

Table 1a. Baseline Characteristics of Typical Antipsychotics and Atypical Antipsychotics, Ischemic Stroke (Unadjusted, Aggregated), Fixed Ratio 1:1, Caliper: 0.05						
Characteristic ¹	Medical Product				Covariate Balance	
	Typical Antipsychotics		Atypical Antipsychotics		Absolute Difference	Standardized Difference
	N/Mean	%/Std Dev ²	N/Mean	%/Std Dev ²		
Patients (N)	18,220	100.0%	14,478	100.0%	-	-
Demographics						
Mean age	51.6	10.6	52.0	10.5	-0.427	-0.040
Age: 18-39	3,091	17.0%	2,333	16.1%	0.851	0.023
Age: 40-54	7,037	38.6%	5,415	37.4%	1.221	0.025
Age: 55-65	8,092	44.4%	6,730	46.5%	-2.072	-0.042
Sex (Female)	9,630	52.9%	7,723	53.3%	-0.489	-0.010
Sex (Male)	8,590	47.1%	6,755	46.7%	0.489	0.010
Race (Black or African American)	3,457	19.0%	2,767	19.1%	-0.138	-0.004
Race (Unknown)	1,324	7.3%	1,135	7.8%	-0.573	-0.022
Race (White)	13,439	73.8%	10,576	73.0%	0.711	0.016
Hispanic Origin	629	3.5%	561	3.9%	-0.423	-0.022
Year (2008)	5,499	30.2%	4,223	29.2%	1.013	0.022
Year (2009)	8,420	46.2%	6,702	46.3%	-0.078	-0.002
Year (2010)	4,301	23.6%	3,553	24.5%	-0.935	-0.022
Recorded History of:						
AMI	2,094	11.5%	1,621	11.2%	0.297	0.009
Anxiety	2,563	14.1%	1,836	12.7%	1.386	0.041
Bipolar	4,407	24.2%	2,922	20.2%	4.005	0.097
Depression	4,719	25.9%	3,195	22.1%	3.832	0.090
Diabetes	9,674	53.1%	7,561	52.2%	0.871	0.017
Heart failure	4,378	24.0%	3,422	23.6%	0.393	0.009
Hypercholesterolemia	9,177	50.4%	7,193	49.7%	0.685	0.014
Hypertension	11,719	64.3%	9,116	63.0%	1.355	0.028
Kidney failure	4,681	25.7%	3,574	24.7%	1.006	0.023
Schizophrenia/psychotic	3,859	21.2%	2,463	17.0%	4.168	0.106
Substance abuse	1,518	8.3%	1,034	7.1%	1.190	0.045
Transient ischemic attack	581	3.2%	446	3.1%	0.108	0.006

¹Covariates in blue show a standardized difference greater than 0.1

²Value represents standard deviation where no % follows the value

Table 1b. Baseline Characteristics of Typical Antipsychotics and Atypical Antipsychotics, Ischemic Stroke (Adjusted, Aggregated), Fixed Ratio 1:1, Caliper: 0.05

