

In [1]:

```
#error checking measures
import csv
import matplotlib.pyplot as plt
numberOfGraphs = 15
def csv_dict_writer(path, fieldnames, data):
    with open(path, "wb") as out_file:
        writer = csv.DictWriter(out_file, delimiter=',', fieldnames=fieldnames)
        writer.writeheader()
        for row in data:
            writer.writerow(row)
masterListforReplications = []
field_names = "QALY,TotalCost".split(",")
from PlottingSystemClass import PlottingSystem
from SimulationSystemClass import SimulationSystem
plottingssystem = PlottingSystem(plt)
order = 1
%matplotlib inline
for i in range(2):
    sysSimulation = SimulationSystem(3000,"PatientList/Patients_list_{}.csv".format(i))
    sysSimulation.SystemSimulation()
    plottingssystem.plot(sysSimulation,order,i,masterListforReplications)
    order += (numberOfGraphs*1)
    del sysSimulation
print order
csv_dict_writer("MList.csv",field_names,masterListforReplications)
```

CURRENT ITERATION: 0

Average QALY: 12.640242686

Average Medical Cost: 28049.9229667

Average MD: -12.618947864

Patient 0: List of Medication Progression is [0, 1, 1, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8]

Patient 0: List of Final Medication Amount is [5, 3, 1, 0, 0]

Patient 1: List of Medication Progression is [0, 1, 1, 6, 7, 7, 7, 5, 5, 5, 30]

Patient 1: List of Final Medication Amount is [5, 1, 2, 0, 3]

Patient 2: List of Medication Progression is [0, 1, 1, 6, 6, 6, 6, 8, 8, 8, 8, 8, 8, 8, 8, 8, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30]

Patient 2: List of Final Medication Amount is [6, 4, 2, 0, 0]

Patient 3: List of Medication Progression is [0, 1, 1, 7]

Patient 3: List of Final Medication Amount is [4, 0, 2, 0, 1]

Patient 4: List of Medication Progression is [0, 1, 1, 6, 6, 6, 6, 8, 8, 8, 8, 8, 8, 8, 8, 8, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 30, 30, 30, 30, 30]

Patient 4: List of Final Medication Amount is [8, 6, 4, 0, 2]

CURRENT ITERATION: 1

Average QALY: 12.6143496923

Average Medical Cost: 28670.7743333

Average MD: -12.7246744944

Patient 0: List of Medication Progression is [0, 1, 1, 7, 7, 7, 13, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30]

Patient 0: List of Final Medication Amount is [4, 1, 2, 1, 2]

Patient 1: List of Medication Progression is [0, 1, 1, 6, 7, 7, 7, 13, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 16, 16, 16]

Patient 1: List of Final Medication Amount is [5, 5, 2, 2, 3]

Patient 2: List of Medication Progression is [0, 2, 2, 2, 16, 17, 17, 5, 5, 5, 5, 5, 5, 5, 5, 30]

Patient 2: List of Final Medication Amount is [0, 4, 0, 2, 2]

Patient 3: List of Medication Progression is [0, 2, 2, 2, 16, 16, 18, 18, 19, 30]

Patient 3: List of Final Medication Amount is [0, 8, 4, 6, 2]

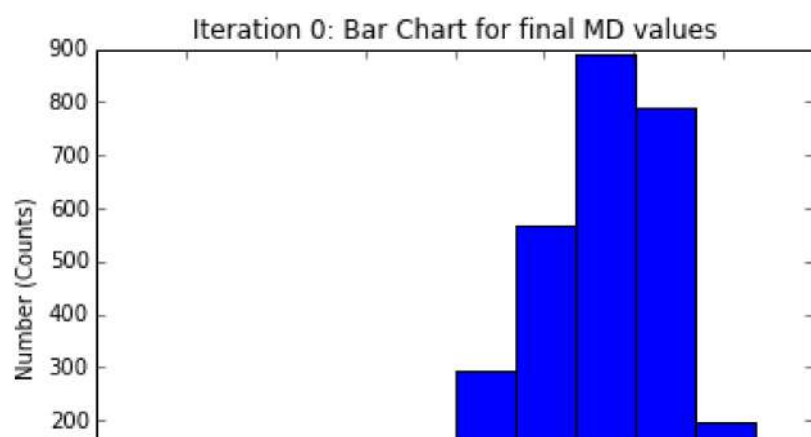
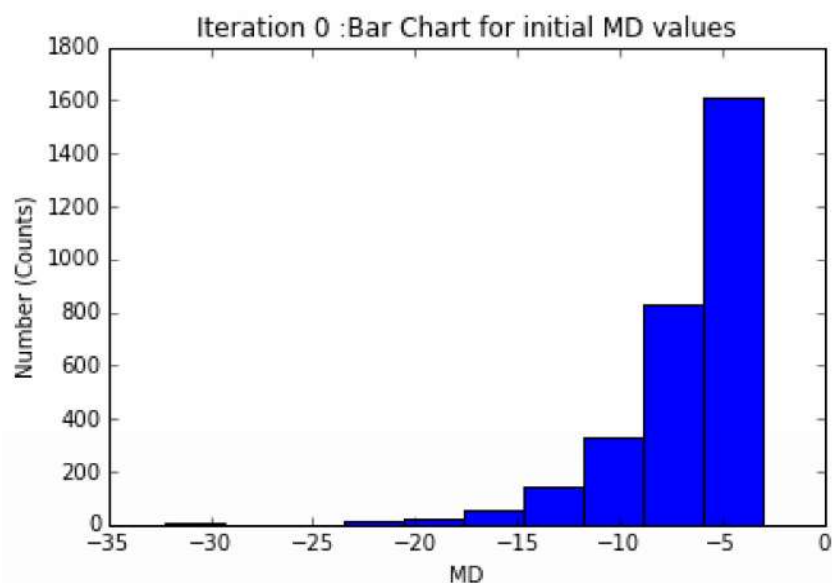
Patient 4: List of Medication Progression is [0, 2, 2, 2, 17, 17, 17, 20, 20, 20, 20, 20, 20, 30]

