**HSIP MIMIC Project Protocol**

**Download Waveform Data**

1. From <https://archive.physionet.org/physiobank/database/mimic2wdb/matched/>, copy all RECORDS of the MIMIC II matched subset and paste into a txt file. These are the patients that MIMIC has waveform data for.
2. Use **Code/Process\_Record\_IDs.Rmd** to process the txt file
3. Use **Code/Match\_Waveform\_IDs\_ICD9.Rmd** to identify the icd9 codes that are affiliated with the patients we have waveform data from. This code also determines the most frequent diagnoses and further subsets those with Congestive heart failure, unspecified which 1,198 patients were diagnosed with.
4. **Code/Waveform\_Download.ipynb –** uses <https://github.com/MIT-LCP/wfdb-python/blob/master/demo.ipynb> as a reference for how to download the waveforms

**To Dos:**

* **Decide on population of interest? Congestive Heart Failure?**
* **Create a for loop to download all patient wave forms**
* **Figure out how to process the waveforms**
* **Abstract demographic + other interesting clinical variables**
* **Abstract/process non-waveform time series**
* **Develop/test simpler models (logistic + linear regression)**
* **Develop/test RAIM/RNN/DL methods**

5 ECG signals explanations: <https://archive.physionet.org/physiobank/database/mimic2wdb/>