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INTRODUCTION

- A large portion of hospital inpatient management expenditure is due to high readmission rates
- Diabetes is one of the leading causes of readmissions for chronically ill patients
- Patients with diabetes are at high risk of getting readmitted than those patients who are not diabetic

- Information synthesis performed using statistical techniques such as 'Logistic regression, Naïve Bayes and Classification Tree' helped us identify the key factors impacting readmission
- Data visualization performed with analysis using 'Key Influencers' that helped us identify the variables impacting readmission at micro level

- Serum level analysis shows that with High glucose serum levels, the readmission rates are higher
- Key Influencer analysis shows that HbA1c in patients could have positive correlation with readmissions

OBJECTIVES

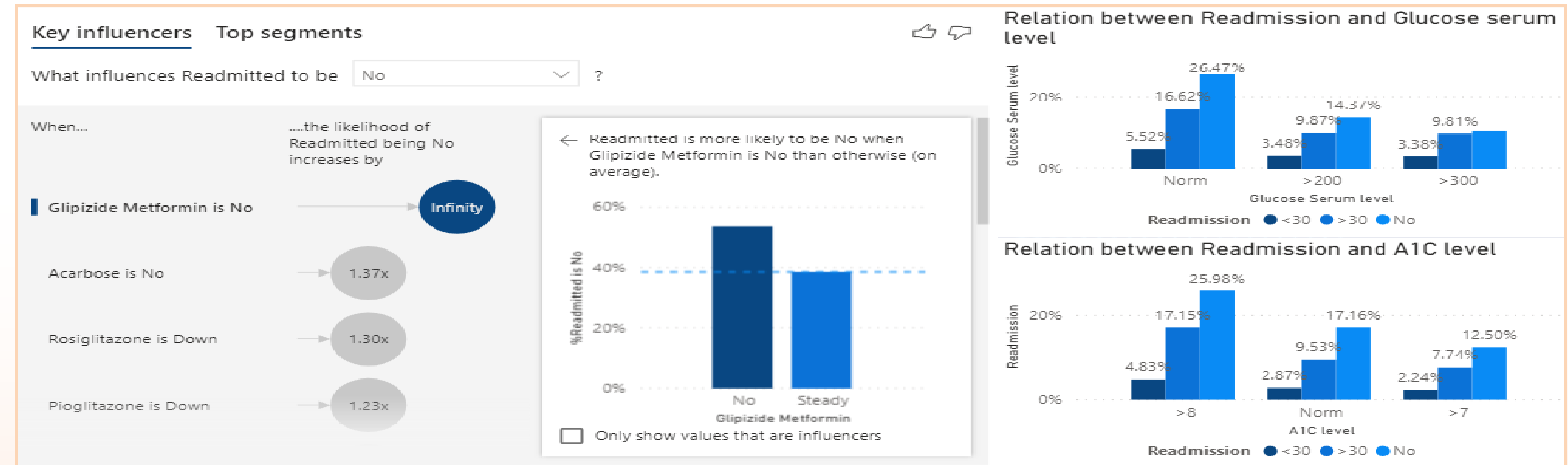
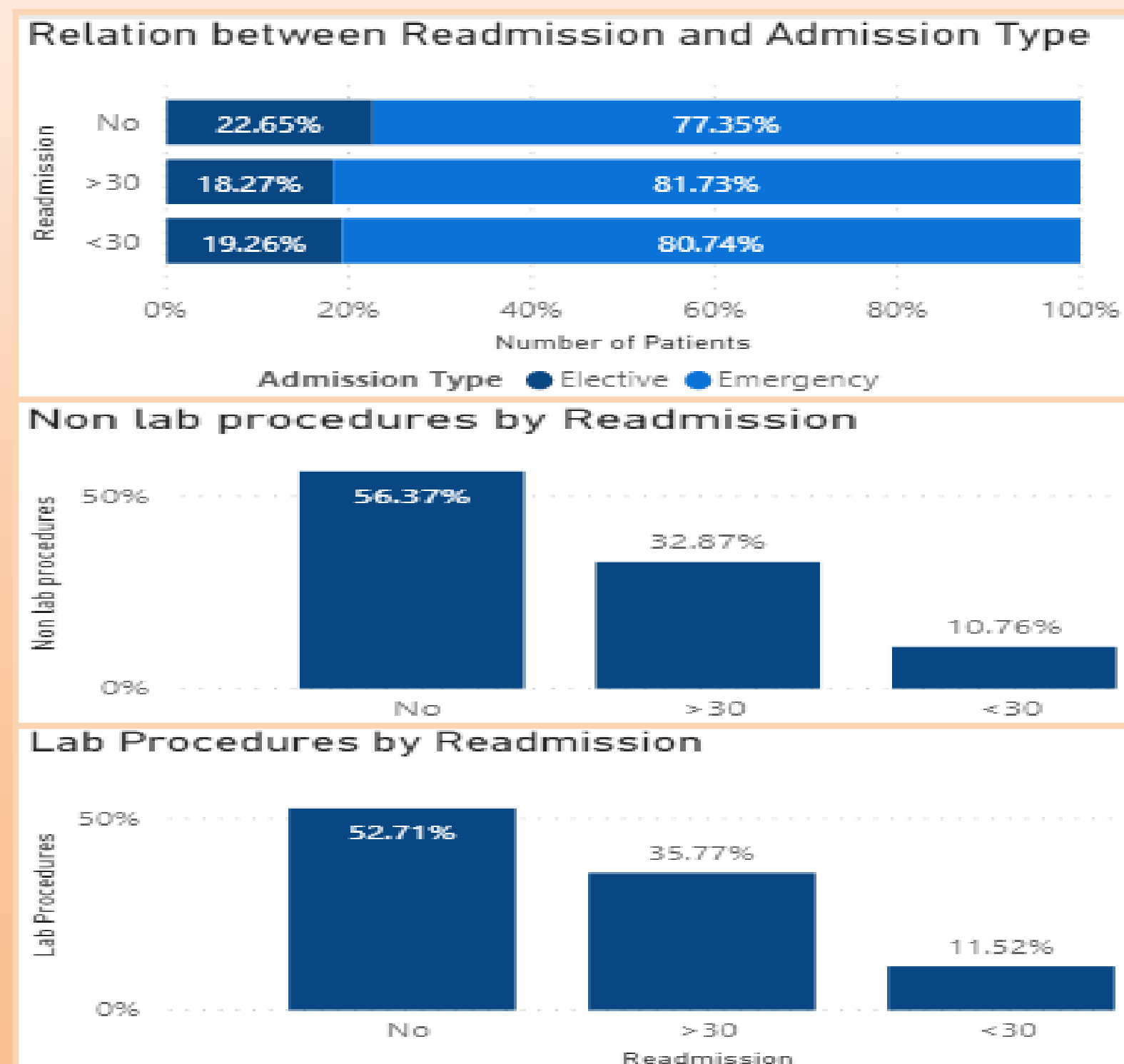
- Analyze and identify factors that lead to readmission of Diabetic patients
- Identify key influencers impacting readmission rates
- Reduce management expenditure by identifying key factors and solutions to minimize readmission

METHODS

- Data informatics originated from Cerner EMR systems with instances for over 70,000 patients
- Information obtained on Inpatient Hospital admission, Diagnosis of diabetes type, Length of stay, Laboratory tests performed during the stay, Medications administered during the encounter

RESULTS

- Lab Procedures analysis shows positive correlation between medications, diagnosis and time in



- Outpatient Diabetics above age 40 with HBA1c level more than 8 are more likely to be readmitted
- Inpatient diabetics with higher number of prescribed medications and procedures are less likely to get readmitted

