Nursing Considerations for Transplant-Related Drugs: Mobilization and Conditioning

Drug/Indication/Baseline

Common Side Effects

Nursing Considerations

Most often very well tolerated. May cause generalized bone pain, including internal pain, fatigue, nausea, and low-grade fever.

Mobilization considered an outpatient

• Side effects associated with stem cell mobilization compared to post-transplant vary (normal WBC being escalated versus low WBC returning to near normal):
  - Generalized bone pain and splenic rupture associated with stem cell mobilization
  - Patient education that pain at site of previous bone involvement is not an indication of active disease

Promotor (bortezomib) – stem cell mobilization in combination with Nipogen® (CSF) (SQ)

Sternal pain may mimic cardiac chest pain but should still be evaluated to rule out cardiac source.

• Provide point of contact in case of adverse symptoms or emergency

Phosphorylated (Cytochrome) (CSF) – stem cell mobilization and MM treatment (IV)

Tolerated well side effects are managed. Early: nausea, vomiting, diarrhea; Delayed: alopecia, myelosuppression, rigidity of bed legs.

Provide dual benefit of Mylotrans treatment and stem cell mobilization:

Drug & Indication

Possible Side Effects

Nursing Considerations

Methylprednisolone (dexamethasone) – chemotherapy drug, alkyating agent (IV)

Early nausea, vomiting, diarrhea

Early: nausea, vomiting, diarrhea, stomatitis as needed

Prevent post-transplant to promote white blood cell engraftment

Deferral: alopecia, myelosuppression, myopathy, stomatitis, rigidity of bed legs.

Mobilized bone pain, including sternal pain, fatigue, nausea, and thrombocytopenia and fever

Use post-transplant to promote engraftment:

• Early nausea, vomiting as needed

Late nausea, vomiting, diarrhea

Retained well if side effects are managed. Early: nausea, vomiting, delayed emesis.

Late nausea, vomiting, diarrhea

Possible Side Effects

Nursing Considerations

Antiemetics

• 5-HT3 receptor antagonists (i.e. ondansetron)
  - Dopamine receptor antagonists (i.e. prochlorperazine)
  - Anticholinergics (i.e. diphenhydramine)
  - Phosphorylcholine (Scopolamine)
  - Butorphanol (i.e. meperidine)

• Dexamethasone

Doxorubicin

• Headache

• Nausea & hyperactivity

• Urinary retention in men

• Review allergy profile, use alternatives as needed (i.e. p. escin, escinplus docuspere)

• Bioavailability depends on the transplant phase and day of transplant

• Create a schedule for anti-emetic use

• Encourage use of non-aromatic anti-emetics during the day and more sedating options before bed

Antibiotics

• Amikacin (i.e. aminoglycosides)
  - Linezolid (i.e. oxazolidinones)
  - Levofloxacin, clarithromycin

• Potassium should be taken with food to prevent Gl upset. Magnesium can contribute to diarrhea

• May be administered orally or IV

• In-hospital patients can be seen by stem cell mobilization and engraftment due to cellular proliferation

• Review drug interactions when using antifungal medications

• Severe effects may be mediated by transplant center or local provider

Electrolytes

• Magnesium

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• Potassium can be seen by stem cell mobilization and engraftment due to cellular proliferation

• Commonly accepted practice post-transplant (Meltzer Consensus Statement)

• Recovery post-transplant is needed before starting maintenance therapy, often Day 40 to Day 100

• Management of anemia is based upon previous therapy and disease risk stratification

• Consider clinical trial participation

General

• May handle oral medication and be for small volunteer.

• IV hydration is a common need; IV volume less common and reserved for prolonged anoxia

• Related to reduced frequency of medication administration are common and can be continued for patient’s/caregiver

• Provide education, current medication schedule, and daily review

References:


Drug/Indication/Baseline

Common Side Effects

Nursing Considerations

Previously prescribed Medications

Antihypertensives

• Diuretics

• Antihypertensives or anti-platelet agents

• Cholesterol lowering agents

• Creatinine

• Potassium

• Calcium

• Glucose/insulin

Share relevant information with transplant medical team regarding any previously prescribed medications ("as held")

- Anti-hypertensives and diuretics: Dihydropyridine and thiazide agents are common

- Blood thinners and anti-platelet agents: invasive procedures such as central line placement and thrombocytopenia are expected

- Cholesterol lowering agents: interaction with anti-fluoridation medications

- "Off hold" medications should be continued by transplant center or local provider

Post-transplant maintenance

Commonly accepted practice post-transplant (Meltzer Consensus Statement)

Medications

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