LIV L4/L5

Initial Patients: 372

With Posterior Instrumented Fusion: 348

```
    type    N
1: <NA> 267
2:   L5  39
3:   L4  42
```

Patients who end up intrumented until pelvis

```r
revision <- read_excel(xls_path, sheet="Revision surgeries") %>%
  as.data.table()

revision[, 'Posterior Instrumented Fusion: Upper / Lower Levels'] %>%
  sapply(. %>% strsplit('-') %>% .[[1]] %>% .[2]) ->
  post_intr_fusion

reint_iliac <- revision[post_intr_fusion=='Iliac', 'Code of the patient']

data_['Code of the patient' %in% reint_iliac, 'Code of the patient' %>% uniqueN, type]
```

```
    type V1
1:   L5  9
2: <NA> 13
3:   L4  1
```

UIV frequencies

```
        uiv  N
 1:     C3   1
 2:     C7   2
 3: Iliac   1
 4:     L1  27
 5:     L2  14
 6:     L3  14
 7:     L4   9
 8:     L5   6
 9:     T1   2
10:    T10  66
11:    T11  19
12:    T12  22
13:     T2  53
14:     T3  26
```

```
15:     T4 32
16:     T5  9
17:     T6  3
18:     T7  4
19:     T8 13
20:     T9 25
```

P-valor ASA 1 L4 vs L5

```
   treatment asa_1  N
1:        L5     9 39
2:        L4    17 42
```

```
[1] 0.1504928
```

P-valor Prior Spine Surgery Yes L4 vs L5

```
   treatment prior_yes  N
1:        L5        11 39
2:        L4         6 42
```

```
[1] 0.2062036
```

Demographics

```
Age - mean
All
[1] 52.38
L4
[1] 45.79
L5
[1] 54.03
```

```
L4 vs L5 p-value:[1] 0.02396962
```

```
Age - sd
All
[1] 19.25
L4
[1] 15.97
L5
[1] 16.21
```

```
Gender - table
All
variable
Female    Male
   274      74
L4
```

```
variable
Female   Male
    33      9
L5
variable
Female   Male
    32      7


Gender - proportion
All
variable
   Female       Male
0.7873563 0.2126437
L4
variable
   Female       Male
0.7857143 0.2142857
L5
variable
   Female       Male
0.8205128 0.1794872



Prior Spine Surgery - table
All
variable
 No Yes
244 104
L4
variable
 No Yes
 36   6
L5
variable
 No Yes
 28  11

Prior Spine Surgery - proportion
All
variable
       No       Yes
0.7011494 0.2988506
L4
variable
       No       Yes
0.8571429 0.1428571
L5
variable
       No       Yes
0.7179487 0.2820513
```

```
Height (cm)_First Visit - mean
All
[1] 163.01
L4
[1] 164.88
L5
[1] 161.44

L4 vs L5 p-value:[1] 0.09689435


Height (cm)_First Visit - sd
All
[1] 9.3
L4
[1] 8.73
L5
[1] 9.65



Weight (kgs)_First Visit - mean
All
[1] 65.83
L4
[1] 65.76
L5
[1] 65.82

L4 vs L5 p-value:[1] 0.9838195


Weight (kgs)_First Visit - sd
All
[1] 13.15
L4
[1] 11.93
L5
[1] 13.84



BMI_First Visit - mean
All
[1] 24.79
L4
[1] 24.26
L5
[1] 25.3

L4 vs L5 p-value:[1] 0.3199424


BMI_First Visit - sd
```

```
All
[1] 4.63
L4
[1] 4.37
L5
[1] 4.98




ASA classification - table
All
variable
  1   2   3
106 191  51
L4
variable
 1  2  3
17 22  3
L5
variable
 1  2  3
 9 26  4

ASA classification - proportion
All
variable
        1         2         3
0.3045977 0.5488506 0.1465517
L4
variable
         1          2          3
0.40476190 0.52380952 0.07142857
L5
variable
        1         2         3
0.2307692 0.6666667 0.1025641




Tobacco use_First Visit - table
All
variable
 Current        Ex Non-User
     69        63      216
L4
variable
 Current        Ex Non-User
      8         9       25
L5
variable
 Current        Ex Non-User
      8         6       25

Tobacco use_First Visit - proportion
```

```
All
variable
  Current        Ex  Non-User
0.1982759 0.1810345 0.6206897
L4
variable
  Current        Ex  Non-User
0.1904762 0.2142857 0.5952381
L5
variable
  Current        Ex  Non-User
0.2051282 0.1538462 0.6410256


ESSG Diagnosis - table
All
variable
                 Congenital                    Degenerative
                          9                             122
                Failed-back                       Idiopathic
                         19                             156
              Neuromuscular Other: Ankylosing spondylitis
                          5                               1
  Other: radiotherapy induced    Other: spondylolisthesis
                          1                               1
              Post-traumatic                    Scheuermann
                         15                              15
                   Syndromic
                          4
L4
variable
  Degenerative    Failed-back    Idiopathic Post-traumatic      Syndromic
             5              1            31              4              1
L5
variable
    Congenital    Degenerative     Failed-back     Idiopathic Post-traumatic
             2              12              4             18              1
   Scheuermann       Syndromic
             1               1

ESSG Diagnosis - proportion
All
variable
                   Congenital                    Degenerative
                  0.025862069                     0.350574713
                  Failed-back                       Idiopathic
                  0.054597701                     0.448275862
                Neuromuscular Other: Ankylosing spondylitis
                  0.014367816                     0.002873563
  Other: radiotherapy induced    Other: spondylolisthesis
                  0.002873563                     0.002873563
                Post-traumatic                    Scheuermann
                  0.043103448                     0.043103448
```

