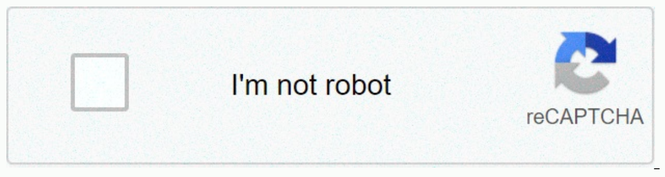

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Esra anticoagulation guidelines 2017

1. ASRA GUIDELINES 4th Edition, April 2018 (3rd Edition, Jan 2010) Dr Krunal Bhatt Anesthesiology and Critical Care AFMC, Pune 2. 1st Consensus Conference: 1997 - 2nd Consensus Conference: 2002 No Change 3. PREUVE LIVE - A: RCT and meta-analysis - B: Observational and Epidemiological Series - C: Case Reports or Expert Opinion No Change 4. RECOMMENDATION GRADE - 1: General Agreement on Efficiency - 2: Conflicting Evidence or Utility Opinion - 3: May Not Be Useful - We Recommend: Grades 1A, 1B,1C - We Suggest: Grades 2A,2B,2C No Change 5. CONCERNS 1. Administration of thromboprophylaxis 2. Pt Mx anesthetic receiving thrombolytic therapy 3. Pt anesthetic mx receiving UFH 4. Pt Mx anesthetic receiving LMWH 5. Pt Mx anesthetic receiving Fondaparinaux 6. Pt Mx anesthetic receiving Rivaroxaban 7. Pt Mx anesthetic receiving Apixaban 8. Pt Mx anesthetic receiving Edoxaban 9. Pt Mx anesthetic receiving Betrixaban 10. Pt Mx anesthetic receiving direct thrombin inhibitors 6. 11. Pt Mx anesthetic receiving Dabigatran 12. Regional pt anesthetic mx receiving Warfarin 13. Pt Mx anesthetic receiving antiplatelet drugs 14. Pt Mx anesthetic receiving herbal therapy 15. Mx anesthetic of the Anticoagulated Parturient 16. Pt anesthetic mx receiving undergoing plexus or peripheral block 7. VTE RISK FACTORS FOR VTE Surgery Trauma Immobility Cancer and its treatment Venous Compression H/o VTE Increase in Age Acute Medical Disease 1. Administration of THROMBOPROPHYLAXIS 1. For each of the antithrombotic agents, we recommend that clinicians follow FDA-approved dosage guidelines and ACCP Mx (grade 1A) No Change 9. 2. Pt Mx anesthetic receiving THROMBOLYTIC THERAPY 1. In patients scheduled to receive thrombolytic therapy, we recommend that the pt be interviewed and the medical record reviewed for a recent history of lumbar puncture, spinal or epidural anesthesia, or ESI to allow for appropriate surveillance guidelines detailing the original contraindications to thrombolytic drugs suggest avoidance of these drugs for 10 days following the puncture of non-compressible vessels (category 1A) no change10. 2. Pt Mx anesthetic receiving THROMBOLYTIC THERAPY 2. In patients who have received fibrinolytic and thrombolytic medications, we recommend against the performance of spinal or epidural anesthetics, except in very unusual circumstances (grade 1A) No change 11. 2. Pt Mx anesthetic receiving THROMBOLYTIC THERAPY 3. The data is not to clearly describe the duration of neuraxial puncture should be avoided after discontinuation of these medications. However, a 48-hour time interval and documentation of standardization of clotting studies (including fibrinogen) are suggested (grade 2C) No change 12. 2. Pt Mx Anesthetic Receiving Receiving THERAPY 4. In these patients who received neuraxial blocks at or near the time of fibrinolytic and thrombolytic therapy, we recommend that neurological monitoring should be continued for an appropriate interval. The monitoring interval may not be longer than 2 hours between neurological controls. If neuraxial blocks have been combined with fibrinolytic and thrombolytic therapy and continuous epidural catheter infusion, we recommend that infusion should be limited to drugs minimizing sensory and motor block to facilitate the evaluation of neurological function (category 1C) no change 13. 2. Pt anesthetic Mx receiving THROMBOLYTIC THERAPY 5. There is no definitive recommendation for removal of neuraxial catheters in pts that unexpectedly receive fibrinolytic and thrombolytic therapy during a neuraxial catheter infusion. We suggest measuring the level of fibrinogen (one of these latter clotting factors to recover) to assess the presence of the residual thrombolytic effect and the appropriate timing of catheter removal (grade 2C) no change 14. IV and SC UFH 15. 3. Pt Mx anesthetic receiving UFH 1. We recommend a daily review of the pt's medical record to determine the simultaneous use of drugs that affect other components of clotting mechanisms. These drugs include antiplatelet drugs, LMWH, and oral anticoagulants (grade 1B) No change 16. 3. Pt Mx anesthetic receiving UFH 2. Since hit may occur during heparin administration, we recommend that pt receiving IV or SC UFH for more than 4 days have a platelet count evaluated before neuraxial block or catheter removal (grade 1C) no change 17. 