Characteristic ¹	Medical Product				Covariate Balance	
	Typical Antipsychotics		Atypical Antipsychotics		Absolute Difference	Standardized Difference
	N/Mean	%/Std Dev ²	N/Mean	%/Std Dev ²		
Patients (N)	14,478	79.5%	14,478	100.0%	-	-
Demographics						
Mean age	52.1	10.5	52.0	10.5	0.122	0.012
Age: 18-39	2,245	15.5%	2,333	16.1%	-0.608	-0.017
Age: 40-54	5,484	37.9%	5,415	37.4%	0.477	0.010
Age: 55-65	6,749	46.6%	6,730	46.5%	0.131	0.003
Sex (Female)	7,777	53.7%	7,723	53.3%	0.373	0.007
Sex (Male)	6,701	46.3%	6,755	46.7%	-0.373	-0.007
Race (Black or African American)	2,773	19.2%	2,767	19.1%	0.041	0.001
Race (Unknown)	1,049	7.2%	1,135	7.8%	-0.594	-0.022
Race (White)	10,656	73.6%	10,576	73.0%	0.553	0.012
Hispanic Origin	496	3.4%	561	3.9%	-0.449	-0.024
Year (2008)	4,353	30.1%	4,223	29.2%	0.898	0.020
Year (2009)	6,651	45.9%	6,702	46.3%	-0.352	-0.007
Year (2010)	3,474	24.0%	3,553	24.5%	-0.546	-0.013
Recorded History of:						
AMI	1,615	11.2%	1,621	11.2%	-0.041	-0.001
Anxiety	1,838	12.7%	1,836	12.7%	0.014	0.000
Bipolar	2,894	20.0%	2,922	20.2%	-0.193	-0.005
Depression	3,177	21.9%	3,195	22.1%	-0.124	-0.003
Diabetes	7,496	51.8%	7,561	52.2%	-0.449	-0.009
Heart failure	3,394	23.4%	3,422	23.6%	-0.193	-0.005
Hypercholesterolemia	7,129	49.2%	7,193	49.7%	-0.442	-0.009
Hypertension	9,073	62.7%	9,116	63.0%	-0.297	-0.006
Kidney failure	3,555	24.6%	3,574	24.7%	-0.131	-0.003
Schizophrenia/psychotic	2,501	17.3%	2,463	17.0%	0.262	0.007
Substance abuse	1,043	7.2%	1,034	7.1%	0.062	0.002
Transient ischemic attack	438	3.0%	446	3.1%	-0.055	-0.003

¹Covariates in blue show a standardized difference greater than 0.1
²Value represents standard deviation where no % follows the value

Table 1c. Baseline Characteristics of Typical Antipsychotics and Atypical Antipsychotics, Ischemic Stroke (Unadjusted, Aggregated)

Characteristic ¹	Medical Product				Covariate Balance	
	Typical Antipsychotics		Atypical Antipsychotics		Absolute Difference	Standardized Difference
	N/Mean	%/Std Dev ²	N/Mean	%/Std Dev ²		
Patients (N)	18,220	100.0%	14,478	100.0%	-	-
Demographics						
Mean age	51.6	10.6	52.0	10.5	-0.427	-0.040
Age: 18-39	3,091	17.0%	2,333	16.1%	0.851	0.023
Age: 40-54	7,037	38.6%	5,415	37.4%	1.221	0.025
Age: 55-65	8,092	44.4%	6,730	46.5%	-2.072	-0.042
Sex (Female)	9,630	52.9%	7,723	53.3%	-0.489	-0.010
Sex (Male)	8,590	47.1%	6,755	46.7%	0.489	0.010
Race (Black or African American)	3,457	19.0%	2,767	19.1%	-0.138	-0.004
Race (Unknown)	1,324	7.3%	1,135	7.8%	-0.573	-0.022
Race (White)	13,439	73.8%	10,576	73.0%	0.711	0.016
Hispanic Origin	629	3.5%	561	3.9%	-0.423	-0.022
Year (2008)	5,499	30.2%	4,223	29.2%	1.013	0.022
Year (2009)	8,420	46.2%	6,702	46.3%	-0.078	-0.002
Year (2010)	4,301	23.6%	3,553	24.5%	-0.935	-0.022
Recorded History of:						
AMI	2,094	11.5%	1,621	11.2%	0.297	0.009
Anxiety	2,563	14.1%	1,836	12.7%	1.386	0.041
Bipolar	4,407	24.2%	2,922	20.2%	4.005	0.097
Depression	4,719	25.9%	3,195	22.1%	3.832	0.090
Diabetes	9,674	53.1%	7,561	52.2%	0.871	0.017
Heart failure	4,378	24.0%	3,422	23.6%	0.393	0.009
Hypercholesterolemia	9,177	50.4%	7,193	49.7%	0.685	0.014
Hypertension	11,719	64.3%	9,116	63.0%	1.355	0.028
Kidney failure	4,681	25.7%	3,574	24.7%	1.006	0.023
Schizophrenia/psychotic	3,859	21.2%	2,463	17.0%	4.168	0.106
Substance abuse	1,518	8.3%	1,034	7.1%	1.190	0.045
Transient ischemic attack	581	3.2%	446	3.1%	0.108	0.006

¹Covariates in blue show a standardized difference greater than 0.1
²Value represents standard deviation where no % follows the value

Table 1d. Unweighted Baseline Characteristics of Ischemic Stroke (Inverse Probability of Treatment Weighted, Trimmed, Aggregated)

Characteristic ¹	Medical Product				Covariate Balance	
	Typical Antipsychotics		Atypical Antipsychotics		Absolute Difference	Standardized Difference
	N/Mean	%/Std Dev ²	N/Mean	%/Std Dev ²		
Patients (N)	18,218	100.0%	14,477	100.0%	-	-
Demographics						
Mean age	51.6	10.6	52.0	10.5	-0.424	-0.040
Age: 18-39	3,089	17.0%	2,333	16.1%	0.841	0.023
Age: 40-54	7,037	38.6%	5,415	37.4%	1.222	0.025
Age: 55-65	8,092	44.4%	6,729	46.5%	-2.063	-0.041
Sex (Female)	9,630	52.9%	7,722	53.3%	-0.480	-0.010
Sex (Male)	8,588	47.1%	6,755	46.7%	0.480	0.010
Race (Black or African American)	3,457	19.0%	2,766	19.1%	-0.130	-0.003
Race (Unknown)	1,323	7.3%	1,135	7.8%	-0.578	-0.022
Race (White)	13,438	73.8%	10,576	73.1%	0.708	0.016
Hispanic Origin	629	3.5%	561	3.9%	-0.422	-0.022
Year (2008)	5,499	30.2%	4,223	29.2%	1.014	0.022
Year (2009)	8,418	46.2%	6,701	46.3%	-0.080	-0.002
Year (2010)	4,301	23.6%	3,553	24.5%	-0.934	-0.022
Recorded History of:						
AMI	2,093	11.5%	1,621	11.2%	0.292	0.009
Anxiety	2,561	14.1%	1,836	12.7%	1.375	0.040
Bipolar	4,405	24.2%	2,922	20.2%	3.996	0.096
Depression	4,717	25.9%	3,195	22.1%	3.822	0.090
Diabetes	9,674	53.1%	7,560	52.2%	0.881	0.018
Heart failure	4,378	24.0%	3,421	23.6%	0.401	0.009
Hypercholesterolemia	9,177	50.4%	7,192	49.7%	0.694	0.014
Hypertension	11,717	64.3%	9,116	63.0%	1.347	0.028
Kidney failure	4,680	25.7%	3,574	24.7%	1.001	0.023
Schizophrenia/psychotic	3,857	21.2%	2,463	17.0%	4.158	0.106
Substance abuse	1,516	8.3%	1,034	7.1%	1.179	0.044
Transient ischemic attack	581	3.2%	446	3.1%	0.108	0.006

¹Covariates in blue show a standardized difference greater than 0.1
²Value represents standard deviation where no % follows the value