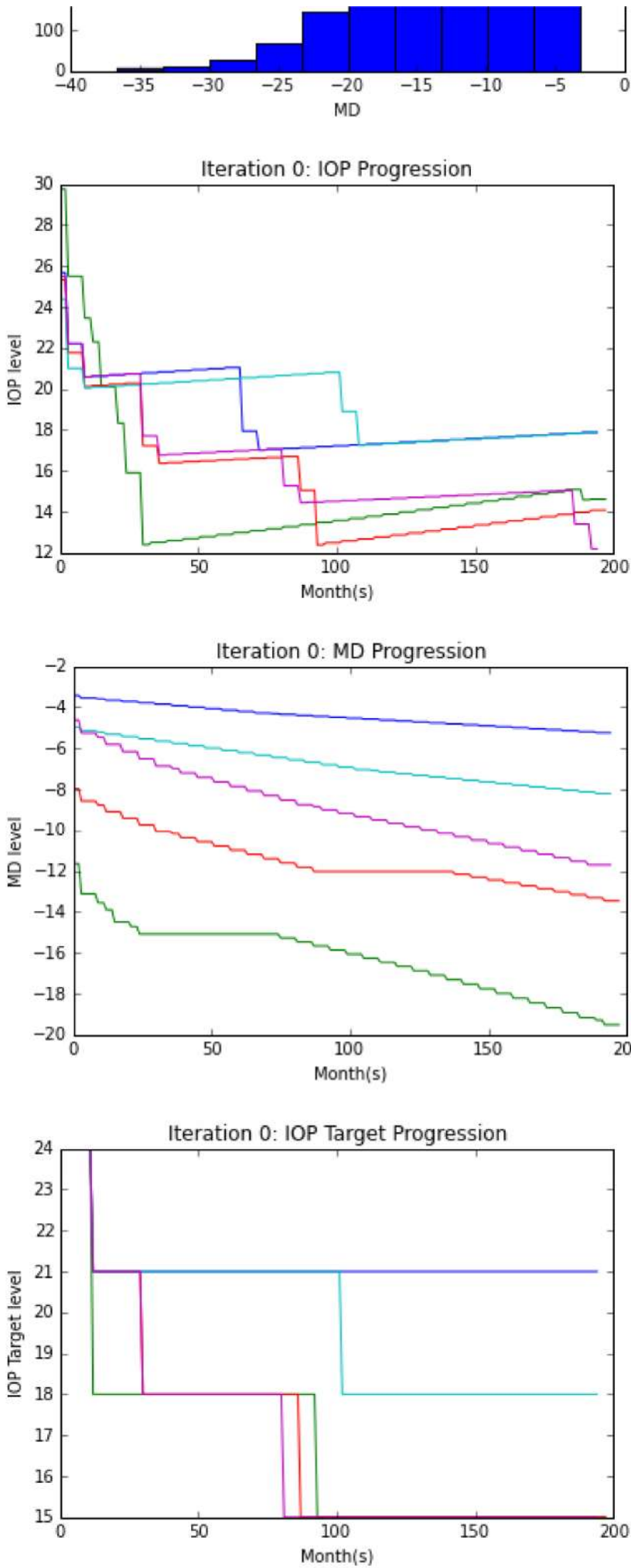
Patient 4: List of Final Medication Amount is [0, 6, 0, 4, 2]

