# **MOUNTAIN VIEW MEDICAL GROUP**

# **ONCOLOGY DEPARTMENT**

#### COMPREHENSIVE PATIENT CARE DOCUMENTATION

**DATE OF SERVICE:** April 13, 2025 **VISIT TYPE:** Scheduled Follow-up & Treatment Administration

# PATIENT INFORMATION

Name: Diana Parker DOB: 10/07/1961 MRN: SYN007 Primary Insurance: United Healthcare (Group #: UH95372) Secondary Insurance: AFLAC Cancer Policy Primary Care Provider: Dr. Robert Anderson Emergency Contact: Michael Parker (husband) - (555) 278-6491

# ONCOLOGIC DISEASE PROFILE

**Primary Diagnosis:** Stage IV non-small cell lung cancer (adenocarcinoma) **Date of Initial Diagnosis:** June 18, 2022 **Pathologic Details:** Moderately differentiated adenocarcinoma with predominant acinar pattern (70%) and papillary pattern (30%) **Disease Sites:** Primary right upper lobe (1.7cm), liver metastases (multiple, largest 2.1cm), left adrenal metastasis (2.5cm), bone metastases (T7, L3, right iliac wing) **Current Disease Status:** Stable disease with continued response to immunotherapy

#### Molecular/Biomarker Profile:

- Comprehensive NGS Panel (Foundation One CDx):
  - o EGFR: Negative for activating mutations and resistance mutations
  - o ALK: Negative for rearrangements
  - o ROS1: Negative for rearrangements
  - o BRAF: Negative for V600E and other mutations
  - o RET: Negative for fusions
  - MET: Negative for exon 14 skipping and amplification
  - NTRK: Negative for fusions
  - o KRAS: Wild-type (no G12C or other mutations)
  - o TP53: R273H mutation (pathogenic)
  - o STK11: Wild-type
  - KEAP1: Wild-type
  - NF1: Truncating mutation (likely pathogenic)
  - o ATM: Variant of uncertain significance
  - CDKN2A/B: Homozygous deletion
  - o PD-L1 (22C3 pharmDx): 90% TPS (high expresser, ≥50% cutoff)
  - o Tumor Mutational Burden: 12 mutations/Mb (intermediate)
  - o Microsatellite Status: Stable (MSS)
  - o HLA typing: A\*02:01 positive (potentially relevant for future immunotherapy trials)

# TREATMENT HISTORY

First-line Therapy: Pembrolizumab 200mg IV q3weeks Start Date: July 10, 2022 Current

Cycle: #46 Best Response: Partial response (RECIST 1.1) Recent Response Assessment: Continued partial response with further decrease in target lesions

#### **Detailed Treatment Timeline:**

### • Diagnosis Workup (June 2022):

- o Core needle biopsy of liver lesion confirmed metastatic lung adenocarcinoma
- PET/CT showed hypermetabolic primary RUL lesion (SUV 14.6), multiple liver metastases (SUV 8.2-11.3), left adrenal mass (SUV 7.8), and bone metastases (SUV 5.4-8.7)
- o Brain MRI negative for intracranial metastases
- o Molecular testing completed as detailed above

## • Initial Treatment Phase (July 2022 - December 2022):

- o Pembrolizumab 200mg IV q3weeks initiated July 10, 2022
- First response assessment (September 2022): Partial response with 38% reduction in target lesions
- Palliative radiation to symptomatic T7 metastasis (30 Gy in 10 fractions, completed August 2022)
- o Zoledronic acid initiated for bone metastases (August 2022)

# • Continued Treatment Phase (January 2023 - Present):

- o Ongoing pembrolizumab with sustained disease control
- Development of immune-related hypothyroidism (January 2024) grade 1, managed with levothyroxine
- Transient immune-related hepatitis (grade 2, July 2024) requiring 4-week treatment hold and low-dose prednisone, with complete resolution and successful rechallenge
- Most recent imaging (April 2025) shows continued partial response

