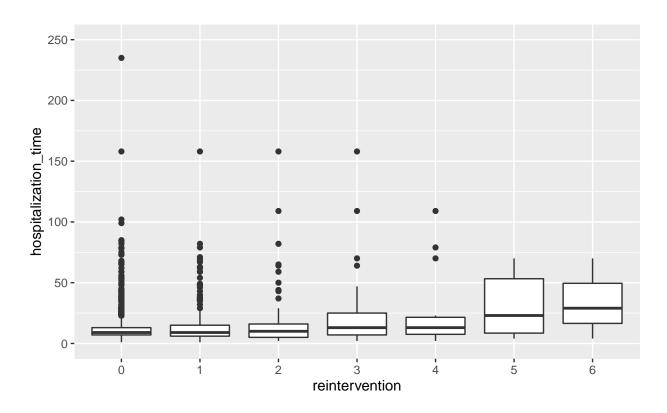
# Reinterventions exploration

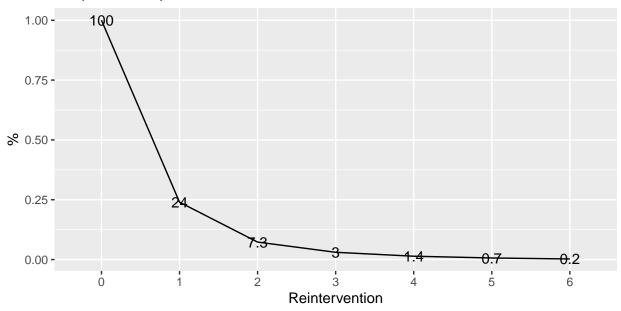
# Hospitalization Time



```
##
      {\tt reintervention} \ {\tt 0\%}
                            25% 50%
                                        75% 100%
## 1:
                            7.0
                                   9 13.00
                                              235
## 2:
                      1
                         1
                            6.0
                                   9 15.00
                                              158
## 3:
                                              158
                      3
## 4:
                            7.0
                                              158
## 5:
                                              109
## 6:
                            8.5
                                  23 53.25
                                               70
## 7:
                         4 16.5
                                  29 49.50
```