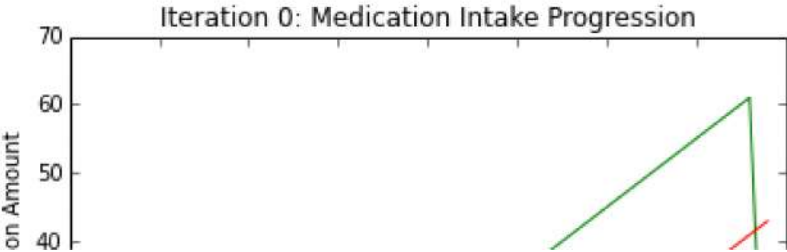
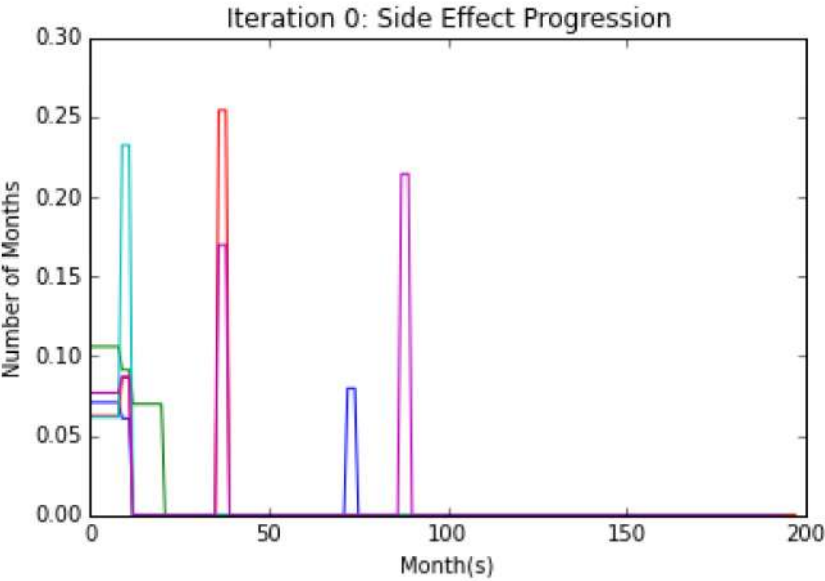
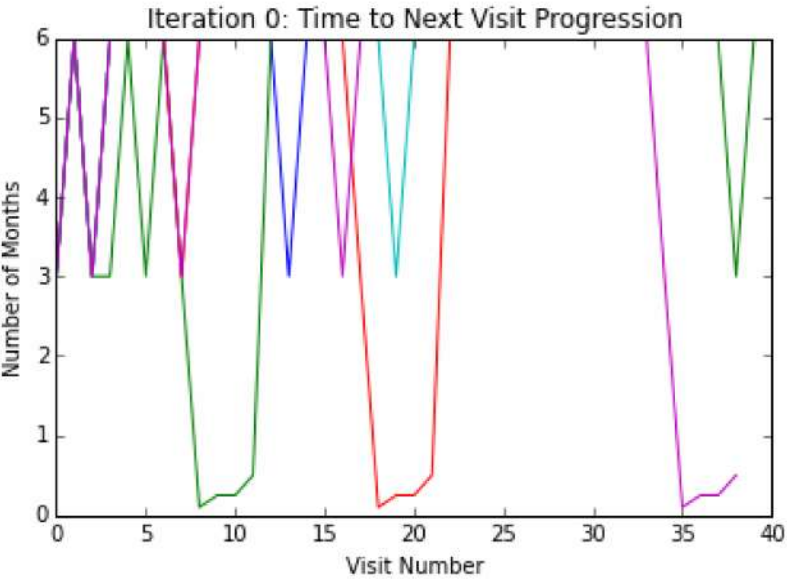
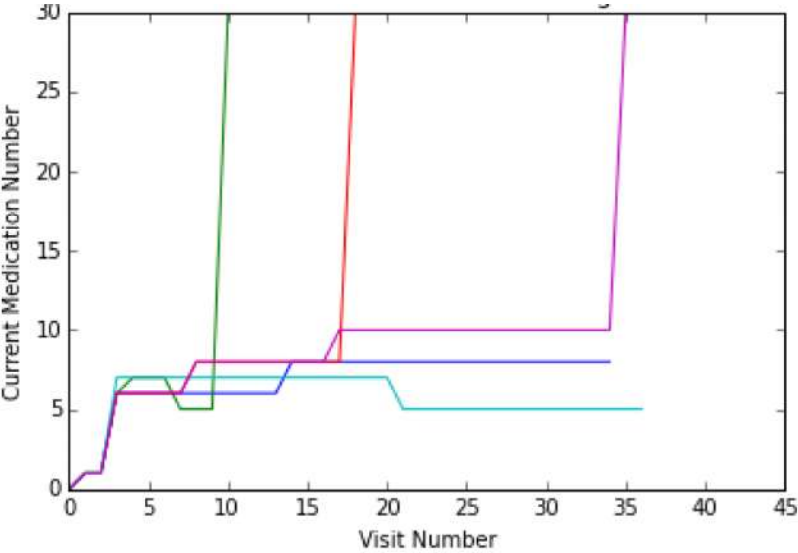
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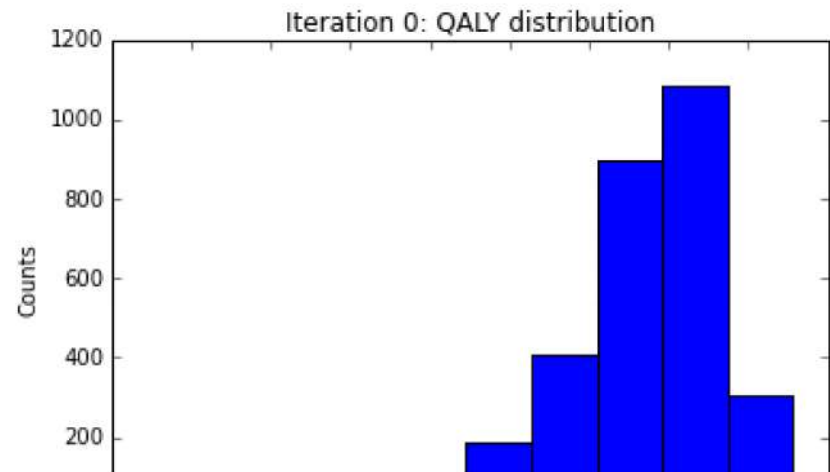
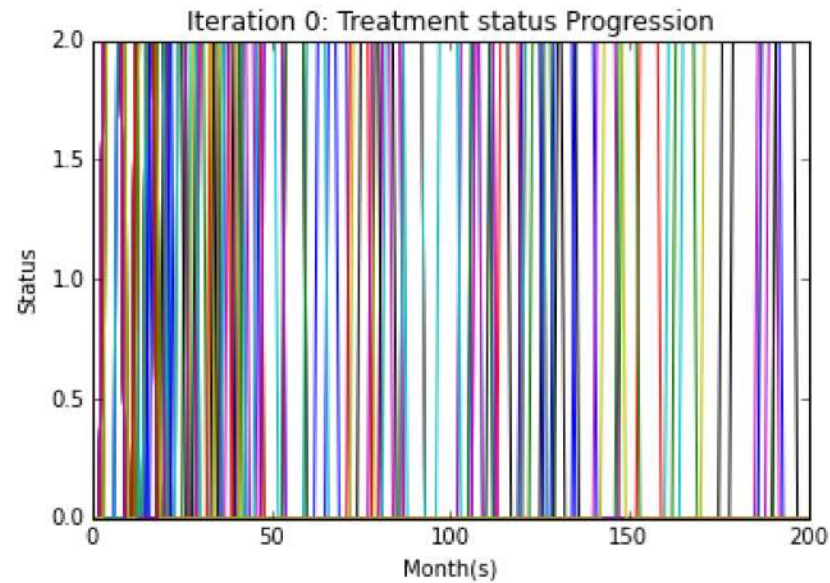
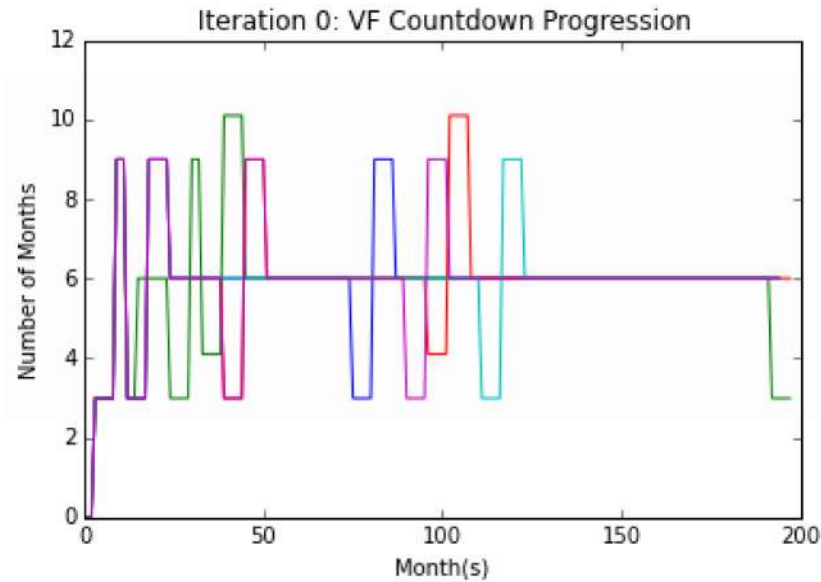
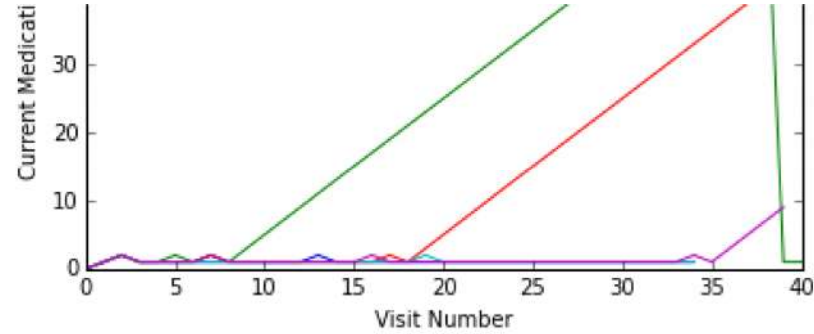