6

```
                    Syndromic
                  0.011494253
L4
variable
   Degenerative      Failed-back      Idiopathic Post-traumatic        Syndromic
     0.11904762      0.02380952      0.73809524     0.09523810       0.02380952
L5
variable
     Congenital     Degenerative      Failed-back       Idiopathic Post-traumatic
     0.05128205      0.30769231      0.10256410       0.46153846       0.02564103
     Scheuermann        Syndromic
     0.02564103      0.02564103


Surgical Approach - table
All
variable
           Anterior-Posterior                        Posterior
                          4                              329
           Posterior-Anterior         Posterior-Posterior
                         11                                3
Posterior-Posterior-Anterior
                          1
L4
variable
Posterior
       42
L5
variable
 Anterior-Posterior             Posterior Posterior-Posterior
                  1                    37                   1

Surgical Approach - proportion
All
variable
           Anterior-Posterior                        Posterior
                0.011494253                      0.945402299
           Posterior-Anterior         Posterior-Posterior
                0.031609195                      0.008620690
Posterior-Posterior-Anterior
                0.002873563
L4
variable
Posterior
        1
L5
variable
 Anterior-Posterior             Posterior Posterior-Posterior
         0.02564103            0.94871795          0.02564103
```

Radiology

```
Static Major curve Cobb angle - mean
All
[1] 42.86
L4
[1] 50.22
L5
[1] 45.55

L4 vs L5 p-value:[1] 0.3827009


Static Major curve Cobb angle - sd
All
[1] 21.17
L4
[1] 21.99
L5
[1] 24.55



6W. Static Major curve Cobb angle - mean
All
[1] 22.29
L4
[1] 25.12
L5
[1] 25.29

L4 vs L5 p-value:[1] 0.9662744


6W. Static Major curve Cobb angle - sd
All
[1] 15.04
L4
[1] 15.75
L5
[1] 18.26



6M. Static Major curve Cobb angle - mean
All
[1] 22.12
L4
[1] 25.03
L5
[1] 26.74

L4 vs L5 p-value:[1] 0.6799513
```

```
6M. Static Major curve Cobb angle - sd
All
[1] 15.82
L4
[1] 15.7
L5
[1] 18.64




1Y. Static Major curve Cobb angle - mean
All
[1] 20.31
L4
[1] 23.35
L5
[1] 24.5

L4 vs L5 p-value:[1] 0.7742008




1Y. Static Major curve Cobb angle - sd
All
[1] 15.66
L4
[1] 16.7
L5
[1] 18.16




2Y. Static Major curve Cobb angle - mean
All
[1] 21.63
L4
[1] 24.8
L5
[1] 26.43

L4 vs L5 p-value:[1] 0.7054688




2Y. Static Major curve Cobb angle - sd
All
[1] 15.67
L4
[1] 14.12
L5
[1] 19.58




5Y. Static Major curve Cobb angle - mean
```

```
All
[1] 24.84
L4
[1] 31.17
L5
[1] 31.12


L4 vs L5 p-value:[1] 0.9920431



5Y. Static Major curve Cobb angle - sd
All
[1] 16.53
L4
[1] 15.81
L5
[1] 20.92



Static Major curve Cobb angle tests all
Preop vs 6w p-value
2.612939e-39

Preop vs 2y p-value
5.814775e-39

Preop vs 5y p-value
3.548346e-20

6w vs 2y p-value
0.6091221

2y vs 5y p-value
0.05985225

6w vs 5y p-value
0.122996

Static Major curve Cobb angle tests L4
Preop vs 6w p-value
2.586475e-07

Preop vs 2y p-value
1.466771e-07

Preop vs 5y p-value
0.0003711541

6w vs 2y p-value
0.9293153

2y vs 5y p-value
0.1491365
```

```
6w vs 5y p-value
0.1770632

Static Major curve Cobb angle tests L5
Preop vs 6w p-value
0.0001275796

Preop vs 2y p-value
0.0006094734

Preop vs 5y p-value
0.0195258

6w vs 2y p-value
0.8049483

2y vs 5y p-value
0.4143113

6w vs 5y p-value
0.2849302

Coronal Balance (C7PL to CSVL) - mean
All
[1] 22.94
L4
[1] 19.05
L5
[1] 19.71

L4 vs L5 p-value:[1] 0.8284834


Coronal Balance (C7PL to CSVL) - sd
All
[1] 19.65
L4
[1] 11.78
L5
[1] 14.09



6W. Coronal Balance (C7PL to CSVL) - mean
All
[1] 20.31
L4
[1] 23.2
L5
[1] 22.58

L4 vs L5 p-value:[1] 0.8802018
```

