

Requirement Gathering Through Emails/Meetings with Mentor

1. How would you like to use the web app? I understand that you want to use it using a mobile phone, but do you want to access the app using PC as well?

Yes, I would definitely want to use the web app on a desktop/laptop. Besides having access to a phone, in theory this would work with an electronic health record (EHR) system, so that the user can see the indicator while working in the EHR. Having a web app in a separate browser is fine.

2. How do you want to input the patient data? Do you want to upload some files? or you want to input text manually? or you want the web app to provide you some options and you can just choose from these options?

Ideally, the user would not input any data into the app; what I was imagining an application that could query the MIMIC database for the fields that were found to accurately classify discharge destination in your machine learning model such that when new patient data becomes available, a new prediction is available. If the database querying is too hard, I don't imagine there is a way to store all the patient's clinical data in the web app. Therefore, as a phase I it would be acceptable to support user inputs like you have above, but on the condition that a) the inputs are significant predictors from the model, and b) the choices are pre-defined in dropdowns like you have illustrated above.

3. Do you have any special user interface requirements?

It should be clear, simple, and involve color or contrast-coding (i.e. use color or contrast to attract user attention to input and output) and button selectors for inputs if we have to go the user-defined input route.

4. Do you have any sample UI which we can refer to?

For user interfaces involving pre-defined user inputs, I like MDCalc and Nephromatic. Both are simple, involve color, and have clear display of results. Our interface should really be a classifier rather than a calculator, though. The output should be a category (not a continuous variable like X% risk of something).

5. Do we need to add user sign up and sign in features?

If we need this, what information should we get from user?

- email address?

- full name?

- phone number?

Not necessary

6. How to handle the input data? Do we need to save it?

The input data should come from a call to the database, but if not technically possible, I would be ok with user-defined input as above. What is the functional impact of not saving input data?

7. Do you have any suggested output format? What does the output look like?

See GUI notes above. I like MDCalc or Nephromatic output formats, again with the caveat that the output should be a category (e.g. Acute Rehab, subacute rehab, etc. and not a number like a GFR calculation). Off the top of my head I don't see a need to save the output, but again I am wondering what the functional impact is.