SUPPLEMENTAL APPENDIX

Evaluation of tbo-Filgrastim in Adults with Cancer at Large Community Teaching Hospital
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This Appendix has not been edited and is provided as supplemental materials for this article, which was published in the Journal of Hematology Oncology Pharmacy in June 2019.

Inova Guidelines for the use of tbo-filgrastim (Granix) adult hematology/oncology patients

Indications for G-CSF Use:

Primary prophylaxis:

- Definition: Administration of G-CSF following first and all subsequent cycles of chemotherapy in order to avoid an initial episode of FN.
- Primary G-CSF prophylaxis should be considered in patients who are receiving chemotherapy regimens with a FN rate of > 20%.

<table>
<thead>
<tr>
<th>Table 1. Examples of regimens with a high risk (&gt; 20%) for FN</th>
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<tbody>
<tr>
<td>CODOX-M alternating with IVAC</td>
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<tr>
<td>Dose-dense AC followed by T (breast)</td>
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<tr>
<td>DCF (esophageal, gastric)</td>
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<tr>
<td>DHAP (NHL)</td>
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<tr>
<td>ESHAP (NHL)</td>
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<tr>
<td>HyperCVAD +/- rituximab (ALL)</td>
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</table>

- G-CSF may also be considered for primary prophylaxis in patients receiving chemotherapy regimens with a FN rate of 10-20% AND at least TWO patient-related risk factors. These include:
  - Age ≥ 65 years
  - Pre-existing neutropenia due to bone marrow involvement
  - Poor performance status (ECOG PS ≥ 2 where use of chemotherapy is justified)
  - Poor nutritional status
  - Extensive prior chemotherapy or previous irradiation to large volume of bone marrow
o Open wounds or active infections
o Recent surgery
o Poor renal function
o Liver dysfunction
o HIV-infected patient

<table>
<thead>
<tr>
<th>Table 2. Examples of regimens with an intermediate risk (10 -20%) for FN</th>
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<tbody>
<tr>
<td>BEP/EP (testicular)</td>
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<tr>
<td>ABVD (HL)</td>
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<tr>
<td>Carboplatin/etoposide (SCLC)</td>
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<tr>
<td>Carboplatin/docetaxel (ovarian)</td>
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<tr>
<td>Cisplatin/paclitaxel (NSCLC)</td>
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<tr>
<td>Carboplatin/paclitaxel (NSCLC)</td>
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</tbody>
</table>

- G-CSF is NOT recommended for primary prophylaxis in patients receiving chemotherapy regimens with a FN rate of < 10%

Secondary Prophylaxis:
- Definition: Administration of G-CSF after an episode of FN or a dose-limiting neutropenic event in the preceding cycle for all subsequent cycles.
- Recommendation:
  o G-CSF for secondary prophylaxis is recommended for patients who experience a neutropenic complication (FN or a dose-limiting neutropenic event) from a prior cycle of chemotherapy, in which a dose reduction would compromise disease free or overall survival or treatment outcome.
  o Dose modifications maybe a reasonable alternative in many clinical situations (Clinicians should consider dose reduction for patients receiving palliative chemotherapy)
Established FN:

- G-CSF should NOT BE routinely used as adjunctive treatment with antibiotic therapy for patients with fever and neutropenia
- However, it may be considered in patients with FN who are at high-risk for infection-associated complications and have at least **TWO** prognostic factors that are predictive of poor clinical outcomes. High-risk features include:
  - Neutropenia expected to be more than 10 days in duration
  - Profound neutropenia (ANC < 100)
  - Age > 65 years
  - Pneumonia
  - Sepsis syndrome
  - Invasive fungal infection
  - Other clinically documented infections
  - Being hospitalized at the time of the development of fever

Afebrile neutropenic patients:

- G-CSF should not be used for afebrile neutropenic patients

General dosing information:

- G-CSF should NOT be given on the same day as chemotherapy
- It is generally started 24 to 72 hours after last dose of chemo and discontinued when ANC > 1000 for 3 consecutive days OR > 1500 for 2 consecutive days (after expected nadir)
- For PBPC mobilization, CSF should be started at least 4 days before the first leukapheresis procedure and continued until the last leukapheresis
- G-CSF is dosed by vial size:
  - 300mcg for patients 75kg or less
  - 480mcg for patients > 75kg
  - Higher doses are used for stem cell mobilization
- Should be administered at 6PM to allow review of morning CBC by prescriber prior to administration
- Preferred route of administration is SQ