6W. Coronal Balance (C7PL to CSVL) - sd
All
[1] 15.16
L4
[1] 15.65
L5
[1] 17.75

6M. Coronal Balance (C7PL to CSVL) - mean
All
[1] 18.82
L4
[1] 14.84
L5
[1] 21.69

L4 vs L5 p-value:[1] 0.07179218

6M. Coronal Balance (C7PL to CSVL) - sd
All
[1] 14.82
L4
[1] 9.72
L5
[1] 17.45

1Y. Coronal Balance (C7PL to CSVL) - mean
All
[1] 18.23
L4
[1] 13.36
L5
[1] 20.29

L4 vs L5 p-value:[1] 0.02164315

1Y. Coronal Balance (C7PL to CSVL) - sd
All
[1] 13.87
L4
[1] 8.58
L5
[1] 13.09

2Y. Coronal Balance (C7PL to CSVL) - mean

```
All
[1] 18.25
L4
[1] 14.86
L5
[1] 17.51

L4 vs L5 p-value:[1] 0.410834


2Y. Coronal Balance (C7PL to CSVL) - sd
All
[1] 15.7
L4
[1] 10.72
L5
[1] 13.43




5Y. Coronal Balance (C7PL to CSVL) - mean
All
[1] 20.91
L4
[1] 16.56
L5
[1] 17.13

L4 vs L5 p-value:[1] 0.8667627


5Y. Coronal Balance (C7PL to CSVL) - sd
All
[1] 17.44
L4
[1] 9.83
L5
[1] 11.43




Coronal Balance (C7PL to CSVL) tests all
Preop vs 6w p-value
0.06260439

Preop vs 2y p-value
0.001521409

Preop vs 5y p-value
0.2725863

6w vs 2y p-value
0.1232651
```

2y vs 5y p-value
0.1386677

6w vs 5y p-value
0.7298518

Coronal Balance (C7PL to CSVL) tests L4
Preop vs 6w p-value
0.2085735

Preop vs 2y p-value
0.1168046

Preop vs 5y p-value
0.3993367

6w vs 2y p-value
0.01337701

2y vs 5y p-value
0.5658197

6w vs 5y p-value
0.06388229

Coronal Balance (C7PL to CSVL) tests L5
Preop vs 6w p-value
0.472363

Preop vs 2y p-value
0.5356145

Preop vs 5y p-value
0.4672372

6w vs 2y p-value
0.2174933

2y vs 5y p-value
0.9186928

6w vs 5y p-value
0.1847344

Sagittal Balance - mean
All
[1] 42.78
L4
[1] 13.12
L5
[1] 29.43

L4 vs L5 p-value:[1] 0.1287651

```
Sagittal Balance - sd
All
[1] 62.5
L4
[1] 45.54
L5
[1] 47.57




6W. Sagittal Balance - mean
All
[1] 19.26
L4
[1] 8.55
L5
[1] 32.4

L4 vs L5 p-value:[1] 0.007714831



6W. Sagittal Balance - sd
All
[1] 37.37
L4
[1] 29.89
L5
[1] 40.33




6M. Sagittal Balance - mean
All
[1] 15.98
L4
[1] 3.06
L5
[1] 21.68

L4 vs L5 p-value:[1] 0.04552114



6M. Sagittal Balance - sd
All
[1] 43.77
L4
[1] 31.05
L5
[1] 39.2




1Y. Sagittal Balance - mean
```

```
All
[1] 19.33
L4
[1] -2.35
L5
[1] 19.16

L4 vs L5 p-value:[1] 0.02727914


1Y. Sagittal Balance - sd
All
[1] 48.72
L4
[1] 33.58
L5
[1] 39.04



2Y. Sagittal Balance - mean
All
[1] 24.45
L4
[1] -0.56
L5
[1] 28.34

L4 vs L5 p-value:[1] 0.004820746


2Y. Sagittal Balance - sd
All
[1] 49.39
L4
[1] 34.09
L5
[1] 38.98



5Y. Sagittal Balance - mean
All
[1] 33.34
L4
[1] 1.48
L5
[1] 40.86

L4 vs L5 p-value:[1] 0.002170761


5Y. Sagittal Balance - sd
All
```

```
[1] 48.55
L4
[1] 34.35
L5
[1] 41.26
```

