Sometimes less is more
Choosing Wisely Canada
Objectives

- Introduce choosing wisely Canada
- CSTM process to develop recommendations
- Review recommendation
- Future directions
Choosing Wisely

- **Choosing Wisely Canada** is a campaign to help physicians and patients engage in conversations about unnecessary tests, treatments and procedures.

- *Choosing Wisely Canada* is modelled after the Choosing Wisely® campaign in the United States, which was launched by the ABIM Foundation in April 2012.

- [http://www.choosingwiselycanada.org/](http://www.choosingwiselycanada.org/)
Choosing Wisely Canada

- Initially in Ontario and has quickly been adopted by all provincial and territorial medical associations.

- It is now a truly national campaign in Canada.

- Has spread to Australia, Germany, Italy, Japan, Netherlands, Switzerland and elsewhere. *Choosing Wisely Canada* leads the international effort.
Sometimes LESS is more.

Ask your doctor:
- Do I really need this test, treatment or procedure?
- What are the downsides?
- Are there simpler, safer options?
- What happens if I do nothing?

LEARN MORE
What do they do?

- Approach Professional Canadian national societies representing a broad spectrum of physicians

- Professional societies: Develop lists of “Five Things Physicians and Patients Should Question.”
Professional Society

- The development process is thoroughly documented and publicly available
- Each recommendation is within the specialty’s scope of practice
- Tests, treatments or procedures that
  - (a) are frequently used, and,
  - (b) may expose patients to harm or stress.
- Each recommendation is supported by evidence
What do they do?

- Choosing Wisely Canada

- Launch Media release with the recommendation from different societies

- Develop patient and physicians resources
  - [http://www.choosingwiselycanada.org/resources/campaign-videos/](http://www.choosingwiselycanada.org/resources/campaign-videos/)

- Establish mechanisms to support the adoption of the *Choosing Wisely Canada* lists.
Choosing Wisely Canada is working with various stakeholder groups to disseminate the patient materials widely.

Choosing Wisely Canada is also working with medical schools to introduce new content into the undergraduate, postgraduate and continuing medical education curricula.
CSTM process

- a call to all membership for suggested list items.

- Membership:
  - Submitted suggestions/lists
  - Some groups worked together and submitted a long list
  - Recommendation and scientific evidence for it
CSTM process

- CSTM board
  - voted on the accumulated list
  - ranked the items according to their assessment of what was most important.
  - worked together to refine the wording
  - find additional references as required.
Media release on October 29, 2014
1. Don’t transfuse blood if other non-transfusion therapies or observation would be just as effective.

- Blood transfusion should not be given if other safer non-transfusion alternatives are available. For example, patients with iron deficiency without hemodynamic instability should be given iron therapy.
2- Don’t transfuse more than one Red cell unit at a time when transfusion is required in stable, non-bleeding patients.

- Why?
Indications for red blood transfusion depend on clinical assessment and the cause of the anemia.

In a stable, non-bleeding patient, often a single unit of blood is adequate to relieve patient symptoms or to raise the hemoglobin to an acceptable level.

Transfusions are associated with increased morbidity and mortality in high-risk hospitalized inpatients.
Transfusion decisions should be influenced by symptoms and hemoglobin concentration.

Single unit red cell transfusions should be the standard for non-bleeding, hospitalized patients.

Additional units should only be prescribed after re-assessment of the patient and their hemoglobin value.
The dogma since the 1960’s

- Give two units of RBC simultaneously
- Single unit transfusions were discredited as useless
- Critical revision of transfusion programs if >50% of transfusions were single units
The single-unit transfusion. A continuing problem.

Crispen JF. Pa Med. 1966 Jan;69(1):44-8
If one will do why transfuse two?

- The dogma to “transfuse two units of red blood cells (RBC) or don’t transfuse at all” potentially exposes patients to unnecessary transfusion when one unit of RBC would be sufficient.

- Hemoglobin (Hgb) ≥70-80 g/L is considered acceptable in most clinically stable anemic patients

- Decision about transfusion should be guided by patient symptoms and not only hemoglobin concentration.
If one will do why transfuse two?

