

ADNI Biostatistics Conference Call,  
Minutes for September 7, 2010

Present on call: Danielle Harvey, Laurel Beckett, Niclas Sjogren, Hao Zhang, Bongin Yoo, Fred Immerman, Kisook Yoo, Viswanath Devanarayan, David Verbel,

Laurel and Danielle have 3 doctoral students in Biostatistics who have worked with us for the summer. One has carried out a project initiated by Mike Weiner, a big summary paper of what variables predict change. The first goal is to assess the degree to which common, cheap measures – age, education, baseline cognition - predict in MCI and, if anything predicts, in NC (and comparison to see if different from AD). Then we will look at what the biomarkers do and how much this adds to cheap things. A second student is looking at how to model how well variables track together and allow for different variance structures (allowing for different scales). This is a necessary precursor to assessing agreement to Jack model. A third student has been looking at boundary shift measures and ventricular boundary shift measures, to see if we can make improvements using more than one two-point shift difference. We have models that fit very well; the next step will be to assess the improvement in information. We also have two epidemiology doctoral students, as well as Hao who is working on finishing up.

Mike Weiner mentioned that he thought the isoprostane data were now available but Danielle has not seen the table on the LONI database. No one from ADCS is on call to confirm this. We also need to check how the RBM data will be stored and made available.

We are also working on analysis plans with some industry folks, separately funded, for some of the genetics data.

Danielle would like to explore better, faster ways to help people who are starting to use the ADNI data or who run into problems. She suggested an expanded FAQ question. She is also working with the imaging cores to make their documentation (descriptions of methods, data dictionaries) a little more extensive and user-friendly. She and David Shera have put together a document to help, also. We are also trying to figure out how to translate between publications and the ADNI database. David Verbel reports that this has been the biggest challenge he has faced. It would be really helpful if there were some way to have a standard terminology or method for reporting what was done.

Laurel proposed that the Biostat group experiment with Duncan Temple-Lang's "reproducible research" software and template for tracking and reporting what was done. Duncan and Laurel are in discussions on sharing this via the CTSpedia. Laurel suggests that we use our ongoing paper as a test case, and post the results and share via the group and CTSpedia. There was general interest in this idea, so we will pursue it.

One question is whether there is a way to structure some of the data dump to make it more user friendly. We will bring this idea up to LONI. It would also be helpful to have automatic notification of major updates to the database. (That would mainly be for CSF or imaging; the clinical data get updated whenever any person's new visit gets uploaded. But CSF and imaging are loaded in batches.) We have found that additions tend to occur around deadlines. Perhaps it's time to set another deadline! We can talk to ADCS and LONI about this.

Question: for ADNI-2, is there going to be an effort to make the data dictionaries any more accessible or user friendly? Not that Danielle and Laurel know about. Many measures will be continued from before and there will be a few new ones (from AV45 and from new proposed summaries, a few new clinical measures.) Danielle is working with the imaging groups to get things better described.

One other question: An industry group has been working with the plasma proteomics team. They have put together a mature draft of the SAP and they suggest running it by the Biostat Core for comments. The data are in but being cleaned, not yet publicly available. The SAP is to guide the subteam analysis of the data. There will be a comparable dataset from CSF at some time.

The next call will be Tuesday, October 5, at 10 AM Pacific time.