

5y complications analysis

```
xls_path <- '../..data/ESSG Extraction_DEC_OP_ NON DePuy v7.xlsx'
```

Filters

We need those with and without 2 FU for the ‘Do complications before 2y affect 2y followup?’ analysis.

```
# discarded_patients <- readLines('five_years/discarded_patients')
```

```
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`)]
```

```
# data_set %<>%  
#   .[followup_2y==TRUE] %>%  
#   .[`st1. Date of Stage` %>% as.Date() < as.Date('2016-6-1')]
```

Total Patients for the analysis: 708

Only Major Complications

Stats

	complication_before_2y	has_followup_2y
1:	No	0.639
2:	Yes	0.744

	complication_before_2y	has_followup_5y
1:	No	0.327
2:	Yes	0.231

Complications stats

- Complications before 2 years: 219
- Proportion of patients with complications before 2 years: 0.1723164
- Complications between 2y and 5y: 35
- Proportion of patients with complications between 2y and 5y: 0.0381356
- p-value testing equality between proportions of complications: $3.9200916 \times 10^{-16}$

Major Complications before 2y

Category of the complication	
Central neurologic complications	Infectious complications
2	29
Mechanical complications	Other complications
111	48
Peripheral neurologic complications	
29	

Category of the complication	
Central neurologic complications	Infectious complications
0.00913242	0.13242009
Mechanical complications	Other complications
0.50684932	0.21917808
Peripheral neurologic complications	
0.13242009	

Major Complications between 2y and 5y

Category of the complication	
Mechanical complications	Other complications
32	2
Peripheral neurologic complications	
1	

Category of the complication	
Mechanical complications	Other complications
0.91428571	0.05714286
Peripheral neurologic complications	
0.02857143	

Minor Complications before 2y

Category of the complication	
Central neurologic complications	Infectious complications
1	8
Mechanical complications	Other complications
96	74
Peripheral neurologic complications	
42	

Category of the complication	
Central neurologic complications	Infectious complications
0.004524887	0.036199095
Mechanical complications	Other complications
0.434389140	0.334841629
Peripheral neurologic complications	
0.190045249	

Minor Complications between 2y and 5y

Category of the complication
Mechanical complications
31

Category of the complication
Mechanical complications
1

Reinterventions before 2 years

```
## Warning in prop.test(c(patients_2y_n, patients_2y_5y_n), c(patients_n,  
## patients_n)): Chi-squared approximation may be incorrect
```

- Reinterventions before 2 years: 0
- Proportion of patients with reintervention before 2 years: 0
- Reinterventions between 2y and 5y: 0
- Proportion of patients with reintervention between 2y and 5y: 0
- p-value testing equality between proportions of reinterventions: NaN

Do complications before 2y affect 2y followup?

	Estimate	Pr(> t)
(Intercept)	1.047	0.000
Age	0.003	0.118
GenderMale	-0.002	0.975
'Prior Spine Surgery'Yes	-0.073	0.131
'ASA classification'	-0.017	0.644
'BMI_First Visit'	0.003	0.568
SiteBOR Op	0.167	0.008
SiteIST Op	0.166	0.032
SiteMAD Op	0.090	0.199
SiteZUR Op	0.513	0.016
'Global Tilt'	0.000	0.783
'Static Major curve Cobb angle'	0.000	0.883
'ODI - Score (%)_First Visit'	-0.006	0.001
'SRS22 - SRS Subtotal score_First Visit'	-0.021	0.707
'SF36 - PCS_First Visit'	-0.007	0.051
'SF36 - MCS_First Visit'	-0.002	0.307
complication_before_2yYes	0.103	0.048

Do complications before 2y affect 5y followup?

	Estimate	Pr(> t)
(Intercept)	0.649	0.023
Age	0.005	0.004
GenderMale	-0.079	0.114
'Prior Spine Surgery'Yes	-0.065	0.200

'ASA classification'	-0.031	0.400
'BMI_First Visit'	-0.002	0.625
SiteBOR Op	-0.033	0.613
SiteIST Op	-0.065	0.419
SiteMAD Op	0.092	0.203
SiteZUR Op	-0.128	0.563
'Global Tilt'	-0.002	0.255
'Static Major curve Cobb angle'	0.001	0.226
'ODI - Score (%)_First Visit'	-0.003	0.095
'SRS22 - SRS Subtotal score_First Visit'	-0.025	0.666
'SF36 - PCS_First Visit'	-0.002	0.665
'SF36 - MCS_First Visit'	-0.003	0.170
complication_before_2yYes	-0.119	0.027