Hi, Group 26. Great job, the topic (serum biomarkers and mortality rates among patients with diagnosed heart failure) is new and interesting to me. I am glad to discuss with you about this study and learn what you found through this study.

PRAISE

1- I really like your secondary question how demographical features and health conditions modify the association between serum creatine and mortality rates/Death 30-day in patients with heart failure. I think it should be meaningful to explore demographical features when we study certain disease.

2- I like your method of dealing with missing data. You set a 10% boundary, which is reasonable. And also set data into two categories to discussion is rigorous.

3- Your statistical plan is logic and organized. You first check covariates before fitting the model and you also check effective modifier after the analysis, which I think they are necessary.

ADVICE

1- In the primary question, you want to explore the association between serum creatine and mortality rates for patients with heart failure. I think the question is not specific enough. What kind of association you expect they should have? Which aspects you aim to explore?
2- In model fitting part, how about add a model selection process that is to fit different models that we mentioned in class, can compare which models fit better?
3- There are 13 features in this dataset, if you fit all features it will be time consuming. How about do a dimension reduction to filter only most necessary variables before fitting the model.

CONCERNS

1- The data set only have 299 patients, and there are some missing data, too. After missing data removal, the actual sample size you can use is even smaller than 299. Will it be too small to get the adequate conclusion?
2- There are some binary variables and categorical variables in your dataset, I am wondering how you will deal with your binary variables.
3- This analysis has strong connection with clinical medicine, how will you explain and interpret each statistical finding accurately?