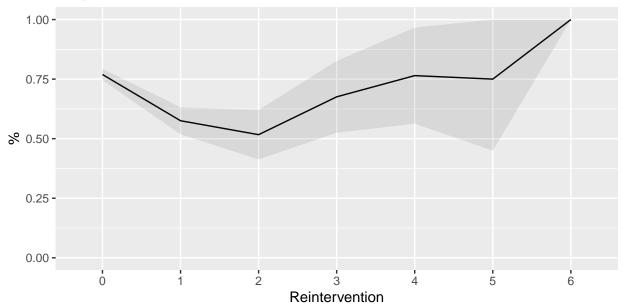
### Proportion of reinterventions

Proportion of patients, total 1218



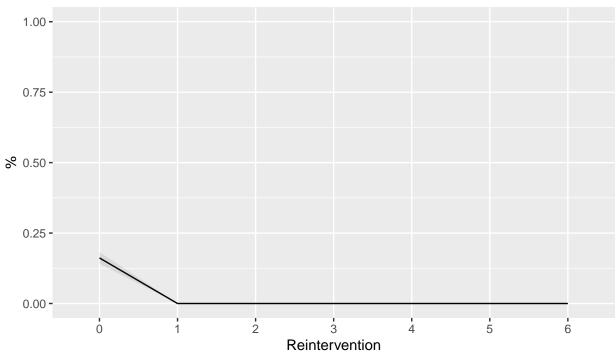
# Proportion of SICU transfers

### Proportion of transferred to SICU

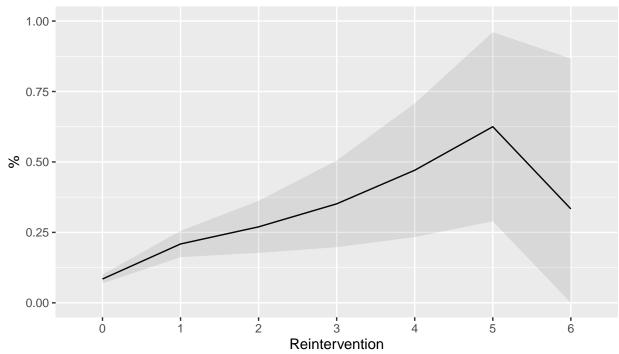


# Evolution of surgeries

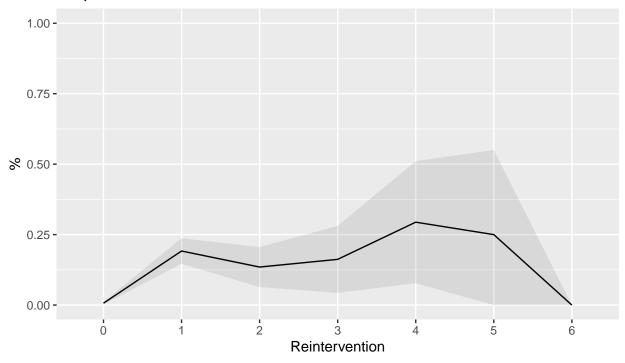
# Proportion of 3CO



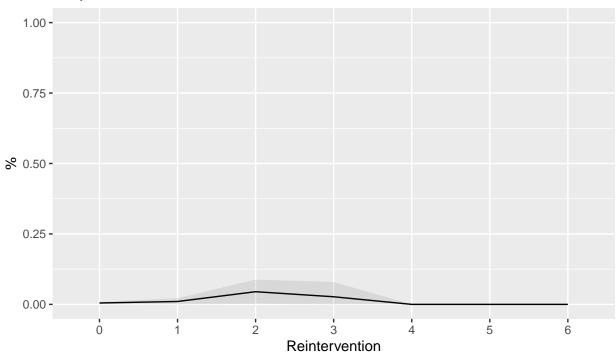
# Proportion of Implant removal



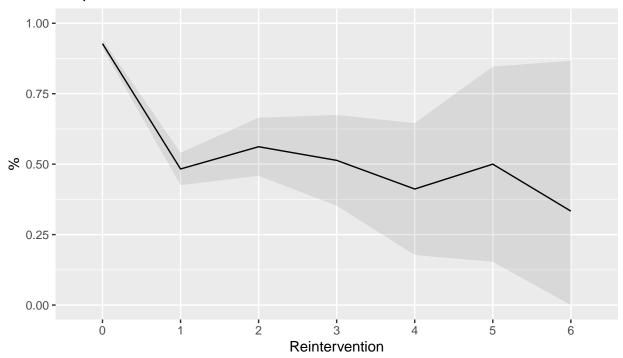
# Proportion of Infection Debridement



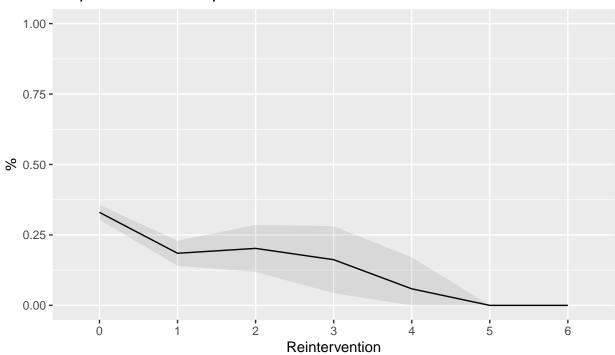
# Proportion of Anterior Instrumented Fusion



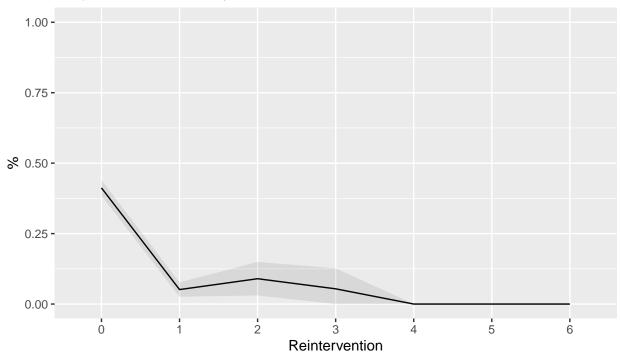
# Proportion of Posterior Instrumented Fusion