3. Pt Mx anesthetic receiving UFH 3. Intravenous Heparin 1. Stop the heparin infusion for 4 to 6 hours and check the normal clotting state before the neuraxial blockade (grade 1A) No change 18. 3. Pt Mx anesthetic receiving UFH 3. Intravenous Heparin 2. Avoid neruaxial techniques in pts with other coagulopathies (grade 1A) No change 19. 3. Pt Mx anesthetic receiving UFH 3. Intravenous Heparin 3. Delay heparin administration for 1 hour after needle placement (grade 1A) No change 20. 3. Pt Mx anesthetic receiving UFH 3. Intravenous Heparin 4. Remove neuraxial catheters that live 4 to 6 hours after the last dose of heparin (and after evaluation of the coagualtion status of the pt); reparer 1 hour after catheter removal (grade 1A) No change 21. 3. Pt Mx anesthetic receiving UFH 3. Intravenous Heparin 5. Monitor pt postoperatively to provide early detection of the engine blockade and consider using a minimum LAs concentration to improve spinal hematoma (grade 1A) No change 22. 3. Pt Mx anesthetic receiving UFH 3. Intravenous Heparin 6. Although the occurrence of bloody or difficult neuraxial needle placement may increase risk, there is no data to support mandatory cancellation of a case. Direct communication with the surgeon and a specific decision regarding risk benefits regarding the procedure in each case are (Grade 1A) No change 23. 3. Pt Mx anesthetic receiving UFH 3. Intravenous Heparin 7. Currently, insufficient data and experience are available to determine whether the risk of neuraxial hematoma is increased by combining neuraxial techniques with complete anticoagulation of cardiac surgery. We propose postop monitoring of neurological function and the selection of neuralxial solutions that minimize the sensory and motor block to facilitate the detection of new/progressive neurodeficits (grade 2C) no change 24. 3. Pt anesthetic Mx receiving UFH 4. Heparin sub-skin 1. Low-dose UFH preop for thromboprophylaxis. We propose, in pts receiving low-dose SC UFH with dosage regimens of 5000 UI 5000 BID/TID, neuraxial block occur 4 to 6 hours after heparin administration, or clotting status be evaluated (category 2C) no change 25. 3. Pt anesthetic Mx receiving UFH 4. Heparin sub-skin 2. Preop higher dose UFH for thromboprophylaxis (e.g. Individual heparin dose of 7500-10000 IU BID or daily dose of ≤ 20000 IU). We suggest, neuraxial block occur 12 hours after SC heparin administration and assessment of clotting status (grade 2C) no change 26. 3. Pt anesthetic Mx receiving UFH 4. Heparin sub-skin 3. UFH Therapeutic Preop (for example. Individual dose - 10,000 IU SC per dose or total daily dose of 20,000 IU). We propose the neuraxial block occur 24 hours after SC heparin administration and assessment of clotting status (grade 2C) no change 27. 3. Pt anesthetic Mx receiving UFH 4. Heparin sub-skin 4. Low-dose UFH postop. There is no contraindication to the maintenance of neuraxial catheters in the presence of low-dose UFH. We propose catheter removal occur 4 to 6 hours after heparin administration. Subsequent heparin administration may occur 1 hour after catheter removal (grade 2C) no change 28. 3. Pt anesthetic Mx receiving UFH 4. Heparin sub-skin 5. Postop Higher Dose UFH. The safety of neuraxial catheters in the pts receiving doses of 5000 IU or 15,000 IU of UFH per day has not been established. We suggest that risk and benefits be evaluated on an individual basis and that techniques to facilitate the detection of new/progressive neurodefits (e.g. Improved neuro monitoring occurs and neural solutions to minimize the sensory and motor block) must be applied (grade 2C) No Change 29. LMWH 30. 4. Pt Mx anesthetic receiving LMWH 1. The anti-factor level Xa is not predictive of bleeding risk, although it may be useful in monitoring the efficacy of therapy with therapeutic regimens (high We recommend against the systematic use of Xa anti-factor level monitoring. An acceptable level of residual level of Xa anti-factor for the performance of the neuraxial block remains undetermined (grade 1A) The increased availability of the level of anti-factorXa activity allows preop evaluation of the residual anticoagua effect in pt on the higher dose LMWH 31. 