#### **Significant Adverse Events:**

- Grade 1 hypothyroidism (managed with levothyroxine)
- Grade 2 immune-mediated hepatitis (resolved)
- Grade 2 fatigue (intermittent)
- Grade 1 pruritus (managed with topicals)
- Grade 1 arthralgias (managed with acetaminophen)

#### **Supportive Care Interventions:**

- Zoledronic acid 4mg IV q3months for bone metastases (initiated August 2022)
- Calcium and vitamin D supplementation
- Physical therapy for strengthening after initial diagnosis
- Nutritional counseling
- Cancer support group participation
- Mindfulness-based stress reduction program completion

# **COMORBID CONDITIONS**

- Essential hypertension (diagnosed 2010)
- Hyperlipidemia (diagnosed 2015)
- Osteopenia (diagnosed 2019)
- Generalized anxiety disorder (well-controlled)
- History of migraines (rare since cancer diagnosis)
- Status post cholecystectomy (2008)
- Status post total hysterectomy for fibroids (2005)

# COMPREHENSIVE CURRENT VISIT DOCUMENTATION

Chief Concern: Scheduled follow-up and cycle 46 of pembrolizumab

**Interval History:** Mrs. Parker presents for routine 3-week follow-up and cycle 46 of pembrolizumab immunotherapy. Since her last visit, she reports stable energy levels with mild fatigue typically occurring 2-3 days post-infusion but resolving spontaneously. She describes her overall quality of life as "good" and continues to engage in most of her usual activities.

She maintains an active lifestyle with daily walks of approximately 1 mile without limitation. She reports no bone pain or discomfort at known sites of skeletal metastases. No new sites of pain have developed. Her appetite remains good with stable body weight.

Patient reports occasional mild arthralgias affecting knees and wrists, primarily in the morning and relieved with stretching exercises and occasional acetaminophen. She denies any rash, pruritus, cough, dyspnea, chest pain, abdominal pain, diarrhea, or other concerning symptoms that might suggest progression or treatment-related toxicity.

Mrs. Parker continues to work part-time (3 days weekly) as an interior designer. She notes that returning to work has been important for her emotional well-being and sense of normalcy. She engages in social activities regularly and has recently started volunteering at a local cancer support organization, providing peer mentorship to newly diagnosed patients.

She adheres to regular sleep schedule and follows a Mediterranean diet as recommended by nutritional services. She has maintained her exercise regimen of daily walking and twice-weekly light resistance training. No falls or injuries since last visit.

#### **Current Medications:**

- 1. Pembrolizumab 200mg IV q3weeks
- 2. Levothyroxine 50mcg PO daily
- 3. Amlodipine 5mg PO daily
- 4. Rosuvastatin 10mg PO daily
- 5. Vitamin D3 2000 IU PO daily
- 6. Calcium carbonate 600mg PO BID
- 7. Escitalopram 10mg PO daily
- 8. Acetaminophen 650mg PO PRN joint pain/headache
- 9. Multivitamin 1 tablet PO daily
- 10. Melatonin 3mg PO qhs PRN insomnia

## **Allergies:**

- Penicillin (hives)
- Sulfa drugs (rash)
- Contrast dye (nausea, flushing)

#### **Social History:**

- Married 40 years to husband Michael, who attends appointments
- Two adult children (ages 38, 35) living nearby with four grandchildren
- Former smoker (15 pack-years, quit 1995)
- Alcohol: Occasional glass of wine (1-2/week)
- No recreational drug use
- Lives in two-story home with husband (bedroom on main floor)
- Recently retired from full-time work but maintains part-time interior design consulting
- Exercises regularly (daily walking, light resistance training)
- Active in church community and cancer support network

### **Family History:**

- Father: Died age 78, myocardial infarction
- Mother: Died age 82, complications of Alzheimer's disease
- Sister: Alive, age 66, breast cancer survivor (diagnosed age 52)
- Brother: Alive, age 58, hypertension
- No family history of lung cancer

