This is an overview of do files used to construct analytic files, and run analyses, for “The association of multiple anti-hypertensive medication classes with Alzheimer’s disease incidence across sex, race, and ethnicity,” by Douglas Barthold, Geoffrey Joyce, Whitney Wharton, Patrick Kehoe, and Julie Zissimopoulos.

**Main analyses**

reg\_aht11a.do – main regressions (Figure 2, Figure 3, Table 2, Table 3)

sum\_aht11a1.do – descriptive statistics (Table 1)

sum\_aht11b1.do – combination use (Figure 1)

**Supplementary analyses**

reg\_aht11d1\_180.do – 180 day threshold (etable 5, etable 6)

reg\_aht11d1\_270.do – 270 day threshold (etable 7, etable 8)

reg\_aht11e1.do – no attrition through 2013 (etable 1, etable 2)

reg\_aht11i1.do – drop all thiazide users (etable 3, etable 4)

reg\_aht11l1.do – 2013 analysis

**Make analytic files**

1. Pull the claims for the drugs of interest from the Part D event level files, make individual level file for each class in each year:

* cp\_aceiso2.do – ACE inhibitors solo
* cp\_aceicchb2.do – ACE inhibitors and CCBs combined
* cp\_aceithia2.do – ACE inhibitors and thiazide-like diuretics combined
* cp\_a2rbso2.do – ARB solo
* cp\_a2rbthia2.do – ARB and thiazide-like diuretics combined
* cp\_bbloso2.do – Beta blockers solo
* cp\_bblothia2.do – Beta blockers and thiazide-like diuretics combined
* cp\_cchbso2.do – CCB solo
* cp\_loopso2.do – Loop diuretics solo
* cp\_thiaso2.do – Thiazide-like diuretics solo
* cp\_stat2.do – Statins solo
* cp\_donep1.do – donepezil solo
* cp\_galan1.do – galantamine solo
* cp\_meman1.do – memantine solo
* cp\_rivas1.do – rivastigmine solo

2. Combine the yearly individual level files for each class into one individual-year level file for multiple classes:

* ahtco\_long0713.do – Anti-hypertensives
* stat\_long0713.do – Statins
* adrx\_long0713.do – donepezil, galantamine, memantine, rivastigmine

3. Make covariate files

* statussamp0713.do – Medicare enrollment variables
* ADRDv\_timing4.do – Diagnosis information on Alzheimer’s disease and related dementias
* hcc.do – comorbidity index variables
* ccw.do – comorbidity diagnosis variables
* geoedu.do – geography and education variables
* geoses.do – geography and income variables
* ndcbygname.do – NDCs associated with drugs by generic name
* ndcbyclass.do – NDCs associated with drugs by class
* phy0613.do – physician utilization variables

4. Combine the drug utilization files with covariate files to make analytic files

* ahtco\_prepreg902.do – makes final analytic file for main analyses
* ahtco\_prepreg1802.do – makes final analytic file for analyses with 180 day threshold
* ahtco\_prepreg2702.do – makes final analytic file for analyses with 270 day threshold