Inferences and conclusions

- Based on the recorded patients' gender, we can infer that the dataset is slightly imbalanced, since only 35.1% of Patients were Female.
- 32.1% of patients died during the follow-up period. This might be because the data mentioned in our data frame corresponds to only the certain period of time (April'15 - December'15) and more number of patients might have died after this period (which isn't recorded).
- Maximum patients died (during the follow-up period) is under 60-65 age group (i.e. 15 Patients). It's obvious, since we have more number of patients in 60-65 age group. This indicates the most common age group where risk of heart failure manifests. The proportion of patients died starts increasing from 65-70 age group and the number of patients who died is more than alive patients in the age group of 80-85, 85-90 and 90-95. This is because over the time, the body's immune system naturally becomes less capable of handling new threats. This increases the risk of having issues with various illnesses which ultimately leads to their death.
- The proportion of male and female patients died during the follow-up period is almost equal (i.e. ~32%).
- The abnormality in Ejection Fraction (EF) is the most common factor among the heart failure patients. Abnormal Ejection Fraction is followed by the abnormal creatinine and sodium level in the blood respectively, the factor which is least common among the heart failure patients is abnormal Platelets Count (i.e. only 47 Patients).
- No medical record values have been normally distributed. Platelets count, Ejection Fraction and Creatinine Level are right skewed and Sodium Level is left skewed.
- The most common abnormality or disease among the heart failure patients is Ejection Fraction and 261 Patients had abnormal Ejection Fraction.
- The least common abnormality or disease among the heart failure patients is Abnormal Platelets Count and 47 Patients had abnormal Platelets Count.
- Though they had normal ejection fraction and normal creatinine level in the blood, some patients with smoking habit died. So, we can conclude that the smoking habit has little impact on the life expectancy of a heart failure patient.