Review of Systems: CONSTITUTIONAL: Reports mild fatigue 2-3 days post-treatment, otherwise denies fever, chills, night sweats, significant weight changes. HEENT: Denies headache, visual changes, hearing changes, tinnitus, sinus congestion, oral lesions. RESPIRATORY: Denies cough, hemoptysis, wheezing, shortness of breath at rest or with normal activities. CARDIOVASCULAR: Denies chest pain, palpitations, orthopnea, PND, peripheral edema. GASTROINTESTINAL: Appetite good, denies nausea, vomiting, diarrhea, constipation, abdominal pain, changes in bowel habits. GENITOURINARY: Denies dysuria, frequency, urgency, hematuria, incontinence. MUSCULOSKELETAL: Reports occasional mild morning arthralgias in knees and wrists. Denies bone pain at known metastatic sites. SKIN: Denies rash, pruritus, unusual dryness, color changes, lesions. NEUROLOGICAL: Denies headache, dizziness, syncope, weakness, sensory changes, balance problems. PSYCHIATRIC: Denies depression, significant anxiety, mood disturbances, sleep difficulties. ENDOCRINE: Denies polyuria, polydipsia, heat or cold intolerance. HEMATOLOGIC/LYMPHATIC: Denies easy bruising, bleeding, enlarged lymph nodes. IMMUNOLOGIC: Denies recurrent infections, unusual allergic reactions.

**Physical Examination:** VITALS: Temperature 98.2°F, Heart Rate 68 (regular), Respiratory Rate 16, Blood Pressure 126/72 mmHg, Oxygen Saturation 97% on room air, Weight 148 lbs (stable, BMI 25.4)

GENERAL: Well-appearing woman in no acute distress. Alert, oriented, and engaging. Well-groomed with good hygiene.

HEENT: Normocephalic, atraumatic. Pupils equal, round, reactive to light and accommodation. Extraocular movements intact in all directions. Visual fields full to

confrontation. Sclerae anicteric, conjunctivae pink. Oropharynx moist, no lesions, no thrush. No cervical lymphadenopathy.

NECK: Supple, no lymphadenopathy, thyroid normal in size without nodules.

LUNGS: Clear to auscultation bilaterally. No wheezes, rhonchi, or crackles. Normal respiratory effort. No chest wall tenderness.

HEART: Regular rate and rhythm. Normal S1 and S2. No murmurs, gallops, or rubs. No displacement of point of maximal impulse.

ABDOMEN: Soft, non-tender, non-distended. No hepatosplenomegaly. Normal bowel sounds. No masses or bruits. Surgical scars from prior cholecystectomy well-healed.

EXTREMITIES: No clubbing, cyanosis, or edema. Full range of motion of all joints without significant pain or limitation. No joint swelling, erythema, or deformity. Normal muscle tone and strength 5/5 throughout.

SKIN: Warm, dry, normal turgor. No rashes, lesions, or unusual pigmentation. No palmar erythema or spider angiomata.

LYMPHATIC: No cervical, supraclavicular, axillary, or inguinal lymphadenopathy.

NEUROLOGICAL: Alert and oriented to person, place, time, and situation. Cranial nerves II-XII intact. Motor strength 5/5 in all extremities. Sensation intact to light touch, pin, temperature in all extremities. Reflexes 2+ and symmetric. Coordination normal with finger-to-nose and heel-to-shin testing. Gait steady and normal, Romberg negative.

PSYCHIATRIC: Pleasant and cooperative. Appropriate affect. Normal thought process and content. No evidence of depression or anxiety.

## Laboratory Findings (04/13/2025): CBC:

- WBC: 5.2 K/uL (normal: 4.0-11.0)
- Hemoglobin: 12.1 g/dL (slightly low, normal: 12.5-15.5)
- Hematocrit: 36.3% (slightly low, normal: 36-46%)
- Platelets: 189 K/uL (normal: 150-400)
- Absolute Neutrophil Count: 3.1 K/uL (normal: 1.8-7.7)
- Absolute Lymphocyte Count: 1.4 K/uL (normal: 1.0-4.8)

