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**Appendix I.**

Unexposed cohort before propensity score matching descriptive statistics

	<b>Controls</b>
	<b><i>N=29969</i></b>
Gender:	
Female	16813 (56.1%)
Male	13156 (43.9%)
Age	64.0 (11.7)
Body mass index ( <b>Kg/m<sup>2</sup></b> )	30.1 (6.74)
Joint:	
Hip	15639 (52.2%)
Knee	14330 (47.8%)
Charlson comorbidity index	3.20 (1.55)
Complications	0.34 (0.79)
PJI:	287 (0.96%)
Aseptic Revision:	510 (1.70%)
Readmissions:	1207 (4.03%)
Discharge to rehab:	10937 (36.5%)
Mortality:	11 (0.04%)

#### Proportional Hazards Assumptions.

In the first model, we investigated the relationship of time to failure with PJI looking at patients who had IBD vs did not.

Variable	Estimate	P Value	Hazard Ratio	Lower 95	Upper 95
Diagnosis of IBD	1.28	0.021	3.61	1.21	10.74

The second table shows the results of the Proportional Hazards Assumption.

Variable	Chi-Square Value	P Value
IBD	<b>0.182</b>	<b>0.670</b>
Global	<b>0.182</b>	<b>0.670</b>

Since neither of these came back significant, the models meets the assumptions and is good for use.

In the second model, we investigated the relationship of time to failure with Aseptic Revision looking at patients who had IBD vs did not.

Variable	Estimate	P Value	Hazard Ratio	Lower 95	Upper 95
Diagnosis of IBD	<b>1.39</b>	<b>0.006</b>	<b>4.02</b>	<b>1.50</b>	<b>10.79</b>

The second table shows the results of the Proportional Hazards Assumption.

Variable	Chi-Square Value	P Value
IBD	<b>0.392</b>	<b>0.531</b>
Global	<b>0.392</b>	<b>0.531</b>

Since neither of these came back significant, the models meets the assumptions and is good for use.

## Appendix II.

Here are the summarized survival breakdowns based on the Kaplan-Meier curves.

The first table looks at periprosthetic joint infections

Time (Years)	Survival (%)	Lower 95	Upper 95
Controls			
<b>0.0411</b>	<b>0.998</b>	<b>0.994</b>	<b>1.000</b>
<b>0.4274</b>	<b>0.996</b>	<b>0.990</b>	<b>1.000</b>
<b>1.2438</b>	<b>0.993</b>	<b>0.986</b>	<b>1.000</b>
<b>1.5534</b>	<b>0.991</b>	<b>0.983</b>	<b>1.000</b>
Cases			
<b>0.400</b>	<b>0.993</b>	<b>0.981</b>	<b>1.000</b>
<b>0.411</b>	<b>0.987</b>	<b>0.969</b>	<b>1.000</b>
<b>0.427</b>	<b>0.980</b>	<b>0.958</b>	<b>1.000</b>
<b>0.586</b>	<b>0.974</b>	<b>0.948</b>	<b>0.999</b>
<b>0.674</b>	<b>0.967</b>	<b>0.939</b>	<b>0.996</b>
<b>0.838</b>	<b>0.960</b>	<b>0.930</b>	<b>0.992</b>
<b>0.844</b>	<b>0.953</b>	<b>0.920</b>	<b>0.988</b>

The second tables look at aseptic Revision.

Time (Years)	Survival (%)	Lower 95	Upper 95
Controls			
<b>0.0822</b>	<b>0.998</b>	<b>0.993</b>	<b>1.000</b>
<b>0.1781</b>	<b>0.996</b>	<b>0.990</b>	<b>1.000</b>
<b>0.4274</b>	<b>0.993</b>	<b>0.986</b>	<b>1.000</b>
<b>0.4877</b>	<b>0.991</b>	<b>0.983</b>	<b>1.000</b>
<b>0.7753</b>	<b>0.989</b>	<b>0.979</b>	<b>0.999</b>
<b>1.5534</b>	<b>0.987</b>	<b>0.976</b>	<b>0.997</b>
<b>1.8795</b>	<b>0.985</b>	<b>0.973</b>	<b>0.996</b>
Cases			
<b>0.0329</b>	<b>0.994</b>	<b>0.981</b>	<b>1.000</b>
<b>0.2466</b>	<b>0.987</b>	<b>0.969</b>	<b>1.000</b>
<b>0.4932</b>	<b>0.980</b>	<b>0.959</b>	<b>1.000</b>
<b>0.5014</b>	<b>0.974</b>	<b>0.949</b>	<b>0.999</b>
<b>0.7808</b>	<b>0.967</b>	<b>0.939</b>	<b>0.996</b>
<b>0.9699</b>	<b>0.960</b>	<b>0.930</b>	<b>0.992</b>
<b>1.2493</b>	<b>0.953</b>	<b>0.920</b>	<b>0.988</b>
<b>1.8493</b>	<b>0.940</b>	<b>0.902</b>	<b>0.979</b>