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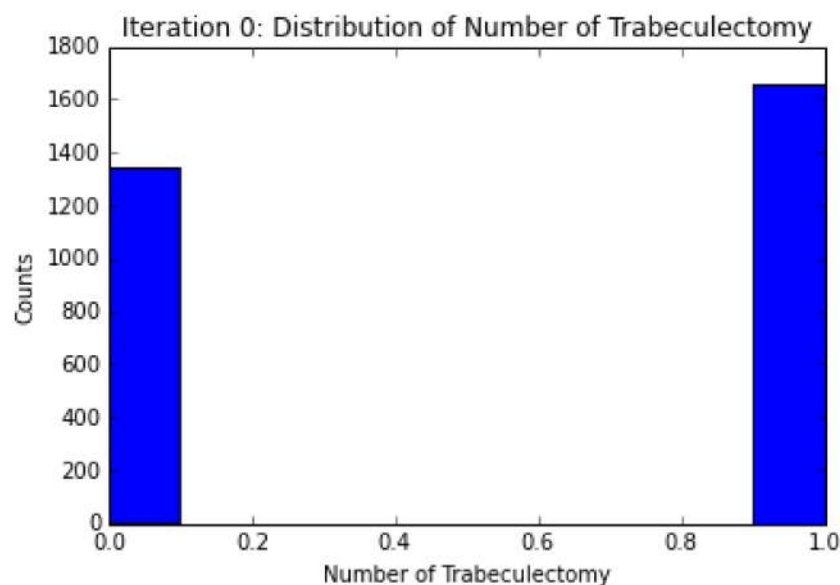
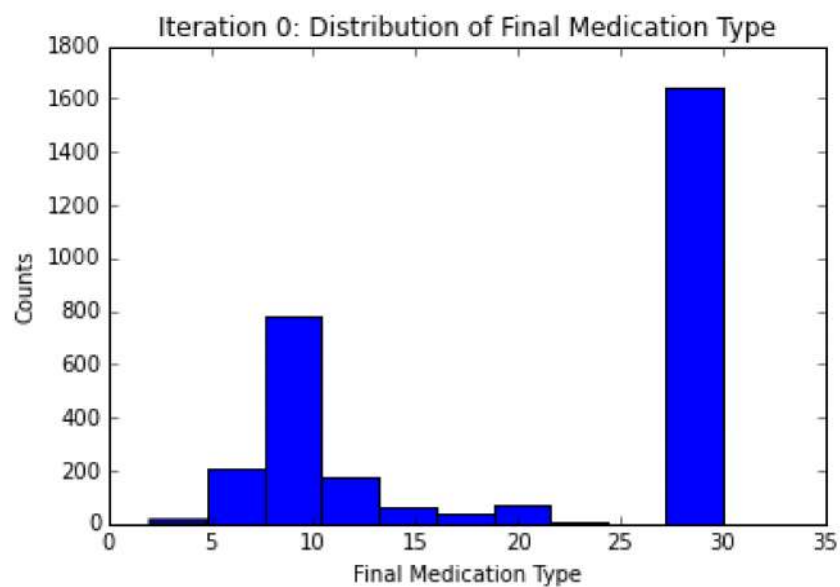
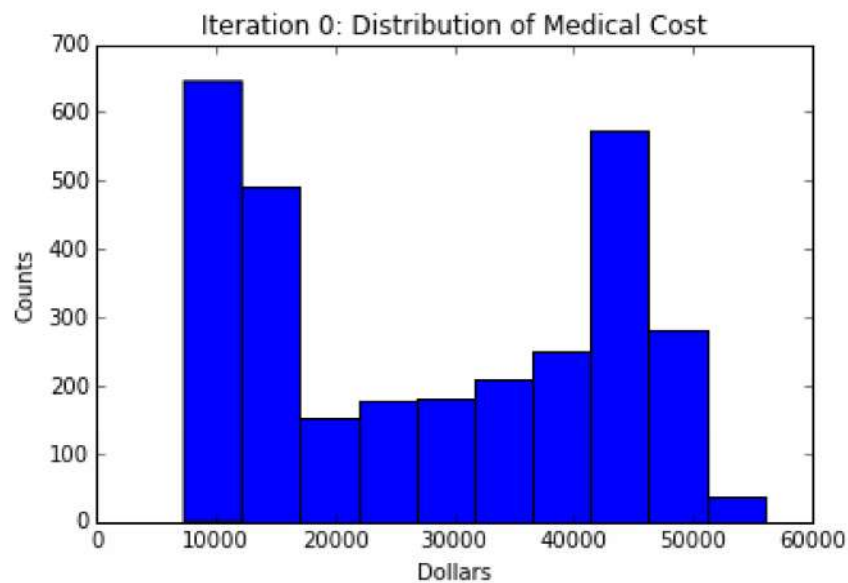
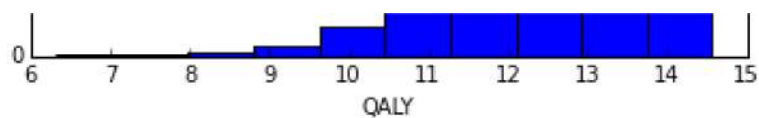
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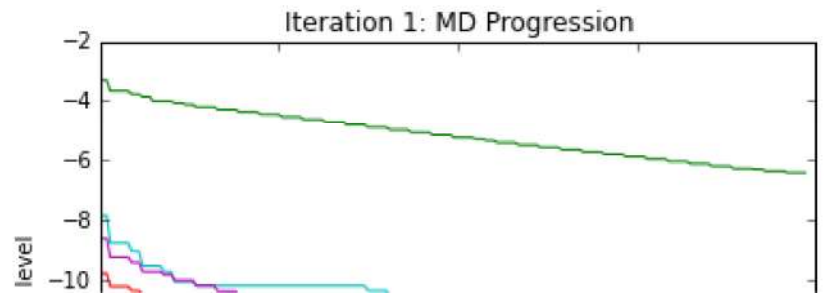
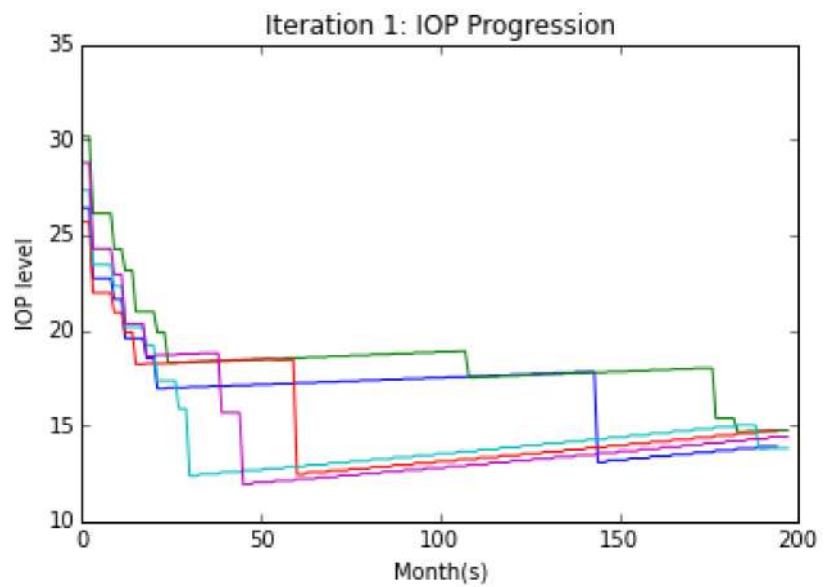
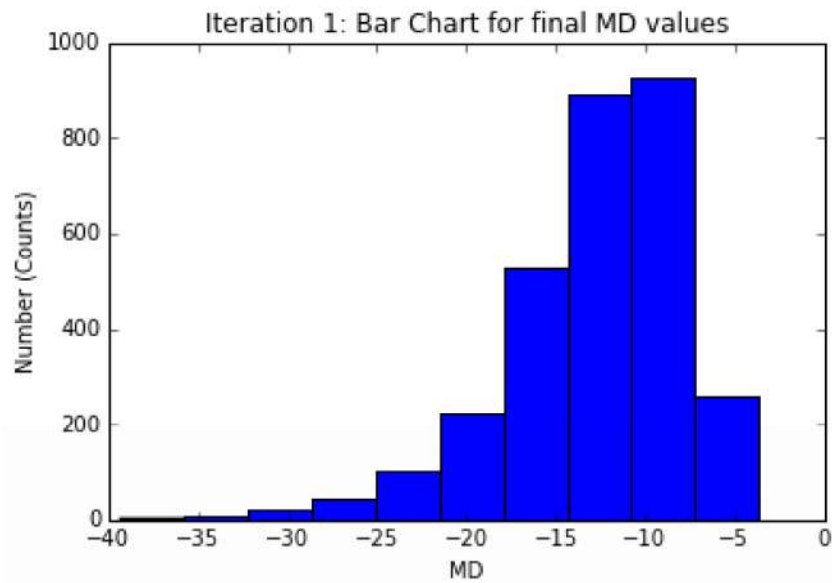
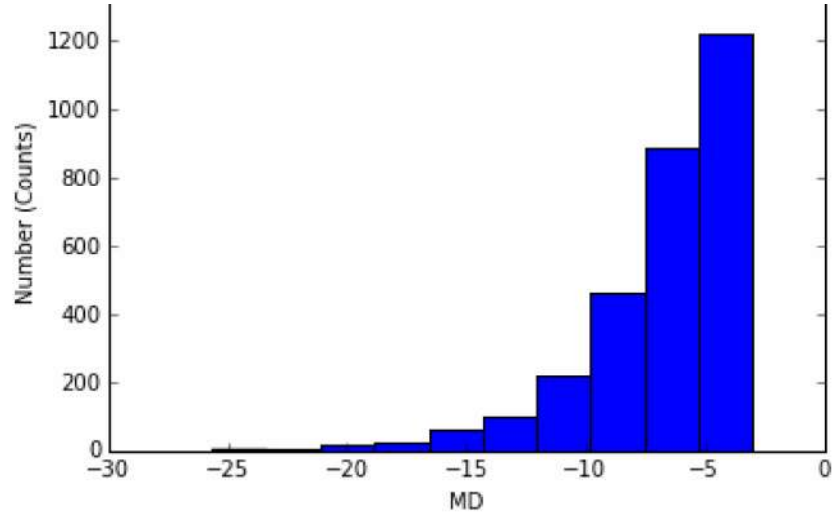