4. Pt Mx anesthetic receiving LMWH 2. Oral antiplatelet or anticoagulant drugs LMWH increase the risk of spinal hematoma. The education of the entire pt care team is necessary to avoid the potentiation of anticoagualnt effects. We recommend against the concomitant administration of drugs affecting hemostasis, such as antiplatelet drugs, standard heparin or dextran, regardless of the LMWH dosing regimen when there is a neuraxial catheter in it (grade 1A) no change 32. 4. Pt Mx anesthetic receiving LMWH 3. Since hit may occur during LMWH administration, we recommend that pts receiving LMWH for more than 4 days have a platelet count evaluated before neuraxial block or catheter removal (grade 1C) no change 33. 4. Pt Mx anesthetic receiving LMWH 4. The presence of blood during the placement of the needle and catheter does not require the postponement of surgery. We suggest that the initiation of LMWH therapy in this setting should be delayed for 24 hours postop and that this consideration be discussed with the surgeon (grade 2C) no change 34. 4. Pt Mx anesthetic receiving LMWH 5. Preop LMWH 1. We recommend that needle placement occur at least 12 hours after the prophylactic dose of LMWH (grade 1C) No change 35. 4. Pt Mx anesthetic receiving LMWH 5. Preop LMWH 2. In pts administered a dose of LMWH 2 hours preoperatively (pts general surgery), we recommend against nerve techniques because the placement of the needle would occur near advanced anticoagulant activity (grade 1A) No change 36. 4. Pt Mx anesthetic receiving LMWH 5. Preop LMWH 3. In pts receiving higher (therapeutic) LMWH (e.g. Enoxaparin 1mg/kg 12hrly or 1.5mg/kg daily, Dalteparin 120U/kg 12hrly or 200U/kg daily, Tinzaparin 175U/kg daily), We recommend delay of ≥24hrs to needle/catheter placement (category 1C). Consider checking for anti-factorXa activity, especially in the elderly pts and with kidney failure. The acceptable level of residual anti-factorXa activity to proceed with the neuraxial block remains undetermined (grade 2C) Anti-factorXa residual activity may be present even after 24 hours. Evaluation, especially in pt with mod to severe kidney failure, can be considered. 37. 4. Pt Mx anesthetic receiving LMWH 6. Postop LMWH 1. BID prophylactic dose, associated with an increased risk of spinal hematoma. We recommend that the first LMWH dose be given the next day and no earlier than 12 hours after the placement of the needle/catheter, regardless of the anesthetic technique, and only in the presence of adequate (surgical) hemostasis. Indwelling catheters must be removed prior to initiation of LMWH thromboprophylaxis. LMWH administration to be delayed for 4 hours after the removal of (grade 1C) previously recommed was a 24hr 1st dose after needle/catheter placement and delay of LMWH dosage for only 2hr after catheter removal. These recommendations incorporate FDA labeling changes. 38. 4. Pt Mx anesthetic receiving LMWH 6. Postop LMWH 2. Prophylactic dose od. We recommend that the first LMWH dose be given ≥12h after the needle or catheter is placed. The 2nd postop dose should occur after the first dose. The catheters that live do not represent an increased risk and can be maintained. No other hemostasis-modifying drugs should be given due to additive effects. Catheter removed 12hr last dose LMWH. LMWH ≥4hrs following catheter removal (grade 1C) previously recommended was 10-12hrs for needle/catheter placement and catheter removal. LMWH following 2hrs after catheter removal. These recommendations incorporate FDA labelling changes. 39. 4. Pt Mx anesthetic receiving LMWH 6. Postop LMWH 3. Therapeutic dose OD/BD. The therapeutic dose LMWH can be resumed 24 after non-high-bleeding-risk surgery and 48 to 72 hours after surgery at high risk of bleeding. We recommend that the indwelling neuraxial catheter be removed 4 hours before the 1st postop dose and ≥ 24 hours after needle/catheter placement, according to the largest (grade 1C) no change 40. ANTI - AGENTS FACTOR Xa - Fondaparinux 41. 5. Pt Mx anesthetic receiving FONDAPARINAUX 1. Based on the sustained and irreversible antithrombotic effect, early postop dosing and spinal hematoma reported during initial clinical trials, we recommend that until further clinical experience is available performance of neuraxial techniques should occur under conditions used in clinical trials (simple needle passage, needle atraumatic placement, avoidance of neuraxial catheters). If this is not possible, another method of prophylaxis should be considered (grade 1C) No change 42. 