**Script Documentation: Crystalloid Bolus Calculation**

* **Overview**:  
  This script calculates the total crystalloid bolus amounts administered to patients in the ICU by aggregating data from various sources, including MetaVision (inputevents\_mv) and CareVue (inputevents\_cv). The measurements are standardized to milliliters (mL).
* **Key References**:
  + **Crystalloid Types**: Normal Saline (NS), Lactated Ringer's (LR), D5 solutions, and various forms of sterile water.
  + **Sources**: MetaVision (inputevents\_mv) and CareVue (inputevents\_cv).
* **Logic Summary**:  
  The script extracts crystalloid infusion events, ensuring that only amounts above a specified threshold are included. It filters the data based on the unit of measurement, ensuring standardization to milliliters, and sums the total amounts for each ICU stay.
* **Process Steps**:
  + **Extract from MetaVision** (t1): Crystalloid infusion events are retrieved from the inputevents\_mv table, with amounts converted to milliliters. It checks for infusion rates that exceed a specified threshold and only includes non-rewritten entries.
  + **Extract from CareVue** (t2): Crystalloid bolus events are extracted from the inputevents\_cv table, filtering for amounts greater than 248 mL.
  + **Aggregation**: The script sums the crystalloid amounts for each icustay\_id and associates them with the corresponding charttime.
* **Output**:  
  The output table crystalloid\_bolus includes the following columns:
  + icustay\_id: Unique identifier for each ICU stay.
  + charttime: Timestamp of crystalloid administration.
  + crystalloid\_bolus: Total crystalloid bolus in milliliters (summed for the respective timestamp).

**Example Query**:  
sql  
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SELECT \* FROM crystalloid\_bolus WHERE icustay\_id = 100001;

* **Important Notes**:
  + The script ensures that only crystalloid amounts exceeding 248 mL are included in the calculations.
  + It standardizes the measurement units across various data sources to maintain consistency.
  + Specific item IDs relevant to crystalloid solutions are included in the filtering criteria.
* **Conclusion**:  
  This script plays a critical role in aggregating and standardizing crystalloid bolus administration data, providing a comprehensive overview of fluid intake for patients during their ICU stay.