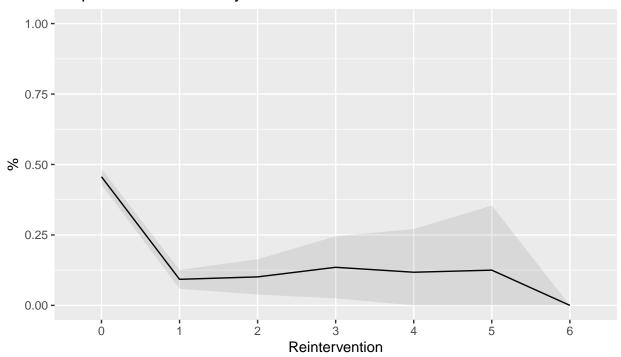
# Proportion of Decompression



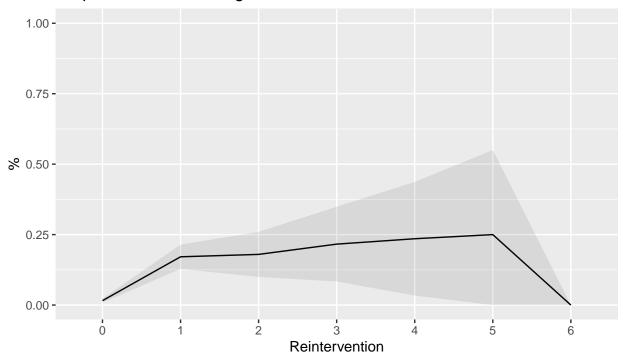
# Proportion of Interbody Fusion



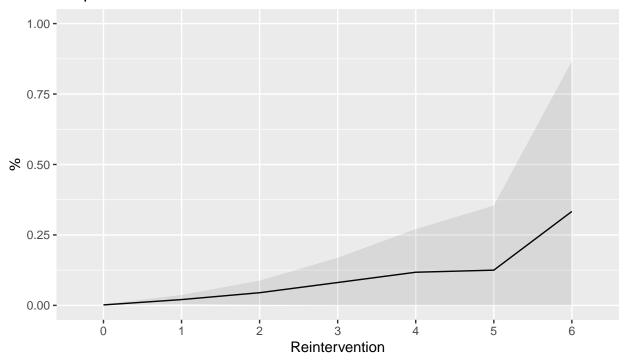
# Proportion of Osteotomy



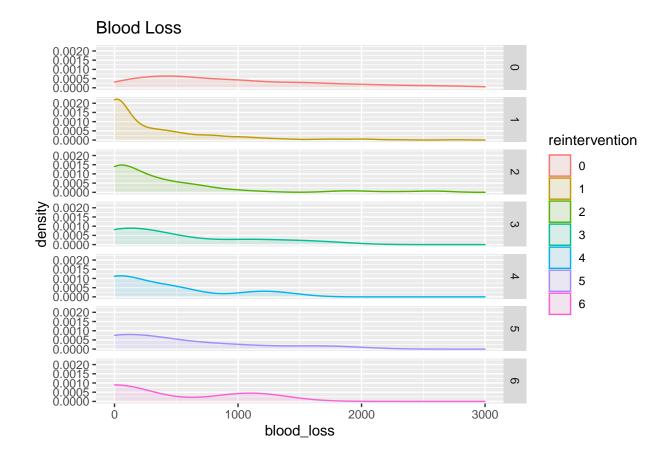
# Proportion of Rod change



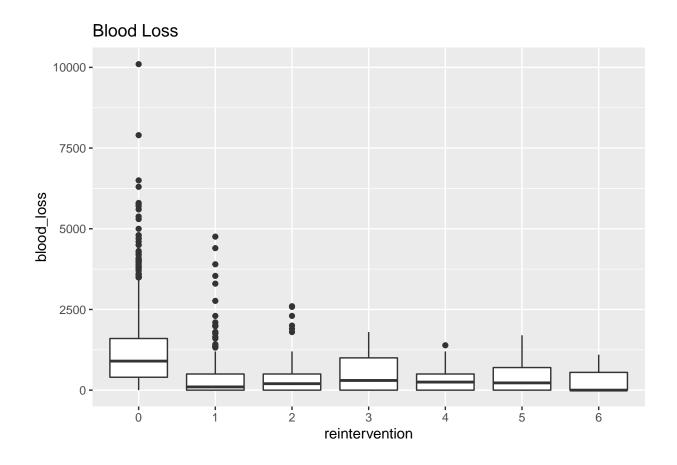
# Proportion of Scar revision



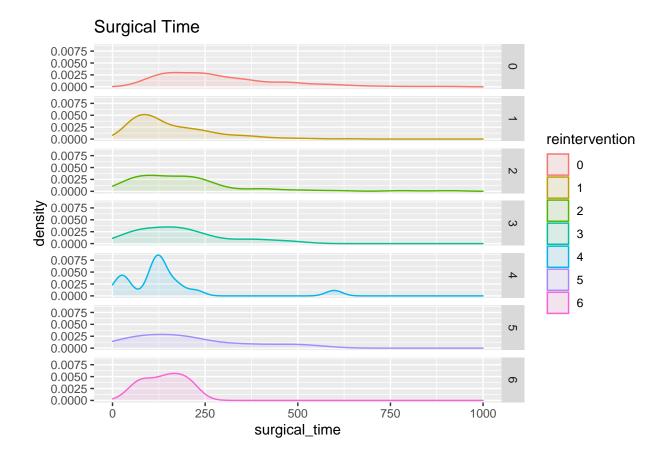
## Warning: Removed 107 rows containing non-finite values (stat\_density).



