ADNI Biostatistics Core Conference Call,
Minutes for November 2, 2010

Present on call: Danielle Harvey, Arnold Huang, Tom Kelleher, David Verbel, Nandini
Raghavan, Fred Immermann, David Shera, Mike Donohue, David Lee, Alison Drone

Danielle updated the group on analyses currently being done at UC Davis. We are still working
on the analyses with Mike Weiner for a major ADNI-1 paper that will look at the added value of
imaging or biomarkers to the cheaper predictors (demographics, ApoE4 genotype, baseline
function) in predicting cognitive decline. We also have two Biostatistics students getting ready
to propose their dissertation research topics. One will be developing models for describing the
spatial location of amyloid deposition and the progression of the deposition over time and will
use PiB or AV45 images from ADNI 1 or ADNI-GO and ADNI 2. The other will develop models
that will directly test the hypothesized AD model that has lags between the worsening of
different markers (CSF, imaging, cognitive function).

Mike Donohue circulated documentation for an R package that he has written that handles
much of the preprocessing of the data that is often required before any analyses can be done.
For example, the package can format the exam dates as dates in R and label factor variables
using the information from the data dictionary. The package also bundles the data sets and
includes documentation about the variables. Because all of the code and data is bundled as an
R package, it can easily be updated as data get updated. One thing that is being considered by
ADCS is having regular (monthly/quarterly) updates to the data to limit the number of versions
of the data sets that are out there, which will also make it easier to replicate analyses. Analysis
vignettes could also be added to the package so that, for example, users would know exactly
how the Biostatistics Core is performing sample size calculations and comparisons between
measures. The R package documentation is currently generated from a GoogleDocs
spreadsheet, so if people are interested in participating in the development of additional
features of the package or in adding information to the documentation, let us know. Since not
everyone uses R, Mike and others at the ADCS are also considering writing code that will label
factors, etc. for SAS or SPSS, although the documentation won't be command line accessible
like it is in R.

There is now a partnership between AIBL (Australian Imaging Biomarkers and Lifestyle Study of
Aging) and ADNI. A link is available for requesting access to the AIBL data on the ADNI
website. Nobody on the call has tried accessing the AIBL data yet, but people will report back
once they have tried.

Alison mentioned that the Database Working Group (consisting of PPSB members) will have a
call soon to get a consensus on what the needs/desires are. Once the needs have been
identified, they will be brought up to the Biostatistics Core. They hope to have an update for the
next Biostatistics call.

Next call: Tuesday, December 7th at 10am Pacific time.