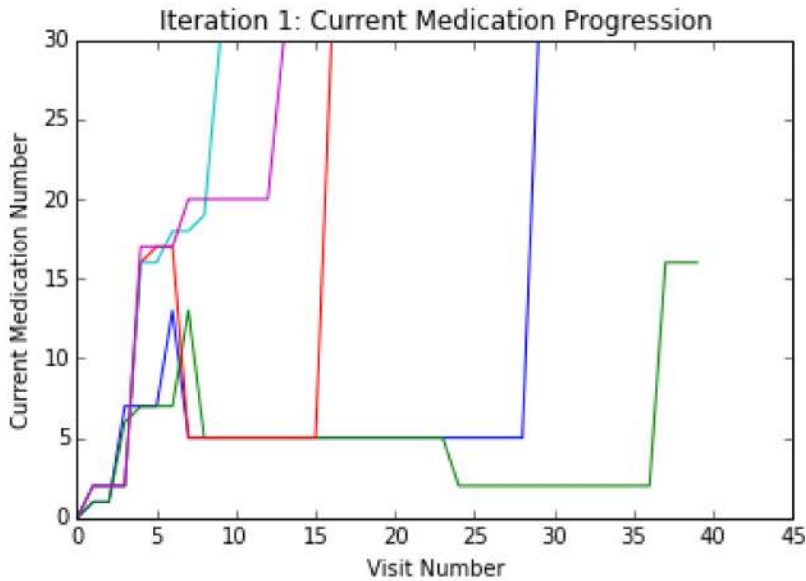
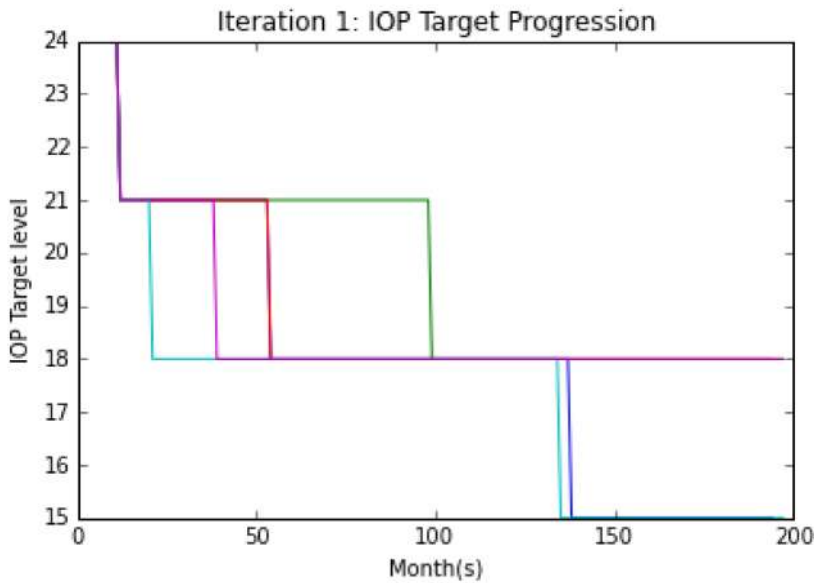
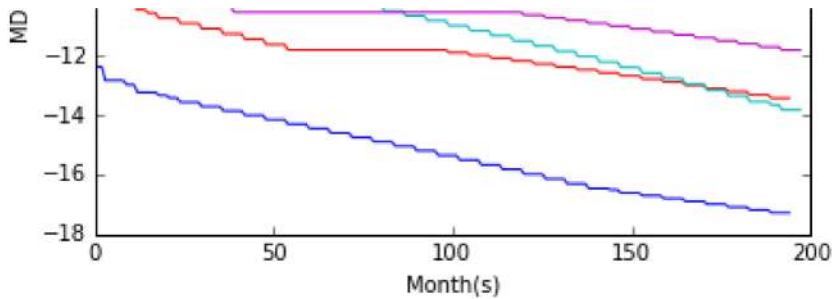




