Patient Information Report

1. Patient Info:

* **Unique Patient ID:** 006-100497 * **Patient Unit Stay ID:** 958500 * **Patient Health System Stay ID:** 705532 * **Gender:** Male * **Age:** 28 * **Ethnicity:** Caucasian * **Hospital ID:** 146 * **Ward ID:** 374 * **Admission Diagnosis (APACHE):** NULL * **Admission Height (cm):** 177 * **Hospital Admit Time:** 2014-XX-XX 21:28:00 (Hospital Admit Offset: -1125 minutes from unit admit time) * **Hospital Admit Source:** NULL * **Hospital Discharge Year:** 2014 * **Hospital Discharge Time:** 2014-XX-XX 17:31:00 (Hospital Discharge Offset: 4398 minutes from unit admit time) * **Hospital Discharge Location:** Home * **Hospital Discharge Status:** Alive * **Unit Type:** Med-Surg ICU * **Unit Admit Time:** 2014-XX-XX 16:13:00 * **Unit Admit Source:** ICU to SDU * **Unit Visit Number:** 2 * **Unit Stay Type:** stepdown/other * **Admission Weight (kg):** NULL * **Discharge Weight (kg):** NULL * **Unit Discharge Time:** 2014-XX-XX 17:48:00 (Unit Discharge Offset: 95 minutes from unit admit time) * **Unit Discharge Location:** Floor * **Unit Discharge Status:** Alive

2. History:

Insufficient data provided to generate a detailed patient history. The available data only includes admission and discharge times and locations, along with some demographic information. A complete history would require additional clinical notes, previous medical records, and details of the presenting complaint.

3. Diagnoses:

Insufficient data provided. No diagnoses are listed in the provided JSON data. A complete report would include a list of all diagnoses, including primary and secondary diagnoses, and their associated ICD codes.

4. Treatments:

Insufficient data provided. The provided data does not contain information on administered treatments. A comprehensive report would detail all medications, procedures, and therapies received by the patient during their ICU stay.

5. Vital Trends:

NULL. No vital sign data was provided in the JSON.

6. Lab Trends:

The following laboratory values were recorded for the patient:

* **Glucose:** Values ranged from 46 mg/dL to 347 mg/dL, with significant fluctuations observed over the ICU stay. Further analysis is needed to correlate these fluctuations with clinical events and treatment interventions. * **BUN:** Values ranged from 17 mg/dL to 21 mg/dL suggesting some variation in renal function. * **Creatinine:** Values ranged from 0.8 mg/dL to 1.0 mg/dL. This indicates a relatively stable renal function, although further context within the clinical picture would be necessary for a conclusive assessment. * **Calcium:** Values ranged from 7.4 mg/dL to 8.4 mg/dL. This range suggests variation in calcium levels, and requires further assessment in conjunction with other lab values and clinical information. * **Sodium:** Values ranged from 134 mmol/L to 140 mmol/L showing some variation in sodium levels. * **Chloride:** Values ranged from 101 mmol/L to 113 mmol/L, which represents a degree of variation in chloride levels. * **Potassium:** Values ranged from 3.3 mmol/L to 4.2 mmol/L suggesting some variation in potassium levels. * **Bicarbonate:** Values ranged from 20 mmol/L to 25 mmol/L, indicative of some fluctuation in bicarbonate levels. * **Anion Gap:** Values ranged from 7 to 8. This is a relatively narrow range, suggesting relatively stable acid-base balance. * **Hemoglobin (Hgb):** Values ranged from 13.1 g/dL to 13.3 g/dL indicating stable hemoglobin levels. * **Hematocrit (Hct):** Values ranged from 36.5% to 37.4% indicating stable hematocrit levels. * **Mean Corpuscular Volume (MCV):** Values ranged from 91 fL to 93 fL, which is within a relatively narrow range. * **Mean Corpuscular Hemoglobin (MCH):**

Values ranged from 32.7 pg to 33.2 pg. This represents a narrow range of variation. * **Mean Corpuscular Hemoglobin Concentration (MCHC):** Values ranged from 35 g/dL to 36 g/dL. This represents a narrow range of variation. * **Red Blood Cell (RBC) Count:** Value remained constant at 4.01 M/mcL. * **White Blood Cell (WBC) Count:** Values ranged from 8.3 K/mcL to 9.9 K/mcL. This shows some variation in white blood cell count. * **Platelet Count:** Values ranged from 196 K/mcL to 224 K/mcL. This shows some variation in platelet count. * **Mean Platelet Volume (MPV):** Values ranged from 9.4 fL to 9.9 fL. This represents a narrow range of variation. * **Red Blood Cell Distribution Width (RDW):** Values ranged from 12.9% to 13.3%, which is a narrow range of variation. * **Vancomycin Trough:** A single value of 8.6 mcg/mL was recorded. * **Bedside Glucose:** Values ranged from 46 mg/dL to 334 mg/dL, with considerable variation throughout the stay. This needs to be correlated with clinical events, insulin administration, and nutritional status.

