

Perioperatives Gerinnungsmanagement

- 1) Eckman MH, Erban JK, Singh SK, Kao GS.
Screening for the risk for bleeding or thrombosis.
Ann Intern Med 2003;**138**:W15-24.
- 2) Koscielny J, Ziemer S, Radtke H, Schmutzler M, Pruss A, Sinha P, Salama A, Kiesewetter H, Latza R.
A practical concept for preoperative identification of patients with impaired primary hemostasis.
Clin Appl Thromb Hemost 2004;**10**:195-204.
- 3) Chee YL, Crawford JC, Watson HG, Greaves M.
Guidelines on the assessment of bleeding risk prior to surgery or invasive procedures. British Committee for Standards in Haematology.
Br J Haematol 2008;**140**:496-504.
- 4) Eberl W, Wendt I, Schroeder HG.
Preoperative coagulation screening prior to adenoidectomy and tonsillectomy.
Klin Pädiatr. 2005;**217**:20-4.
- 5) van der Heijden JF, Remkes MG, Büller HR, Vermeulen M.
Treatment with vitamin K antagonists: frequency of indications and appropriateness of continuation.
Pathophysiol Haemost Thromb 2002;**32**:111-4.
- 6) Douketis JD, Spyropoulos AC, Spencer FA, Mayr M, Jaffer AK, Eckman MH, Dunn AS, Kunz R;
American College of Chest Physicians. Perioperative management of antithrombotic therapy: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines.
Chest 2012;**141**(2 Suppl):e326S-50S.
- 7) Schmelzeisen R.
Wissenschaftliche Stellungnahme der Deutschen Gesellschaft für Zahn-, Mund- und Kieferheilkunde:
Zahnärztliche Chirurgie bei Patienten mit Antikoagulanzen-therapie.
http://www.dgzmk.de/uploads/tx_szdgmkddocuments/Zahnaerztliche_Chirurgie_bei_Patienten_mit_Antikoagulanzen-therapie.pdf;
letzter Zugriff am 27.06.2012.
- 8) Veitch AM, Baglin TP, Gershlick AH, Harnden SM, Tighe R, Cairns S;
British Society of Gastroenterology; British Committee for Standards in Haematology; British Cardiovascular Intervention Society.
Guidelines for the management of anticoagulant and antiplatelet therapy in patients undergoing endoscopic procedures.
Gut. 2008 Sep;**57**(9):1322-9.
- 9) Jamula E, Lloyd NS, Schwalm JD, Airaksinen KE, Douketis JD.
Safety of uninterrupted anticoagulation in patients requiring elective coronary angiography with or without percutaneous coronary intervention: a systematic review and metaanalysis.
Chest 2010;**138**:840-7.
- 10) Bundesärztekammer auf Empfehlung des wissenschaftlichen Beirats (ed.) Querschnitts-Leitlinien zur Therapie mit Blutkomponenten und Plasmaderivaten. 4., überarbeitete Auflage. Deutscher Ärzte-Verlag: Köln, 2009.
- 11) Fox KA, Mehta SR, Peters R, Zhao F, Lakkis N, Gersh BJ, Yusuf S.
Clopidogrel in unstable angina to prevent recurrent ischemic events trial. Benefits and risks of the combination of clopidogrel and aspirin in patients undergoing surgical revascularization for non-ST-elevation acute coronary syndrome: the Clopidogrel in unstable angina to prevent recurrent ischemic events (CURE) trial.
Circulation 2004;**110**:1202-8.
- 12) Korte W, Cattaneo M, Chassot PG, Eichinger S, von Heymann C, Hofmann N, Rickli H, Spannagl M, Ziegler B, Verheugt F, Huber K.
Peri-operative management of antiplatelet therapy in patients with coronary artery disease: joint position paper by members of

the working group on Perioperative Haemostasis of the Society on Thrombosis and Haemostasis Research (GTH), the working group on Perioperative Coagulation of the Austrian Society for Anesthesiology, Resuscitation and Intensive Care (ÖGARl) and the Working Group Thrombosis of the European Society for Cardiology (ESC).
Thromb Haemost 2011;**105**:743-9.