5. Pt Mx anesthetic receiving FONDAPARINAUX 2. We suggest that the neuraxial catheters 6 hours be removed before the 1st postop dose (grade 2C) No change 43. NEW AGENTS ANTI-FACTOR OR DIRECTS - Rivaroxaban - Apixaban - Edoxaban - Betrixaban 44. 6. Pt Mx anesthetic receiving RIVAROXABAN 1. We propose that the rivaroxaban be discontinued 72 hours before the neuraxial block. Consider checking the level of rivaroxaban or anti-Xa activity if it is less than 72 hours. An acceptable level of residual rivaroxaban activity to proceed with the neuraxial block remains undetermined (grade 2C) NEW 45. 6. Pt Mx anesthetic receiving RIVAROXABAN 2. We suggest that neuraxial catheters be removed 6 hours before the 1st postop dose (grade 2C) NEW 46. 6. Pt Mx anesthetic receiving RIVAROXABAN 3. With unexpected administration with indwelling catheter, we propose that the rivaroxaban dosage be held for 22 to 26 hours before or an Xa-factor anti-factor test calibrated with rivaroxaban be evaluated before the catheter is removed (category 2C) NEW 47. 7. Pt Mx anesthetic receiving APIXABAN 1. We suggest that Apixaban be discontinued 72 hours before the neuraxial block. Consider checking the level of apixaban or anti-Xa activity if it is 72 hours. An acceptable level of residual Apixaban activity to proceed with the neuraxial block remains undetermined (grade 2C) NEW 48. 7. Pt Mx anesthetic receiving APIXABAN 2. We suggest that neuraxial catheters be removed 6 hours before the 1st postop dose (grade 2C) NEW 49. 7. Pt Mx Anesthetic Receiving Receiving 3. With unexpected administration with indwelling catheter, we propose that the Apixaban dosage be held for 26 to 30 hours before or an Xa-calibrated anti-factor test at Apixaban is evaluated before the catheter is removed (grade 2C) NEW 50. 8. Pt Mx anesthetic receiving EDOXABAN 1. We suggest that Edoxaban be discontinued 72 hours before the neuraxial block. Consider checking the Edoxaban or anti-Xa activity level if less than 72 hours. An acceptable level of residual Edoxaban activity to proceed with the neuraxial block remains undetermined (grade 2C) NEW 51. 8. Pt Mx anesthetic receiving EDOXABAN 2. We suggest that neuraxial catheters be removed 6 hours before the 1st postop dose (grade 2C) NEW 52. 8. Pt Mx anesthetic receiving EDOXABAN 3. With unexpected administration with indwelling catheter, we propose that the Edoxaban dosage be held for 20 to 28 hours before or an Xa-calibrated anti-factor test calibrated to Edoxaban be evaluated before the catheter is removed (grade 2C) NEW 53. 9. Pt Mx anesthetic receiving BETRIXABAN 1. We propose that Betrixaban be discontinued a minimum of 3 days before the neuroaxial block. Consider checking betrixaban or anti-factor Xa activity level if less than 3 days (grade 2C) NEW 54. 9. Pt Mx anesthetic receiving BETRIXABAN 2. We suggest against running neuraxial blocks in pt with a CrCL-lt; 30ml/min (grade 2C) NEW 55. 9. Pt anesthetic Mx receiving BETRIXABAN 3. We propose that neuraxial catheters 5 hours be removed before the next dose (grade 2C) NEW 56. 9. Pt anesthetic Mx receiving BETRIXABAN 4. With unexpected administration with indwelling catheter, we propose that the Betrixaban dosage be held for 72 hours, that the catheter removed (grade 2C) NEW 57. THROMBIN DIRECTS - Desirudin - Bivalirudin - Argatroban 58. 10. Pt anesthetic Mx receiving parenteral DTI 1. In pt receiving parenteral thrombin inhibitors, we recommend against the performance of neuraxial techniques (grade 2C) no change 59. THROMBIN ORALSALS - DabigatRAN 60. 11. Pt anesthetic Mx receiving DABIGATRAN 1. We propose that Dabigatran be discontinued 120 hrs before the neuraxial block. However, if kidney function has been reliably determined, and there are no additional risk factors for bleeding (e.g. age 65, hypertension, concomitant antiplatelet medications), a more affluent approach may be considered new 61. 11. Pt Mx anesthetic receiving DABIGATRAN 1. We suggest that Dabigatran be discontinued 120 hours before the neuraxial block. However, if kidney function has been reliably determined, and there are no additional risk factors for bleeding (for example. age, hypertension, concurrent antiplatelet drugs), a more can be considered 1. We suggest dabigatran be discontinued 72hrs in pt with CrCL ≥80ml/min. Consider checking the TNT or ECT at 72 a.m. The acceptable level of residual dabigatran activity for neuraxial block remains undetermined (grade 2C) NEW 62. 