7. Microbiology Tests:

NULL. No microbiology test results are included in the provided data.

8. Physical Examination Results:

NULL. No physical examination results are included in the provided data.

2. Chart Description:

Visualization 1: Time Series Plot of Key Lab Values

* **X-axis:** Time since unit admission (minutes) * **Y-axis:** Lab result value (with appropriate units for each lab test) * **Grouping/Color-coding:** Each line represents a different lab test (e.g., glucose, BUN, creatinine, potassium, sodium, etc.). * **Rationale:** This visualization would effectively display the trends of multiple key lab values over time, allowing for easy identification of any abnormalities, correlations between different lab parameters, and the impact of treatments. For example, one could observe how glucose levels respond to insulin administration or how renal function markers (BUN and creatinine) change during the ICU stay.

Visualization 2: Scatter Plot Matrix of Chemistry Lab Values

* **Axes:** Each axis represents a different chemistry lab value (e.g., glucose, BUN, creatinine, potassium, sodium, bicarbonate, chloride, anion gap). * **Grouping/Color-coding:** Points could be colored by time since admission, or by other relevant factors like the type of fluid balance the patient is on. * **Rationale:** A scatter plot matrix would allow for the visual exploration of potential correlations between different chemistry lab values. This could help identify patterns suggesting underlying conditions or the impact of treatment. For example, a correlation between glucose levels and potassium could indicate the patient's response to treatment or underlying disease.

3. CSV Data:

```csv LabName,TimeOffset (minutes),LabResult,Units glucose,1185,91,mg/dL glucose,4032,347,mg/dL BUN,1185,17,mg/dL BUN,4032,21,mg/dL creatinine,1185,0.8,mg/dL creatinine,4032,1.0,mg/dL calcium,1185,7.4,mg/dL calcium,4032,8.4,mg/dL sodium,1185,140,mmol/L sodium,4032,134,mmol/L chloride,1185,113,mmol/L chloride,4032,101,mmol/L potassium,1185,3.3,mmol/L potassium,4032,4.2,mmol/L bicarbonate,1185,20,mmol/L bicarbonate,4032,25,mmol/L anion gap,1185,7, anion gap,4032,8, Hgb,1185,13.3,g/dL Hgb,4032,13.1,g/dL Hct,1185,36.5,% Hct,4032,37.4,% MCV,1185,91,fL MCV,4032,93,fL MCH,1185,33.2,pg MCH,4032,32.7,pg MCHC,1185,36,g/dL MCHC,4032,35,g/dL RBC,1185,4.01,M/mcL RBC,4032,4.01,M/mcL WBC x 1000,1185,9.9,K/mcL WBC x 1000,4032,8.3,K/mcL platelets x 1000,1185,224,K/mcL platelets x 1000,4032,196,K/mcL MPV,1185,9.4,fL MPV,4032,9.9,fL RDW,1185,13.3,% RDW,4032,12.9,% Vancomycin - trough,1272,8.6,mcg/mL bedside glucose,432,87,mg/dL bedside glucose,606,270,mg/dL bedside glucose,964,193,mg/dL bedside glucose,1283,54,mg/dL bedside glucose,1304,59,mg/dL bedside glucose,1330,123,mg/dL bedside glucose,1387,186,mg/dL bedside glucose,1552,251,mg/dL bedside glucose,1850,46,mg/dL bedside glucose,1868,79,mg/dL bedside glucose,1941,192,mg/dL bedside glucose,2094,87,mg/dL bedside glucose,2389,287,mg/dL bedside glucose,2783,328,mg/dL bedside glucose,2954,287,mg/dL bedside glucose,3220,142,mg/dL bedside
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glucose,3519,288,mg/dL bedside glucose,3822,334,mg/dL bedside glucose,4154,219,mg/dL

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