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Group Project Peer Discussion

I'm really interested in your topic about exploring the association between serum biomarkers and mortality rates among patients with diagnosed heart failure. Although I'm not an expertise in this domain, I'm really curious about the result you will get since heart failure is always a concern, and people with heart failure may die quickly without any early warning. I'm looking forward to your analysis of this clinical data.

Praise:

- Your analysis plan is logical and well-organized, and the data you are using is solid clinical trial data, so the result you get will be robust to make useful conclusions.
- As for your analysis plan, I like your idea about first trying to test serum creatine as a continuous variable and then treating it as binary variables based on the normal and abnormal model. Since a small change in serum creatine may not have significant influence to the death, your approach could really help testing this out.
- Your general plan is comprehensive that you are planning to test many models and include potential confounders

Advice:

- My only advice is about your data set. Even though your dataset has only 299 cases, the dataset seems clean and complete, so after you check if there is any missing data and if it's not too much, maybe using complete cases with all data entries would be both easier and more accurate, Or at least the variable you are interested in is complete. If the missing data reduce the number of cases a lot, the mice function in R could also be helpful.

Concerns:

- I'm not really familiar with the medical background about serum biomarkers and mortality among patients with heart failure, but I guess there are complex relationships between them, and there could be many other factors that could be potential confounders or effect modifiers. Given your data is clinical data, the variables are already fixed and it's hard to find any other potential confounders' data to match each case. In this case, maybe doing the literature review using this data set could be also really helpful. In addition, reaching for expertise (there are some doctors in our class and two of them are specialized in cardiology) could be helpful.

I enjoy reading your proposal and am also really interested in this topic. Looking forward to seeing your future project! Good Luck.