11. Pt pt pt Mx anesthetic DABIGATRAN 1. Nous suggérons que Dabigatran soit discontinué 120 heures avant le bloc neuraxial. Toutefois, si la fonction rénale a été déterminée de façon fiable, et il n'y a pas de facteurs de risque supplémentaires de saignement (par exemple. Âge>65 ans, hypertension, médicaments antiplaquettaux concomitants), une approche plus nantisée peut être considérée comme 2. Nous suggérons dabigatran être discontinué 96hrs dans pt avec CrCL 50-79ml/min. Envisagez de vérifier la TNT ou <96hrs. acceptable= level= of= residual= dabigatran= activity= to= proceed= with= neuraxial= block= remains= undetermined= (= grade= 2c=)= new= 63.= 11.= anesthetic= mx= of= pt= receiving= dabigatran= 1.= we= suggest= that= dabigatran= be= discontinued= 120= hrs= prior= to= neuraxial= block.= however,= if= renal= function= has= been= reliably= determined,= and= there= are= no= additional= risk= factors= for= bleeding= (= eg.= age=>l'ECT si 65 ans, hypertension, médicaments antiplaquettaux concomitants), une approche plus nantisée peut être considérée comme 3. Nous suggérons dabigatran être discontinué 120hrs dans pt avec CrCL 30-49ml/min. Envisagez de vérifier la TNT ou <120hrs. acceptable= level= of= residual= dabigatran= activity= to= proceed= with= neuraxial= block= remains= undetermined= (= grade= 2c=)= new= 64.= 11.= anesthetic= mx= of= pt= receiving= dabigatran= 1.= we= suggest= that= dabigatran= be= discontinued= 120= hrs= prior= to= neuraxial= block.= however,= if= renal= function= has= been= reliably= determined,= and= there= are= no= additional= risk= factors= for= bleeding= (= eg.= age=>l'ECT si 65 ans, hypertension, médicaments antiplaquettaux concomitants), une approche plus nantisée peut être considérée comme 4. Nous suggérons <30ml/min (grade 2C) NEW 65. 11. Anesthetic Mx of pt receiving DABIGATRAN 2. We suggest that neuraxial catheters be removed 6 hrs prior to the 1st postop dose (grade 2C) NEW 66. 11. Anesthetic Mx of pt receiving DABIGATRAN 3. With unanticipated administration with indwelling catheter, we suggest that dabigatran dosing be held for 34 to 36 hrs before or dTT or ECT assessed before the catheter is removed (grade 2C) NEW 67. 12. Regional Anesthetic Management of pt on WARFARIN 1. Caution should be used when performing neuraxial tech in pts recently discontinued from chronic warfarin therapy. In first 1-3 days after discontinuation of warfarin therapy, coagulation status (reflected primarily by factor II and X levels) may not be adequate for hemostasis despite a decrease in INR (Indicating return of factor VII activity). Adequate levels of factor II,VII,IX and X may not be present until INR is within normal limits. We recommend the anticoagulant therapy must be stopped (Ideally 5 days prior to planned procedure), and the INR normalized prior to initiation of neuraxial block (grade 1B) No Change 68. 12. Regional Anesthetic Management of pt on WARFARIN 2. We recommend against the concurrent use of medications that

other component of the clotting mechanisms and may increase the risk of bleeding complications for patients receiving oral anticoagulants and do so without influencing the INR. These in= (= grade= 2c=)= new= 65.= 11.= anesthetic= mx= of= pt= receiving= dabigatran= 2.= we= suggest= that= neuraxial= catheters= be= removed= 6= hrs= prior= to= the= 1st= postop= dose= (= grade= 2c=)= new= 66.= 11.= anesthetic= mx= of= pt= receiving= dabigatran= 3.= with= unanticipated= administration= with= indwelling= catheter,= we= suggest= that= dabigatran= dosing= be= held= for= 34= to= 36= hrs= before= or= dtt= or= ect= assessed= before= the= catheter= is= removed= (= grade= 2c=)= new= 67.= 12.= regional= anesthetic= management= of= pt= on= warfarin= 1.= caution= should= be= used= when= performing= neuraxial= tech= in= pts= recently= discontinued= from= chronic= warfarin= therapy.= in= first= 1-3= days= after= discontinuation= of= warfarin= therapy,= coagulation= status= (reflected= primarily= by= factor= ii= and= x= levels)= may= not= be= adequate= for= hemostasis= despite= a= decrease= in= inr= (indicating= return= of= factor= vii= activity).= adequate= levels= of= factor= ii ,vii,ix= and= x= may= not= be= present= until= inr= is= within= normal= limits.