Sagittal Balance tests all
Preop vs 6w p-value
1.206885e-08

Preop vs 2y p-value
8.029604e-05

Preop vs 5y p-value
0.07912822

6w vs 2y p-value
0.1718073

2y vs 5y p-value
0.08522743

6w vs 5y p-value
0.002833183

Sagittal Balance tests L4
Preop vs 6w p-value
0.6117932

Preop vs 2y p-value
0.1555144

Preop vs 5y p-value
0.2839043

6w vs 2y p-value
0.2615273

2y vs 5y p-value
0.8395493

6w vs 5y p-value
0.4590759

Sagittal Balance tests L5
Preop vs 6w p-value
0.7748762

Preop vs 2y p-value
0.9203671

Preop vs 5y p-value

```
0.3401732

6w vs 2y p-value
0.6948255

2y vs 5y p-value
0.2952987

6w vs 5y p-value
0.4607481

Sagittal T2-T5 - mean
All
[1] 10.92
L4
[1] 8.68
L5
[1] 10.23

L4 vs L5 p-value:[1] 0.4031292


Sagittal T2-T5 - sd
All
[1] 9.68
L4
[1] 8.86
L5
[1] 7.33



6W. Sagittal T2-T5 - mean
All
[1] 13.59
L4
[1] 11.61
L5
[1] 12.49

L4 vs L5 p-value:[1] 0.5942622


6W. Sagittal T2-T5 - sd
All
[1] 8.2
L4
[1] 7.65
L5
[1] 5.73



6M. Sagittal T2-T5 - mean
```

```
All
[1] 14.17
L4
[1] 13.66
L5
[1] 13.57

L4 vs L5 p-value:[1] 0.9741784


6M. Sagittal T2-T5 - sd
All
[1] 9.61
L4
[1] 8.78
L5
[1] 12.52



1Y. Sagittal T2-T5 - mean
All
[1] 13.76
L4
[1] 12.9
L5
[1] 11.41

L4 vs L5 p-value:[1] 0.5449708


1Y. Sagittal T2-T5 - sd
All
[1] 9.46
L4
[1] 12.09
L5
[1] 6.79



2Y. Sagittal T2-T5 - mean
All
[1] 14.44
L4
[1] 14.1
L5
[1] 11.59

L4 vs L5 p-value:[1] 0.2986884


2Y. Sagittal T2-T5 - sd
All
```

```
[1] 9.98
L4
[1] 10.44
L5
[1] 8.42
```

5Y. Sagittal T2-T5 - mean
```
All
[1] 15.85
L4
[1] 16.41
L5
[1] 7.98
```

L4 vs L5 p-value:[1] 0.006230627

5Y. Sagittal T2-T5 - sd
```
All
[1] 11.76
L4
[1] 11.47
L5
[1] 5.66
```

Sagittal T2-T5 tests all
Preop vs 6w p-value
0.0002083196

Preop vs 2y p-value
1.647942e-05

Preop vs 5y p-value
1.882643e-05

6w vs 2y p-value
0.2700206

2y vs 5y p-value
0.2288968

6w vs 5y p-value
0.04128382

Sagittal T2-T5 tests L4
Preop vs 6w p-value
0.1285903

Preop vs 2y p-value
0.02006606

```
Preop vs 5y p-value
0.01275474

6w vs 2y p-value
0.2640278

2y vs 5y p-value
0.4650428

6w vs 5y p-value
0.1055092

Sagittal T2-T5 tests L5
Preop vs 6w p-value
0.1502634

Preop vs 2y p-value
0.4955256

Preop vs 5y p-value
0.1955455

6w vs 2y p-value
0.6357217

2y vs 5y p-value
0.07933627

6w vs 5y p-value
0.00684447

Sagittal T5-T12 - mean
All
[1] 32.71
L4
[1] 35.44
L5
[1] 30.14

L4 vs L5 p-value:[1] 0.2415302


Sagittal T5-T12 - sd
All
[1] 19.03
L4
[1] 21.72
L5
[1] 18.18



6W. Sagittal T5-T12 - mean
```

```
All
[1] 33.63
L4
[1] 33.34
L5
[1] 32.31

L4 vs L5 p-value:[1] 0.7505943


6W. Sagittal T5-T12 - sd
All
[1] 13.91
L4
[1] 13.38
L5
[1] 13.06



6M. Sagittal T5-T12 - mean
All
[1] 34.74
L4
[1] 32.99
L5
[1] 30.47

L4 vs L5 p-value:[1] 0.4670917


6M. Sagittal T5-T12 - sd
All
[1] 14.03
L4
[1] 11.93
L5
[1] 15.49



1Y. Sagittal T5-T12 - mean
All
[1] 35.4
L4
[1] 34.86
L5
[1] 33.34

L4 vs L5 p-value:[1] 0.6606636


1Y. Sagittal T5-T12 - sd
All
```

```
[1] 13.97
L4
[1] 12.48
L5
[1] 14.57




2Y. Sagittal T5-T12 - mean
All
[1] 36.12
L4
[1] 34.98
L5
[1] 33.21

L4 vs L5 p-value:[1] 0.6714107


2Y. Sagittal T5-T12 - sd
All
[1] 15.92
L4
[1] 15.06
L5
[1] 17.13




5Y. Sagittal T5-T12 - mean
All
[1] 39.98
L4
[1] 34.42
L5
[1] 38.97

L4 vs L5 p-value:[1] 0.370834


5Y. Sagittal T5-T12 - sd
All
[1] 15.99
L4
[1] 15.31
L5
[1] 17.27




Sagittal T5-T12 tests all
Preop vs 6w p-value
0.4847253
```

