BRIEF INTRODUCTION OF MIMIC CRITICAL CARE DTABASE

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1.ITRODUCTION

I want to do something about using reinforcement learning on continuous-time hidden markov process. The real problem is to find optimal policy to treat the patients, making them recover from the disease. This file shows some statistical features in MIMIC Critical Care database

2.Insights About All Events On Patients

1. The number of different items for all events except **LABEVENTS**:
   12478 different items for all events in the whole database

2. **CHARTEVENTS**:
   5561 different **CHARTEVENTS** items in the whole database
   It is different for different patients(subjectid).There are **hunderds of** items for each patient
   The recording time of the **CHARTEVENTS** term is discrete, recording the value in periods.

3. OUTPUTEVENTS:
   1155 different outputevents items in the whole database
   It is different for different patients. As for the patients I have queried, the items for each patient are **less than ten**.
   There is no property of the output in the database, just the amount of the output.

4. LABEVENTS:
   729 different labevents items in the whole database
   It is different for different patients(subjectid).There are **tens of** items for each patient
   The time associated with the labevents results is the time of fluid acquisition, not the time that the values were made available to the clinical staff.
   discrete time record.

5. DATETIMEEVENTS :
   155 different datetimeevents items in the whole database
   datetimeevents contains all date measurements about patient in the ICU. For example, the date of last analysis would be in datetimeevents table.

Many patients don't have datetimeevents item. There are **less than ten** items for those patient who have datetimeevents item.
discrete time record.

6. INPUTEVENTSCV :
   2938 different labevents items in the whole database
   It is different for different patients(subjectid).There are **about ten** items for each patient.
   Discrete time record. We only have the start time of the inputevents.
7. The number of different items of inputeventsmv :
   278 different labevents items in the whole database
   It is different for different patients(subjectid).There are **tens of** items for each patient.
   We have the start and end time of the inputevents in mv databse. cv and mv are different ICU database for the inputevents.

8. The number of different items of microbiologyevents:
   There are three different items in the whole database: specitem, orgitem, abitem
   65 different specitems
   309 different orgitems
   30 different abitems
   Discrete time record. We only have charttime of the microbiologyevents. We have the interpretation of the results of the test. S is sensitive, R is resistant, I is intermediate, P is pending.

9. PROCEDUREEVETSMV(stored in mv database): **116** different procedureeventsmv items in the whole database
   There are **tens of** items for each patient.
   We have the start and end time of the procedureevents. The procedures will last for a few days.

10. The number of different icd9codes for diagnose:
    14567 different icd9codes.

11. The number of different icd9codes for procedure:
    3882 different icd9codes.

12. The number of different drugs for patients in the database:
    4525 different drugs.
    As for each patients, it depends.
    We have the start and end time of the drug in the database.