= we= recommend= the= anticoagulant= therapy= must= be= stopped= (ideally= 5= days= prior= to= planned= procedure),= and= the= inr= normalized= prior= to= initiation= of= neuraxial= block= (= grade= 1b=)= no= change= 68.= 12.= regional= anesthetic= management= of= pt= on= warfarin= 2.= we= recommend= against= the= concurrent= use= of= medications= that= affect= other= component= of= the= clotting= mechanisms= and= may= increase= the= risk= of= bleeding= complications= for= patients= receiving= oral= anticoagulants= and= do= so= without= influencing= the= inr.= these=></30ml/min (grade 2C) NEW 65. 11. Anesthetic Mx of pt receiving DABIGATRAN 2. We suggest that neuraxial catheters be removed 6 hrs prior to the 1st postop dose (grade 2C) NEW 66. 11. Anesthetic Mx of pt receiving DABIGATRAN 3. With unanticipated administration with indwelling catheter, we suggest that dabigatran dosing be held for 34 to 36 hrs before or dTT or ECT assessed before the catheter is removed (grade 2C) NEW 67. 12. Regional Anesthetic Management of pt on WARFARIN 1. Caution should be used when performing neuraxial tech in pts recently discontinued from chronic warfarin therapy. In first 1-3 days after discontinuation of warfarin therapy, coagulation status (reflected primarily by factor II and X levels) may not be adequate for hemostasis despite a decrease in INR (Indicating return of factor VII activity). Adequate levels of factor II,VII,IX and X may not be present until INR is within normal limits. We recommend the anticoagulant therapy must be stopped (Ideally 5 days prior to planned procedure), and the INR normalized prior to initiation of neuraxial block (grade 1B) No Change 68. 12. Regional Anesthetic Management of on WARFARIN 2. We recommend against the concurrent use of medications that affect other component of the clotting mechanisms and may increase the risk of bleeding complications for patients receiving oral anticoagulants and do so without influencing the INR. These > contre la performance des blocs neuraxial en pts avec CrCL</120hrs.> </96hrs.> </96hrs.> include aspirin and other NSAS, thienopyridines, UFH and LMWH (grade 1A) No Change 69. 12. Regional pt anesthetic management on WARFARIN 3. In pt that are likely to have an improved response to the drug, we recommend that the reduced dose be administered (grade 1B) No change 70. 12. Regional pt anesthetic management on WARFARIN 4. In pts receiving an initial dose of warfarin prior to surgery, we suggest INR should be checked before neuraxial block if the first dose was given 24hrs earlier or a second dose of oral anticoagulant was administered (grade 2C) No change 71. 12. Regional pt anesthetic management on WARFARIN 5. In pts receiving low dose of warfarin therapy during epidural analgesia, we suggest that their INR be monitored on a daily basis (grade 2C) no change 72. 12. Regional pt anesthetic management on WARFARIN 6. Neurological monitoring of sensory and motor function should be performed systematically during epidural analgesia for pt on warfarin therapy. To facilitate, we recommend that the type of analgesic solution be adapted to minimize the degree of sensory and motor blockage (grade 1C) No Change 73. 12. Regional pt anesthetic management on WARFARIN 7. As thromboprophylaxis with warfarin is initiated, we propose that neuraxial catheters be removed when .1.5. while's removal of epidural-catheters 12-24hrs after 'warfarin' was'n' does not appear' to 'represent' increase'risk, the 'risk' of 'removing' epidural's catheter at '48hrs' is not'guaranteed. factor-levels and inr-as-well-as-clinical-studies-in-pts-receiving-wararin-during-epidural-catheterization-74. , we recommend that the 'increase' in 'risk' with 'progressive' inr-prolongation- remains unknown.- we' suggest indwelling- catheters - may be-maintained with 'caution', 'based' on 'inr' and 'duration' of 'warfarin' therapy' ('grade' 2c') this is a new 'recommendation' based on recent lab 'assessing' factor-levels and inr' as well-as-clinical-studies-in-pts-receiving-wararin during epidural-catheterization 75. either held or reduced in pts with indwelling neuraxial catheters (grade1A) we cannot make any definitive recommendations regarding management to facilitate removal of neuraxial catheters in pt with therapeutic levels of anticoagulation during neuraxial catheter infusion (category 2C) no change 76. 