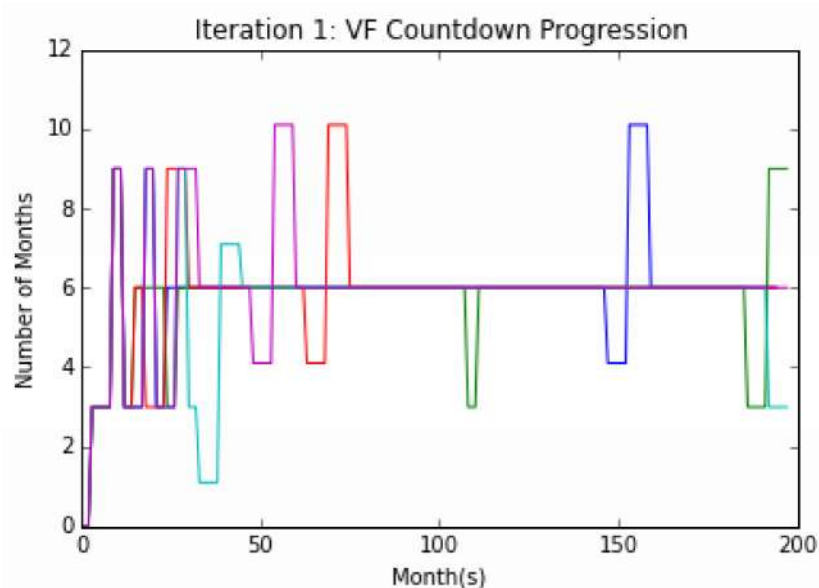
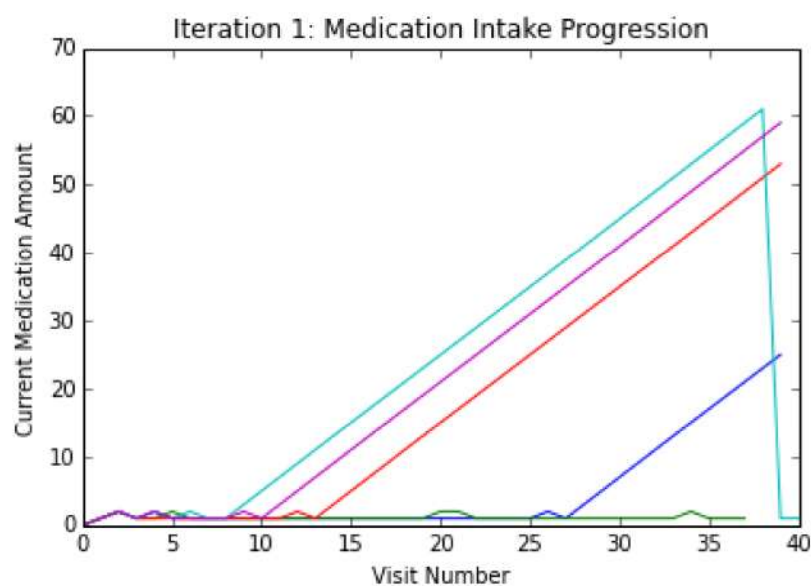
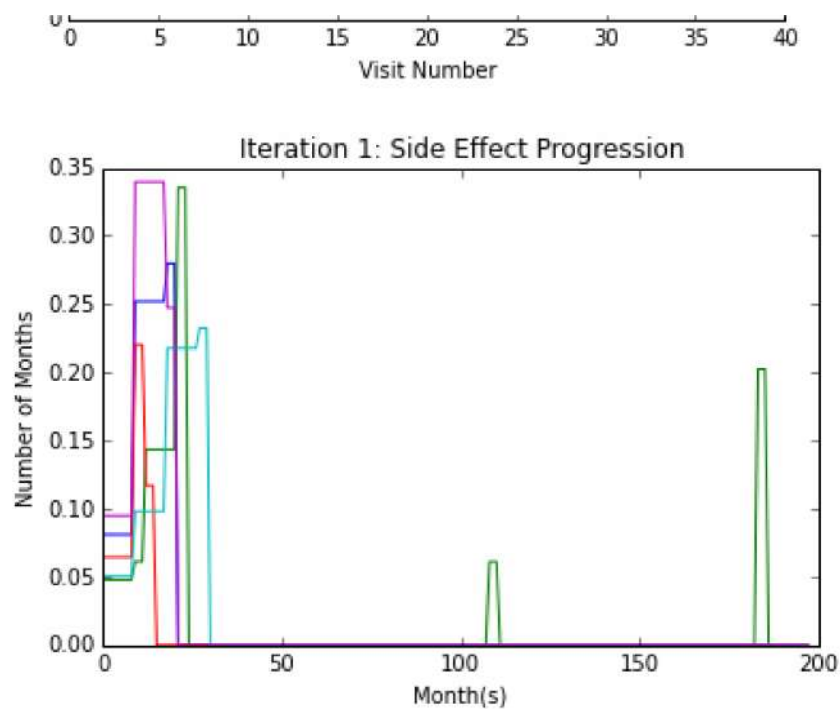