- 13) Burger W, Chemnitz JM, Kneissl GD, Rücker G.
Low-dose aspirin for secondary cardiovascular prevention - cardiovascular risks after its perioperative withdrawal versus bleeding risks with its continuation - review and meta-analysis.
J Intern Med 2005;**257**:399-414.
- 14) Sorensen R, Hansen ML, Abildstrom SZ, Hvelplund A, Andersson C, Jorgensen C, Madsen JK, Hansen PR, Kober L, Torp-Pedersen C, Gislason GH.
Risk of bleeding in patients with acute myocardial infarction treated with different combinations of aspirin, clopidogrel, and vitamin K antagonists in Denmark: a retrospective analysis of nationwide registry data.
Lancet 2009;**374**:1967-74.
- 15) Ferraris VA, Brown JR, Despotis GJ, Hammon JW, Reece TB, Saha SP, Song HK, Clough ER; Society of Cardiovascular Anesthesiologists Special Task Force on Blood Transfusion, Shore-Lesserson LJ, Goodnough LT, Mazer CD, Shander A, Stafford-Smith M, Waters J; International Consortium for Evidence Based Perfusion, Baker RA, Dickinson TA, Fitzgerald DJ, Likosky DS, Shann KG.
2011 update to the Society of Thoracic Surgeons and the Society of Cardiovascular Anesthesiologists blood conservation clinical practice guidelines.
Ann Thorac Surg 2011;**91**:944-82.
- 16) Cruden NL, Harding SA, Flapan AD, Graham C, Wild SH, Slack R, Pell JP, Newby DE; Scottish Coronary Revascularisation Register Steering Committee. Previous coronary stent implantation and cardiac events in patients undergoing noncardiac surgery.
Circ Cardiovasc Interv 2010;**3**:236-42.
- 17) Holmes DR Jr, Kereiakes DJ, Garg S, Serruys PW, Dehmer GJ, Ellis SG, Williams DO, Kimura T, Moliterno DJ.
Stent thrombosis.
J Am Coll Cardiol. 2010;**56**:1357-65.
- 18) Lethagen S. Desmopressin--a haemostatic drug: state-of-the-art review.
Eur J Anaesthesiol Suppl. 1997;**14**:1-9.
- 19) Levi M, Eerenberg E, Kamphuisen PW. Bleeding risk and reversal strategies for old and new anticoagulants and antiplatelet agents.
J Thromb Haemost 2011;**9**:1705-12.
- 20) Thiele T, Sönnig A, Hron G, Müller C, Althaus K, Schroeder HW, Greinacher A.
Platelet transfusion for reversal of dual antiplatelet therapy in patients requiring urgent surgery: a pilot study.
J Thromb Haemost 2012;**10**:968-71.
- 21) Pradaxa 150 mg Fachinformation, Boehringer Ingelheim, Stand: Mai 2012; http://www.pradaxa.de/-fachinfo.pdf?pzn=f6561946&MTITEL=Pradaxa%AE+150+mg+Hartkapseln.pdf&si=1L1k.1sJSI4.1OMZ48.2X**; letzter Zugriff am 27.06.2012
- 22) Mani H, Hesse C, Stratmann G, Lindhoff-Last E.
Rivaroxaban differentially influences ex vivo global coagulation assays based on the administration time.
Thromb Haemost 2011; **106**:156-64.
- 23) Douxfils J, Mullier F, Robert S, Chatelain C, Chatelain B, Dogné JM.
Impact of dabigatran on a large panel of routine or specific coagulation assays. Laboratory recommendations for monitoring of dabigatran etexilate.
Thromb Haemost 2012;**107**:985-97.
- 24) 24. Eerenberg ES, Kamphuisen PW, Sijpkens MK, Meijers JC, Buller HR, Levi M. Reversal of rivaroxaban and dabigatran by

prothrombin complex concentrate: a randomized, placebo-controlled, crossover study in healthy subjects.
Circulation 2011;**124**:1573-9.