- Significant reduction of red blood cell transfusion requirements by changing from a double-unit to a single-unit transfusion policy in patients receiving intensive chemotherapy or stem cell transplantation
  - Martin David Berger, Bernhard Gerber, Kornelius Arn, Oliver Senn, Urs Schanz, Georg Stussi

- **Conclusions** Implementing a single-unit transfusion policy saves 25% of red blood cell units and, thereby, reduces the risks associated with allogeneic blood transfusions.
Transfusion of one red cell unit at a time
The CDHA experience

<table>
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<tr>
<th>Red Cells</th>
<th>2011-2012</th>
<th>2012-2013</th>
<th>2013-2014</th>
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<tbody>
<tr>
<td>Received from CBS</td>
<td>16,236</td>
<td>15,082</td>
<td>13,487</td>
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<td>% change in Receipts</td>
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<td>2544</td>
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<tr>
<td>% Change in Transfusions</td>
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<td>6.7% ↓</td>
<td>16.4% ↓</td>
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<td>3 Month Audit of Hematology &amp; Bone Marrow Transplant Pre &amp; Post Red Cell Guidelines</td>
<td></td>
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<tr>
<td>---------------------------------</td>
<td>---------------------------------</td>
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<tr>
<td>16% Decrease</td>
<td># of red cell units transfused</td>
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<tr>
<td>87% Decrease</td>
<td># of post transfusion hemoglobin &gt;100 g/L</td>
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<td>81% Decrease</td>
<td># of patients receiving two red cell units in one setting</td>
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<tr>
<td>13% Decrease</td>
<td># of red cell units transfused per patient</td>
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</table>
3. Don’t transfuse plasma to correct a mildly elevated (<1.8) international normalized ratio (INR) or activated partial thromboplastin time (aPTT) before a procedure.

- A mildly elevated INR is not predictive of an increased risk of bleeding.
- Furthermore, transfusion of plasma has not been demonstrated to significantly change the INR value when the INR was only minimally elevated (<1.8).
200 consecutive liver transplants

Two groups:
- Low INR <1.5
- High INR >1.5

Coagulation parameters were not corrected in the absence of uncontrollable bleeding.
**FIGURE 1.** Number of patients according to the number of RBC units transfused and two starting INR values, <1.5 and ≥1.5.
Toward Rational Fresh Frozen Plasma Transfusion
The Effect of Plasma Transfusion on Coagulation Test Results

*Lorne L. Holland*, Am J Clin Pathol 2006;126:133-139

**Figure 2** Change in international normalized ratio (INR) per unit of plasma transfused. See Equation 1
Fresh-frozen plasma transfusion in patients with mild coagulation abnormalities at a large Canadian transfusion center. Cheng et al
4- Don’t routinely transfuse platelets for patients with chemotherapy-induced thrombocytopenia if the platelet count is greater than 10 X 10^9/L in the absence of bleeding.
A platelet count of 10 X 10^9/L or greater usually provides adequate haemostasis.

Platelet transfusions are associated with adverse events and risks.

Considerations in the decision to transfuse platelets include the cause of the thrombocytopenia, comorbid conditions, symptoms of bleeding, risk factors for bleeding, and the need to perform an invasive procedure.
- Safety of stringent prophylactic platelet transfusion policy for patients with acute leukaemia.
- **Gmür J¹, Burger J, Schanz U, Fehr J, Schaffner A.**
5- Don’t routinely use plasma or prothrombin complex concentrates for non-emergent reversal of vitamin K antagonists.

- Patients requiring non-emergent reversal of warfarin can often be treated with vitamin K or by discontinuing the warfarin therapy.
- Prothrombin complex concentrates should only be used for patients with serious bleeding or for those who need urgent surgery.
- Plasma should only be used in this setting if prothrombin complex concentrates are not available or are contraindicated.
Treatment, time and INR

Transfusion utilizations initiatives
Choosing Wisely Canada

- Other societies?
Canadian Society of Internal Medicine

Third recommendation:

- Don’t transfuse red blood cells for arbitrary hemoglobin or hematocrit thresholds in the absence of symptoms, active coronary disease, heart failure or stroke.
• Canadian Hematology Society
• Fifth recommendation:
  ○ Don’t transfuse patients based solely on an arbitrary hemoglobin threshold.
• **Canadian Society of Palliative Care Physicians**

• **Fifth recommendation:**
  - Don’t transfuse red blood cells for arbitrary hemoglobin or hematocrit thresholds in the absence of symptoms, or if no benefit was perceived from previous transfusions.
• Educational opportunities about the CSTM recommendations to health professionals and patients

• Establish mechanisms to support the adoption of the *Choosing Wisely Canada* lists.

• Measure outcomes of implementing the recommendations
• More recommendations
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Questions or Suggestions