

PROBLEM 2

Drugs are generally administered/prescribed by the physicians for a certain period of time or they are administered at regular intervals, but for various reasons patients might stop taking the treatment . Consider following example for better understanding Let's say you get a throat infection, the physician prescribes you an antibiotic for 10 days, but you stop taking the treatment after 3 days because of some adverse events. In the above example ideal treatment duration is 10 days but patients stopped taking treatment after 3 days due to adverse events. Patients stopping a treatment is called dropoff. We want to study dropoff for "Target Drug", the aim is to generate insights on what events lead to patients stopping on "Target Drug". Assume ideal treatment duration for "Target Drug" is 1 year, come up with analysis showing how drop-off rate is, dropoff rate is defined as number of patients dropping off each month. Then come up with analysis to generate insights on what events are driving a patient to stop taking "Target Drug".

In []:

Data Visualization

- Did data visualization based on the number of patients dropping off each month
- And also did data visualization based on the events driving a patient to stop taking "Target Drug".

In []:

Insights

From the above visualization Patients dropped-off is high in the month of

- APRIL
- MAY
- JULY and OCTOBER

And from the above plotting what events are driving a patient to stop taking "Target Drug" is

- PRIMARY_DIAGNOSIS
- DRUG_TYPE_6
- DRUG_TYPE_1

These Incidents are the top 3 events to stop taking the "TARGET DRUG"

In []: