Special Edition

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. tabulate psm_robot target_ai , chi2

psm_robot	target_ai 0	1	Total
0	56 65	15 6	71 71
Total	121	21	142

Pearson chi2(1) = 4.5266 Pr = 0.033

. tabulate psm_robot target_conversion , chi2

	target_conversion			
psm_robot	0	1	Total	
0	+ 71	 0	71	
1	70	1	71	
Total	 141	1	142	

Pearson chi2(1) = 1.0071 Pr = 0.316

. tabulate psm_robot target_taa , chi2

psm_robot	target_taa 0	1	Total
0	60 64	11 7	71 71
Total	124	18	142

Pearson chi2(1) = 1.0179 Pr = 0.313

. tabulate psm_robot target_pneumonia , chi2

psm_robot	target_pneum 0	onia 1	Total
0	65 65	6 6	71
Total	130	12	142

Pearson chi2(1) = 0.0000 Pr = 1.000

. tabulate psm_robot target_r_status , chi2

psm_robot	target_r_statu: 0	1	Total
0	70 67	1 4	71 71
Total	I 137	5	142

Pearson chi2(1) = 1.8657 Pr = 0.172

. ttest target_icu_days , by(psm_robot)

Two-sample t test with equal variances

Group	l Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	. Interval]
0	71 71	5.605634 3.197183	.5742562 .3413901	4.838769 2.876604	4.460316 2.516302	6.750952 3.878064
combined	142	4.401408	.3479552	4.146364	3.713525	5.089292
diff	 	2.408451	.6680699		1.087641	3.729261

 $\begin{array}{c} \\ \text{diff = mean(0) - mean(1)} \\ \text{Ho: diff = 0} \end{array}$

t = 3.6051degrees of freedom = 140

Ha: diff < 0 Pr(T < t) = 0.9998

Ha: diff != 0 Pr(|T| > |t|) = 0.0004

Ha: diff > 0 Pr(T > t) = 0.0002

. ttest op_duration , by(psm_robot)

Two-sample t test with equal variances

Group	0bs	Mean	Std. Err.	Std. Dev.	[95% Conf	. Interval]
0 1	71 71	0 380.6338	0 7.647023	0 64.43496	0 365.3823	0 395.8853
combined	142	190.3169	16.47418	196.3125	157.7486	222.8852

