**Script Documentation: Dialysis RRT Analysis**

* **Overview**: This script aggregates data to determine whether patients received renal replacement therapy (RRT) during their ICU stay by analyzing various events recorded in the database.
* **Key References**: N/A
* **Logic Summary**: The script creates a table that summarizes the occurrences of RRT based on various input, output, and procedure events related to dialysis. It uses multiple CTEs (Common Table Expressions) to aggregate this data from different sources.
* **Process Steps**:
  1. **Drop Existing Table**: The script begins by dropping any existing table named rrt.
  2. **Create RRT Table**: It creates a new table called rrt that includes several CTEs.
  3. **CTEs**:
     + cv\_ce: Aggregates data from chartevents for specific item IDs related to dialysis.
     + cv\_ie: Aggregates data from inputevents\_cv for specific item IDs related to peritoneal dialysis.
     + cv\_oe: Aggregates data from outputevents for item IDs that signify dialysis output.
     + mv\_ce: Aggregates data from chartevents focusing on checkbox and numeric values related to dialysis.
     + mv\_ie: Aggregates data from inputevents\_mv for specific dialysis medications.
     + mv\_de: Aggregates data from datetimeevents for various dialysis catheter events.
     + mv\_pe: Aggregates data from procedureevents\_mv for different types of dialysis procedures.
  4. **Final Data Aggregation**: The results from the CTEs are combined to summarize RRT occurrences.
* **Output**: The final output will be a table rrt indicating which ICU stays involved RRT.

**Example Query**:  
sql  
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SELECT count(rrt.icustay\_id) AS numobs,

SUM(rrt) AS numrrt,

SUM(CASE WHEN rrt=1 THEN 1 ELSE 0 END) \* 100.0 / COUNT(rrt.icustay\_id) AS percent\_rrt

FROM rrt

INNER JOIN icustays ie ON rrt.icustay\_id = ie.icustay\_id

INNER JOIN patients p ON rrt.subject\_id = p.subject\_id

WHERE p.dob < ie.intime - INTERVAL '1' YEAR

INNER JOIN admissions adm ON rrt.hadm\_id = adm.hadm\_id;

* **Important Notes**: Ensure the item IDs used in the script correspond accurately to the database schema for dialysis events.
* **Conclusion**: This script efficiently aggregates RRT data for ICU patients, allowing for further analysis and insights into dialysis utilization within the ICU.