March 23, 2020

MEMORANDUM
From: Provincial Hematology Tumour Team
Re: Pandemic planning for prophylactic transfusions

The current COVID-19 pandemic is expected to result in a marked reduction in the available blood supply in the coming weeks and months. This will have a major impact for many of our patients who depend on these. We will have to ration the available supply to ensure that as many of our patients as possible are able to receive them as needed.

We are therefore recommending the following blood conservation strategy for malignant hematology patients during this pandemic. This would become effective when Amber phase invoked:

1. **Prophylactic platelet transfusions:**
   For patients who are not receiving mucosal damaging chemotherapy and not actively bleeding:
   - on low intensity chemotherapy (e.g. azacitidine, low dose cytarabine) OR
   - are not actively receiving chemotherapy (low risk MDS, aplastic anemia, AML on supportive care alone)
   a. Reduce number of clinic visits for bloodwork if good platelet increments obtained
   b. Transfusion threshold: 1 unit pooled platelets if platelet count < 5 x 10⁹/L with concurrent prescription for oral tranexamic acid 25 mg/kg (rounded to nearest 500 mg).
   c. Threshold for patients receiving HLA matched platelets: Transfuse if platelet count < 10. If platelet count >10 and product is outdated, try to redirect to other patient if safe to do so (physician to determine); add tranexamic acid.
   d. See f below for anticoagulation.

   For patients receiving intensive mucosal-damaging chemotherapy and not actively bleeding:
   - acute leukemia inductions, AML consolidations, high-grade Burkitt’s or lymphoblastic lymphomas
   - allogeneic and autologous stem cell transplants
   a. For outpatients post-consolidation chemo., continue to administer prophylactic platelet transfusions when platelets < 10 x 10⁹/L. Oral tranexamic acid is encouraged if platelet count is expected to drop below 10 prior to next visit.
   b. For inpatient inductions/early post-transplant, transfuse if platelets < 5 x 10⁹/L, and add tranexamic acid (c below) if no DIC is present. However, if clinical evidence of mucositis with bleeding, change threshold to 10, and inform blood bank.
c. For inpatients, if mucosal bleeding and/or if platelets unavailable, start tranexamic acid 1 gram IV q8h.

d. If outpatient post-consolidation chemo, reduce number of clinic visits from 3 to 2x/week if obtaining good platelet increments

e. For patient with DIC (including APL), maintain platelet threshold of 30 until DIC resolves, then switch to b.

f. Patients with recent major DVT/PE who are on anticoagulation require a higher platelet threshold (generally 30). However, whenever possible anticoagulation should be stopped when the platelet count drops below 30.

g. Platelets should also continue to be used for invasive procedure, such as lumbar puncture, if platelets are less than 30.

2. **Prophylactic red cell transfusions:**
   For stable patient, not actively bleeding:
   - **Outpatient:** Reduce transfusion threshold by 5 g/L (e.g. if current threshold is 80, reduce threshold to < 75 g/L, unless active coronary artery disease.
     - Consider changing to 1 unit RBC when patient reaches transfusion threshold.
     - This will depend on how rapidly counts are dropping.
   - **Inpatient:** Reduce threshold from 70 to **65 g/L** or based only on symptoms of anemia, unless active coronary artery disease.

Sincerely,

[Signature]

Joseph Brandwein, MD, FRCP
Head, Provincial Hematology Tumour Team