DISCHARGE SUMMARY (Final)

PATIENT: Peterson, Arthur Raymond (MRN: SYN208)

DATE OF BIRTH: October 5, 1953
DATE OF ADMISSION: April 18, 2024
DATE OF DISCHARGE (DECEASED): April 26, 2024

PRINCIPAL DISCHARGE DIAGNOSIS: Respiratory Failure secondary to Progressive Metastatic Lung Cancer and Malignant Ascites.

SECONDARY DISCHARGE DIAGNOSES:

- Stage IV Lung Adenocarcinoma (Wild-Type, PD-L1 Low), Refractory to First and Second Line Therapy.
- Metastatic Disease: Liver, Bone, Adrenal Glands
- Acute Kidney Injury (Resolved).
- Hepatic Encephalopathy (Grade 1-2, Contributing to delirium).
- Cancer Cachexia and Malnutrition.
- Moderate Cancer-Related Pain (Abdominal, Bone).
- Hypertension (Chronic).
- Coronary Artery Disease (Chronic).

PERTINENT ONCOLOGIC HISTORY:
Mr. Peterson was diagnosed with Stage IV Lung Adenocarcinoma on November 25, 2021, after presenting with debilitating lower back pain and unintentional weight loss. Initial staging PET/CT revealed a 3.1 cm LLL primary lesion, extensive FDG-avid osseous metastases (thoracic/lumbar spine, pelvis), bilateral adrenal metastases (largest 3.5 cm), and several small hepatic lesions. Brain MRI was negative.

- Initial Pathology (L3 Vertebral Body Biopsy, 12/01/2021): Metastatic Adenocarcinoma.
    - Histology: Showed infiltration of bone marrow by cohesive nests and single cells of malignant epithelial cells with moderate amounts of eosinophilic cytoplasm, enlarged irregular nuclei, and conspicuous nucleoli. Minimal gland formation (<10%). Signet ring cell features were *not* prominent. Significant desmoplastic stromal reaction noted.
    - Immunohistochemistry (IHC): Tumor cells positive for TTF-1 (strong, diffuse), CK7 (strong); Negative for Napsin-A (unexpected but can occur), P40, CDX2, PSA. Profile consistent with lung adenocarcinoma primary.
- Molecular/PD-L1: NGS panel Wild-Type (EGFR/ALK/ROS1/BRAF/KRAS/MET/RET/NTRK negative). PD-L1 IHC (22C3): TPS 5%, CPS <10, IC Score 1/+.

Treatment History:

1. First-Line (Dec 17, 2021 – Mar 10, 2023): Initiated Carboplatin (AUC 5) / Pemetrexed (500 mg/m2) / Pembrolizumab (200 mg) IV q3 weeks x 4 cycles, followed by Pemetrexed/Pembrolizumab maintenance. Achieved initial Stable Disease with moderate improvement in bone pain (required intermittent opioids). Tolerated with

Gr 1 fatigue, Gr 1 neuropathy. Progression in March 2023 with significant growth of adrenal and liver metastases, plus worsening/new bone lesions.

2. Second-Line (Mar 28, 2023 – July 15, 2023): Started Docetaxel 75 mg/m2 IV q3 weeks. Tolerated poorly. Experienced Grade 3 febrile neutropenia after Cycle 1 requiring hospitalization. Subsequent cycles dose-reduced (60 mg/m2) with Pegfilgrastim, but complicated by worsening Grade 2-3 fatigue, debilitating Grade 2 painful peripheral neuropathy, and poor appetite/weight loss. Restaging scans after 3 cycles (July 2023) showed further disease progression in liver, adrenals, bone, and development of new peritoneal nodularity concerning for carcinomatosis. Docetaxel discontinued.
3. Best Supportive Care (July 2023 – April 2024): Transitioned to palliative focus due to refractory disease, poor PS (ECOG 3), and patient preference against further chemotherapy. Managed supportively outpatient with focus on pain control (transitioned to long-acting opioids – Fentanyl patch), fatigue, and nutrition. Enrolled in home hospice program January 2024 due to accelerating decline.

HOSPITAL COURSE (April 18 – April 26, 2024):
Patient admitted from home via hospice team for management of acute worsening shortness of breath, tense abdominal distension, increasing confusion, and decreased urine output over 2-3 days.

- Initial Assessment: Cachectic, jaundiced (new finding), lethargic but arousable (oriented x1-2). Apparent respiratory distress (RR 28-32, accessory muscle use), SpO2 89% on home O2 4L NC. Abdomen markedly distended, tense, fluid wave present, diffusely tender. Lower extremity edema +2. Asterixis present.
- Workup: Labs revealed Acute Kidney Injury (Cr 2.8 from baseline 1.2), significant hepatic dysfunction (Total Bili 6.5, AST 150, ALT 120, Alk Phos 850, INR 1.9, Albumin 1.9), mild anemia (Hgb 9.1). ABG on 6L NC showed hypoxemia and mild respiratory alkalosis. Chest X-ray showed elevated diaphragms, small bilateral pleural effusions, diffuse markings consistent with known mets. Abdominal Ultrasound confirmed large volume ascites, coarse liver echotexture with multiple masses, no biliary dilation.
- Management & Interventions:
    - Goals of Care: Confirmed existing DNR/DNI status and comfort-focused goals with wife (designated POA). Patient unable to participate fully due to encephalopathy. Decision made to continue hospice level care within the hospital setting (GIP level) for symptom management not feasible at home.
    - Respiratory Support: Increased supplemental O2 via High-Flow Nasal Cannula (titrated up to 40L/70% FiO2) for comfort and improved oxygenation. Low-dose Morphine IV initiated for dyspnea.
    - Ascites: Large volume paracentesis performed by IR on HD#2: 4.5 Liters straw-colored fluid removed. Provided significant temporary relief of abdominal pressure and slight improvement in respiratory effort. Cytology confirmed malignant ascites (adenocarcinoma).
    - Hepatic Encephalopathy/Delirium: Lactulose initiated per rectum (poor PO tolerance), minimal effect. Haloperidol 0.5-1mg IV used PRN agitation. Patient remained intermittently confused/somnolent.
    - Pain: Transitioned from Fentanyl patch (absorption unreliable) to continuous IV Hydromorphone infusion, titrated for comfort based on non-verbal cues.

    - Renal Failure: AKI attributed to hepatorenal physiology / pre-renal state due to ascites/poor intake. Managed supportively with judicious IV fluids (KVO rate after initial gentle hydration) - renal function did not significantly improve.
    - Nutrition/Hydration: Minimal PO intake. No artificial nutrition/hydration provided per GOC. Focus on meticulous mouth care.
- Clinical Decline: Despite aggressive symptom management and paracentesis, patient continued to decline. Developed progressive respiratory failure requiring increasing FiO2. Remained largely unresponsive. Renal failure persisted. Family maintained constant vigil, received extensive support from palliative care, social work, chaplaincy.

CIRCUMSTANCES OF DEATH: Patient developed worsening respiratory distress with prolonged apneic spells on morning of 04/26. Passed away peacefully with family present at 11:15 AM.

DISCHARGE DISPOSITION: Deceased. Body released to designated funeral home