Table 1e. Weighted Baseline Characteristics of Ischemic Stroke (Inverse Probability of Treatment Weighted, Trimmed, Aggregated), Weight: Average Treatment Effect (ATE)						
Characteristic^{1,2}	Medical Product				Covariate Balance	
	Typical Antipsychotics		Atypical Antipsychotics		Absolute Difference	Standardized Difference
	N/Mean	%/Std Dev³	N/Mean	%/Std Dev³		
Weighted Patients (N)	32,698	-	32,676	-	-	-
Demographics						
Mean age	51.7	10.6	51.8	10.6	-0.004	-0.000
Age: 18-39	5,392	16.5%	5,472	16.7%	-0.256	-0.007
Age: 40-54	12,543	38.4%	12,320	37.7%	0.655	0.013
Age: 55-65	14,764	45.2%	14,884	45.6%	-0.398	-0.008
Sex (Female)	17,356	53.1%	17,344	53.1%	-0.003	-0.000
Sex (Male)	15,343	46.9%	15,331	46.9%	0.003	0.000
Race (Black or African American)	6,208	19.0%	6,256	19.1%	-0.162	-0.004
Race (Unknown)	2,369	7.2%	2,554	7.8%	-0.569	-0.022
Race (White)	24,121	73.8%	23,866	73.0%	0.731	0.017
Hispanic Origin	1,123	3.4%	1,260	3.9%	-0.424	-0.023
Year (2008)	9,858	30.1%	9,554	29.2%	0.907	0.020
Year (2009)	15,070	46.1%	15,171	46.4%	-0.341	-0.007
Year (2010)	7,771	23.8%	7,950	24.3%	-0.567	-0.013
Recorded History of:						
AMI	3,718	11.4%	3,717	11.4%	-0.006	-0.000
Anxiety	4,402	13.5%	4,393	13.4%	0.020	0.001
Bipolar	7,340	22.4%	7,325	22.4%	0.031	0.001
Depression	7,922	24.2%	7,906	24.2%	0.035	0.001
Diabetes	17,244	52.7%	17,231	52.7%	0.001	0.000
Heart failure	7,803	23.9%	7,797	23.9%	0.003	0.000
Hypercholesterolemia	16,372	50.1%	16,357	50.1%	0.011	0.000
Hypertension	20,838	63.7%	20,822	63.7%	0.005	0.000
Kidney failure	8,263	25.3%	8,258	25.3%	-0.003	-0.000
Schizophrenia/psychotic	6,330	19.4%	6,312	19.3%	0.042	0.001
Substance abuse	2,554	7.8%	2,542	7.8%	0.031	0.001
Transient ischemic attack	1,028	3.1%	1,027	3.1%	0.001	0.000

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the inverse of their propensity score, while reference patients are weighted by the inverse of 1 minus their propensity score.

²Covariates in blue show a standardized difference greater than 0.1

³Value represents standard deviation where no % follows the value

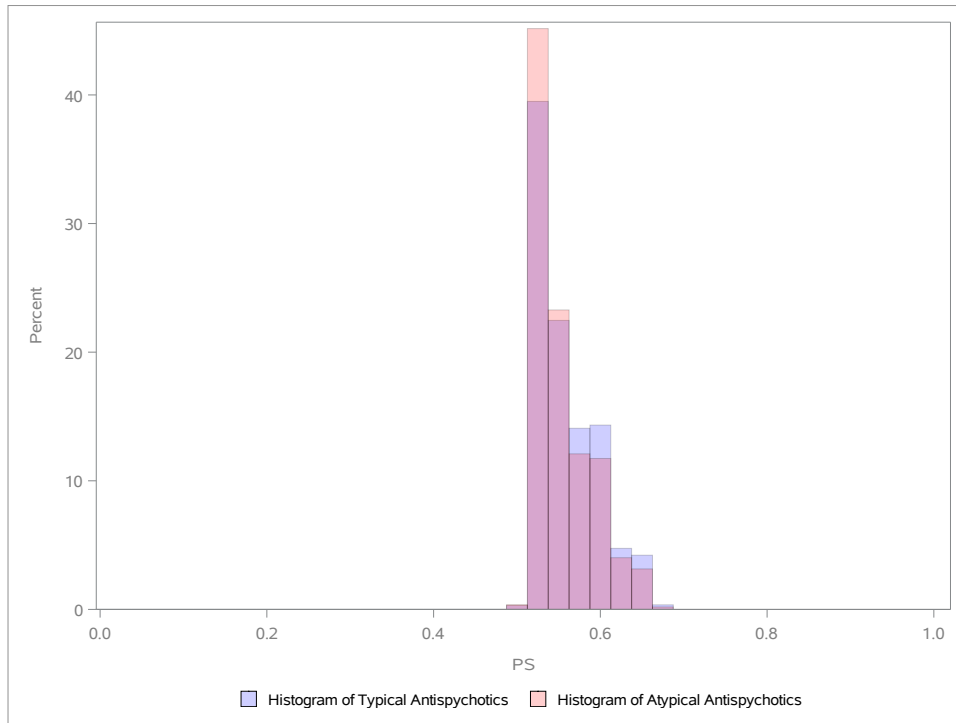
Table 2: Effect Estimates for Ischemic Stroke by Analysis Type