## Warning: Removed 38 rows containing non-finite values (stat\_boxplot).

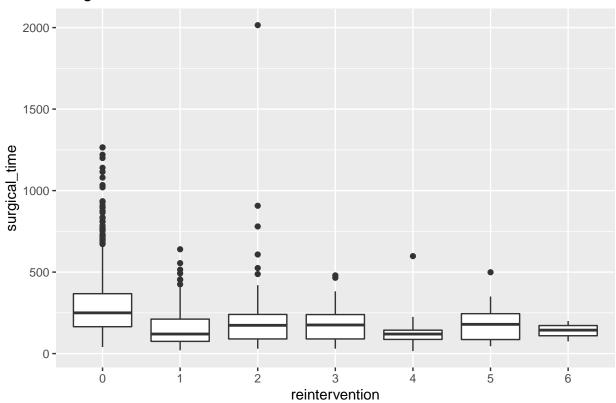


## Warning: Removed 111 rows containing non-finite values (stat\_density).



## Warning: Removed 101 rows containing non-finite values (stat\_boxplot).

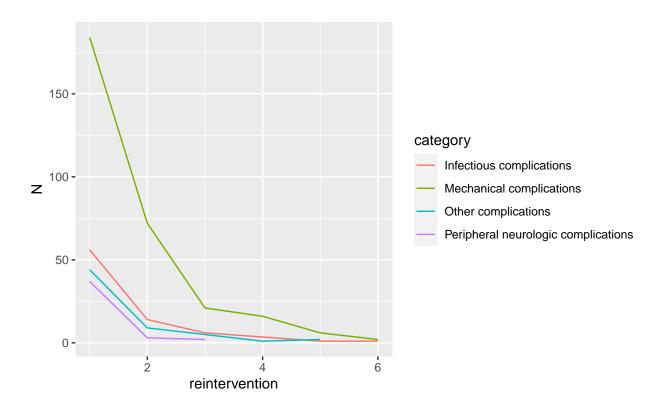
### **Surgical Time**

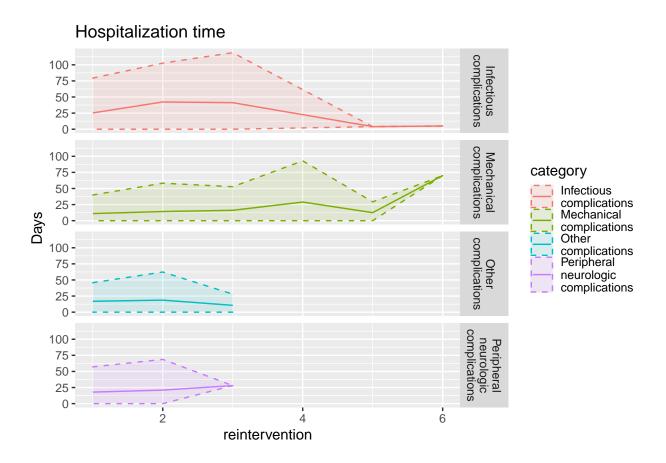


### Complications

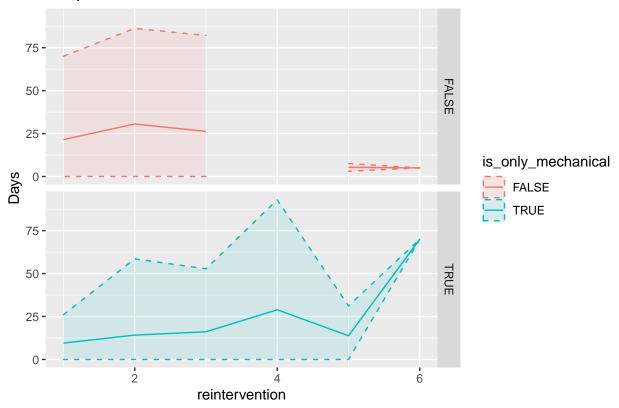
```
complications %>%
  .['Complication Type'=='Primary'] %>%
  .['Reoperation Due to Complication'=='Yes'] ->
  complications_
calc_reintervention <- function(days_since_surgery){</pre>
  days_since_surgery %>%
      unique %>%
      sort %>%
      data.table(days=., position=1:length(.)) %>%
      merge(data.table(days=days_since_surgery)) %>%
      .[, position]
}
complications_ %>%
  .[, .(
    category='Category of the complication',
    days_since_surgery='Days since surgery',
    patient_id='Code of the patient',
    date='Date of Reoperation'
  )] %>%
```

```
na.omit %>%
setorder(patient_id, days_since_surgery) %>%
.[, .(
  category, date, days_since_surgery,
  reintervention=calc_reintervention(days_since_surgery)),
  patient_id] ->
complications_
```



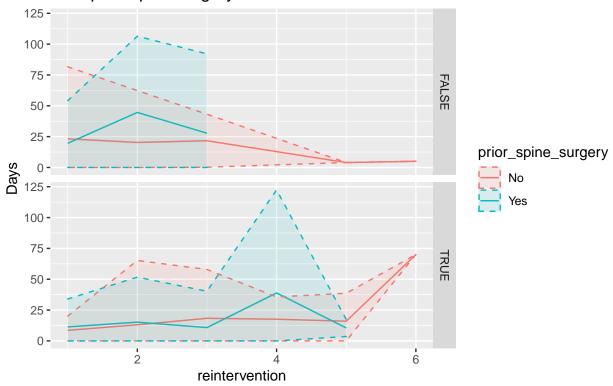


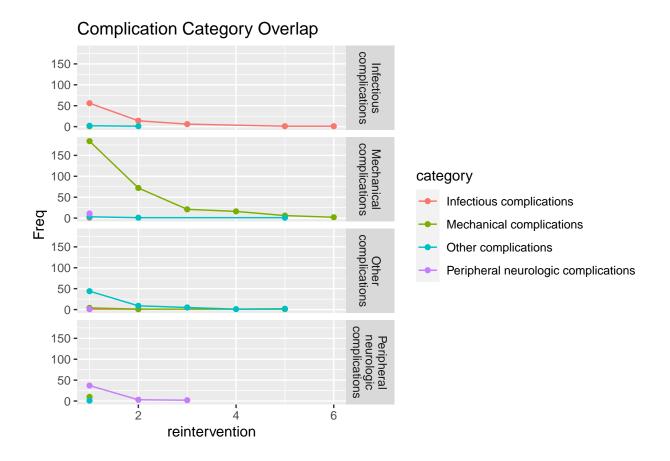
# Hospitalization time for ONLY mechanical interventions