Preop vs 2y p-value
0.01664519

Preop vs 5y p-value
2.460794e-05

6w vs 2y p-value
0.04836636

2y vs 5y p-value
0.02077773

6w vs 5y p-value
6.718749e-05

Sagittal T5-T12 tests L4
Preop vs 6w p-value
0.6117047

Preop vs 2y p-value
0.9133731

Preop vs 5y p-value
0.8334733

6w vs 2y p-value
0.6403459

2y vs 5y p-value
0.8980827

6w vs 5y p-value
0.7956657

Sagittal T5-T12 tests L5
Preop vs 6w p-value
0.5589206

Preop vs 2y p-value
0.4854693

Preop vs 5y p-value
0.06741964

6w vs 2y p-value
0.8204658

2y vs 5y p-value
0.2458942

6w vs 5y p-value
0.1308473

Sagittal T2-T12 - mean

```
All
[1] 39.66
L4
[1] 39.44
L5
[1] 37.59

L4 vs L5 p-value:[1] 0.6830684


Sagittal T2-T12 - sd
All
[1] 19.91
L4
[1] 23.04
L5
[1] 17.26



6W. Sagittal T2-T12 - mean
All
[1] 42.95
L4
[1] 40.42
L5
[1] 41.59

L4 vs L5 p-value:[1] 0.7283135


6W. Sagittal T2-T12 - sd
All
[1] 15.38
L4
[1] 13.85
L5
[1] 14.08



6M. Sagittal T2-T12 - mean
All
[1] 44.9
L4
[1] 41.4
L5
[1] 37.9

L4 vs L5 p-value:[1] 0.3164742


6M. Sagittal T2-T12 - sd
All
```

```
[1] 15.41
L4
[1] 14.68
L5
[1] 13.93




1Y. Sagittal T2-T12 - mean
All
[1] 44.72
L4
[1] 41.8
L5
[1] 39.68

L4 vs L5 p-value:[1] 0.5951255


1Y. Sagittal T2-T12 - sd
All
[1] 15.31
L4
[1] 17.32
L5
[1] 14.87




2Y. Sagittal T2-T12 - mean
All
[1] 45.67
L4
[1] 43.71
L5
[1] 39.99

L4 vs L5 p-value:[1] 0.3569212


2Y. Sagittal T2-T12 - sd
All
[1] 15.77
L4
[1] 18.04
L5
[1] 13.96




5Y. Sagittal T2-T12 - mean
All
[1] 49.57
L4
```

```
[1] 44.99
L5
[1] 41.33


L4 vs L5 p-value:[1] 0.4891298



5Y. Sagittal T2-T12 - sd
All
[1] 16.78
L4
[1] 17.33
L5
[1] 16.16




Sagittal T2-T12 tests all
Preop vs 6w p-value
0.01835384

Preop vs 2y p-value
3.481336e-05

Preop vs 5y p-value
5.620083e-08

6w vs 2y p-value
0.03750999

2y vs 5y p-value
0.02322655

6w vs 5y p-value
9.599658e-05

Sagittal T2-T12 tests L4
Preop vs 6w p-value
0.8184996

Preop vs 2y p-value
0.3649725

Preop vs 5y p-value
0.2962936

6w vs 2y p-value
0.3925143

2y vs 5y p-value
0.7959928

6w vs 5y p-value
0.3178374
```

Sagittal T2-T12 tests L5
Preop vs 6w p-value
0.2855313

Preop vs 2y p-value
0.5301449

Preop vs 5y p-value
0.4097321

6w vs 2y p-value
0.6560589

2y vs 5y p-value
0.7612263

6w vs 5y p-value
0.9524485

Lordosis (top of L1-S1) - mean
All
[1] -43.5
L4
[1] -47.52
L5
[1] -41.38

L4 vs L5 p-value:[1] 0.12683

Lordosis (top of L1-S1) - sd
All
[1] 20.7
L4
[1] 18.97
L5
[1] 16.79

6W. Lordosis (top of L1-S1) - mean
All
[1] -51.24
L4
[1] -49
L5
[1] -45.14

L4 vs L5 p-value:[1] 0.1983333

6W. Lordosis (top of L1-S1) - sd
All

```
[1] 14.32
L4
[1] 14.45
L5
[1] 11.52




6M. Lordosis (top of L1-S1) - mean
All
[1] -50.93
L4
[1] -49.88
L5
[1] -44.72

L4 vs L5 p-value:[1] 0.0843069


6M. Lordosis (top of L1-S1) - sd
All
[1] 14.14
L4
[1] 13.63
L5
[1] 12.23




1Y. Lordosis (top of L1-S1) - mean
All
[1] -51
L4
[1] -50.41
L5
[1] -47.47

L4 vs L5 p-value:[1] 0.3247297


1Y. Lordosis (top of L1-S1) - sd
All
[1] 14.44
L4
[1] 13.61
L5
[1] 12.03




2Y. Lordosis (top of L1-S1) - mean
All
[1] -51.49
L4
```

```
[1] -52.71
L5
[1] -49.11

L4 vs L5 p-value:[1] 0.3273227


2Y. Lordosis (top of L1-S1) - sd
All
[1] 15.19
L4
[1] 15.73
L5
[1] 14.16



5Y. Lordosis (top of L1-S1) - mean
All
[1] -50.79
L4
[1] -48.35
L5
[1] -45.54

L4 vs L5 p-value:[1] 0.5608513


5Y. Lordosis (top of L1-S1) - sd
All
[1] 15.77
L4
[1] 16.35
L5
[1] 14.55



Lordosis (top of L1-S1) tests all
Preop vs 6w p-value
2.126727e-08

Preop vs 2y p-value
3.707571e-08

Preop vs 5y p-value
3.070916e-05

6w vs 2y p-value
0.8388887

2y vs 5y p-value
0.6632412
```

