Stata Syntax for Section 10.6.2, Chapter 10

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//Chapter 10 Section 10.6.2 - modeling doses of treatment

//Run with Stata Version 10

cd "D:\psa\_e2\Chapter10\data"

set more off

log using gpscore\_results, replace

//Run gpscore

set more off

use chpt10, replace

drop if k\_adc==0

tab k\_adc

gen cut = 25 if k\_adc<=25

replace cut = 60 if k\_adc>25 & k\_adc<=60

replace cut = 100 if k\_adc >60

tab cut

gpscore pcg\_adc age97 male black ///

mratio96 pcged97, t(k\_adc) ///

gpscore(pscore) predict(hat\_treat) ///

sigma(sd) cutpoints(cut) index(p50) ///

nq\_gps(5) t\_transf(lnskew0) test(Bayes\_factor) detail

//estimate treatment effect -- average dose-response

set more off

use chpt10, clear

drop if k\_adc==0

tab k\_adc

gen cut = 25 if k\_adc<=25

replace cut = 60 if k\_adc>25 & k\_adc<=60

replace cut = 100 if k\_adc >60

tab cut

mat def tp = (10\20\30\40\50\60\70\80\90\100)

doseresponse pcg\_adc age97 male black ///

mratio96 pcged97, ///

outcome(lwss97) t(k\_adc) gpscore(pscore1) predict(hat\_treat) sigma(sd) cutpoints(cut) ///

index(p50) nq\_gps(5) t\_transf(lnskew0) test(Bayes\_factor) dose\_response(dose\_response) ///

tpoints(tp) delta(1) reg\_type\_t(quadratic) reg\_type\_gps(quadratic) interaction(1) ///

bootstrap(yes) boot\_reps(100) filename("output") analysis(yes) graph("graph\_output") detail

log close

//To show balance check using t-test

log using gpscore\_results\_t, replace

set more off

use chpt10, replace

drop if k\_adc==0

tab k\_adc

gen cut = 25 if k\_adc<=25

replace cut = 60 if k\_adc>25 & k\_adc<=60

replace cut = 100 if k\_adc >60

tab cut

gpscore pcg\_adc age97 male black ///

mratio96 pcged97, t(k\_adc) ///

gpscore(pscore) predict(hat\_treat) ///

sigma(sd) cutpoints(cut) index(p50) ///

nq\_gps(5) t\_transf(lnskew0) detail

log close

log using gpscore\_unadjusted, replace

//test unadjusted mean difference

set more off

use chpt10, replace

drop if k\_adc==0

gen cut = 25 if k\_adc<=25

replace cut = 60 if k\_adc>25 & k\_adc<=60

replace cut = 100 if k\_adc >60

tab cut

g g1=0

replace g1=1 if k\_adc<=25

g g2=0

replace g2=1 if k\_adc>25 & k\_adc<=60

g g3=0

replace g3=1 if k\_adc >60

tab cut g1

tab cut g2

tab cut g3

program unadjust

ttest `1', by (`2')

end

unadjust pcg\_adc g1

unadjust pcg\_adc g2

unadjust pcg\_adc g3

unadjust age97 g1

unadjust age97 g2

unadjust age97 g3

unadjust male g1

unadjust male g2

unadjust male g3

unadjust black g1

unadjust black g2

unadjust black g3

unadjust mratio96 g1

unadjust mratio96 g2

unadjust mratio96 g3

unadjust pcged97 g1

unadjust pcged97 g2

unadjust pcged97 g3

log close

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