diff		-380.6338	7.647023		-395.7524	-365.5152
diff = Ho: diff =	mean(0) - 0	mean(1)		degrees	t of freedom	= -49.7754 = 140
Ha: dif Pr(T < t)	f < 0 = 0.0000	Pr(Ha: diff != T > t) =	0 0.0000	Ha: d Pr(T > t	iff > 0) = 1.0000
. ttest op_						
Two-sample	t test wi	th equal var	iances			
Group	0bs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
0 1	71 71	135.4676 190.1181	2.031476 4.596151	17.11752 38.72785	131.4159 180.9514	139.5192 199.2848
combined	142		3.400535			169.5155
diff		-54.65054	5.025087		-64 . 5854	-44.71567
diff = Ho: diff =	mean(0) - 0	mean(1)		degrees	t of freedom	= -10.8755 = 140
Ha: dif Pr(T < t)	f < 0 = 0.0000	Pr(Ha: diff != T > t) =	0 0.0000	Ha: d Pr(T > t	iff > 0) = 1.0000
. ttest tar	get_los ,	by(psm_robo	t)			
Two-sample	t test wi	th equal var				
Group +-	0bs	Mean 		Std. Dev.		
0 1 	71 71	19.64124 16.15493	1.121252 .9898169	9.447833 8.340346	17.40497 14.1808	21.87751 18.12906
combined		17.89808 		9.050326 	16.39663 	19.39954
diff 		3.48631 	1.495641		.5293468 	6.443273
<pre>diff = Ho: diff =</pre>	mean(0) - 0	mean(1)		degrees	t of freedom	= 2.3310 = 140
Ha: dif Pr(T < t)		Pr(I	Ha: diff != T > t) =			iff > 0
	- 013034	,	.1 . 1517	0.0212	Pr(I > t) = 0.0106
. ttest tar	get_ebl ,	by(psm_robo	t)	0.0212	Pr(1 > t) = 0.0106
. ttest tar	get_ebl , t test wi	by(psm_robo	iances			
. ttest tar Two-sample	get_ebl , t test wi 	by(psm_robo th equal var Mean	iances Std. Err.	Std. Dev.	[95% Conf.	Interval]
. ttest tar Two-sample Group	get_ebl , t test wi Obs	by(psm_robo th equal var Mean 0 229.6335	iances Std. Err. 0 11.80055	Std. Dev. 0 99.43318	[95% Conf. 0 206.0981	Interval]
. ttest tar Two-sample Group 0 1 combined	get_ebl , t test wi	by(psm_robo th equal var Mean 0 229.6335 114.8168	t) iances Std. Err. 0 11.80055 11.31645	Std. Dev. 0 99.43318	[95% Conf. 0 206.0981 92.44492	Interval] 0 253.169 137.1886
. ttest tar Two-sample Group 0 1 combined diff	get_ebl , t test wi 0bs 71 71 142	by(psm_robo th equal var Mean 0 229.6335 114.8168 -229.6335	t) iances Std. Err. 0 11.80055 11.31645	Std. Dev. 0 99.43318	[95% Conf. 0 206.0981 92.44492 -252.9639	Interval] 253.169 137.1886 -206.3032
. ttest tar Two-sample Group 0 1 combined diff	get_ebl , t test wi	by(psm_robo th equal var Mean 0 229.6335 114.8168 -229.6335	t) iances Std. Err. 0 11.80055 11.31645 11.80055	Std. Dev. 99.43318 134.851 degrees	[95% Conf. 0 206.0981 92.44492 -252.9639	Interval] 253.169 137.1886 -206.3032 = -19.4596
. ttest tar Two-sample Group 0 1 combined diff	get_ebl , t test wi	by(psm_robo th equal var Mean 229.6335 114.8168 -229.6335 mean(1)	t) iances Std. Err. 0 11.80055 11.31645	Std. Dev. 0 99.43318 134.851 degrees	[95% Conf. 0 206.0981 92.44492 -252.9639 t of freedom Ha: d	Interval] 253.169 137.1886 -206.3032 = -19.4596
. ttest tar Two-sample Group 0 1 combined diff diff = Ho: diff = Ha: dif Pr(T < t)	get_ebl , t test wi Obs 71 71 142 mean(0) - 0 f < 0 = 0.0000	by(psm_robo th equal var	t) iances Std. Err. 0 11.80055 11.31645 11.80055	Std. Dev. 99.43318 134.851 degrees 0 0.0000	[95% Conf. 0 206.0981 92.44492 -252.9639 t of freedom Ha: d	Interval] 253.169 137.1886 -206.3032 = -19.4596 = 140 iff > 0