6w vs 5y p-value
0.7685465

Lordosis (top of L1-S1) tests L4
Preop vs 6w p-value
0.6915798

Preop vs 2y p-value
0.1928245

Preop vs 5y p-value
0.8599529

6w vs 2y p-value
0.296182

2y vs 5y p-value
0.3403641

6w vs 5y p-value
0.8806502

Lordosis (top of L1-S1) tests L5
Preop vs 6w p-value
0.2553332

Preop vs 2y p-value
0.03915649

Preop vs 5y p-value
0.3167956

6w vs 2y p-value
0.2089853

2y vs 5y p-value
0.3747529

6w vs 5y p-value
0.9138651

Pelvic Incidence - mean
All
[1] 53.94
L4
[1] 48.92
L5
[1] 52.54

L4 vs L5 p-value:[1] 0.157949

Pelvic Incidence - sd
All

```
[1] 13.08
L4
[1] 11.38
L5
[1] 11.51




6W. Pelvic Incidence - mean
All
[1] 54.07
L4
[1] 48.22
L5
[1] 52.59

L4 vs L5 p-value:[1] 0.1014558


6W. Pelvic Incidence - sd
All
[1] 12.97
L4
[1] 11.59
L5
[1] 11.57




6M. Pelvic Incidence - mean
All
[1] 53.87
L4
[1] 47.78
L5
[1] 51.51

L4 vs L5 p-value:[1] 0.1498352


6M. Pelvic Incidence - sd
All
[1] 12.66
L4
[1] 11.44
L5
[1] 10.87




1Y. Pelvic Incidence - mean
All
[1] 53.59
L4
```

```
[1] 47.95
L5
[1] 52.65

L4 vs L5 p-value:[1] 0.06155034


1Y. Pelvic Incidence - sd
All
[1] 12.56
L4
[1] 10.76
L5
[1] 10.83


2Y. Pelvic Incidence - mean
All
[1] 53.74
L4
[1] 47.66
L5
[1] 53.41

L4 vs L5 p-value:[1] 0.05246645


2Y. Pelvic Incidence - sd
All
[1] 12.46
L4
[1] 12.84
L5
[1] 10.79


5Y. Pelvic Incidence - mean
All
[1] 54.78
L4
[1] 47.26
L5
[1] 54.88

L4 vs L5 p-value:[1] 0.05373662


5Y. Pelvic Incidence - sd
All
[1] 12.47
L4
[1] 12.85
```

```
L5
[1] 11.88
```

Pelvic Incidence tests all
Preop vs 6w p-value
0.9010697

Preop vs 2y p-value
0.8429863

Preop vs 5y p-value
0.5073785

6w vs 2y p-value
0.7511546

2y vs 5y p-value
0.4181801

6w vs 5y p-value
0.5754863

Pelvic Incidence tests L4
Preop vs 6w p-value
0.7851161

Preop vs 2y p-value
0.6566142

Preop vs 5y p-value
0.6268108

6w vs 2y p-value
0.846688

2y vs 5y p-value
0.9137755

6w vs 5y p-value
0.7820696

Pelvic Incidence tests L5
Preop vs 6w p-value
0.9855682

Preop vs 2y p-value
0.7438247

Preop vs 5y p-value
0.4595302

6w vs 2y p-value

```
0.7594724

2y vs 5y p-value
0.6457166

6w vs 5y p-value
0.4714235

Pelvic Tilt - mean
All
[1] 21.87
L4
[1] 17.06
L5
[1] 21.66

L4 vs L5 p-value:[1] 0.0149214


Pelvic Tilt - sd
All
[1] 10.85
L4
[1] 7.94
L5
[1] 8.61



6W. Pelvic Tilt - mean
All
[1] 18
L4
[1] 14.51
L5
[1] 20.88

L4 vs L5 p-value:[1] 0.001285324


6W. Pelvic Tilt - sd
All
[1] 9.45
L4
[1] 8.29
L5
[1] 8.41



6M. Pelvic Tilt - mean
All
[1] 19.46
L4
```

```
[1] 14.35
L5
[1] 21.23

L4 vs L5 p-value:[1] 0.0003621315


6M. Pelvic Tilt - sd
All
[1] 9.71
L4
[1] 8.2
L5
[1] 7.8



1Y. Pelvic Tilt - mean
All
[1] 19.39
L4
[1] 15.79
L5
[1] 21.01

L4 vs L5 p-value:[1] 0.007487864


1Y. Pelvic Tilt - sd
All
[1] 10.13
L4
[1] 9.03
L5
[1] 7.45



2Y. Pelvic Tilt - mean
All
[1] 19.28
L4
[1] 14.12
L5
[1] 21.49

L4 vs L5 p-value:[1] 0.0002880703


2Y. Pelvic Tilt - sd
All
[1] 9.35
L4
[1] 8.15
```

```
L5
[1] 7.47



5Y. Pelvic Tilt - mean
All
[1] 21.77
L4
[1] 16.33
L5
[1] 24.74

L4 vs L5 p-value:[1] 0.002866542


5Y. Pelvic Tilt - sd
All
[1] 9.71
L4
[1] 9.52
L5
[1] 7.21



Pelvic Tilt tests all
Preop vs 6w p-value
1.187258e-06

Preop vs 2y p-value
0.001479425

Preop vs 5y p-value
0.916233

6w vs 2y p-value
0.09717174

2y vs 5y p-value
0.01212081

6w vs 5y p-value
0.0001245306

Pelvic Tilt tests L4
Preop vs 6w p-value
0.1615846

Preop vs 2y p-value
0.117574

Preop vs 5y p-value
0.7667899
```