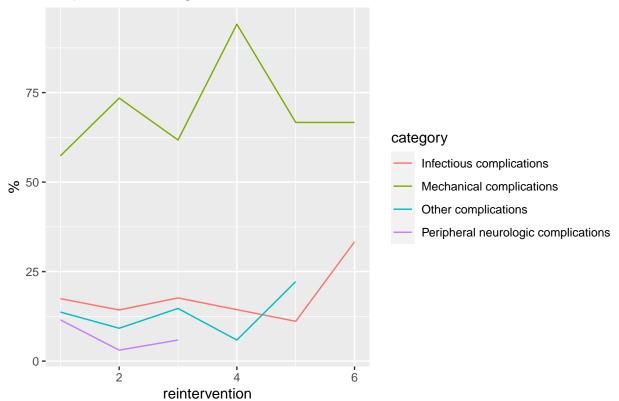
## Warning: Removed 1 row(s) containing missing values (geom\_path).

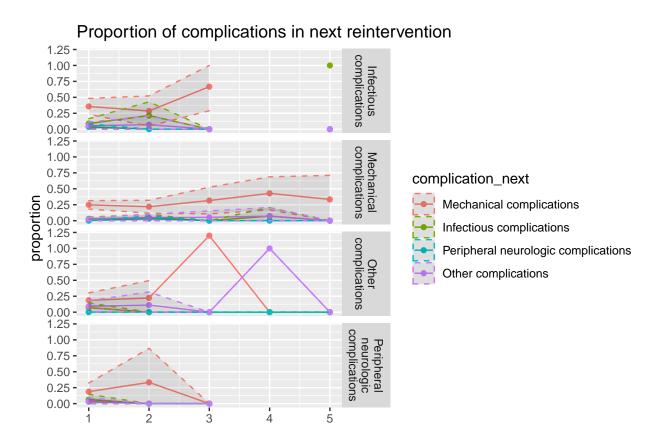
# Hospitalization time for ONLY mechanical interventions with prior spine surgery – differences in means





# Proportion of categories

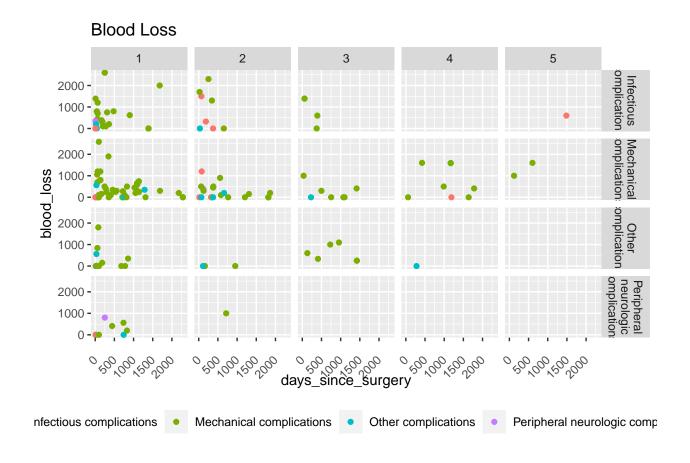




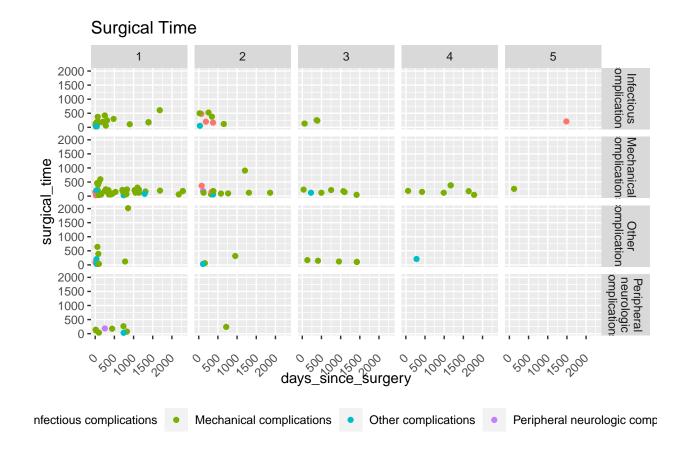
### Comparation with next reintervention

reintervention

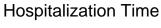
## Warning: Removed 5 rows containing missing values (geom\_point).

