Medical Report: Patient 005-10468

1. Patient Information

* **Patient Unit Stay ID:** 525046 * **Unique Patient ID:** 005-10468 * **Gender:** Female * **Age:** 38 * **Ethnicity:** Other/Unknown * **Hospital Admission Time:** 2015, 17:09:00 * **Hospital Admission Source:** Emergency Department * **Hospital Discharge Time:** 2015, 22:35:00 * **Hospital Discharge Status:** Expired * **Hospital Discharge Location:** Death * **Unit Type:** Med-Surg ICU * **Unit Admission Time:** 2015, 20:03:00 * **Unit Admission Source:** Emergency Department * **Unit Discharge Time:** 2015, 21:56:00 * **Unit Discharge Status:** Expired * **Unit Discharge Location:** Death * **Admission Weight:** 62 kg * **Discharge Weight:** 62.6 kg * **Admission Height:** 157.5 cm

2. History

The provided data does not contain a detailed patient history. Further information is needed to complete this section. The admission diagnosis indicates nontraumatic coma due to anoxia/ischemia, suggesting a significant hypoxic event prior to admission. This section should include information regarding the circumstances surrounding the anoxic event, any pre-existing conditions, and the patient's medical history leading up to the ICU admission. Details on medications, allergies, and family history should also be included. NULL

3. Diagnoses

* **Primary Diagnosis:** Neurologic: Altered Mental Status/Pain/Encephalopathy/Post-Anoxic (ICD-9 codes: 348.1, G93.1) * **Major Diagnosis:** Pulmonary: Respiratory Failure/Acute Respiratory Failure (ICD-9 codes: 518.81, J96.00) * **Major Diagnosis:** Neurologic: Altered Mental Status/Pain/Depression (ICD-9 codes: 311, F32.9) * **Major Diagnosis:** Neurologic: Altered Mental Status/Pain/Bipolar Disorder (ICD-9 codes: 296.80, F31.9)

The diagnoses indicate a complex clinical picture involving acute respiratory failure, encephalopathy likely secondary to anoxia, and pre-existing psychiatric conditions. The presence of bipolar disorder suggests potential complications in managing the patient's pain and altered mental status. The severity and interrelation of these diagnoses requires further investigation and clinical correlation.

4. Treatments

* **Cardiovascular:** Vasopressors (norepinephrine > 0.1 micrograms/kg/min) * **Pulmonary:** Pulmonary/CCM consultation * **Neurologic:** Analgesics (acetaminophen) * **Cardiovascular:** ACE inhibitor (enalapril) IV * **Gastrointestinal:** Antiemetic (ondansetron) * **Cardiovascular:** Anticoagulant administration (enoxaparin) * **Gastrointestinal:** Stress ulcer prophylaxis (pantoprazole) IV * **Neurologic:** Head CT scan * **Neurologic:** Neurology consultation * **Pulmonary:** Mechanical ventilation (volume controlled)

The treatments reflect the management of shock, respiratory failure, pain, and potential complications related to the patient's underlying conditions. The use of vasopressors suggests significant hemodynamic instability. The administration of enoxaparin and pantoprazole indicates a proactive approach to preventing thromboembolic events and stress ulcers, respectively. Further information on the duration and response to these treatments is required for a complete assessment.

5. Vital Trends

NULL. Vital sign data (heart rate, blood pressure, respiratory rate, oxygen saturation) are required to complete this section. These trends would show the patient's physiological response to treatment and disease progression.

6. Lab Trends

The provided lab data includes multiple blood gas analyses, complete blood counts, and some chemistry results taken at various timepoints. Significant abnormalities include elevated liver enzymes (ALT and AST), elevated creatinine indicating

renal dysfunction, and low bicarbonate levels suggesting metabolic acidosis. The low PaO2 and high PaCO2 values on initial blood gases indicate respiratory failure. These lab values should be presented graphically to show trends over time. NULL

7. Microbiology Tests

NULL. No microbiology data is available in the provided dataset.

8. Physical Examination Results

* **Initial Physical Exam (23 minutes post-unit admission):** GCS score of 3 (Eyes: 1, Verbal: 1, Motor: 1), Heart rate 107 bpm (lowest 106, highest 107), Blood pressure 137/102 mmHg (systolic lowest 130, highest 135; diastolic lowest 95, highest 102), Respiratory rate 15 breaths/min (lowest 10, highest 15), Oxygen saturation 95% (lowest 95%, highest 100%), FiO2 50%, PEEP 5 cm H2O, Ventilation mode: ventilated, Weight: 62 kg. * **Later Physical Exam (4221 minutes post-unit admission):** Heart rate 56 bpm (lowest 56, highest 148), Blood pressure 96/54 mmHg (systolic lowest 96, highest 128; diastolic lowest 54, highest 93), Respiratory rate 0 breaths/min (lowest 0, highest 20), Oxygen saturation 72% (lowest 72, highest 100%), FiO2 50%, PEEP 5 cm H2O, Ventilation rate 20 breaths/min, Weight: 62.6 kg. Ventilation mode: ventilated.

The physical examination findings are consistent with severe respiratory distress and neurologic compromise. The initial GCS of 3 reflects profound impairment of consciousness. Significant changes in vital signs and oxygen saturation over time are notable. Additional physical exam details are needed to build a more thorough picture of the patient's condition.

2. Chart Description

Visualization 1: Time Series Plot of Key Lab Values

* **X-axis:** Time since unit admission (minutes) * **Y-axis:** Lab value (with appropriate units: mmol/L for bicarbonate, mmHg for PaO2 and PaCO2, % for O2 saturation, etc.) * **Grouping/Color-coding:** Separate lines for PaO2, PaCO2, HCO3, pH, and O2 Saturation. * **Rationale:** This plot will clearly illustrate the trends in crucial blood gas parameters and acid-base balance over the ICU stay, highlighting the severity and response to treatment of the respiratory failure and metabolic acidosis. It will help demonstrate changes over time and identify potential patterns.

Visualization 2: Bar chart of Complete Blood Count (CBC) Results

* **X-axis:** Blood component (WBC, Hgb, Hct, Platelets, MCV, MCH, MCHC, RDW, % polys, % lymphs, % monos, % eos, % bands) * **Y-axis:** Value (with appropriate units) * **Grouping/Color-coding:** Separate bars for each time point of lab results. * **Rationale:** This chart allows a direct comparison of the hematological profile across different time points, revealing potential trends in inflammation (WBC), anemia (Hgb, Hct), and platelet function. The differential white blood cell counts can also be informative of the underlying infection or inflammation.

3. CSV Data

```csv
Time_Minutes_Since_Admission,PaO2_mmHg,PaCO2_mmHg,HCO3_mmol/L,pH,O2_Sat_%,Heart_Rate_bpm,Respiratory_Rate_breaths/min,Systolic_BP_mmHg,Diastolic_BP_mmHg,Weight_kg
-119,332.4,66,17.9,7.05,99.2,16,16,130,95,62 783,62.3,32.2,16.9,7.338,91.9,107,22,137,102,62
2224,350.7,32.1,11.3,7.166,99.8,22,22,135,102,62.6 2536,441.6,62.7,21.1,7.145,99.8,8,8,NULL,NULL,62.6
3697,536.1,37.7,18.8,7.315,99.7,20,20,NULL,NULL,62.6
```

Note: The CSV data only includes the available time-series data for blood gases and some vital signs from the physical exams and lab results. Additional data points and further lab results are needed to complete a more comprehensive

time-series analysis. NULL values are used where data was not available. }