

5y followup analysis

```
xls_path <- '../..//data/Dataset 4th report 5Y - ONLY DPS.xlsx'
```

Filters

```
# discarded_patients <- readLines('five_years/discarded_patients')
#
# data_set %<>%
#   .['st1. Date of Stage' %>% as.Date() < as.Date('2016-6-1')]
```

FU Stats

```
data_set %<>%
  .[, followup_2y :=
    !is.na(`2 YEAR VISIT - Date of visit`) |
    !is.na(`3 YEAR VISIT - Date of visit`)] %>%
  .[, followup_5y :=
    !is.na(`5 YEAR VISIT - Date of visit`) |
    !is.na(`6 YEAR VISIT - Date of visit`)]

followup_2y <- data_set %>%
  .[followup_2y==TRUE] %>%
  .[, `Code of the patient` %>% uniqueN]

followup_5y <- data_set %>%
  .[followup_5y==TRUE] %>%
  .[, `Code of the patient` %>% uniqueN]

total <- data_set[, .N]
total_with_followup_2y <- data_set[followup_2y==TRUE, .N]
perc_followup_2y <- round(followup_2y/total, 3)
perc_followup_5y <- round(followup_5y/total, 3)
perc_followup_5y_with_2y <- round(followup_5y/total_with_followup_2y, 3)
```

- Patients with at least 5 year from intervention (total variable): 633
- Patients with 2y number (followup_2y variable): 434
- Patients with 2y % (perc_followup_2y variable): 68.6
- Patients with 5y number (followup_5y variable): 224
- Patients with 5y % (perc_followup_5y variable): 35.4
- Patients (among 2y FU) with 5y % (perc_followup_5y_with_2y variable): 51.6

2Y FU follow per Site

	Site eligible	fu_2y
1: <NA>	26	0.0000000
2: BCN Op	176	0.8011364
3: BOR Op	178	0.5617978
4: IST Op	5	0.8000000
5: MAD Op	63	0.8412698
6: ZUR Op	185	0.7351351

5Y FU follow per Site

	Site eligible	fu_5y
1: <NA>	26	0.0000000
2: BCN Op	176	0.4204545
3: BOR Op	178	0.2640449
4: IST Op	5	0.4000000
5: MAD Op	63	0.5079365
6: ZUR Op	185	0.3729730

Complications during 2y depending on followup 5y

	followup_5y	complication_before_2y	low_ci	up_ci
1: has_followup		0.3333333	0.2738634	0.3986278
2: no_followup		0.2706422	0.2160142	0.3332134

HRQOL during 2y depending on followup 5y

2Y. ODI - Score (%)

	followup_5y	mean_outcome	sd_outcome
1: has_followup		28.56075	1.416308
2: no_followup		28.58373	1.282386

t-test p-value: 0.99052306993694

2Y. SRS22 - SRS Subtotal score

	followup_5y	mean_outcome	sd_outcome
1: has_followup		3.481604	0.05632277
2: no_followup		3.408057	0.05773527

t-test p-value: 0.368567157586946

2Y. SF36 - PCS

	followup_5y	mean_outcome	sd_outcome
1: has_followup		41.77129	0.6831022
2: no_followup		41.52318	0.7496978

t-test p-value: 0.811665931473331

2Y. SF36 - MCS

	followup_5y	mean_outcome	sd_outcome
1: has_followup		48.42032	0.8400694
2: no_followup		46.86746	0.8712087

