

Impact of Reinterventions solution

Controlling Variables

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

- Age
- Gender
- Site
- Prior Spine Surgery
- ASA classification
- 3CO
- Pelvic Fixation
- Number of Posterior Instrumented Levels
- SPOs
- BMI_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

Definition of final_status

```
get_surgery_status <- function(status){  
  final_status <- 'Resolved without sequelae'  
  if( 'Not resolved' %in% status){  
    final_status <- 'Not resolved or with sequelae'  
  }else if('Resolved with sequelae' %in% status){  
    final_status <- 'Not resolved or with sequelae'  
  }  
  final_status  
}
```

Impact of final status and number of reinterventions associated to a surgery in 5Y HRQL Gain (odi neg / others pos)

```
index_dates <- clinical_data[, .('Code of the patient', 'st1. Date of Stage 1')]

complications_0 %>%
  merge(index_dates, by='Code of the patient') %>%
  .[, diff_years:=difftime('Date of Reoperation', 'st1. Date of Stage 1', units = "days")/365] %>%
  .[diff_years < y_] %>%
  .['Code of the patient' %in% valid_patients] %>%
  .['Reoperation Due to Complication' == 'Yes'] %>%
  .[!is.na('Date of Reoperation')] %>%
  .[, .(
    final_status = get_surgery_status('Status of the complication'),
    reinterventions = 'Date of Reoperation' %>% uniqueN(),
    .('Complication associated to surgery', 'Code of the patient' )] ->
  complicated_surgeries

complicated_surgeries_n <- complicated_surgeries[, 'Complication associated to surgery'] %>% uniqueN
index_surgeries <- complicated_surgeries[, 'Code of the patient' %>% uniqueN]
```

- Surgeries that followed with complications before 5y with valid patients: 96
- Index surgeries that followed with complications before 5y with valid patients: 73
- Valid patients: 258

```
      final_status  N
1:      Resolved without sequelae 89
2: Not resolved or with sequelae  7
```

Patients with final status 'unsolved' or 'with sequelae' in any re-intervention 6

PhantomJS not found. You can install it with `webshot::install_phantomjs()`. If it is installed, please m

5Y. ODI - Score (%) Gain (odi neg / others pos)

	Estimate	Pr(> t)
(Intercept)	21.35874	0.29897
Age	-0.18472	0.09184
GenderMale	-4.79718	0.12126
SiteBOR Op	4.42970	0.26086
SiteIST Op	-5.96152	0.31798
SiteMAD Op	4.28100	0.29034
SiteZUR Op	0.98490	0.81511
'Prior Spine Surgery'Yes	-0.11328	0.96746
'ASA classification'	1.24214	0.60490
'3CD'Yes	-4.44351	0.22890
'Pelvic Fixation'Yes	2.29677	0.48972
'Number of Posterior Instrumented Levels'	-0.40622	0.23701
SPOs	-0.67432	0.38930
'BMI_First Visit'	0.32663	0.26957

'Osteoporosis / osteopenia'Yes	1.48059	0.64331
LGap	-0.15685	0.11537
'Global Tilt'	0.31959	0.02547
'ideal LL'	-0.06774	0.73213
'ODI - Score (%)_First Visit'	-0.49879	0.00009
'SRS22 - SRS Total score_First Visit'	-3.36986	0.40645
'SF36 - PCS_First Visit'	0.04780	0.83080
'SF36 - MCS_First Visit'	-0.08765	0.54621
'Major curve Cobb angle'	-0.01379	0.83968
'Not resolved or with sequelae'	9.06272	0.06755
'Resolved without sequelae'	4.11937	0.00469

Impacte d'una reintervencio que acaba sense secueles te 4.9 d'odi Impacte d'una reintervencio que acaba sense resolucio o amb secueles te 9 d'odi (no significatiu)

5Y. SRS22 - SRS Subtotal score Gain (odi neg / others pos)