# Comprehensive Metabolic Panel:

- Sodium: 138 mEq/L (normal: 136-145)
- Potassium: 4.2 mEq/L (normal: 3.5-5.1)
- Chloride: 104 mEq/L (normal: 98-107)
- CO2: 25 mEq/L (normal: 22-29)
- BUN: 14 mg/dL (normal: 7-20)
- Creatinine: 0.9 mg/dL (normal: 0.6-1.1)
- Glucose: 92 mg/dL (normal: 70-99)
- Calcium: 9.4 mg/dL (normal: 8.5-10.2)
- Phosphorus: 3.6 mg/dL (normal: 2.5-4.5)

- Magnesium: 2.0 mg/dL (normal: 1.7-2.2)
- AST: 28 U/L (normal: 10-40)
- ALT: 32 U/L (normal: 7-56)
- Alkaline Phosphatase: 86 U/L (normal: 40-129)
- Total Bilirubin: 0.8 mg/dL (normal: 0.1-1.2)
- Albumin: 4.1 g/dL (normal: 3.4-5.0)
- Total Protein: 7.2 g/dL (normal: 6.4-8.2)
- LDH: 168 U/L (normal: 140-271)

## Thyroid Function:

• TSH: 3.2 mIU/L (normal: 0.4-4.5)

• Free T4: 1.1 ng/dL (normal: 0.8-1.8)

### Immune Monitoring:

• ANA: Negative

• Rheumatoid Factor: Negative

• C-Reactive Protein: 0.8 mg/dL (normal: <1.0)

• ESR: 18 mm/hr (normal for age: <30)

#### **Tumor Markers:**

- CEA: 2.4 ng/mL (normal: <3.0, decreased from 18.6 ng/mL at diagnosis)
- CYFRA 21-1: 1.8 ng/mL (normal: <3.3, decreased from 8.4 ng/mL at diagnosis)

#### **Imaging Studies:**

CT Chest/Abdomen/Pelvis (04/02/2025): TECHNIQUE: Multidetector CT of the chest, abdomen, and pelvis was performed after administration of intravenous contrast. Oral contrast was also administered. Images were reconstructed in axial, coronal, and sagittal planes.

## FINDINGS: CHEST:

- Right upper lobe nodule measures 1.2 cm (decreased from 1.8 cm on previous study from 01/05/2025 and from original 4.3 cm at baseline).
- No hilar or mediastinal lymphadenopathy.
- No pleural effusion or pneumothorax.
- No evidence of pulmonary embolism.
- Coronary and aortic calcifications noted, unchanged.

# ABDOMEN:

- Liver: Previously noted multiple hepatic lesions have decreased in size and number. Currently three identifiable hypodense lesions, largest measuring 1.2 cm in segment VII (previously 2.1 cm). No new hepatic lesions.
- Left adrenal mass measures 1.8 cm (decreased from 2.5 cm at baseline).
- Spleen, pancreas, and right adrenal gland appear normal.
- No lymphadenopathy.
- Kidneys normal in size and enhancement without hydronephrosis or stones.
- Status post cholecystectomy.

• Status post hysterectomy.

#### **PELVIS:**

- No pelvic masses or lymphadenopathy.
- No free fluid.
- Sclerotic focus in right iliac wing, unchanged, consistent with treated metastasis.

#### **BONES:**

- Sclerotic changes in T7 and L3 vertebral bodies, unchanged, consistent with treated bone metastases.
- No new osseous lesions identified.

#### **IMPRESSION:**

- 1. Continued partial response to therapy with further 33% decrease in size of primary right upper lobe nodule since January 2025.
- 2. Decreased size and number of hepatic metastases.
- 3. Stable left adrenal metastasis.
- 4. Stable sclerotic changes in known bone metastases without evidence of new bone lesions.
- 5. No evidence of disease progression.

Brain MRI with contrast (04/02/2025): TECHNIQUE: Multiplanar multisequence MRI of the brain was performed before and after administration of gadolinium contrast.

#### FINDINGS:

- No evidence of intracranial metastases.
- No abnormal enhancement.
- No parenchymal lesions.
- Ventricles and sulci normal in size and configuration.
- No midline shift or mass effect.
- No abnormal signal in the brainstem or cerebellum.
- No acute infarction, hemorrhage, or white matter disease.