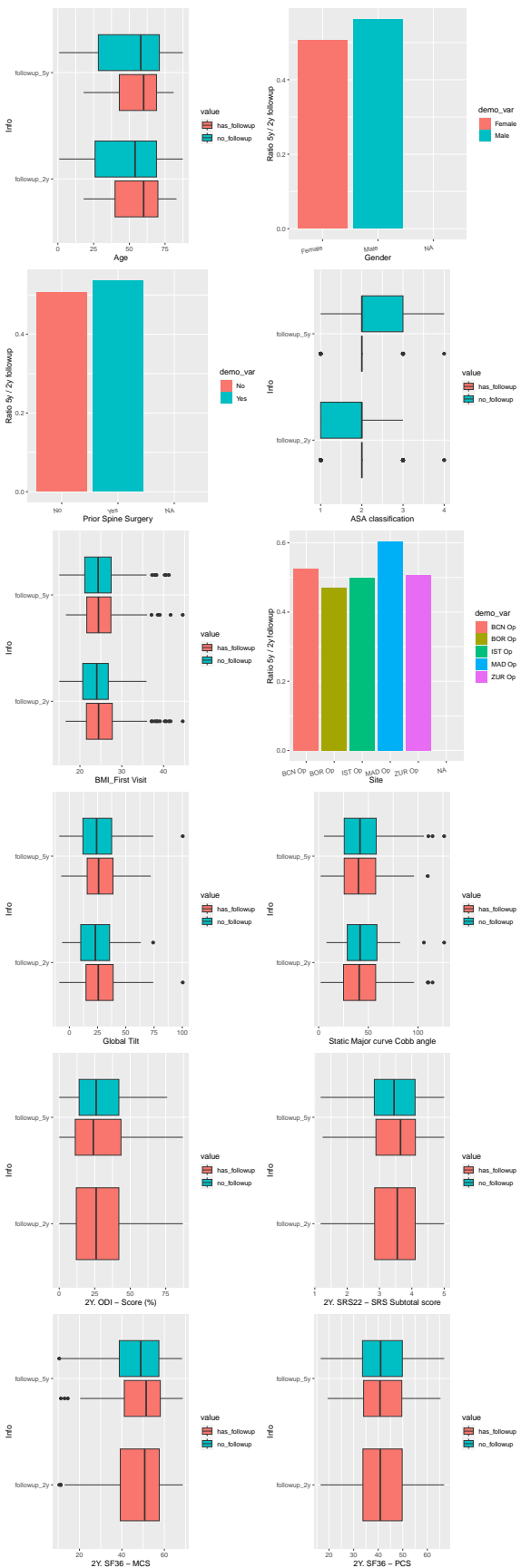
t-test p-value: 0.211362008108899

2Y. SRS22 - Satisfaction with management

	followup_5y	mean_outcome	sd_outcome
1: has_followup		4.143868	0.06913893
2: no_followup		4.112745	0.06636473

t-test p-value: 0.750623581603517

Follow up



	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.643	0.113	5.706	0.000
Age	0.002	0.001	1.873	0.061
GenderMale	-0.030	0.049	-0.608	0.544
Prior_Spine_SurgeryYes	-0.019	0.044	-0.424	0.672
ASA_classification	-0.028	0.035	-0.810	0.418
BMI_First_Visit	0.004	0.005	0.966	0.334
SiteBOR Op	-0.231	0.051	-4.563	0.000
SiteIST Op	0.022	0.208	0.107	0.915
SiteMAD Op	0.047	0.069	0.689	0.491
SiteZUR Op	-0.054	0.052	-1.043	0.297
'5y_vs_2y_effect'	-0.219	0.159	-1.377	0.169
Age:'5y_vs_2y_effect'	0.002	0.002	1.102	0.271
GenderMale:'5y_vs_2y_effect'	0.059	0.069	0.856	0.392
Prior_Spine_SurgeryYes:'5y_vs_2y_effect'	0.027	0.062	0.434	0.664
ASA_classification:'5y_vs_2y_effect'	-0.100	0.049	-2.048	0.041
BMI_First_Visit:'5y_vs_2y_effect'	-0.003	0.007	-0.472	0.637
SiteBOR Op:'5y_vs_2y_effect'	0.060	0.072	0.835	0.404
SiteIST Op:'5y_vs_2y_effect'	-0.023	0.295	-0.077	0.939
SiteMAD Op:'5y_vs_2y_effect'	0.074	0.097	0.759	0.448
SiteZUR Op:'5y_vs_2y_effect'	0.028	0.073	0.383	0.702

	Estimate	Std. Error	t value
(Intercept)	0.607	0.114	5.333
Age	0.003	0.001	3.121
GenderMale	-0.008	0.037	-0.204
Prior_Spine_SurgeryYes	0.005	0.033	0.158
ASA_classification	-0.086	0.026	-3.350
BMI_First_Visit	0.004	0.004	1.016
SiteBOR Op	-0.167	0.038	-4.397
SiteIST Op	0.057	0.165	0.341
SiteMAD Op	0.128	0.050	2.546
SiteZUR Op	-0.008	0.039	-0.193
Global_Tilt	0.001	0.001	0.953
Static_Major_curve_Cobb_angle	0.001	0.001	0.599
'5y_vs_2y_effect'	-0.351	0.084	-4.177
Global_Tilt:'5y_vs_2y_effect'	0.000	0.002	-0.281
Static_Major_curve_Cobb_angle:'5y_vs_2y_effect'	0.000	0.001	0.349