- 25) van Ryn J, Stangier J, Haertter S, Liesenfeld KH, Wienen W, Feuring M, Clemens A.
Dabigatran etexilate--a novel, reversible, oral direct thrombin inhibitor: interpretation of coagulation assays and reversal of anticoagulant activity.
Thromb Haemost 2010;**103**:1116-27.
- 26) Marlu R, Hodaj E, Paris A, Albaladejo P, Crackowski JL, Pernod G.
Effect of non-specific reversal agents on anticoagulant activity of dabigatran and rivaroxaban. A randomised crossover ex vivo study in healthy volunteers.
Thromb Haemost 2012;**108** (e-pub ahead of print)
- 27) Kaatz S, Kouides PA, Garcia DA, Spyropoulos AC, Crowther M, Douketis JD, Chan AK, James A, Moll S, Ortel TL, Van Cott EM, Ansell J.
Guidance on the emergent reversal of oral thrombin and factor Xa inhibitors.
Am J Hematol 2012;**87** Suppl 1:S141-5.
- 28) Arbeitsgruppe perioperative Gerinnung der Österreichischen Gesellschaft für Anaesthesiologie, Reanimation und Intensivmedizin.
Regionalanästhesie unter gerinnungshemmender Medikation.
http://www.oegari.at/web_files/dateiarchiv/116/Empfehlungen%20Regionalan%C3%A4sthesie%20unter%20Gerinnungshemmung%202012.pdf; letzter Zugriff am 27.06.2012
- 29) Gogarten W, Vandermeulen E, Van Aken H, Kozek S, Llau JV, Samama CM;
European Society of Anaesthesiology. Regional anaesthesia and antithrombotic agents: recommendations of the European Society of Anaesthesiology.
Eur J Anaesthesiol 2010;**27**:999-1015.
- 30) Hiippala ST, Myllylä GJ, Vahtera EM.
Hemostatic factors and replacement of major blood loss with plasma-poor red cell concentrates.
Anesth Analg 1995;**81**:360-5.
- 31) Hirshberg A, Dugas M, Banez EI, Scott BG, Wall MJ Jr, Mattox KL.
Minimizing dilutional coagulopathy in exsanguinating hemorrhage: a computer simulation.
J Trauma 2003;**54**:454-63.
- 32) Sniecinski RM, Karkouti K, Levy JH.
Managing clotting: a North American perspective.
Curr Opin Anaesthesiol. 2012;**25**:74-9.
- 33) Steiner ME, Despotis GJ.
Transfusion algorithms and how they apply to blood conservation: the high-risk cardiac surgical patient.
Hematol Oncol Clin North Am 2007;**21**:177-84.
- 34) Leslie SD, Toy PT.
Laboratory hemostatic abnormalities in massively transfused patients given red blood cells and crystalloid.
Am J Clin Pathol 1991;**96**:770-3.
- 35) Kozek-Langenecker S.
Management of massive operative blood loss.
Minerva Anesthesiol 2007;**73**:401-15.
- 36) Hiippala S.
Replacement of massive blood loss.
Vox Sang 1998;**74** Suppl 2:399-407.
- 37) Boyan CP, Howland WS.

