**Script Documentation: Colloid Bolus Calculation**

* **Overview**:  
  This script identifies and calculates the total colloid bolus amounts received by patients within the ICU, aggregating data from multiple sources including MetaVision (inputevents\_mv), CareVue (inputevents\_cv), and chartevents. It covers the first 24 hours after ICU admission and standardizes the measurements in milliliters (mL).
* **Key References**:
  + **Colloid Types**: Albumin, Hetastarch, and Dextran.
  + **Sources**: MetaVision (inputevents\_mv), CareVue (inputevents\_cv), and chartevents.
* **Logic Summary**:  
  The script extracts colloid infusion events and standardizes the amount across the units used in different datasets. It checks the rate of colloid infusion, ensuring that only amounts exceeding 100 mL are included. It then sums the total colloid amount for each ICU stay, grouping by icustay\_id and charttime.
* **Process Steps**:
  + **Extract from MetaVision** (t1): Colloid infusion events are extracted from the inputevents\_mv table. Amounts in liters are converted to milliliters. Only events with non-rewritten statuses and high enough infusion rates are considered.
  + **Extract from CareVue** (t2): Colloid events are extracted from the inputevents\_cv table, which already reports amounts in milliliters.
  + **Extract from Chartevents** (t3): Additional colloid events are gathered from chartevents.
  + **Aggregation**: Colloid amounts are summed for each ICU stay (icustay\_id) and associated with the time of administration (charttime).
* **Output**:  
  The output table colloid\_bolus includes the following columns:
  + icustay\_id: Unique identifier for each ICU stay.
  + charttime: Timestamp of colloid administration.
  + colloid\_bolus: Total colloid bolus in milliliters (summed for the respective timestamp).

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

* **Important Notes**:
  + The script filters out any colloid bolus amounts less than 100 mL.
  + It ensures all colloid amounts across various units are standardized to milliliters.
  + Special attention is paid to specific colloid types and their related itemid.
* **Conclusion**:  
  This script is vital for aggregating and standardizing colloid bolus administration data across different ICU systems, providing a unified view of the colloid intake during a patient's ICU stay.