Pr(>|t|)

(Intercept)	0.000
Age	0.002
GenderMale	0.838
Prior_Spine_SurgeryYes	0.874
ASA_classification	0.001
BMI_First_Visit	0.310
SiteBOR Op	0.000
SiteIST Op	0.733
SiteMAD Op	0.011
SiteZUR Op	0.847
Global_Tilt	0.341
Static_Major_curve_Cobb_angle	0.549
'5y_vs_2y_effect'	0.000
Global_Tilt:'5y_vs_2y_effect'	0.778
Static_Major_curve_Cobb_angle:'5y_vs_2y_effect'	0.727

5y selection bias

Demographics

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.562	0.143	3.944	0.000
Age	0.004	0.002	2.492	0.013
GenderMale	0.070	0.063	1.105	0.270
'Prior Spine Surgery'Yes	0.020	0.056	0.359	0.720
'ASA classification'	-0.133	0.043	-3.080	0.002
'BMI_First Visit'	0.000	0.006	0.009	0.993
SiteBOR Op	-0.117	0.067	-1.741	0.082
SiteIST Op	0.008	0.255	0.031	0.975
SiteMAD Op	0.070	0.082	0.853	0.394
SiteZUR Op	0.001	0.064	0.022	0.982

Radiology

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.369	0.187	1.973	0.049
Age	0.005	0.002	2.537	0.012
GenderMale	0.058	0.069	0.837	0.403
'Prior Spine Surgery'Yes	0.036	0.060	0.595	0.552
'ASA classification'	-0.130	0.046	-2.834	0.005
'BMI_First Visit'	0.001	0.006	0.234	0.815
SiteBOR Op	-0.083	0.071	-1.168	0.244
SiteIST Op	0.206	0.295	0.699	0.485
SiteMAD Op	0.089	0.085	1.037	0.300
SiteZUR Op	0.032	0.069	0.460	0.646
'Global Tilt'	0.000	0.002	-0.095	0.924
'Static Major curve Cobb angle'	0.002	0.001	1.257	0.209

Increment of quality of life

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.431	0.201	2.147	0.032
Age	0.005	0.002	2.699	0.007
GenderMale	0.090	0.073	1.234	0.218
'Prior Spine Surgery'Yes	0.014	0.063	0.225	0.822
'ASA classification'	-0.113	0.049	-2.329	0.020
'BMI_First Visit'	-0.003	0.007	-0.397	0.691
SiteBOR Op	-0.099	0.075	-1.316	0.189
SiteMAD Op	0.058	0.090	0.637	0.524
SiteZUR Op	0.018	0.076	0.232	0.817
'Global Tilt'	0.000	0.002	0.193	0.847
'Static Major curve Cobb angle'	0.001	0.001	0.647	0.518
'2Y. ODI - Score (%)_inc'	0.006	0.002	2.447	0.015
'2Y. SRS22 - SRS Subtotal score_inc'	0.065	0.067	0.969	0.333
'2Y. SF36 - MCS_inc'	0.003	0.003	1.125	0.262
'2Y. SF36 - PCS_inc'	0.006	0.004	1.441	0.151

MCIDS

```
$'5Y. ODI - Score (%)'  
[1] 12.8
```

```
$'5Y. SRS22 - SRS Subtotal score'  
[1] 0.43
```

```
$'5Y. SF36 - PCS'  
[1] 4.9
```

	variable	inc_2y_percent	inc_5y_percent	p_val_two_previous
1	ODI - Score (%)	47.1	45.4	0.744
2	SRS22 - SRS Subtotal score	62.5	58.6	0.389
3	SF36 - PCS	52.4	54.2	0.740

	inc_5y_2y_percent
1	12.3
2	18.1
3	19.6

PASS

```
$'5Y. ODI - Score (%)'  
[1] 18
```

```
$'5Y. SRS22 - SRS Subtotal score'  
[1] 3.5
```

	variable	prop_2y	prop_5y	p_val
1	ODI - Score (%)	33.3	36.1	0.545
2	SRS22 - SRS Subtotal score	47.8	49.5	0.728