PATIENT: Baker, William "Bill" (*1955-09-05)
PAT Identifier: SYN005
ATTENDING PHYSICIAN: Dr. Lena Chen, MD (Medical Oncology)
ADMITTING SERVICE: Medical Oncology

DATE OF ADMISSION: 2022-12-15
DATE OF DISCHARGE: 2022-12-19

REASON FOR ADMISSION: Worsening fatigue, new non-productive cough, and increased back pain in the setting of treatment with Pemetrexed/Pembrolizumab maintenance therapy, raising concern for immune-related pneumonitis versus disease progression.

DISCHARGE DIAGNOSES:

1. **Principal Diagnosis:** Stage IV Non-Small Cell Lung Cancer (Adenocarcinoma, driver mutation negative [WT]), with confirmed disease progression during first-line maintenance therapy with Pemetrexed/Pembrolizumab (after approx. 12 months total treatment duration).
2. **Other Active Diagnoses:**
    - Widespread Osseous Metastases (spine, ribs, sternum, pelvis) with moderate pain burden.
    - Metastatic Mediastinal and Hilar Lymphadenopathy.
    - Cancer-Related Fatigue (severe).
    - Non-productive Cough secondary to disease progression.
    - Mild Chronic Obstructive Pulmonary Disease (COPD).
    - Gastroesophageal Reflux Disease (GERD).
    - Status Post Radical Prostatectomy for localized Prostate Cancer (2010, Gleason 3+3=6, pT2c N0 M0, PSA undetectable since).
    - History of Tobacco Use (25 pack-years, quit >20 years ago).

SUMMARY OF ONCOLOGIC HISTORY:
Mr. Baker was diagnosed with Stage IV NSCLC (Adenocarcinoma) in November 2021 after presenting with persistent mid-back pain refractory to conservative measures.

- **Staging (Nov 2021):** CT C/A/P showed 3.2 cm LLL mass, extensive mediastinal/hilar adenopathy, diffuse bone metastases. Bone scan confirmed extensive disease. Brain MRI negative.
- **Pathology (CT Biopsy LLL Mass):** Adenocarcinoma, acinar pattern, TTF-1+.
- **Molecular/PD-L1 (Nov 2021):** NGS negative for common drivers (EGFR/ALK/ROS1/BRAF/KRAS/MET/RET). PD-L1 IHC (22C3): TPS 20%, CPS 25, IC Score 1/+.
- **1L Therapy:** Carboplatin (AUC 5) / Pemetrexed (500 mg/m2) / Pembrolizumab (200 mg) q3wks starting Dec 9, 2021 x 4 cycles (induction), followed by maintenance Pemetrexed/Pembrolizumab q3wks.
- **Response:** Achieved initial partial response. Tolerated treatment with expected Grade 1-2 fatigue, intermittent nausea, mild sensory neuropathy. Maintained ECOG PS 1 until recent decline. Last chemo cycle (C16 Day 1 maintenance) was approx. Nov 24, 2022.

PRESENTATION & HOSPITAL COURSE:
Mr. Baker presented to the oncology clinic on 12/15/22 for pre-chemo assessment prior to

scheduled Cycle 17, reporting a significant decline over the prior 2 weeks. Symptoms included debilitating fatigue ("can barely get off the couch"), a new, dry, persistent cough (non-exertional, non-positional), and increased mid-back and rib pain requiring more frequent use of his prescribed Hydrocodone/Acetaminophen (taking 4-5 tabs/day vs. 1-2 previously). He denied fevers, chills, hemoptysis, or specific chest pain, but noted mild dyspnea on exertion walking across the room. Given the combination of pulmonary symptoms (cough, DOE) and fatigue while on Pembrolizumab, alongside worsening pain suggesting possible progression, admission was recommended for expedited evaluation to differentiate immune-related pneumonitis from cancer progression.

