Name: Samantha Williamson **Patient ID:** SYN211 **Date of Birth:** 08/23/1973

COMPREHENSIVE CANCER CENTER

DISCHARGE SUMMARY

Admission Date: 04/02/2025
Discharge Date: 04/14/2025
Primary Physician: Dr. Rebecca Sharma, Medical Oncology
Consultants: Dr. Michael Chen (Hepatology), Dr. Sarah Wilson (Interventional Radiology), Dr. James Park (Pain Management)

PRINCIPAL DIAGNOSIS

Hepatic decompensation with ascites secondary to tumor progression and treatment-related hepatotoxicity in a patient with KRAS G12V-positive metastatic NSCLC

SECONDARY DIAGNOSES

1. Acute kidney injury (multifactorial)
2. Hypoalbuminemia
3. Grade 3 peripheral neuropathy (treatment-related)
4. Malnutrition
5. Biliary stent occlusion (status post revision)

ONCOLOGIC HISTORY

51-year-old female with no prior smoking history initially presented in June 2023 with progressively worsening right upper quadrant pain, fatigue, and unintentional weight loss of 15 pounds over 3 months. Initial imaging revealed a 4.2 cm right lower lobe mass, multiple hepatic lesions (largest 3.8 cm in segment VIII), and scattered bone metastases (left iliac wing, T10, L2 vertebrae). Diagnostic CT-guided biopsy of the lung mass performed on 07/12/2023 confirmed non-small cell lung cancer, adenocarcinoma subtype.

Molecular and Biomarker Testing:

- KRAS G12V mutation positive
- No other actionable alterations (EGFR, ALK, ROS1, BRAF, MET, RET, NTRK all negative)
- PD-L1 (22C3): <1% Tumor Proportion Score
- NGS revealed high tumor mutation burden (12 mutations/Mb)
- MSI-stable

Treatment History:

1. First-line therapy: Carboplatin AUC 5 + Pemetrexed 500 mg/m² + Pembrolizumab 200 mg IV every 3 weeks

    - Initiated 08/10/2023
    - Completed 4 cycles with partial response (primary tumor and liver metastases decreased by 30%)
    - Transitioned to maintenance Pemetrexed + Pembrolizumab
    - Currently on cycle 10 (most recent treatment 03/21/2025)
    - Initially partial response by RECIST 1.1 criteria (~40% reduction in target lesions)
2. Palliative radiation:
    - L2 vertebra: 30 Gy in 10 fractions (completed 09/2023)
    - Left iliac wing: 20 Gy in 5 fractions (completed 10/2023)
3. Local liver-directed therapy:
    - Radioembolization (Y-90) to largest right hepatic lobe lesion (11/2023)
    - Biliary stent placement for obstructive jaundice (01/2024)
    - Stent revision (02/2024)

HOSPITALIZATION COURSE

Patient was admitted with 1-week history of progressive abdominal distention, lower extremity edema, and worsening RUQ pain. Laboratory studies revealed elevated liver enzymes in a mixed hepatocellular/cholestatic pattern, hypoalbuminemia, hyperbilirubinemia, and acute kidney injury. Initial diagnosis was hepatic decompensation with ascites due to progressive liver metastases and possible drug-induced hepatotoxicity.

Abdominal ultrasound and subsequent MRI demonstrated progression of several hepatic metastases, moderate ascites, and occlusion of the previously placed biliary stent. Diagnostic paracentesis yielded 4.2 liters of straw-colored fluid with SAAG >1.1 g/dL and protein >2.5 g/dL, consistent with mixed portal hypertension and malignant ascites. Cytology was positive for malignant cells.

Interventional Radiology performed biliary stent revision on hospital day 3 with improvement in bilirubin levels. Patient required two additional large-volume paracenteses during hospitalization with albumin replacement. Renal function improved with gentle hydration and avoidance of nephrotoxic agents.

Multidisciplinary tumor board review on hospital day 6 recommended:

1. Temporary hold on systemic therapy due to hepatotoxicity
2. Consideration for KRAS G12V-specific inhibitor through expanded access program
3. Palliative care consultation for symptom management
4. Nutritional support with high-protein supplementation

During hospitalization, patient developed worsening peripheral neuropathy (grade 3) attributed to platinum-based chemotherapy. Pain management service recommended pregabalin, with significant improvement in symptoms. Nutrition consultation recommended BCAA supplementation and high-protein diet to address malnutrition and support liver function.

Hepatology consultation determined that hepatic decompensation was multifactorial, likely due to combination of tumor progression, vascular compromise from prior radioembolization,

and drug-induced liver injury from systemic therapy. Liver biopsy was deferred due to coagulopathy and ascites.

Prior to discharge, patient achieved symptom stabilization with improved pain control, decreased ascites, and improved renal and hepatic laboratory parameters. Patient was able to ambulate with assistance and tolerate oral intake with supplements.