IMPRESSION: No evidence of intracranial metastases or other abnormalities.

#### Recent Echocardiogram (03/15/2025):

- Normal left ventricular size and function
- Left ventricular ejection fraction 60-65%
- Normal right ventricular size and function
- No significant valvular abnormalities
- No pericardial effusion

#### **Pulmonary Function Tests (03/15/2025):**

FEV1: 2.48 L (92% predicted)FVC: 3.21 L (95% predicted)

- FEV1/FVC ratio: 77%
- DLCO: 18.2 mL/mmHg/min (85% predicted)
- Interpretation: Normal spirometry and diffusion capacity

# ASSESSMENT AND PLAN

**Assessment:** Mrs. Diana Parker is a 63-year-old female with stage IV NSCLC (adenocarcinoma), PD-L1-high (90% TPS), wild-type for all targetable driver mutations, with metastases to liver, adrenal gland, and bone at diagnosis. She has demonstrated sustained partial response to pembrolizumab monotherapy.

Current disease status shows ongoing partial response with decreasing size of primary tumor (now 1.2 cm, reduced from 4.3 cm at baseline), significant reduction in hepatic metastases (largest now 1.2 cm, reduced from 2.1 cm at baseline), stable adrenal metastasis, and stable sclerotic changes in bone metastases. No new sites of metastatic disease have developed during treatment course.

Patient continues to tolerate therapy well with only mild immune-related hypothyroidism requiring thyroid hormone replacement. Previous episode of grade 2 immune-mediated hepatitis (July 2024) resolved completely with temporary treatment hold and low-dose corticosteroids. She has maintained excellent performance status (ECOG 0-1) throughout treatment and reports good quality of life with minimal treatment-related side effects.

#### **Treatment Plan:**

- 1. Continue pembrolizumab 200mg IV today (Cycle 46)
- 2. Standard premedications with diphenhydramine 25mg IV and famotidine 20mg IV administered
- 3. Continue vitamin D3 2000 IU PO daily and calcium carbonate 600mg PO BID
- 4. Continue levothyroxine 50mcg PO daily for immune-related hypothyroidism
- 5. Administer zoledronic acid 4mg IV today (q3months for bone metastases)
- 6. Next imaging: CT chest/abdomen/pelvis in 3 months (July 2025)
- 7. Brain MRI for surveillance in 3 months (July 2025)
- 8. Return for next cycle in 3 weeks (05/04/2025)
- 9. Next thyroid function panel in 6 weeks

**Duration of Therapy Discussion:** We had an extensive discussion regarding the optimal duration of immunotherapy treatment. Mrs. Parker has now completed 46 cycles and would reach the 3-year benchmark in 3 more cycles.

Recent retrospective data and emerging clinical trial results suggest potential for treatment discontinuation after prolonged response without significant impact on long-term outcomes. The STOP-GAP strategy (treatment until maximal response followed by treatment holiday with close monitoring and retreatment upon progression) has shown promising results in selected patients.

Given Mrs. Parker's exceptional response duration, continued response on recent imaging, and stable disease status, we discussed three potential approaches:

- 1. Complete the standard 2-year course (3 more cycles) and discontinue
- 2. Continue beyond 2 years given ongoing benefit and excellent tolerance

3. Consider treatment holiday after completing 2 years with close monitoring

After thorough discussion of risks and benefits of each approach, including consideration of potential immune-related adverse events with continued therapy versus risk of progression with discontinuation, Mrs. Parker expressed preference for completing the standard 2-year course (3 more cycles) and then discontinuing with close surveillance. She understands that treatment can be reinitiated if disease progression occurs after discontinuation.

**Immune-related Adverse Events Management:** We reviewed potential signs and symptoms of immune-mediated toxicities affecting various organ systems (colitis, pneumonitis, hepatitis, endocrinopathies, dermatitis, nephritis, neurological events) and instructed patient to report any new or concerning symptoms promptly. Given her prior episode of immune-mediated hepatitis, we will continue to monitor liver function tests with each treatment cycle. Thyroid function will continue to be monitored every 6 weeks during therapy.