12. Regional pt anesthetic management on WARFARIN 10. We that neurological evaluation be continued for at least 24 hours following catheter removal (grade 2C) no change 77. ANTIPLATELET MÉDICAMENTS - AINS - Thiénopyridines - Ticagrelor - Cangrelor - Pl GPIIb/IIIa receptor antagonists - Cilastazol - Dipyridamol 78. 13. Mx de pt anesthetic receiving ANTIPLATELET 1. AINS 1. NSAs do not appear to represent any additional significant risk. development of spinal hematoma in pt having epidural or spinal anesthesia. NSAs (including aspirin) do not create a level of risk that interferes with the performance of neuraxial blocks. In pts receiving these drugs, we do not identify specific concerns about the timing of single injection or catheter techniques in relation to NSD dosage, postop monitoring, or timing of neuraxial catheter removal (grade 1A) No change 79. 13. Mx de pt anesthetic receiving ANTIPLATELET 1. AINS 2. In NSAID pts, we suggest caution in the execution of neuraxial techniques if simultaneous use of other drugs affecting clotting mechanisms, such as other antiplatelet agents (nonNSAIDs), oral anticoagulants, UFH and LMWH is expected in the early postop period due to the increased risk of bleeding complications. COX2 inhibitors have a minimal effect on platelet function and should be considered in pt that require anti-inflammatory therapy in the presence of anticoagulation (grade 2C) No change 80. 13. Mx de pt anesthetic receiving ANTIPLATELET 2. Thienopyridines 1. Preop: Based on labelling and surgical/procedural experience, the recommended time interval between discontinuation of thienopyridine therapy and neuraxial blockade is 10 days for ticlopidine, 5-7 days for clopidogrel, and 7-10 days for prasugrel (category 1C) previous time intervals were 14 days for ticlopidine and 7 days for clopildog. The new time intervals reflect the recommendations of the CCPA. The prasugrel recommendation is new. 81. 13. Mx de pt anesthetic receiving ANTIPLATELET 2 MÉDICAMENTS. Thienopyridines 2. Postop: In accordance with ACCP recommendations, thienopridine therapy can be restored 24 hours postoperatively (grade 1A) NEW 82. 13. Mx de pt anesthetic receiving ANTIPLATELET 2. Thienopyridines 3. Neuraxial catheters should not be maintained with prasugrel or ticagrelor due to rapid onset. However, because the antiplatelet effect is not immediate with ticlopidine and clopidogrel, neuraxial catheters can be maintained for 1-2 days, provided that a dose of loading of the antiplatelet agent is not administered. (Grade 1A) NEW 83. 13. Mx de pt anesthetic receiving ANTIPLATELET 2. Thienopyridines 4. Thienopyridine therapy may be resumed immediately after needle placement/catheter removal, provided that a dose of drug loading is not administered. If a load dose is administered, we suggest a 6-hour time interval between catheter removal and administration (grade 2C) NEW 84. 13. Pt Mx Anesthetic Receiving ANTIPLATELET DRUGS 3. ASRA SOCIETY FORGETS TO MENTION THIS POINT. I MAILED THEM TO THAT. 85. 13. Mx de pt anesthetic receiving ANTIPLATELET 4. Ticagrelor 1. Preop: Based on labelling and surgical/procedural experience, the recommended time interval between discontinuation of ticagrelor therapy and neuraxial blockade is 5-7 days (category 1C) NEW 86. 13. Mx pt pt anesthetic ANTIPLATELETAL DRUGS 4. Ticagrelor 2. Postop: In accordance with ACCP recommendations, ticagrelor therapy can be restored 24 hours postoperatively (grade 1A) NEW 87. 13. Mx de pt anesthetic receiving ANTIPLATELET 4. Ticagrelor 3. Neuraxial catheters should not be maintained with ticagrelor due to rapid onset (grade 2C) NEW 88. 13. Mx de pt anesthetic receiving ANTIPLATELET 4. Ticagrelor 4. Ticagrelor therapy may be resumed immediately after needle placement/catheter removal, provided that a dose of drug loading is not administered. If a load dose is administered, we suggest a 6-hour time interval between catheter removal and administration (grade 2C) NEW 89. 13. Mx de pt anesthetic receiving ANTIPLATELET 4. Ticagrelor 4. Ticagrelor therapy may be resumed immediately after needle placement/catheter removal, provided that a dose of drug loading is not administered. If a load dose is administered, we suggest a 6-hour time interval between catheter removal and administration (grade 2C) NEW 90. 