LABORATORY TRENDS

Parameter	Reference	Admission (04/02)	Peak/Nadir	Discharge (04/14)
AST (U/L)	8-48	245	312	98
ALT (U/L)	7-56	186	224	72
ALP (U/L)	45-115	485	520	312
T. Bili (mg/dL)	0.2-1.2	3.8	4.6	1.9
Albumin (g/dL)	3.5-5.0	2.4	2.2	2.8
Creatinine (mg/dL)	0.5-1.1	1.6	1.8	1.1
INR	0.8-1.1	1.4	1.6	1.3
Hemoglobin (g/dL)	12.0-16.0	10.2	9.8	10.4
Platelets (×10³/μL)	150-450	112	98	124
WBC (×10³/μL)	4.0-11.0	8.2	-	7.8
Ammonia (μmol/L)	11-32	42	58	36

IMAGING STUDIES

MRI Liver with and without contrast (04/03/2025):

- Multiple hepatic metastases with interval progression
- Largest lesion in segment VIII increased from 2.5 cm to 4.1 cm
- New lesions in segments II and IVa (1.2 cm and 1.5 cm)
- Biliary stent occlusion with moderate intrahepatic biliary dilatation
- Moderate ascites
- Patent hepatic vasculature without thrombosis
- Splenomegaly (14.5 cm)

CT Chest with contrast (04/04/2025):

- Right lower lobe primary mass stable at 2.8 cm (decreased from 4.2 cm at baseline)
- No significant lymphadenopathy
- Small right pleural effusion
- No new pulmonary lesions

DEXA scan (04/10/2025):

- T-score spine: -2.1
- T-score hip: -1.8
- Consistent with osteopenia

PROCEDURES

1. **Diagnostic paracentesis (04/02/2025):**
    - 4.2 L straw-colored fluid removed
    - SAAG: 1.5 g/dL
    - Total protein: 3.2 g/dL
    - Cytology: Positive for malignant cells consistent with adenocarcinoma
    - Culture: No growth
2. **Biliary stent revision (04/05/2025):**
    - Removal of occluded plastic stent
    - Placement of 10mm × 8cm covered metal stent
    - Good bile flow established
    - No immediate complications
3. **Therapeutic paracentesis (04/08/2025 and 04/12/2025):**
    - 3.8 L and 2.5 L fluid removed, respectively
    - Albumin replacement provided

CONSULTATIONS

Hepatology (Dr. Chen):

- Assessment: Hepatic decompensation due to tumor progression and treatment-related hepatotoxicity
- Recommendations: Temporary hold on systemic therapy, diuretic management, serial paracenteses, consider TIPS if persistent refractory ascites

Interventional Radiology (Dr. Wilson):

- Assessment: Biliary stent occlusion contributing to obstructive component of liver injury
- Procedure: Successful biliary stent revision with covered metal stent
- Recommendations: Follow-up US in 4 weeks to assess stent patency

Pain Management (Dr. Park):

- Assessment: Grade 3 peripheral neuropathy (treatment-related) and tumor-related pain
- Recommendations: Pregabalin 75mg BID with titration plan; oxycodone 5mg q6h PRN breakthrough pain

Nutrition (M. Johnson, RD):

- Assessment: Moderate protein-calorie malnutrition with sarcopenia
- Recommendations: BCAA supplementation, high-protein (1.5g/kg/day) and moderate sodium diet, liquid protein supplements

Palliative Care (Dr. Garcia):

- Assessment: Moderate symptom burden with good social support
- Recommendations: Outpatient palliative care follow-up, advance care planning initiated

DISCHARGE MEDICATIONS

1. Furosemide 40mg PO daily
2. Spironolactone 100mg PO daily
3. Pregabalin 75mg PO BID (titrate by 25mg weekly as tolerated)
4. Oxycodone 5mg PO q6h PRN moderate pain
5. Acetaminophen 1000mg PO q8h PRN mild pain
6. Lactulose 30mL PO BID (titrate to 2-3 soft bowel movements daily)
7. Rifaximin 550mg PO BID
8. Ursodiol 300mg PO BID
9. Pantoprazole 40mg PO daily
10. Multivitamin with minerals 1 tablet PO daily
11. Vitamin D 2000 IU PO daily
12. Calcium carbonate 600mg PO BID
13. BCAA supplement 10g PO TID

Permanently held medications:

- Pembrolizumab
- Pemetrexed

DISCHARGE PLAN

Oncology Follow-up:

- Dr. Sharma in 1 week (04/21/2025)
- Planned transition to KRAS G12V-specific inhibitor through expanded access program
- Restaging scans scheduled for 05/05/2025

Hepatology Follow-up:

- Dr. Chen in 2 weeks (04/28/2025)
- Serial liver function monitoring weekly
- Consider repeat paracentesis as needed for symptoms

Additional Follow-up:

- Interventional Radiology: 05/03/2025 (stent check)
- Palliative Care: 04/22/2025
- Pain Management: 04/30/2025

Home Services:

- Home health nursing 3 times weekly
- Physical therapy 2 times weekly
- Nutritional counseling weekly
- Social work support for resource coordination

Patient Education:

- Sodium restriction (<2g/day)
- Daily weight monitoring

- Report weight gain >2kg in 3 days or increased abdominal distention
- Signs/symptoms of hepatic encephalopathy
- Fall precautions due to neuropathy

PROGNOSIS AND GOALS OF CARE

Patient has metastatic KRAS G12V-positive NSCLC with complex hepatic involvement showing progression on current therapy. Functional status has declined from ECOG 1 to ECOG 2 during this admission. Prognosis is guarded, with expected survival of months without effective subsequent therapy. Patient is aware of disease status and has expressed desire to pursue further targeted therapy options while maintaining quality of life. Advance directive updated with healthcare proxy designated (husband). Code status: Full code at this time.

Electronically signed by:
Rebecca Sharma, MD
Medical Oncology
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