Medical Product	Number of New Users	Person Years at Risk	Average Person Days at Risk	Average Person Years at Risk	Number of Events	Incidence Rate per 1,000 Person Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person Years	Difference in Risk per 1,000 New Users	Hazard Ratio (95% CI)	Wald P-Value
Site-Adjusted Analysis											
Typical Antipsychotics	18,220	2,953.47	59.21	0.16	13	4.40	0.71				
Atypical Antipsychotics	14,478	2,349.69	59.28	0.16	8	3.40	0.55	1.00	0.16	1.34 (0.55, 3.24)	0.520
Fixed Ratio 1:1 Propensity Score Matched Conditional Analysis; Caliper= 0.05¹											
Typical Antipsychotics	14,478	2,090.90	52.75	0.14	10	4.78	0.69				
Atypical Antipsychotics	14,478	2,090.90	52.75	0.14	4	1.91	0.28	2.87	0.41	2.50 (0.78, 7.97)	0.121
Fixed Ratio 1:1 Propensity Score Matched Unconditional Analysis; Caliper= 0.05											
Typical Antipsychotics	14,478	2,345.87	59.18	0.16	11	4.69	0.76				
Atypical Antipsychotics	14,478	2,349.69	59.28	0.16	8	3.40	0.55	1.28	0.21	1.43 (0.57, 3.57)	0.447

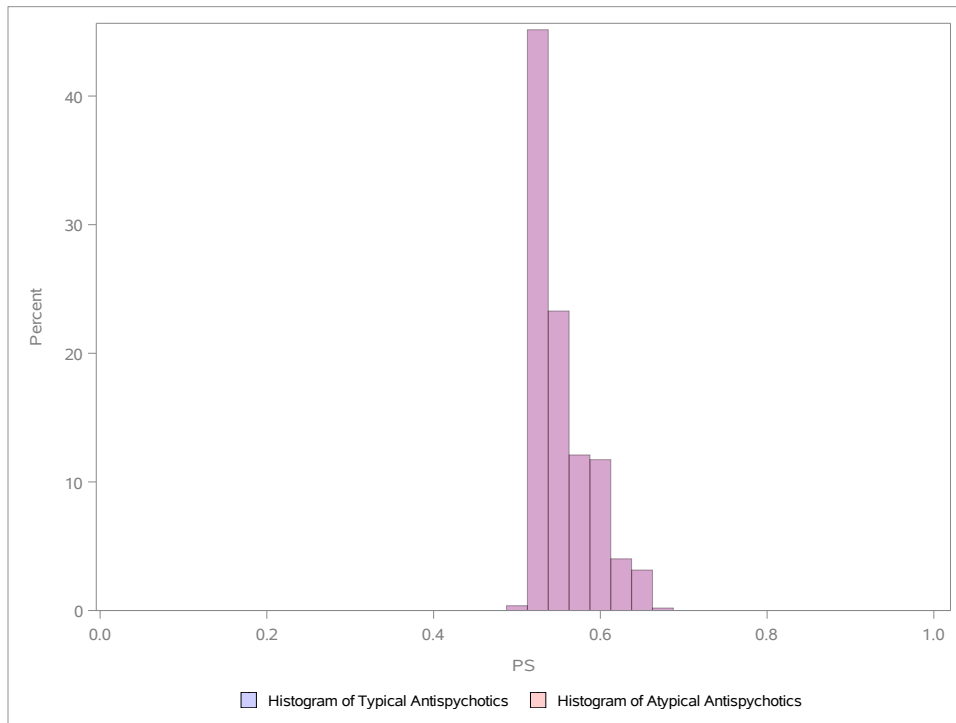
¹Conditional analysis accounts for informative events and person-time.