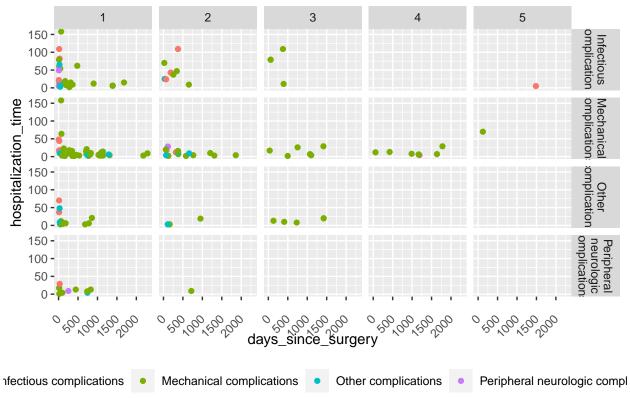


## Warning: Removed 34 rows containing missing values (geom\_point).



## Warning: Removed 17 rows containing missing values (geom\_point).

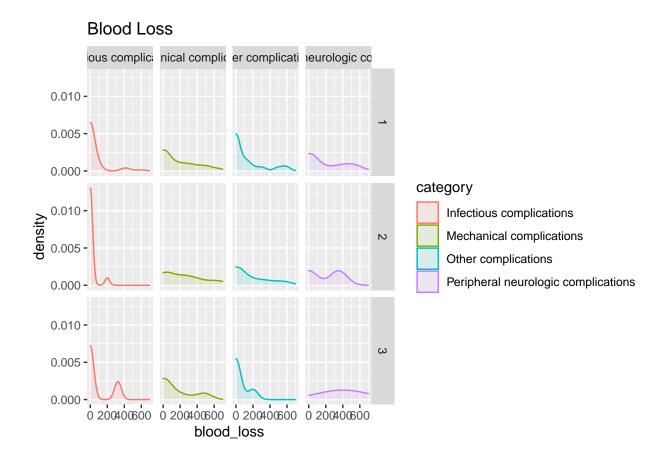




### By Complication type & Reintervention

### **Blood Loss**

## Warning: Removed 83 rows containing non-finite values (stat\_density).



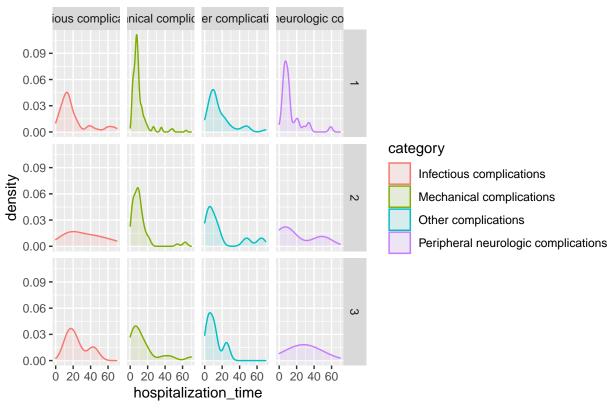
## Warning: Removed 114 rows containing non-finite values (stat\_density).

### Surgical Time ious complica inical complic er complicati neurologic co 0.03 -0.02 -0.01 -0.00 category 0.03 -Infectious complications density 0.02 -Mechanical complications N Other complications Peripheral neurologic complications 0.00 0.03 -0.02 ω 0.01 -0.00

## Warning: Removed 26 rows containing non-finite values (stat\_density).

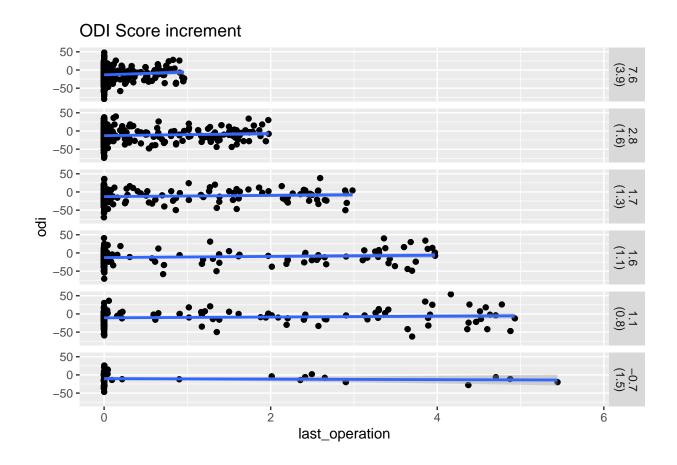
0102080800 0102080800 0102080800 0102080800 surgical\_time





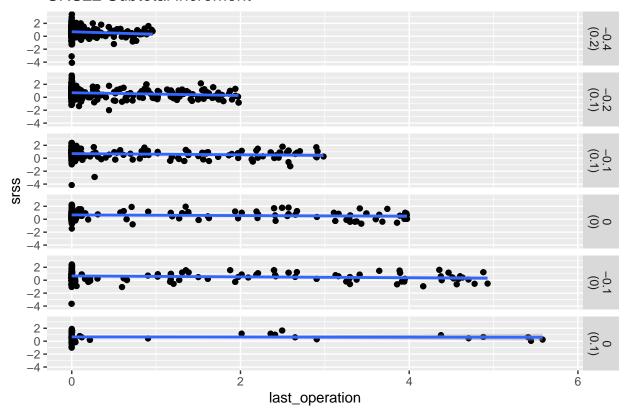
# Quality life increment for reinterventions

