

Five Things Physicians and Patients Should Question

1 Don't give IVIG as first line treatment for patients with asymptomatic immune thrombocytopenia (ITP).

Treatment for ITP is recommended for a platelet count less than $30 \times 10^9/L$. Corticosteroids are considered first-line treatment, with the addition of IVIG reserved for severe ITP and bleeding, when a rapid rise in platelets is required, or when corticosteroids are contraindicated. There is no evidence of benefit of IVIG in combination with corticosteroids for first-line treatment of asymptomatic ITP. Unnecessary IVIG infusions can result in multiple adverse effects, including acute hemolytic or anaphylactic reactions, infections, thromboembolic events, and aseptic meningitis.

2 During interruption of warfarin anticoagulation for procedures, don't 'bridge' with full-dose low molecular weight heparin (LMWH) or unfractionated heparin (UFH) unless the risk of thrombosis is high.

Patients on warfarin with a low-risk for thrombotic events do not require bridging anticoagulation. If interruption is necessary, warfarin can be stopped 5 days prior to a planned procedure and resumed when it is felt to be safe to do so afterwards. Bridging with LMWH or UFH has been shown to cause excess bleeding when compared with no bridging and may ultimately delay resumption of warfarin. High-risk patients (e.g. mechanical mitral valve, venous thromboembolism within the last 3 months or atrial fibrillation with recent stroke/TIA) should be considered for bridging if the risk of thrombosis is higher than the risk of peri-procedural bleeding.

3 Don't order thrombophilia testing in women with early pregnancy loss.

Early pregnancy losses are common amongst healthy women. Current guidelines do not support the routine screening of women with pregnancy loss for inherited thrombophilias. Moreover, there are recommendations against instituting thromboprophylaxis in women with inherited thrombophilias wishing to achieve a successful term pregnancy. By performing testing for inherited thrombophilias, patients may be unnecessarily exposed to the harms of thromboprophylaxis, inappropriately labeled with a disease-state, and may unnecessarily modify future plans for travel, pregnancy or surgery based on detection of an "asymptomatic" thrombophilia. Further, patients with negative testing may receive false reassurance.

4 Don't request a fine-needle aspirate (FNA) for the evaluation of suspected lymphoma.

The diagnosis of lymphoma requires specimens with intact cellular architecture for accurate histopathologic and immunophenotypic classification. FNA is associated with a low sensitivity and potentially results in delays in lymphoma diagnosis. Although excisional biopsy is the gold standard for lymphoma diagnosis, depending on the lymph node location, excisional biopsy may be associated with complications and the need for general anesthesia. At a minimum, an imaging-guided core biopsy should be obtained to improve the accuracy and timeliness of lymphoma diagnosis.

5 Don't transfuse patients based solely on an arbitrary hemoglobin threshold.

Decisions to transfuse should be based on assessment of an individual patient including their underlying cause of anemia. There is high quality evidence that demonstrates a lack of benefit and, in some cases, harm to patients transfused to achieve an arbitrary transfusion threshold. If necessary, transfuse only the minimum number of units required instead of a liberal transfusion strategy. Risks of red blood cell transfusions include allergy, fever, infections, volume overload and hemolysis.

How the list was created

The entire membership of the Canadian Hematology Society (CHS) was asked to submit potential *Choosing Wisely Canada* list items. A steering committee consisting of 8 self-nominated CHS members was then formed. Next, the committee identified items for potential inclusion in the final list based on principles from the American Society of Hematology Choosing Wisely campaign and *Choosing Wisely Canada*. These principles included that the recommendations should aim to reduce harm, be evidence-based, reduce strain on the health care system, focus on common tests, procedures or treatments and be within the clinical domain of members of the CHS. Items that were felt by at least 5 of the 7 committee members (the chairperson remained neutral) for potential inclusion were selected for evidence review. Members could opt out of voting on a particular item if they felt it was outside of their scope of practice. Thirty-eight items were suggested by the membership-at-large and 12 items were selected for evidence review. Health Quality Ontario and the Canadian Agency for Drugs and Technologies in Health performed the literature searches. It was determined that expert recommendations could be a suitable evidence-base if the other principles were maintained. If a relevant clinical practice guideline was identified, it was reviewed to ensure congruence with the final recommendations. If disagreements were found, the input of relevant Canadian experts was sought. The agencies performing the literature reviews generated an evidence summary for each potential list item. Using the evidence summaries, a review of clinical practice guidelines and application of our principles, the 12-item list was then narrowed to the final 5-item list based on the committee's ranking.

Sources

- 1 Health Quality Ontario. Intravenous immune globulin for primary immune thrombocytopenia: a rapid review [Internet]. 2014 [cited 2014 Aug 21]. Available from: <http://www.hqontario.ca/evidence/publications-and-ohtac-recommendations/rapid-reviews>.

Neunert C, Lim W, Crowther M, Cohen A, Solberg L, Jr., Crowther MA. The American Society of Hematology 2011 evidence-based practice guideline for immune thrombocytopenia. *Blood*. Apr 21 2011;117(16):4190-4207.

