**Script Documentation: Fresh Frozen Plasma (FFP) Transfusion Calculation**

* **Overview**:  
  This script retrieves and calculates the total amounts of Fresh Frozen Plasma (FFP) transfusions for patients in the ICU, considering both the amount administered and any pre-ICU FFP intake. The script aims to accurately reflect transfusion events, including cases where the amount is not documented.
* **Key References**:
  + **FFP Item IDs**: The relevant item IDs for Fresh Frozen Plasma from both CareVue (inputevents\_cv) and MetaVision (inputevents\_mv) systems are specified in the script.
  + **Data Sources**:
    - CareVue: inputevents\_cv
    - MetaVision: inputevents\_mv
* **Logic Summary**:  
  The script aggregates instances of FFP transfusions, imputing amounts when necessary, and calculates cumulative totals. It ensures that transfusions initiated within one hour of the previous event are considered part of the same transfusion event.
* **Process Steps**:
  + **Raw Data Extraction** (raw\_ffp):  
    Retrieve FFP transfusion events from both inputevents\_cv and inputevents\_mv, capturing amounts, units, ICU stay identifiers, and timestamps. Impute a default amount of 200 mL where the amount is not documented.
  + **Pre-ICU FFP Intake Calculation** (pre\_icu\_ffp):  
    Calculate the total FFP amounts administered prior to ICU admission from relevant item IDs, aggregating by icustay\_id.
  + **Cumulative Amount Calculation** (cumulative):  
    Compute cumulative FFP amounts per icustay\_id, including a time difference calculation to determine the interval between successive transfusion events.
  + **Final Selection and Adjustment**:  
    Select the relevant fields, adjusting the amounts to reflect transfusion events that are not within one hour of the previous event and summing pre-ICU FFP intake.
* **Output**:  
  The output table ffp\_transfusion includes the following columns:
  + icustay\_id: Unique identifier for each ICU stay.
  + charttime: Timestamp of the FFP transfusion event.
  + amount: The amount of FFP administered, adjusted based on the previous event.
  + totalamount: The total amount of FFP including pre-ICU intake.
  + amountuom: Unit of measurement for the amount (mL).

**Example Query**:  
sql  
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SELECT \* FROM ffp\_transfusion WHERE icustay\_id = 100001;

* **Important Notes**:
  + The script imputes an amount of 200 mL when the actual amount is not provided, based on historical data showing this approximation holds approximately 90% of the time.
  + The time difference (delta) is utilized to filter out transfusion events that occurred too close together.
  + The cumulative calculation helps track the total amount of FFP transfused over time.
* **Conclusion**:  
  This script effectively aggregates and standardizes FFP transfusion data, providing a comprehensive view of transfusion events and facilitating better patient management in the ICU.