing Liver Transplantation. *Br J Anaesth.* 2014 Feb;112(2):290-7.