Agenda for 10/6/2015 internal meeting:

1. Timeline: 10 weeks
2. Hours: 550 AA; 188 CES
3. Arc space: <http://arc.imshealth.com/gm/folder-1.11.5340616>

* AA subfolder: http://arc.imshealth.com/gm/folder-1.11.5427764

1. Selection criteria:

* HAE: patients from the list provided by Shire (n=~1700)
  + Might need to check if these patients have an HAE diagnosis or at least one Rx for one of HAE products
  + Might need to double check with Shire that they believe these HAE patients are representative of HAE population
* Non-HAE: random sample of patients from APLD data (potentially do multiple random samples or stratified samples)
  + Might consider removing patients who have an HAE diagnosis or any HAE treatments
  + N=? How many non-HAE patients should we use?

1. Independent Variables/Predictors:

* Test as many predictors as possible
* Where possible, use variables from LRx instead of Dx (since LRx has better coverage). For example, we can use headache treatment instead of headache diagnosis
* Frequency of various diagnoses/treatments/procedures might be important
* Over what time period are we looking for these diagnoses/treatments/procedures?
  + The perfect way would be to identify the first HAE diagnosis or Rx, and look back from that point.
  + However, the further back we look the smaller is our sample in both LRx and Dx
  + Also, what would be the starting point for non-HAE patients?

1. Modeling approach

* What modeling approaches do we plan to try?
* We might consider building an LRx only model vs. an LRx/Dx model
  + An LRx only model can be applied to a much larger group of patients, thus identifying many more relevant physicians
  + We could use LRx/Dx model to validate the performance of LRx only model

1. Model application:

* The model will produce the probability of each patient in the IMS data being HAE
* Will we subset this list of patients to those patients whose probability of having HAE is above a certain cut-off?
* For likely HAE patients, we will produce the list of physicians who interact with these patients; each patient might be associated with more than 1 physicians
  + How exactly are we going to do that?
* The final deliverable to Shire will be the list of HCPs sorted in descending order by the number and likelihood of their patients having HAE
  + We will also include physician specialty for each HCP as some specialties might be more relevant to Shire than others.