Histograms Depicting Aggregated Propensity Score Distributions Before and After Adjustment, Typical Antipsychotics and Atypical Antipsychotics, Ischemic Stroke

Unadjusted Propensity Score Distribution

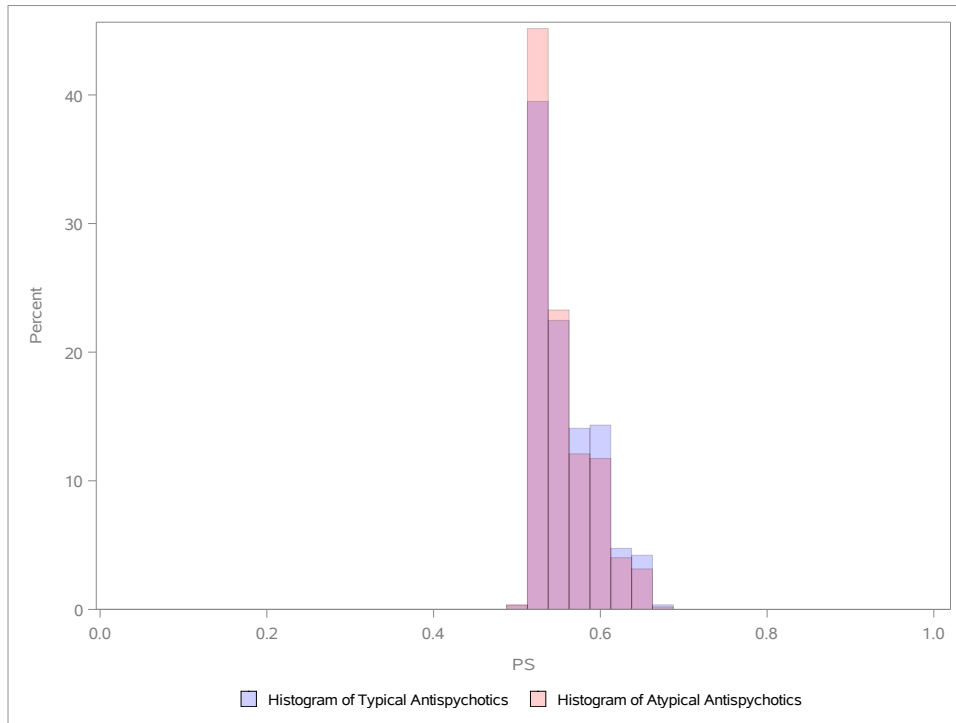


Propensity Score Fixed Ratio 1:1 Adjusted Cohort, Matched Caliper = 0.05

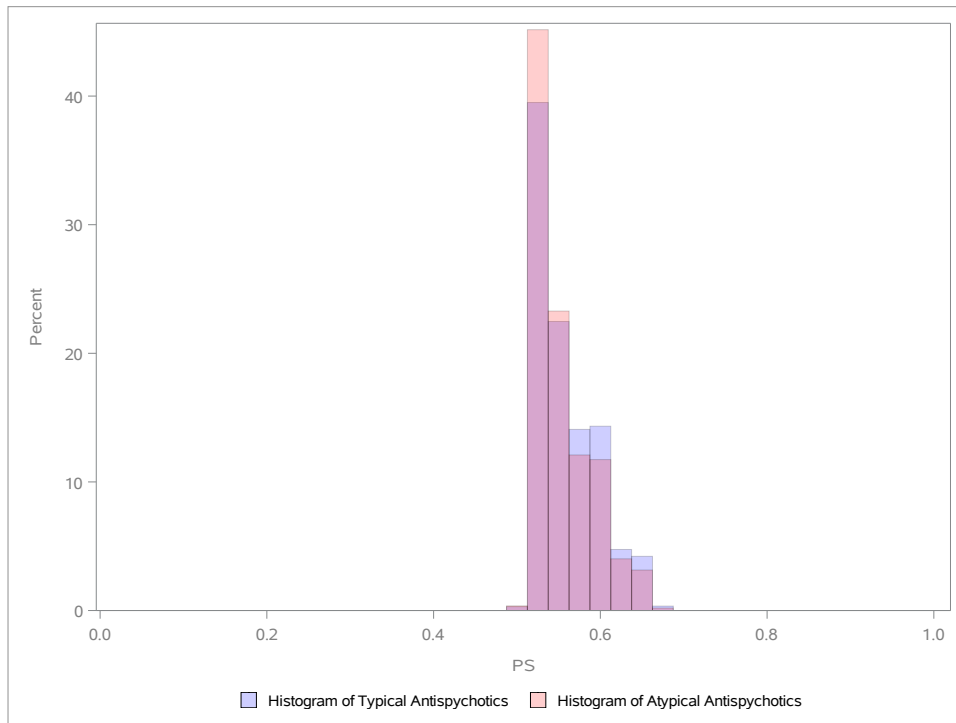


Histograms Depicting Aggregated Propensity Score Distributions Before and After