Reinterventions exploration

Controling Variables

```
cat(controlling_vars %>% as.yaml())
```

```
- Age
- Gender
- Site
- Prior Spine Surgery
- ASA classification
- 3CO
- SPOs
- BMI_First Visit
- Tobacco use_First Visit
- Osteoporosis / osteopenia
- LGap
- Global Tilt
- ideal LL
- Lordosis (top of L1-S1)
- RLL
- ODI - Score (%)_First Visit
- SRS22 - SRS Total score_First Visit
- SF36 - PCS_First Visit
- SF36 - MCS_First Visit
- Major curve Cobb angle
```

Proportion of reinterventions by year

```
year N prop
1: 1 59 35.8
2: 2 27 16.4
3: 3 19 11.5
4: 4 20 12.1
5: 5 15 9.1
6: 6 10 6.1
7: 7 7 4.2
8: 8 7 4.2
9: 9 1 0.6
```

Reinterventions Impact

odi

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	4.967	1.523	0.001	-12.077	-0.411	1.98192	7.95208
2	4.879	1.438	0.001	-10.109	-0.483	2.06052	7.69748
3	5.259	1.633	0.002	-11.542	-0.456	2.05832	8.45968
4	2.508	1.812	0.170	-9.094	-0.276	-1.04352	6.05952
5	4.695	1.334	0.001	-9.428	-0.498	2.08036	7.30964

srss

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	-0.148	0.068	0.032	0.709	-0.209	-0.28128	-0.01472
2	-0.158	0.058	0.007	0.659	-0.240	-0.27168	-0.04432
3	-0.141	0.062	0.024	0.700	-0.201	-0.26252	-0.01948
4	-0.070	0.066	0.297	0.585	-0.120	-0.19936	0.05936
5	-0.186	0.058	0.002	0.615	-0.302	-0.29968	-0.07232

pcs

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	-1.768	0.898	0.050	5.852	-0.302	-3.52808	-0.00792
2	-1.104	0.783	0.160	5.778	-0.191	-2.63868	0.43068
3	-2.113	0.867	0.016	6.717	-0.315	-3.81232	-0.41368
4	-0.979	0.968	0.315	5.958	-0.164	-2.87628	0.91828
5	-1.666	0.720	0.022	5.349	-0.311	-3.07720	-0.25480

mcs

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	-3.018	1.225	0.015	4.342	-0.695	-5.41900	-0.61700
2	-2.226	0.919	0.016	3.786	-0.588	-4.02724	-0.42476
3	-0.719	0.983	0.466	4.073	-0.177	-2.64568	1.20768
4	-1.167	1.006	0.249	0.954	-1.223	-3.13876	0.80476
5	-2.315	0.801	0.004	3.504	-0.661	-3.88496	-0.74504

Time Last Operation Impact

odi

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	-18.455	8.427	0.030	-12.077	1.528	-34.97192	-1.93808
2	-3.370	3.230	0.298	-10.109	0.333	-9.70080	2.96080
3	-1.623	2.647	0.541	-11.542	0.141	-6.81112	3.56512
4	-0.091	2.471	0.971	-9.094	0.010	-4.93416	4.75216
5	-0.090	1.249	0.943	-9.428	0.010	-2.53804	2.35804

srss

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	0.841	0.363	0.021	0.709	1.186	0.12952	1.55248
2	0.234	0.131	0.075	0.659	0.355	-0.02276	0.49076
3	0.080	0.099	0.422	0.700	0.114	-0.11404	0.27404
4	0.080	0.090	0.378	0.585	0.137	-0.09640	0.25640
5	0.040	0.053	0.450	0.615	0.065	-0.06388	0.14388

\mathbf{pcs}

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	0.700	4.823	0.885	5.852	0.120	-8.75308	10.15308
2	-0.470	1.773	0.791	5.778	-0.081	-3.94508	3.00508
3	0.789	1.400	0.574	6.717	0.117	-1.95500	3.53300
4	0.208	1.360	0.879	5.958	0.035	-2.45760	2.87360
5	-0.576	0.663	0.386	5.349	-0.108	-1.87548	0.72348

mcs

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	-1.459	6.581	0.825	4.342	-0.336	-14.35776	11.43976
2	4.897	2.055	0.018	3.786	1.293	0.86920	8.92480
3	-0.181	1.590	0.909	4.073	-0.044	-3.29740	2.93540
4	0.541	1.412	0.703	0.954	0.567	-2.22652	3.30852
5	0.944	0.735	0.201	3.504	0.269	-0.49660	2.38460