	Estimate	Pr(> t)
(Intercept)	3.00479	0.00097
Age	0.00520	0.27962
GenderMale	0.13756	0.31132
SiteBOR Op	0.07057	0.68109
SiteIST Op	0.46228	0.07737
SiteMAD Op	-0.21113	0.23058
SiteZUR Op	-0.15199	0.41175
'Prior Spine Surgery'Yes	0.13350	0.26919
'ASA classification'	-0.09546	0.36301
'3CO'Yes	-0.08235	0.60936
'Pelvic Fixation'Yes	-0.01331	0.92737
'Number of Posterior Instrumented Levels'	0.00938	0.53128
SPOs	0.03510	0.30698
'BMI_First Visit'	-0.02356	0.06825
'Osteoporosis / osteopenia'Yes	-0.01943	0.88981
LGap	-0.00079	0.85547
'Global Tilt'	-0.00803	0.19872
'ideal LL'	-0.00170	0.84494
'ODI - Score (%)_First Visit'	-0.00747	0.17405
'SRS22 - SRS Total score_First Visit'	-0.65467	0.00027
'SF36 - PCS_First Visit'	0.00139	0.88604
'SF36 - MCS_First Visit'	0.00949	0.13545
'Major curve Cobb angle'	-0.00004	0.98959
'Not resolved or with sequelae'	-0.50954	0.00668
'Resolved without sequelae'	-0.14097	0.02663

5Y. SF36 - MCS Gain (odi neg / others pos)

	Estimate	Pr(> t)
(Intercept)	17.76914	0.18383
Age	0.01187	0.86512
GenderMale	-1.48144	0.44922
SiteBOR Op	1.16955	0.64360
SiteIST Op	4.81414	0.21879
SiteMAD Op	-1.04095	0.68860
SiteZUR Op	-2.96357	0.27478

'Prior Spine Surgery'Yes	0.74361	0.67028
'ASA classification'	0.59752	0.69764
'3CO'Yes	-0.09986	0.96592
'Pelvic Fixation'Yes	-2.88941	0.17526
'Number of Posterior Instrumented Levels'	0.33240	0.12612
SPOs	0.26765	0.59011
'BMI_First Visit'	-0.02657	0.88783
'Osteoporosis / osteopenia'Yes	-0.59379	0.77165
LGap	0.01286	0.83663
'Global Tilt'	-0.05771	0.51910
'ideal LL'	0.06844	0.59028
'ODI - Score (%)_First Visit'	0.01205	0.87834
'SRS22 - SRS Total score_First Visit'	4.92665	0.05554
'SF36 - PCS_First Visit'	-0.08763	0.53411
'SF36 - MCS_First Visit'	-0.65050	0.00000
'Major curve Cobb angle'	-0.04175	0.33753
'Not resolved or with sequelae'	-3.94828	0.13973
'Resolved without sequelae'	-2.19259	0.01708

5Y. SF36 - PCS Gain (odi neg / others pos)

	Estimate	Pr(> t)
(Intercept)	42.81519	0.00026
Age	0.02961	0.62425
GenderMale	0.99455	0.55593
SiteBOR Op	0.62099	0.77613
SiteIST Op	3.47033	0.30352
SiteMAD Op	-1.59769	0.47568
SiteZUR Op	1.15835	0.62068
'Prior Spine Surgery'Yes	0.72586	0.63016
'ASA classification'	-1.98116	0.13779
'3CO'Yes	1.42904	0.47828
'Pelvic Fixation'Yes	-0.73835	0.68715
'Number of Posterior Instrumented Levels'	-0.01809	0.92302
SPOs	0.14753	0.73078
'BMI_First Visit'	-0.20418	0.20950
'Osteoporosis / osteopenia'Yes	1.46353	0.41139
LGap	0.01412	0.79272
'Global Tilt'	-0.06734	0.38273
'ideal LL'	-0.00789	0.94266
'ODI - Score (%)_First Visit'	-0.14139	0.03863
'SRS22 - SRS Total score_First Visit'	-0.06183	0.97770
'SF36 - PCS_First Visit'	-0.68349	0.00000
'SF36 - MCS_First Visit'	0.05817	0.46253
'Major curve Cobb angle'	-0.03027	0.42062
'Not resolved or with sequelae'	-4.06482	0.07798
'Resolved without sequelae'	-1.25350	0.11179