- Blood Temperature: Critical Factor in Massive Transfusions.*
Anesthesiology 1961;**22**:559-63.
- 38) Yoshihara H, Yamamoto T, Mihara H.
Changes in coagulation and fibrinolysis occurring in dogs during hypothermia.
Thromb Res 1985;**37**:503-12.
- 39) Schmied H, Kurz A, Sessler DI, Kozek S, Reiter A.
Mild hypothermia increases blood loss and transfusion requirements during total hip arthroplasty.
Lancet 1996;**347**:289-92.
- 40) Tangelder GJ, Teirlinck HC, Slaaf DW, Reneman RS.
Distribution of blood platelets flowing in arterioles.
Am J Physiol 1985;**248**:H318-23.
- 41) Uijttewaal WS, Nijhof EJ, Bronkhorst PJ, Den Hartog E, Heethaar RM.
Near-wall excess of platelets induced by lateral migration of erythrocytes in flowing blood.
Am J Physiol 1993;**264**:H1239-44.
- 42) Escolar G, Garrido M, Mazzara R, Castillo R, Ordinas A.
Experimental basis for the use of red cell transfusion in the management of anemic-thrombocytopenic patients.
Transfusion 1988;**28**:406-11.
- 43) Afshari A, Wikkelsø A, Brok J, Møller AM, Wetterslev J.
Thrombelastography (TEG) or thromboelastometry (ROTEM) to monitor haemotherapy versus usual care in patients with massive transfusion.
Cochrane Database Syst Rev 2011; CD007871.
- 44) Hellstern P, Halbmayer WM, Köhler M, Seitz R, Müller-Berghaus G.
Prothrombin complex concentrates: indications, contraindications, and risks: a task force summary.
Thromb Res 1999;**95**(4 Suppl 1):S3-6.
- 45) Ickx BE, Faraoni D.
Management of the clotting system: a European perspective.
Curr Opin Anaesthesiol 2012;**25**:80-5.
- 46) Rossaint R, Bouillon B, Cerny V, Coats TJ, Duranteau J, Fernández-Mondéjar E, Hunt BJ, Komadina R, Nardi G, Neugebauer E, Ozier Y, Riddez L, Schultz A, Stahel PF, Vincent JL, Spahn DR;
Task Force for Advanced Bleeding Care in Trauma. Management of bleeding following major trauma: an updated European guideline.
Crit Care. 2010;**14**:R52.
- 47) Meyer MA, Ostrowski SR, Windeløv NA, Johansson PI.
Fibrinogen concentrates for bleeding trauma patients: what is the evidence?
Vox Sang 2011;**101**:185-90.
- 48) Warmuth M, Mad P, Wild C.
Hämocompletan P alleine oder in Kombination mit Fibrogammin P bei erworbenen Fibrinogenmangelzuständen.
Health Technology Assessment Projektbericht 2009; <http://eprints.hta.lbg.ac.at/870/>; letzter Zugriff am 27.06.2012.
- 49) Fries D, Krismer A, Klingler A, Streif W, Klima G, Wenzel V, Haas T, Innerhofer P.
Effect of fibrinogen on reversal of dilutional coagulopathy: a porcine model.
Br J Anaesth 2005;**95**:172-7.
- 50) American College of Surgeons Committee on Trauma (ed.) *Advanced Trauma Life Support for Doctors, Student Course Manual*, 8th ed. American College of Surgeons: Chicago (IL), 2008.
- 51) 51. CRASH-2 trial collaborators, Shakur H, Roberts I, Bautista R, Caballero J, Coats T, Dewan Y, El-Sayed H, Gogichaishvili T, Gupta S, Herrera J, Hunt B, Iribhogbe P, Izurieta M, Khamis H, Komolafe E, Marrero MA, Mejía-Mantilla J, Miranda J, Morales C,

Olaomi O, Olldash F, Perel P, Peto R, Ramana PV, Ravi RR, Yutthakasemsunt S.

Effects of tranexamic acid on death, vascular occlusive events, and blood transfusion in trauma patients with significant haemorrhage (CRASH-2): a randomised, placebo-controlled trial.

Lancet 2010;**376**:23-32.

- 52) Alshryda S, Sarda P, Sukeik M, Nargol A, Blenkinsopp J, Mason JM.

Tranexamic acid in total knee replacement: a systematic review and meta-analysis.

J Bone Joint Surg Br 2011;**93**:1577-85.

- 53) Sukeik M, Alshryda S, Haddad FS, Mason JM.

Systematic review and meta-analysis of the use of tranexamic acid in total hip replacement.

J Bone Joint Surg Br 2011;**93**:39-46.

- 54) DeLoughery TG.

Coagulation defects in trauma patients: etiology, recognition, and therapy.

Crit Care Clin 2004;**20**:13-24.

- 55) O'Connell KA, Wood JJ, Wise RP, Lozier JN, Braun MM.

Thromboembolic adverse events after use of recombinant human coagulation factor VIIa.

JAMA 2006;**295**:293-8.