6w vs 2y p-value
0.8393235

2y vs 5y p-value
0.3912525

6w vs 5y p-value
0.4735358

Pelvic Tilt tests L5
Preop vs 6w p-value
0.6892586

Preop vs 2y p-value
0.9329098

Preop vs 5y p-value
0.1410062

6w vs 2y p-value
0.7461256

2y vs 5y p-value
0.1156544

6w vs 5y p-value
0.06580587

Sacral Slope - mean
All
[1] 32.5
L4
[1] 31.71
L5
[1] 31.57

L4 vs L5 p-value:[1] 0.9493803

Sacral Slope - sd
All
[1] 11.24
L4
[1] 9.97
L5
[1] 9.55

6W. Sacral Slope - mean
All
[1] 36.02
L4

```
[1] 33.65
L5
[1] 31.66

L4 vs L5 p-value:[1] 0.3513935


6W. Sacral Slope - sd
All
[1] 10.21
L4
[1] 9.98
L5
[1] 8.62



6M. Sacral Slope - mean
All
[1] 34.38
L4
[1] 33.31
L5
[1] 30.09

L4 vs L5 p-value:[1] 0.1211204


6M. Sacral Slope - sd
All
[1] 10.06
L4
[1] 8.97
L5
[1] 8.9



1Y. Sacral Slope - mean
All
[1] 34.24
L4
[1] 32.18
L5
[1] 31.59

L4 vs L5 p-value:[1] 0.7688873


1Y. Sacral Slope - sd
All
[1] 9.65
L4
[1] 8.97
```

```
L5
[1] 8.47



2Y. Sacral Slope - mean
All
[1] 34.55
L4
[1] 33.54
L5
[1] 31.89

L4 vs L5 p-value:[1] 0.4866861


2Y. Sacral Slope - sd
All
[1] 10.44
L4
[1] 10.43
L5
[1] 8.7



5Y. Sacral Slope - mean
All
[1] 33.02
L4
[1] 30.93
L5
[1] 30.14

L4 vs L5 p-value:[1] 0.8072471


5Y. Sacral Slope - sd
All
[1] 10.79
L4
[1] 11.36
L5
[1] 9.43



Sacral Slope tests all
Preop vs 6w p-value
2.495369e-05

Preop vs 2y p-value
0.01868629
```

Preop vs 5y p-value
0.632141

6w vs 2y p-value
0.08166943

2y vs 5y p-value
0.1639381

6w vs 5y p-value
0.00523052

Sacral Slope tests L4
Preop vs 6w p-value
0.3833419

Preop vs 2y p-value
0.4407815

Preop vs 5y p-value
0.7957267

6w vs 2y p-value
0.9617974

2y vs 5y p-value
0.4070707

6w vs 5y p-value
0.3709415

Sacral Slope tests L5
Preop vs 6w p-value
0.9648205

Preop vs 2y p-value
0.8844373

Preop vs 5y p-value
0.5755429

6w vs 2y p-value
0.9137375

2y vs 5y p-value
0.4930107

6w vs 5y p-value
0.5372656

RLL - mean
All
[1] -19
L4

```
[1] -11.81
L5
[1] -20.19

L4 vs L5 p-value:[1] 0.01887427


RLL - sd
All
[1] 20.39
L4
[1] 16.41
L5
[1] 15.07


6W. RLL - mean
All
[1] -11.18
L4
[1] -9.89
L5
[1] -16.47

L4 vs L5 p-value:[1] 0.01238277


6W. RLL - sd
All
[1] 12.93
L4
[1] 11.08
L5
[1] 11.42


6M. RLL - mean
All
[1] -11.42
L4
[1] -8.75
L5
[1] -15.94

L4 vs L5 p-value:[1] 0.007415021


6M. RLL - sd
All
[1] 12.93
L4
[1] 11.13
```

```
L5
[1] 11.51




1Y. RLL - mean
All
[1] -11.34
L4
[1] -8.2
L5
[1] -14.17

L4 vs L5 p-value:[1] 0.02978466




1Y. RLL - sd
All
[1] 13.82
L4
[1] 12.05
L5
[1] 11.27




2Y. RLL - mean
All
[1] -10.63
L4
[1] -5.75
L5
[1] -13.01

L4 vs L5 p-value:[1] 0.0270933




2Y. RLL - sd
All
[1] 14.04
L4
[1] 12.27
L5
[1] 13.67




5Y. RLL - mean
All
[1] -12.17
L4
[1] -9.96
L5
[1] -17.49
```