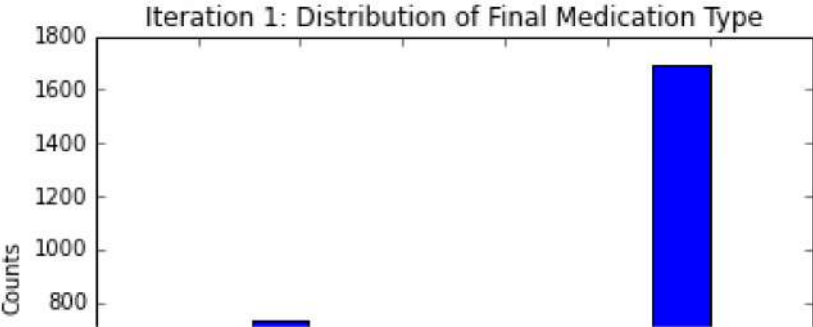
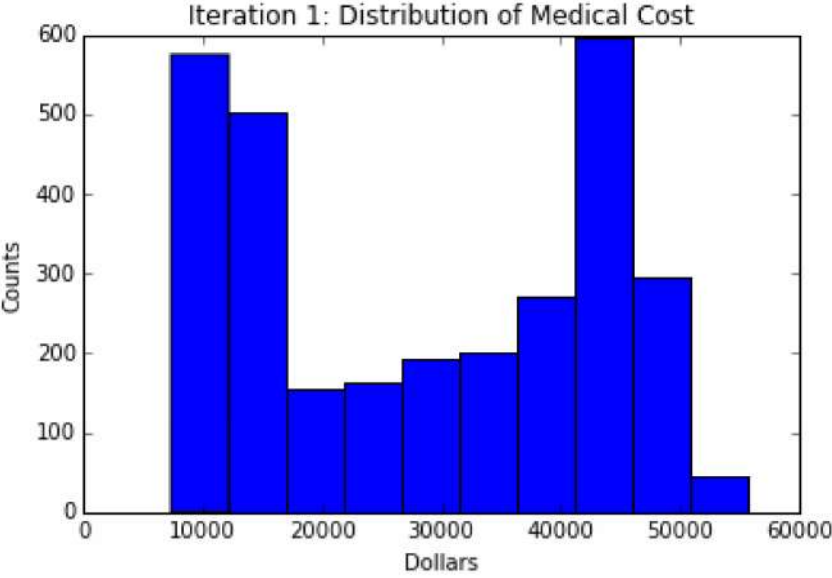
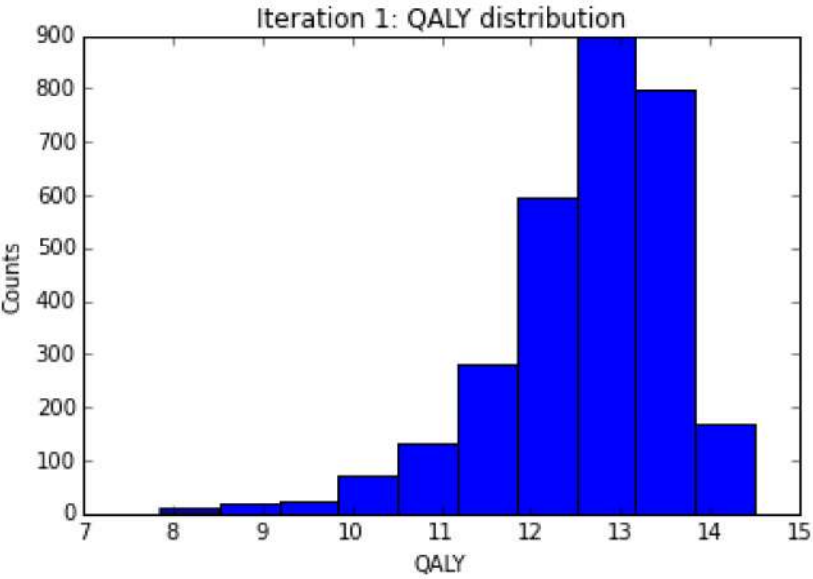
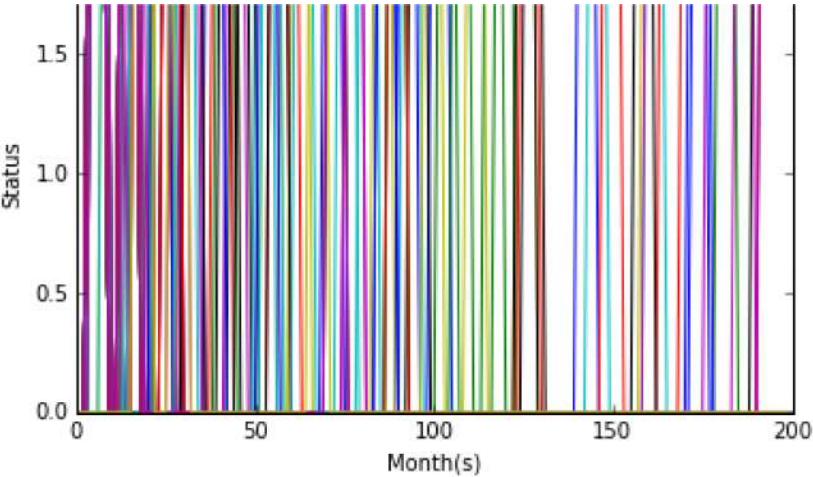