Adjustment, Typical Antipsychotics and Atypical Antipsychotics, Ischemic Stroke

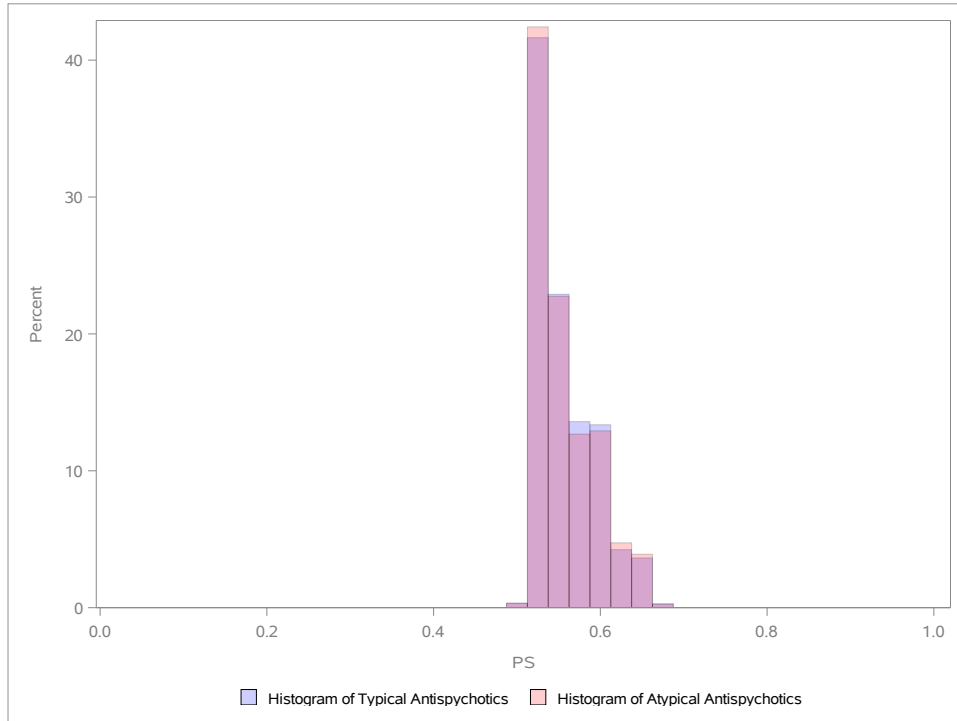
Unweighted Propensity Score Distribution Before Trimming



Unweighted Propensity Score Distribution After Trimming



Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect (ATE)



Kaplan Meier Survival Curves for Ischemic Stroke

Kaplan Meier Survival Curves of Events and Followup Time for Ischemic Stroke, Unadjusted Cohort.