## 'geom\_smooth()' using formula 'y ~ x'

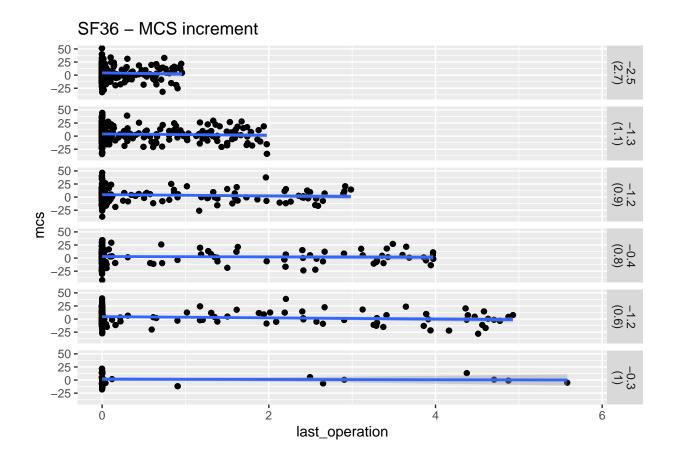


## 'geom\_smooth()' using formula 'y ~ x'

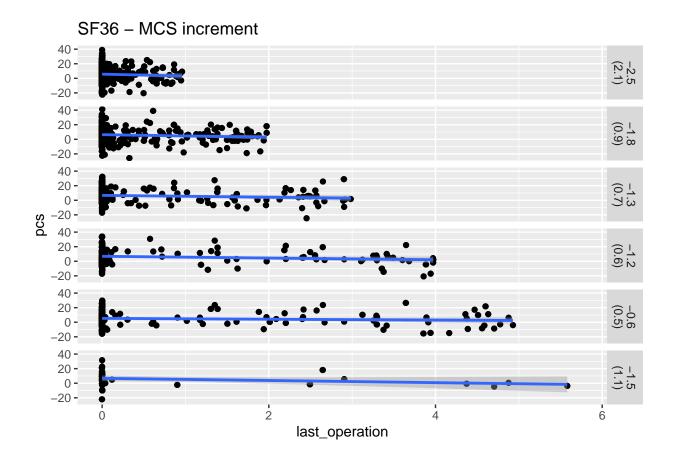
### SRS22 Subtotal increment



## 'geom\_smooth()' using formula 'y ~ x'



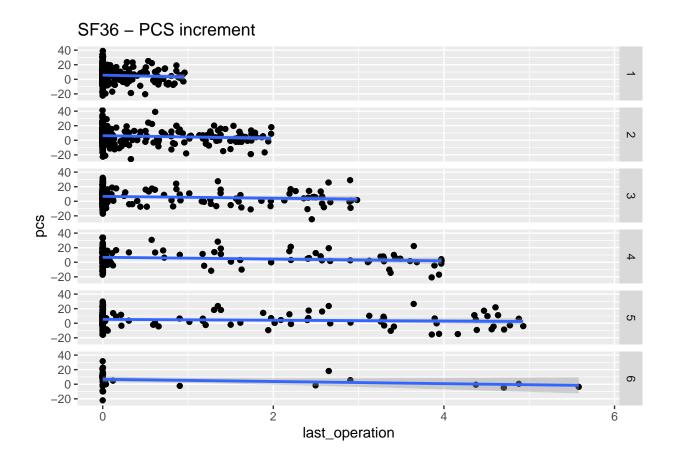
## 'geom\_smooth()' using formula 'y ~ x'



### **Had Intervention**

For each outcome year, whether the pacient had an intervention before the questionaire

## 'geom\_smooth()' using formula 'y ~ x'



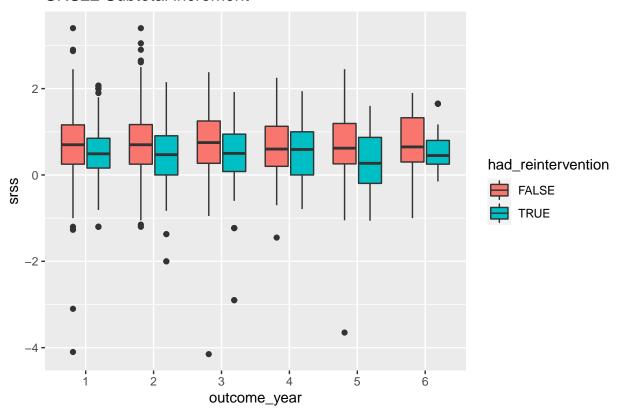
## Warning: Removed 6305 rows containing non-finite values (stat\_boxplot).