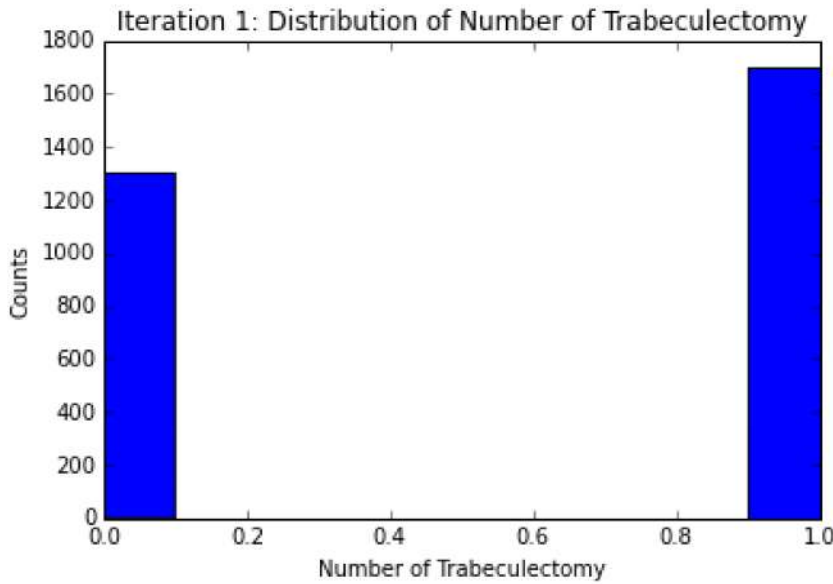
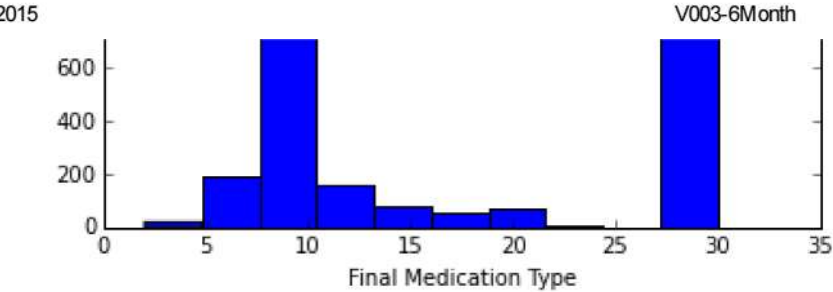












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