Neunert CE. Current management of immune thrombocytopenia. *Hematology Am. Soc. Hematol. Educ. Program*. 2013;2013:276-282.

Provan D, Stasi R, Newland AC, et al. International consensus report on the investigation and management of primary immune thrombocytopenia. *Blood*. Jan 14 2010;115(2):168-186.
- 2 Douketis JD, Spyropoulos AC, Spencer FA, et al. Perioperative management of antithrombotic therapy: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*. Feb 2012;141(2 Suppl):e326S-350S.

Siegal D, Yudin J, Kaatz S, Douketis JD, Lim W, Spyropoulos AC. Periprocedural heparin bridging in patients receiving vitamin K antagonists: systematic review and meta-analysis of bleeding and thromboembolic rates. *Circulation*. Sep 25 2012;126(13):1630-1639.

Spyropoulos AC, Douketis JD. How I treat anticoagulated patients undergoing an elective procedure or surgery. *Blood*. Oct 11 2012;120(15):2954-2962.

Health Quality Ontario. Heparin bridging therapy during warfarin interruption for surgical and invasive interventional procedures: a rapid review of primary studies [Internet]. 2014 [cited 2014 Aug 21]. Available from: <http://www.hqontario.ca/evidence/publications-and-ohtac-recommendations/rapid-reviews>.
- 3 Bates SM, Greer IA, Middeldorp S, Veenstra DL, Prabulos AM, Vandvik PO. VTE, thrombophilia, antithrombotic therapy, and pregnancy: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*. Feb 2012;141(2 Suppl):e691S-736S.

Chan WS, Rey E, Kent NE, et al. Venous thromboembolism and antithrombotic therapy in pregnancy. *J. Obstet. Gynaecol. Can.* Jun 2014;36(6):527-553.
- 4 de Kerviler E, de Bazelaire C, Mounier N, et al. Image-guided core-needle biopsy of peripheral lymph nodes allows the diagnosis of lymphomas. *Eur. Radiol.* Mar 2007;17(3):843-849.

Demharter J, Muller P, Wagner T, Schlimok G, Haude K, Bohndorf K. Percutaneous core-needle biopsy of enlarged lymph nodes in the diagnosis and subclassification of malignant lymphomas. *Eur. Radiol.* 2001;11(2):276-283.

Health Quality Ontario. The Diagnostic Accuracy of Fine-Needle Aspiration Cytology in the Diagnosis of Lymphoma: A Rapid Review [Internet]. 2014 [cited 2014 Jul 21]. Available from: <http://www.hqontario.ca/evidence/publications-and-ohtac-recommendations>.

Swerdlow SH. WHO classification of tumours of haematopoietic and lymphoid tissues. 4th ed. World Health Organization; 2008.
- 5 Callum J, Lin Y, Pinkerton P, et al. *Bloody easy 3, blood transfusions, blood alternatives and transfusion reactions, a guide to transfusion medicine*. 3rd ed. Toronto (ON): Sunnybrook and Women's College Health Sciences Centre; 2011.

Canadian Society of Internal Medicine: Five Things Physicians and Patients Should Question. *Choosing Wisely Canada* [Internet]. 2014 [cited 2014 Aug 26]. Available from: <http://www.choosingwiselycanada.org/recommendations/canadian-society-of-internal-medicine-2/>.

Carson JL, Grossman BJ, Kleinman S, et al. Red blood cell transfusion: a clinical practice guideline from the AABB*. *Ann. Intern. Med.* Jul 3 2012;157(1):49-58.

Hebert PC, Wells G, Blajchman MA, et al. A multicenter, randomized, controlled clinical trial of transfusion requirements in critical care. Transfusion Requirements in Critical Care Investigators, Canadian Critical Care Trials Group. *N. Engl. J. Med.* Feb 11 1999;340(6):409-417.

Hicks LK, Bering H, Carson KR, et al. The ASH Choosing Wisely(R) campaign: five hematologic tests and treatments to question. *Blood*. Dec 5 2013;122(24):3879-3883.

About Choosing Wisely Canada

Choosing Wisely Canada is a campaign to help physicians and patients engage in conversations about unnecessary tests, treatments and procedures, and to help physicians and patients make smart and effective choices to ensure high-quality care.

For more information on *Choosing Wisely Canada* or to see other lists of Five Things Physicians and Patients Should Question, visit www.choosingwiselycanada.org. Join the conversation on Twitter @ChooseWiselyCA.

About The Canadian Hematology Society

The Canadian Hematology Society (CHS) is a proud partner of the *Choosing Wisely Canada* campaign. CHS is a professional association founded in 1971, whose membership includes most of the hematologists in Canada. The main goals of CHS are to maintain the integrity and vitality of the specialty of hematology, by participating with the Royal College of Physicians and Surgeons of Canada in designing training programs for our successors, encouraging and rewarding scholarly research, and providing a forum for communication and mutual support for all of our colleagues in both community and academic settings.