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| cid:image001.png@01CE8EB0.21494000    Meeting Notes | | | | | | | | | | | |
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| Meeting Date | 9/02/2015 | | | | | | | | | | |
| Meeting Time | 1:00pm | | | | | | | | | | |
| Project Name | Shire Rare Disease HAE Targeting | | | | | | | | | | |
| Meeting Purpose | Internal Kick-off | | | | | | | | | | |
| Attendees | Dai, Dong (Plymouth Meeting 2); Cai, Yong (Plymouth Meeting 2); Nguyen, John (Plymouth Meeting 2); Daniel, Anu K.(Plymouth Meeting 2); Schulz, Brian (Plymouth Meeting 2); Rigg, John (London); Pitcher, Ashley (London); Theobald, Ilene (Plymouth Meeting 2) | | | | | | | | | | |
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| |  | | --- | | Agenda |  |  | | --- | | * Internal Kick-off |  |  | | --- | |  | | | | | | | | | | | | |
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| Brief Meeting  Summary | | | | | | | | | | | |
| * Shire has a list of ~3500 HAE patients; once Experian de-identifies the patients, we should have ~1700 confirmed HAE cases. It might be worthwhile to check if these patients have an HAE diagnosis or treatment in IMS data * Another option to determine true HAE patients is to look at patients who were treated with drugs that are used only for HAE * We need to deliver results within 10 weeks from Sep-28; Nadea to check if Shire could be flexible, but we need to definitely deliver by year end for revenue recognition * We need to find out if Shire or Clinical Team suggested [Anti-arthritics, Codeine, sex hormones, hormones, extended spectrum macrolides, opiates, sedatives, proton pump inhibitors] as possible treatment options for HAE. * We need to make the list of predictors as broad as possible. * Yong will recommend a couple modeling techniques that we might want to try * Many potential predictors are Dx-based; however we do not have a good coverage of Dx data. Where possible, we will use LRx-based variables instead of Dx (e.g.: instead of looking at headaches, we could look at treatment for headaches). LRx/Dx model could be used to validate the LRx only model * We need to set Shire’s expectations on what “good” looks like for a rare disease model * Since US converted from ICD-9 to ICD-10 staring October 1st, we will limit the data in the modeling and scoring data sets to time period ending Sep 30, 2015 * We will regroup on Monday/Tuesday to discuss about project delivery and timeline. * We need to discuss with Shire how representative Shire’s list of HAE patients is, and whether it may be biased towards younger patients (who have more access to the internet) and/or uninsured patients (who might be in higher need of the copay assistance) | | | | | | | | | | | |
| Action items | | Person responsible | | | | | | | | Deadline | |
| Arrange another internal kickoff meeting for Monday 5th of October | | Nadea | | | | | | | | 10/02 | |
| Touch base with Jenn and or Hillary prior to Kick-off | | Nadea | | | | | | | | 10/06 | |
| Request clinical SQL for ICD-9, CPTs and NDCs | | Nadea | | | | | | | | 10/06 | |
| Discuss with Shire how flexible they are regarding the 10 week timing for delivery | | Brian | | | | | | | | 10/07 (during kick-off) | |
| Find out if Shire or Clinical Team suggested [Anti-arthritics, Codeine, sex hormones, hormones, extended spectrum macrolides, opiates, sedatives, proton pump inhibitors] as possible treatments | | Nadea | | | | | | | | 10/06 | |
| Suggest a couple modeling techniques we will try | | Yong, Dong and John | | | | | | | | 10/06 | |
| Discuss with Shire how representative is their patients’ list | | Nadea | | | | | | | | 10/07 (during kick-off) | |
| Set Shire’s expectations on what good looks like for a rare disease model | | Yong, Dong, John | | | | | | | | 10/07 | |
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Agenda for the next internal meeting:

Discuss the details of our proposed approach. Specifically, review the following/make any necessary changes:

1. Timeline: 10 weeks
2. Hours: 550 AA; 188 CES
3. 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.