# ODI Score increment had\_reintervention FALSE TRUE

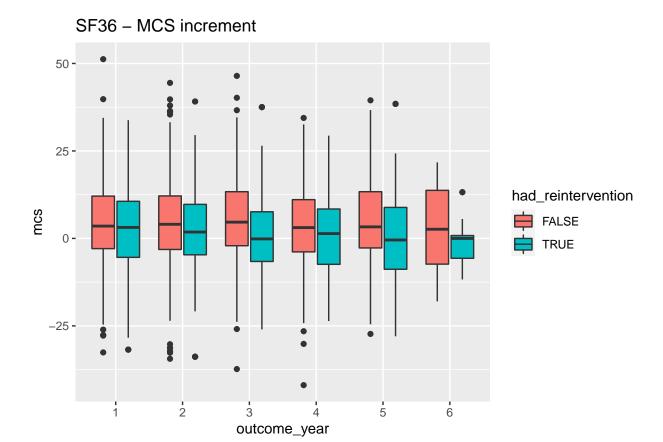
## Warning: Removed 6214 rows containing non-finite values (stat\_boxplot).

outcome\_year

### SRS22 Subtotal increment

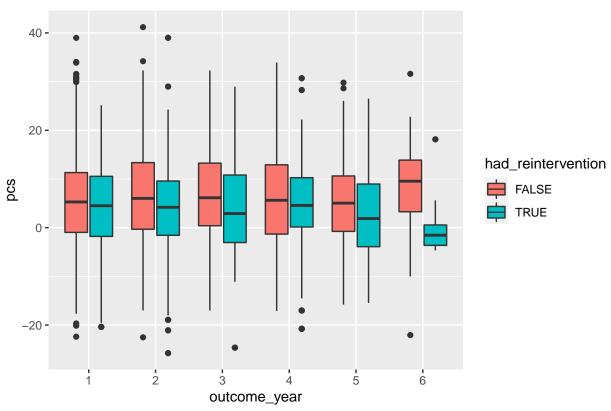


## Warning: Removed 6519 rows containing non-finite values (stat\_boxplot).



## Warning: Removed 6521 rows containing non-finite values (stat\_boxplot).





### Had intervention evolution

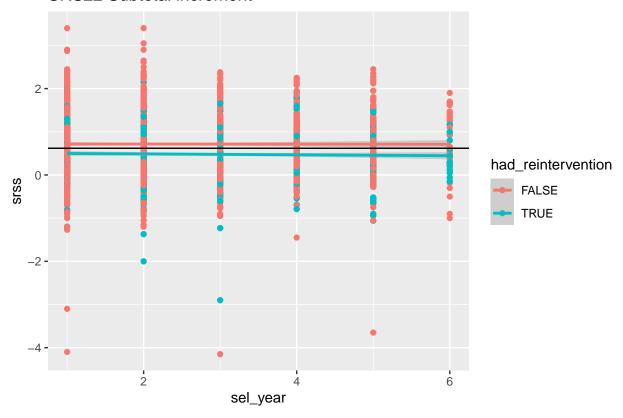
Black lines are the mean value of the score

- ## 'geom\_smooth()' using formula 'y ~ x'
- ## Warning: Removed 6305 rows containing non-finite values (stat\_smooth).
- ## Warning: Removed 6305 rows containing missing values (geom\_point).

# ODI Score increment had\_reintervention FALSE TRUE

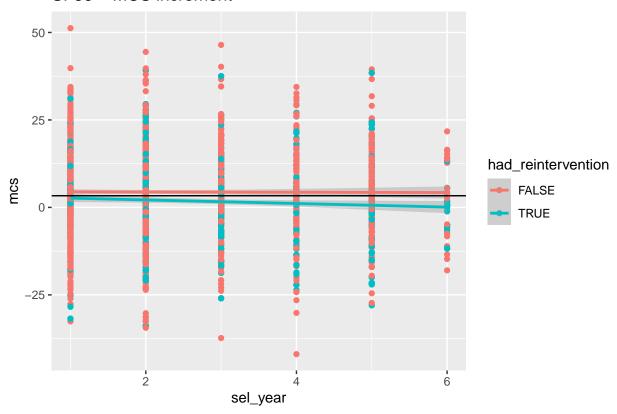
- ## 'geom\_smooth()' using formula 'y ~ x'
- ## Warning: Removed 6214 rows containing non-finite values (stat\_smooth).
- ## Warning: Removed 6214 rows containing missing values (geom\_point).

### SRS22 Subtotal increment



- ## 'geom\_smooth()' using formula 'y ~ x'
- ## Warning: Removed 6519 rows containing non-finite values (stat\_smooth).
- ## Warning: Removed 6519 rows containing missing values (geom\_point).

### SF36 - MCS increment



- ## 'geom\_smooth()' using formula 'y ~ x'
- ## Warning: Removed 6521 rows containing non-finite values (stat\_smooth).
- ## Warning: Removed 6521 rows containing missing values (geom\_point).

