What is measured :

I will be measuring lung functionality and also I will keeping track of food Intake by using a modified food diary.

How will it be measured :

I will measure the lung functionality by using the mobiles sensors to accurately measure how much the patient moves during the day compared to long long they are stationary. I will also be creating a spirometer that will take the patients PFT’s once a week and will be inputted into the application. There will be a notification to remind them each week to do the test.

I want to keep the food journal as simple as possible so I will break it into the three main meals breakfast, lunch, and dinner. I haven't decided if I will get the patient to input completely what they have ate or if I will create a database of food that they could simply select from the list under the three headings above.

Conclusion

While I have been doing my research I have narrowed down the more important aspects of the application. The medical feedback that got has focused me on two areas of the application.

1. The Arduino - The arduino could be used for more than just the spirometer. It could carry out multiple different medical test that would help the various teams that a patient would meet such as a physiotherapist could get heart-rate data and oxygen levels in the blood.
2. The second area is the food diary keeping track of more than just the food that intake. It could be expanded to take in diabetes information, medication information and so on.

I have decided to use a No-SQL database as it will enable my application to grow as needed not to be fixed to a certain size or by what type of data is going into the database.

To develop the application I am leaning towards android as the tutorials I have followed have been straightforward and there is good documentation backing it up but then I would be limiting my application to the android market which I am mindful of.

I have ordered an Arduino Uno and some of the basic sensors that I will need to get started.