**Survivorship Planning:** Mrs. Parker continues to participate in our institution's comprehensive survivorship program. She has completed advance care planning documentation and designated her husband as healthcare power of attorney. Social work continues to assist with insurance navigation and financial planning. Nutrition and exercise consultations have been completed with personalized recommendations, which she reports following consistently.

Her survivorship care plan includes:

- 1. Maintaining Mediterranean diet pattern
- 2. Continuing regular physical activity (daily walking, resistance training)
- 3. Adhering to regular cancer surveillance schedule
- 4. Participation in cancer support group activities
- 5. Engaging in volunteer peer mentorship program
- 6. Annual wellness visits with primary care physician
- 7. Routine health maintenance including mammography, colonoscopy, bone density, and dental care

**Future Therapeutic Considerations:** While current therapy continues to provide benefit, we discussed potential future treatment options if progression occurs after completion of planned immunotherapy course. These include:

- 1. Rechallenge with pembrolizumab if progression occurs after significant treatment-free interval
- 2. Docetaxel ± ramucirumab for second-line therapy
- 3. Consideration of platinum-based chemotherapy combinations
- 4. Enrollment in clinical trials based on genomic profiling results
- 5. Evaluation for additional targetable mutations at progression through repeat biopsy or liquid biopsy
- 6. Local therapies for oligoprogressive disease if appropriate

**Psychosocial Support:** Patient continues to demonstrate remarkable psychological resilience throughout her treatment journey. She reports effective coping strategies including spiritual practice, family support, creative activities, and participation in support groups. She describes her mood as stable and positive with no significant anxiety or depression symptoms. She has

developed meaning and purpose through her volunteer activities, providing peer support to newly diagnosed cancer patients.

She maintains strong social support network including her husband of 40 years, two adult children, and extended family and friends. Her part-time work as an interior designer provides professional fulfillment and sense of normalcy. Overall quality of life is reported as high despite cancer diagnosis and ongoing treatment.

#### TREATMENT ADMINISTERED TODAY:

- Pembrolizumab 200mg IV over 30 minutes
- Premedications: Diphenhydramine 25mg IV, Famotidine 20mg IV
- Zoledronic acid 4mg IV over 15 minutes
- Treatment tolerated without acute complications

#### **FOLLOW-UP PLAN:**

- Return to clinic in 3 weeks (05/04/2025) for next cycle of pembrolizumab
- Laboratory testing prior to next visit: CBC, CMP, TSH
- Next imaging scheduled for July 2025 (CT chest/abdomen/pelvis, brain MRI)
- Call with any new or worsening symptoms
- Patient provided with after-hours contact information: (555) 789-1234

CLINICAL TRIALS CONSIDERATION: Patient was screened for eligibility in protocol INSPIRE-NSCLC-203 (Immunotherapy Continuation vs. Observation After 2 Years of PD-1 Inhibitor Therapy in NSCLC) and would be eligible upon completion of 2 years of pembrolizumab therapy. We provided information about this randomized study, which evaluates continuation of immunotherapy versus observation with the option of retreatment at progression. She expressed interest in learning more about this trial option as she approaches completion of planned therapy duration.

#### ADDITIONAL RECOMMENDATIONS:

- 1. Continue current supportive care regimen
- 2. Maintain bone health with calcium, vitamin D, and zoledronic acid
- 3. Consider cognitive assessment at completion of therapy to establish post-treatment baseline
- 4. Annual influenza vaccination; pneumococcal vaccination up-to-date
- 5. Skin examination by dermatology annually
- 6. Dental evaluation every 6 months while on zoledronic acid

This comprehensive assessment and plan was discussed in detail with Mrs. Parker and her husband. All questions were addressed, and they expressed understanding and agreement with the proposed approach. Patient was given the opportunity to ask questions and expressed satisfaction with the information provided.

#### Electronically signed by:

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