. ttest tar Two-sample Group	get_ebl , t test wi	by(psm_robo th equal var	t) fiances Std. Err. 0 11.80055 11.31645 11.80055 Ha: diff != T > t > = e , by(psm_r)	Std. Dev. 99.43318 134.851 degrees 0 0.0000	[95% Conf. 0 206.0981 92.44492 -252.9639 t of freedom Ha: d	Interval] 253.169 137.1886 -206.3032 = -19.4596 = 140 iff > 0
. ttest tar Two-sample Group 0 1 combined diff diff = Ha: dif Pr(T < t) . ttest tar	get_ebl , t test wi	by(psm_robo th equal var Mean 229.6335 114.8168 -229.6335 mean(1) Pr(node_positiv	t) fiances Std. Err. 0 11.80055 11.31645 11.80055 Ha: diff != T > t > = e , by(psm_r)	Std. Dev. 99.43318 134.851 degrees 0 0.0000	[95% Conf. 0 206.0981 92.44492 -252.9639 t of freedom Ha: d	Interval] 253.169 137.1886 -206.3032 = -19.4596 = 140 iff > 0) = 1.0000
. ttest tar Two-sample Group	get_ebl , t test wi Obs 71 71 142 mean(0) - 0 f < 0 = 0.0000 get_lymph t test wi	by(psm_robo th equal var Mean 229.6335 114.8168 -229.6335 mean(1) Pr(node_positiv	t) iances Std. Err. 0 11.80055 11.31645 11.80055 Ha: diff != T > t = 0 e , by(psm_reliances	Std. Dev. 0 99.43318 134.851 degrees 0 0.0000 obot)	[95% Conf. 0 206.0981 92.44492 -252.9639 t of freedom Ha: d Pr(T > t	Interval] 253.169 137.1886 -206.3032 = -19.4596 = 140 iff > 0) = 1.0000
. ttest tar Two-sample Group 0 1 combined diff Ha: diff Pr(T < t) . ttest tar Two-sample Group 0 0 1	get_ebl , t test wi Obs 71 71 142 mean(0) - 0 f < 0 = 0.0000 get_lymph t test wi Obs 71	by(psm_robo th equal var Mean 229.6335 114.8168 -229.6335 mean(1) Pr(node_positiv th equal var Mean 1.535211	t) iances Std. Err. 0 11.80055 11.31645 11.80055 Ha: diff != T > t) = 0 e , by(psm_r) iances Std. Err. .3863001	99.43318 134.851 degrees 0 0.0000 obot) Std. Dev. 3.255022	[95% Conf. 206.0981 92.44492 -252.9639 tof freedom Ha: d Pr(T > t	Interval] 253.169 137.1886 -206.3032 = -19.4596 iff > 0) = 1.0000 Interval] 2.305663 3.79375
. ttest tar Two-sample Group 0 1 combined diff Ha: diff Pr(T < t) . ttest tar Two-sample Group 0 0 1	get_ebl , t test wi	by(psm_robo th equal var Mean 229.6335 114.8168 -229.6335 mean(1) Pr(node_positiv th equal var Mean 1.535211 2.309859	t) inances Std. Err. 0 11.80055 11.31645 11.80055 Ha: diff != T > t) = 0 e , by(psm_reliances) Std. Err3863001 .7440148	Std. Dev. 99.43318 134.851 degrees 0.0000 obot) Std. Dev. 3.255022 6.26918	[95% Conf. 206.0981 92.44492 -252.9639 t of freedom Pr(T > t [95% Conf76476 .8259685	Interval] 253.169 137.1886 -206.3032 = -19.4596 = 140 iff > 0) = 1.0000
. ttest tar Two-sample Group	get_ebl , t test wi	by(psm_robo th equal var Mean 229.6335 114.8168 -229.6335 mean(1) Pr(node_positiv th equal var Mean 1.535211 2.309859 1.922535 7746479	t) fiances Std. Err. 0 11.80055 11.31645 11.80055 Ha: diff != T > t) = e , by(psm_r) fiances Std. Err. .3863001 .7440148 .4189443	Std. Dev. 99.43318 134.851 degrees 0.0000 obot) Std. Dev. 3.255022 6.26918 4.992298	[95% Conf. 0 206.0981 92.44492 -252.9639 t of freedom Ha: d Pr(T > t [95% Conf76476 .8259685 1.094311	Interval] 253.169 137.1886 -206.3032 = -19.4596 = 140 iff > 0) = 1.0000 Interval] 2.305663 3.79375 2.750759 .882762 = -0.9240