13. Mx de pt anesthetic receiving ANTIPLATELET 5. Antagonists of the GPIIb/IIIa 1 Platelet Receptors. Preop: We recommend avoiding neuraxial techniques until platelet function - affected by the GPIIb/IIIa inhibitor - has recovered. (Pts are usually on dual therapy and can still have a residual effect AINS) No change 91. 13. Mx de pt anesthetic receiving ANTIPLATELET 5. GPIIb/IIIa Receptor Antagonists 2. Postop: Although GPIIb/IIIa antagonists are contraxed within 4 weeks of surgery, if one is to be administered in an emerging way in the postop period (following the neuraxiaal technique), we recommend that the infusion be limited to drugs minimizing the sensory and motor block to facilitate the evaluation of neuro function and the pt to be monitored neurologically (grade1C). The timing of catheter removal is based on the ongoing risk of thromboembolism and the need for continuous antithrombotic therapy and potential for spinal bleeding during new 92 catheter maintenance and removal. 13. Mx de pt anesthetic receiving ANTIPLATELET 6. Cilastozol 1. Based on the elimination half-life, we propose that neuraxial techniques be avoided for 2 days after stopping cilastozol (grade 2C) NEW 93. 13. Mx de pt anesthetic receiving ANTIPLATELET 6. Cilastozol 2. We propose that neuraxial catheters be removed prior to the re-establishment of cilastazol therapy postoperatively (grade 2C) NEW 94. 13. Mx de pt anesthetic receiving ANTIPLATELET MÉDICAMENTS Cilastozol 3. We suggest that the first postop dose of cilastazol for administered 6 hours after removal of the neuraxial catheter (grade 2C) NEW 95. 13. Mx de pt anesthetic receiving ANTIPLATELET 7. Dipyridamol 1. Based on elimination half-life, we suggest stopping prolonged release dipyridamol 24 hours before the neuraxial block. Aspirin can be continued perioperatively (grade 2C) NEW 96. 13. Pt Mx Anesthetic Receiving Receiving MEDICINES 7. Dipyridamol 2. We propose that neuraxial catheters be removed prior to the re-institution of dipyridamol therapy postoperatively (grade 2C) NEW 97. 13. Mx de pt anesthetic receiving ANTIPLATELET 7. Dipyridamol 3. We suggest that the first postop dose of dipyridamol be administered 6 hours after removal of the neuraxial catheter (grade 2C) NEW 98. 13. Mx de pt anesthetic receiving ANTIPLATELET 8. Cangrelor 1. Based on the elimination half-life, we propose that neuraxial techniques be avoided for 3 hours after stopping the cangrelor (grade 2C) NEW 99. 13. Mx de pt anesthetic receiving ANTIPLATELET 8. Cangrelor 2. We propose that neuraxial catheters be removed before the re-institution of cangrelor therapy postoperatively (grade 2C) NEW 100. 13. Mx de pt anesthetic receiving ANTIPLATELET 8. Cangrelor 3. We suggest that the first postop dose of cangrelor be administered 8 hours after removal of the neuraxial catheter (grade 2C) NEW 101. 14. Mx pt anesthetic receiving HERBAL MEDICAS 1. The use of herbal medicines does not create a level of risk that interferes with the performance of the neuraxial block. We recommend against mandatory discontinuation of these drugs or the avoidance of regional anesthetic techniques in patients in whom these drugs were administered (grade1C) No change 102. 15. Anesthetic Mx from PARTURIENT ANTICOAGULATED 1. Given the limited pharmacological data on antithrombotic agents during pregnancy and in the absence of a large range of neuraxial techniques in the pregnant population receiving prophylaxis or VTE treatment, we suggest that ASRA guidelines be applied to parturients (grade2C) No change 103. 15. Anesthetic Mx from PARTURIENT ANTICOAGULATED 2. However, in circumstances involving certain high-risk participants receiving VTE prophylaxis and requiring urgent interventions for maternal or fetal indications, the risk of general anesthesia may be greater than neuraxial anesthesia, and exceptions/modifications of ASRA guidelines may be appropriate (grade2C) NEW 104. 16. Pt anesthetic mx undergoing PLEXUS/BLOC PERIPHERAL 1. For pts undergoing perineuraxial, deep plexus or deep peripheral block, we recommend that guidelines for neuraxial techniques be applied in the same way (category 1C) no change 105. 16. Pt anesthetic mx undergoing PLEXUS/BLOC PERIPHERAL 2. For pts undergoing other plexus or peripheral techniques, we suggest management (performance, maintenance and catheter ablation) based on site compressibility, vascularity and the consequences of bleeding, if it occurs (2C) NEW 106. THANK YOU DR KRUNAL BHATT No change