- **Initial Evaluation:** Vitals: T 36.9C, BP 130/80, HR 88, RR 18, SpO2 95% on RA. Exam: Appeared fatigued. Lungs: Decreased air entry at left base, scattered crackles heard intermittently. T-spine/rib palpation elicited tenderness. ECOG PS estimated at 2 due to fatigue and pain limiting activity.
- **Diagnostic Workup:**
    - *Labs:* CBC stable (WBC 7.5, Hgb 11.0, Plt 190k). CMP notable only for elevated Alkaline Phosphatase 380 U/L (rising from ~250 over past 3 months, Cr 0.9, LFTs WNL). Inflammatory markers non-specific (CRP <5, ESR 22). Procalcitonin <0.05. COVID-19 PCR negative.
    - *Imaging (CT Chest/Abd/Pelvis with contrast, 12/15/22, compared to 09/10/22):*
        - **Chest:** Unequivocal evidence of disease progression. Interval increase in size of primary LLL mass from 2.8 cm to 4.5 cm. Marked enlargement and increased number of mediastinal (paratracheal, subcarinal) and hilar lymph nodes. Development of numerous new bilateral pulmonary nodules (<1 cm). No diffuse ground-glass opacities, consolidations, or interlobular septal thickening characteristic of significant pneumonitis. Minimal stable L pleural effusion.
        - **Abdomen/Pelvis:** No definite visceral metastases. Osseous metastases appear significantly worse, with development of new lytic components within previously sclerotic lesions, particularly prominent in thoracic spine and ribs. Progression of metastatic burden in pelvis/sternum noted.
- **Management and Course:**
    - Based on the definitive CT findings showing widespread disease progression without clear signs of pneumonitis, the diagnosis of progressive disease was established as the cause of his symptoms. Immune-mediated pneumonitis was deemed highly unlikely as a primary driver.
    - **Oncology Plan:** The current regimen of Pemetrexed/Pembrolizumab was definitively discontinued. Plans for second-line therapy were discussed with Mr. Baker. Given ECOG PS 2 and progression after chemo-immunotherapy, standard options include Docetaxel-based therapy (+/- Ramucirumab) or potentially Gemcitabine. Risks/benefits/logistics of Docetaxel + Ramucirumab were reviewed as a primary consideration, pending outpatient confirmation.
    - **Symptom Management:** Pain regimen was adjusted. Changed from PRN hydrocodone/acetaminophen to scheduled long-acting Oxycontin 10 mg PO BID, with hydrocodone/acetaminophen 5/325 reserved for breakthrough pain (1-2 tabs q6h PRN). Counseled on constipation management. Cough treated symptomatically with Benzonatate 100 mg TID PRN. Fatigue addressed via counseling on energy conservation and realistic expectations.

- **Supportive Care:** Patient remained afebrile, hemodynamically stable, and did not require supplemental oxygen. Tolerated diet. Ambulated with steady gait but limited distance due to fatigue. Consults (e.g., Pulmonology) deemed unnecessary after clear CT results.

DISCHARGE ASSESSMENT AND PLAN:
Mr. Baker was admitted for evaluation of worsening symptoms concerning for pneumonitis vs. progression while on maintenance Pemetrexed/Pembrolizumab. Workup confirmed significant disease progression in the lungs, nodes, and bone after ~12 months of first-line therapy. His symptoms are attributable to this progression. He is clinically stable for discharge with an adjusted pain regimen and plan for outpatient initiation of second-line therapy.

1. **Systemic Therapy:** Chemo-immunotherapy discontinued. Plan to initiate second-line therapy, likely Docetaxel + Ramucirumab, following outpatient consultation.
2. **Pain Control:** Continue Oxycontin 10 mg BID, Hydrocodone/APAP 5/325 PRN breakthrough. Monitor efficacy and side effects (esp. constipation). Adjust as needed via clinic.
3. **Symptom Management:** Continue Benzonatate PRN cough. Continue home GERD/COPD meds. Reinforce energy conservation.
4. **Monitoring:** Close outpatient follow-up. Repeat labs prior to starting new therapy. Consider palliative radiation consultation if bone pain remains poorly controlled despite systemic therapy.
5. **Follow-up:** Appointment scheduled with Dr. L. Chen in 7 days (Dec 27, 2022) to finalize second-line treatment plan and initiate therapy if appropriate.

DISCHARGE CONDITION: Stable. Alert and oriented. Pain improved (rated 4-5/10) on current regimen. Afebrile. SpO2 >94% RA. Tolerating PO. Ambulating independently, though limited by fatigue. Patient verbalized understanding of diagnosis of progression and discharge plan.

DISCHARGE MEDICATIONS:

1. Oxycontin 10 mg tablet, 1 tab PO BID.
2. Hydrocodone/Acetaminophen 5/325 mg tablet, 1-2 tabs PO Q6H PRN pain (Disp #60).
3. Benzonatate 100 mg capsule, 1 cap PO TID PRN cough.
4. Polyethylene Glycol 3350 powder, 1 capful PO Daily PRN constipation.
5. Omeprazole 20 mg capsule, 1 cap PO Daily.
6. Fluticasone/Salmeterol (Advair Diskus) 250/50 mcg, 1 inhalation BID (continue home COPD med).
7. Albuterol HFA inhaler, 2 puffs Q6H PRN SOB (continue home COPD med).
8. **DISCONTINUED:** Pemetrexed, Pembrolizumab.

DISCHARGE INSTRUCTIONS:

- Take pain medication as directed. Prevent constipation with Miralax/stool softeners.
- Report worsening cough, shortness of breath, difficulty breathing, fever > 100.4F, uncontrolled pain, excessive sleepiness, or any new concerning symptoms to oncology clinic promptly.
- Keep scheduled follow-up appointment with Dr. Chen on Dec 27, 2022. Have labs (CBC, CMP) drawn 1-2 days prior as instructed.

- Contact clinic with any questions about medications or plan.

_____ M.D./D.O.
Lena Chen, MD (Electronically Signed)
Medical Oncology