. ttest tar Two-sample Group	get_ebl , t test wi	by(psm_robo th equal var Mean 229.6335 114.8168 -229.6335 mean(1) Pr(node_positiv th equal var Mean 1.535211 2.309859 1.922535 7746479 mean(1)	t) fiances Std. Err. 0 11.80055 11.31645 11.80055 Ha: diff != T > t) = e , by(psm_r) fiances Std. Err. .3863001 .7440148 .4189443	Std. Dev. 99.43318 134.851 degrees 0.0000 obot) Std. Dev. 3.255022 6.26918 4.992298 degrees 0	[95% Conf. 206.0981 92.44492 -252.9639 t of freedom Ha: d Pr(T > t [95% Conf76476 .8259685 1.094311 -2.432058 t of freedom Ha: d	Interval] 253.160 137.1886 -206.3032 = -19.4596 = 140 iff > 0) = 1.0000 Interval] 2.305663 3.79375 2.750759 .882762 = -0.9240 = 140 iff > 0
. ttest tar Two-sample Group	get_ebl , t test wi Obs 71 71 142 mean(0) - 0 f < 0 = 0.0000 get_lymph t test wi Obs 71 71 142 mean(0) - 0 f < 0 = 0.1785	by(psm_robo th equal var	t) fiances Std. Err. 0 11.80055 11.31645 11.80055 Ha: diff != r , by(psm_r fiances Std. Err. .3863001 .7440148 .4189443 .8383232 Ha: diff !=	Std. Dev. 99.43318 134.851 degrees 0.0000 obot) Std. Dev. 3.255022 6.26918 4.992298 degrees 0.3571	[95% Conf. 206.0981 92.44492 -252.9639 t of freedom Ha: d Pr(T > t [95% Conf76476 .8259685 1.094311 -2.432058 t of freedom Ha: d	Interval] 253.160 137.1886 -206.3032 = -19.4596 = 140 iff > 0) = 1.0000 Interval] 2.305663 3.79375 2.750759 .882762 = -0.9240 = 140 iff > 0
. ttest tar Two-sample Group	get_ebl , t test wi Obs 71 71 142 mean(0) - 0 f < 0 = 0.0000 get_lymph t test wi Obs 71 71 142 mean(0) - 0 f < 0 = 0.1785 get_lymph	by(psm_robo th equal var	Ha: diff != T 3863001 .7440148 .4189443 .8383232 Ha: diff != T > t = t by(psm_robo	Std. Dev. 99.43318 134.851 degrees 0.0000 obot) Std. Dev. 3.255022 6.26918 4.992298 degrees 0.3571	[95% Conf. 206.0981 92.44492 -252.9639 t of freedom Ha: d Pr(T > t [95% Conf76476 .8259685 1.094311 -2.432058 t of freedom Ha: d	Interval] 253.160 137.1886 -206.3032 = -19.4596 = 140 iff > 0) = 1.0000 Interval] 2.305663 3.79375 2.750759 .882762 = -0.9240 = 140 iff > 0
. ttest tar Two-sample Group	get_ebl , t test wi Obs 71 71 142 mean(0) - 0 f < 0 = 0.0000 get_lymph t test wi Obs 71 71 142 mean(0) - 0 f < 0 = 0.1785 get_lymph	by(psm_robo th equal var Mean 229.6335 114.8168 -229.6335 mean(1) Pr(node_positiv th equal var Mean 1.535211 2.309859 1.9225357746479 mean(1) Pr(node_yield ,	Ha: diff != T 3863001 .7440148 .4189443 .8383232 Ha: diff != T > t = t by(psm_robo	Std. Dev. 99.43318 134.851 degrees 0.0000 obot) Std. Dev. 3.255022 6.26918 4.992298 degrees 0.3571	[95% Conf. 206.0981 92.44492 -252.9639 t of freedom Ha: d Pr(T > t [95% Conf76476 .8259685 1.094311 -2.432058 t of freedom Ha: d	Interval] 253.169 137.1886 -206.3032 = -19.4596 = 140 iff > 0) = 1.0000 Interval] 2.305663 3.79375 2.750759 .882762 = -0.9240 = 140 iff > 0) = 0.8215

Interval]	[95% Conf.	Std. Dev.	Std. Err.	Mean	0bs	Group
34.25195 40.21279	30.14241 33.42101	8.681046 14.34704	1.030251 1.70268	32.19718 36.8169	71 71	0 1
36.50458	32.50951	12.04056	1.010421	34.50704	142	combined
6851653	-8.554271		1.990109	-4.619718		diff

ranksum target_clavien , by(psm_robot)

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

psm_robot	obs	rank sum	expected
0	71 71	5641.5 4511.5	5076.5 5076.5
combined	142	10153	10153

unadjusted variance 60071.92 adjustment for ties -4927.95 adjusted variance 55143.96

Ho: targe~en(psm_ro~t==0) = targe~en(psm_ro~t==1) z = 2.406 Prob > |z| = 0.0161