Hospitalization Time Impact

odi

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	0.130	0.114	0.258	-12.077	-0.011	-0.09344	0.35344
2	0.033	0.104	0.753	-10.109	-0.003	-0.17084	0.23684
3	-0.142	0.231	0.540	-11.542	0.012	-0.59476	0.31076
4	0.036	0.232	0.877	-9.094	-0.004	-0.41872	0.49072
5	0.093	0.136	0.492	-9.428	-0.010	-0.17356	0.35956

srss

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	-0.006	0.005	0.251	0.709	-0.008	-0.01580	0.00380
2	-0.002	0.005	0.723	0.659	-0.003	-0.01180	0.00780
3	0.007	0.006	0.213	0.700	0.010	-0.00476	0.01876
4	0.005	0.008	0.579	0.585	0.009	-0.01068	0.02068
5	-0.003	0.006	0.556	0.615	-0.005	-0.01476	0.00876

\mathbf{pcs}

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	-0.120	0.071	0.093	5.852	-0.021	-0.25916	0.01916
2	-0.145	0.058	0.013	5.778	-0.025	-0.25868	-0.03132
3	0.102	0.121	0.403	6.717	0.015	-0.13516	0.33916
4	-0.277	0.139	0.050	5.958	-0.046	-0.54944	-0.00456
5	-0.154	0.073	0.035	5.349	-0.029	-0.29708	-0.01092

\mathbf{mcs}

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	-0.155	0.097	0.111	4.342	-0.036	-0.34512	0.03512
2	-0.001	0.069	0.986	3.786	0.000	-0.13624	0.13424
3	-0.140	0.137	0.309	4.073	-0.034	-0.40852	0.12852
4	0.121	0.147	0.413	0.954	0.127	-0.16712	0.40912
5	0.005	0.082	0.949	3.504	0.001	-0.15572	0.16572

Blood Loss Impact

odi

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	0.001	0.001	0.481	-12.077	0	-0.00096	0.00296
2	0.002	0.001	0.054	-10.109	0	0.00004	0.00396
3	0.001	0.001	0.440	-11.542	0	-0.00096	0.00296
4	-0.001	0.002	0.687	-9.094	0	-0.00492	0.00292
5	0.001	0.001	0.711	-9.428	0	-0.00096	0.00296

srss

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	0	0	0.985	0.709	0	0	0
2	0	0	0.664	0.659	0	0	0
3	0	0	0.769	0.700	0	0	0
4	0	0	0.307	0.585	0	0	0
5	0	0	0.243	0.615	0	0	0

pcs

$outcome_year$	Estimate	StdError	p_value	$mean_outcome$	relative_impact	Low CI 95%	Up CI 95%
1	-0.001	0.001	0.209	5.852	0	-0.00296	0.00096
2	0.000	0.001	0.948	5.778	0	-0.00196	0.00196
3	-0.001	0.001	0.332	6.717	0	-0.00296	0.00096
4	-0.001	0.001	0.532	5.958	0	-0.00296	0.00096
5	0.000	0.001	0.592	5.349	0	-0.00196	0.00196

mcs

$outcome_year$	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	0.001	0.001	0.341	4.342	0.000	-0.00096	0.00296
2	0.000	0.001	0.750	3.786	0.000	-0.00196	0.00196
3	0.000	0.001	0.873	4.073	0.000	-0.00196	0.00196
4	0.003	0.001	0.007	0.954	0.003	0.00104	0.00496
5	-0.001	0.001	0.543	3.504	0.000	-0.00296	0.00096

Surgical Time Impact

odi

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	-0.004	0.008	0.581	-12.077	0.000	-0.01968	0.01168
2	-0.006	0.008	0.491	-10.109	0.001	-0.02168	0.00968
3	-0.005	0.011	0.669	-11.542	0.000	-0.02656	0.01656
4	-0.002	0.016	0.898	-9.094	0.000	-0.03336	0.02936
5	-0.009	0.011	0.403	-9.428	0.001	-0.03056	0.01256

srss

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	0.000	0.000	0.174	0.709	0.000	0.00000	0.00000
2	0.001	0.000	0.029	0.659	0.002	0.00100	0.00100
3	0.000	0.000	0.353	0.700	0.000	0.00000	0.00000
4	0.001	0.001	0.280	0.585	0.002	-0.00096	0.00296
5	0.000	0.000	0.457	0.615	0.000	0.00000	0.00000

pcs

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	0.000	0.005	0.966	5.852	0.000	-0.00980	0.00980
2	0.003	0.005	0.499	5.778	0.001	-0.00680	0.01280
3	0.005	0.006	0.450	6.717	0.001	-0.00676	0.01676
4	-0.010	0.009	0.264	5.958	-0.002	-0.02764	0.00764
5	-0.003	0.006	0.652	5.349	-0.001	-0.01476	0.00876

mcs

outcome_year	Estimate	StdError	p_value	mean_outcome	relative_impact	Low CI 95%	Up CI 95%
1	0.005	0.006	0.426	4.342	0.001	-0.00676	0.01676
2	0.001	0.006	0.869	3.786	0.000	-0.01076	0.01276
3	-0.002	0.007	0.792	4.073	0.000	-0.01572	0.01172
4	0.023	0.009	0.010	0.954	0.024	0.00536	0.04064
5	-0.001	0.007	0.926	3.504	0.000	-0.01472	0.01272