Hospital Discharge Summary: Febrile Neutropenia

DISCHARGE SUMMARY

Patient Name: Miller, Johnathan David
Hospital ID: SYN145
Date of Birth: March 8, 1953
Admission Date: 04/15/2022
Discharge Date: 04/20/2022
Admitting Physician: Dr. A. Sharma (Hospital Medicine)
Consulting Physician: Dr. V. Wells (Medical Oncology)
PCP: Dr. H. Jones

DISCHARGE DIAGNOSES:

1. Febrile Neutropenia (Resolved) secondary to Docetaxel Chemotherapy.
2. Pancytopenia secondary to Chemotherapy (Improving).
3. Sepsis secondary to Febrile Neutropenia (Clinically Resolved).
4. Stage IV Lung Adenocarcinoma (KRAS G12V Positive), s/p progression on first-line Chemo-Immunotherapy, currently receiving second-line Docetaxel.
5. Osteoarthritis.
6. Hypertension.

REASON FOR HOSPITALIZATION: Patient presented to the Emergency Department with fever (Tmax 39.2°C at home), chills, and profound malaise. He received Cycle 2 Day 1 of second-line Docetaxel chemotherapy 8 days prior to presentation (on 04/07/22).

PERTINENT ONCOLOGIC HISTORY:

- Dx Stage IV Lung Adeno Feb 1, 2021. Mets to Bone (spine/pelvis). KRAS G12V positive, PD-L1 negative (<1%).
- 1L Rx: Carboplatin/Pemetrexed/Pembrolizumab (Feb 23, 2021 - Mar 20, 2022). Progression after ~13 months (worsening bone mets).
- 2L Rx: Started Docetaxel 75 mg/m2 IV q3 weeks on March 24, 2022 (C1D1). Received C2D1 on April 7, 2022. Prophylactic Pegfilgrastim was NOT administered after Cycle 1 or 2 per initial plan (plan was reactive GCSF).

HOSPITAL COURSE:
Upon presentation to the ED, patient was febrile (38.8°C), tachycardic (HR 115), hypotensive (BP 95/60). Initial labs revealed severe neutropenia (WBC 0.4 k/uL, **Absolute Neutrophil Count [ANC] 50 cells/µL**), anemia (Hgb 9.2 g/dL), and thrombocytopenia (Plt 75 k/uL). CMP showed mild AKI (Cr 1.5, baseline 1.1). Lactate was mildly elevated at 2.5 mmol/L. Blood cultures x2, urine culture, and Chest X-ray were obtained.

- **Management:**
    - Patient admitted to Oncology floor, placed in neutropenic precautions.

    - Initiated **Sepsis Protocol:** Aggressive IV fluid resuscitation (30ml/kg bolus followed by maintenance fluids), broad-spectrum IV antibiotics (**Cefepime 2g IV q8h + Vancomycin** per institutional protocol) started empirically after cultures obtained.
    - **Hematologic Support:** Received **Filgrastim (Neupogen) 5 mcg/kg SC daily** starting on hospital day 1 to stimulate neutrophil recovery. Transfused 1 unit Packed Red Blood Cells (PRBCs) on hospital day 2 for symptomatic anemia (fatigue, tachycardia) when Hgb dropped to 8.1 g/dL. Platelets monitored, remained >50k, no transfusion needed.
    - **Workup Results:** Blood cultures eventually returned negative x2 sets. Urine culture negative. Chest X-ray showed no acute infiltrate. Source of fever presumed bacterial translocation secondary to severe neutropenia/mucositis (patient reported mild sore throat).
    - **Clinical Response:** Patient defervesced within 36 hours of antibiotic initiation. Hemodynamics stabilized with IV fluids (BP normalized, tachycardia resolved). ANC began to recover on hospital day 3 (ANC >200), reached >500 on day 4, and >1000 by day 5. Renal function normalized with hydration. Pancytopenia improved (Hgb stable post-tx, Plt >100k). Mild mucositis treated with supportive mouth care.
- **Oncology Plan:** Dr. Wells consulted. Agreed with management. Recommended holding next cycle of Docetaxel. Plan for **mandatory prophylactic Pegfilgrastim (Neulasta Onpro)** with all future Docetaxel cycles AND consider **dose reduction** of Docetaxel (e.g., to 60 mg/m2) for Cycle 3 due to severity of neutropenia.

DISCHARGE CONDITION: Afebrile for >48 hours off anti-pyretics. Hemodynamically stable. ANC >1500. Hgb 9.5. Plt 120k. Tolerating PO intake. Mucositis resolved. Ambulating independently. Clinically back to baseline functional status (ECOG 1-2).

DISCHARGE MEDICATIONS:
New:

- None related to admission event (IV antibiotics completed).
  Continued:
- Lisinopril 20 mg PO Daily
- Hydrochlorothiazide 12.5 mg PO Daily
- Celecoxib 200 mg PO Daily (for OA)
- Acetaminophen 650 mg PO Q6H PRN pain
  Temporarily Held / Pending Oncology F/U:
- Docetaxel Chemotherapy

DISCHARGE INSTRUCTIONS:

1. **Activity:** Resume normal activities as tolerated.
2. **Diet:** Regular diet, maintain good hydration.
3. **Neutropenic Precautions Education Reviewed:** Importance of monitoring temperature daily for next week. Call clinic immediately or return to ED for fever ≥

100.4°F (38.0°C), chills, rigors, or any new signs of infection (sore throat, cough, urinary symptoms, etc.). Avoid crowds/sick contacts while counts may still be recovering. Good hand hygiene emphasized.

4. **Medications:** Continue home medications as listed. No new prescriptions.
5. **Follow-up Appointments:**
    - **Medical Oncology:** Dr. V. Wells in 7-10 days (Scheduled: 04/29/2022). Will need CBC drawn 1-2 days prior. Plan for next cycle of chemotherapy (likely delayed and dose-modified with mandatory G-CSF support) will be determined at this visit.
    - **Primary Care Physician (PCP):** Follow up as needed.
6. **Urgent Concerns:** Call Oncology clinic or return to ED immediately for fever, chills, shortness of breath, chest pain, severe headache, signs of bleeding/bruising, or any other acute concerns.

PROGNOSIS: Guarded related to underlying Stage IV lung cancer, but recovered well from this episode of febrile neutropenia.

_____ M.D.
A. Sharma, MD (Hospital Medicine - Electronically Signed)
Dictated but not read