L4 vs L5 p-value:[1] 0.07973966

5Y. RLL - sd
All
[1] 13.83
L4
[1] 13.59
L5
[1] 13.54

RLL tests all
Preop vs 6w p-value
4.717714e-09

Preop vs 2y p-value
2.628085e-09

Preop vs 5y p-value
2.446303e-05

6w vs 2y p-value
0.6209054

2y vs 5y p-value
0.2805146

6w vs 5y p-value
0.4643248

RLL tests L4
Preop vs 6w p-value
0.5367176

Preop vs 2y p-value
0.06984195

Preop vs 5y p-value
0.6413212

6w vs 2y p-value
0.1374585

2y vs 5y p-value
0.2630089

6w vs 5y p-value
0.9856025

RLL tests L5
Preop vs 6w p-value

```
0.2245042

Preop vs 2y p-value
0.03904527

Preop vs 5y p-value
0.4763129

6w vs 2y p-value
0.2606083

2y vs 5y p-value
0.2397934

6w vs 5y p-value
0.7664089

Global Tilt - mean
All
[1] 26.35
L4
[1] 17.64
L5
[1] 24.2

L4 vs L5 p-value:[1] 0.02809123


Global Tilt - sd
All
[1] 17.64
L4
[1] 12.35
L5
[1] 13.7



6W. Global Tilt - mean
All
[1] 18.64
L4
[1] 13.85
L5
[1] 23.4

L4 vs L5 p-value:[1] 0.0005703284


6W. Global Tilt - sd
All
[1] 11.85
L4
[1] 9.67
```

```
L5
[1] 12.23




6M. Global Tilt - mean
All
[1] 20.27
L4
[1] 13.33
L5
[1] 21.96

L4 vs L5 p-value:[1] 0.002285445


6M. Global Tilt - sd
All
[1] 13.31
L4
[1] 9.67
L5
[1] 11.16




1Y. Global Tilt - mean
All
[1] 20.78
L4
[1] 13.13
L5
[1] 22.32

L4 vs L5 p-value:[1] 0.0002698268


1Y. Global Tilt - sd
All
[1] 13.82
L4
[1] 8.91
L5
[1] 9.5




2Y. Global Tilt - mean
All
[1] 20.92
L4
[1] 12.2
L5
[1] 22.95
```

```
L4 vs L5 p-value:[1] 0.0001167054


2Y. Global Tilt - sd
All
[1] 13.81
L4
[1] 10.32
L5
[1] 10.56



5Y. Global Tilt - mean
All
[1] 24.64
L4
[1] 15.12
L5
[1] 28.79

L4 vs L5 p-value:[1] 0.0005289438


5Y. Global Tilt - sd
All
[1] 14.71
L4
[1] 12.45
L5
[1] 10.78



Global Tilt tests all
Preop vs 6w p-value
2.128835e-10

Preop vs 2y p-value
3.027628e-05

Preop vs 5y p-value
0.276022

6w vs 2y p-value
0.03846796

2y vs 5y p-value
0.01361396

6w vs 5y p-value
3.122083e-05
```

```
Global Tilt tests L4
Preop vs 6w p-value
0.1305389

Preop vs 2y p-value
0.04140948

Preop vs 5y p-value
0.4596082

6w vs 2y p-value
0.4954686

2y vs 5y p-value
0.384842

6w vs 5y p-value
0.694201

Global Tilt tests L5
Preop vs 6w p-value
0.796135

Preop vs 2y p-value
0.6721474

Preop vs 5y p-value
0.1565911

6w vs 2y p-value
0.8742746

2y vs 5y p-value
0.0563147

6w vs 5y p-value
0.08965174

T1 Sagittal Tilt - mean
All
[1] -1.73
L4
[1] -4.47
L5
[1] -2.36

L4 vs L5 p-value:[1] 0.07816866


T1 Sagittal Tilt - sd
All
[1] 6.12
L4
[1] 3.57
```

```
L5
[1] 5.96




6W. T1 Sagittal Tilt - mean
All
[1] -3.54
L4
[1] -4
L5
[1] -1.83

L4 vs L5 p-value:[1] 0.01879112


6W. T1 Sagittal Tilt - sd
All
[1] 4.01
L4
[1] 3.32
L5
[1] 3.81




6M. T1 Sagittal Tilt - mean
All
[1] -4.21
L4
[1] -4.84
L5
[1] -3.8

L4 vs L5 p-value:[1] 0.196341


6M. T1 Sagittal Tilt - sd
All
[1] 4.29
L4
[1] 3.2
L5
[1] 3.03




1Y. T1 Sagittal Tilt - mean
All
[1] -3.86
L4
[1] -5
L5
[1] -4.24
```

```
L4 vs L5 p-value:[1] 0.4966102



1Y. T1 Sagittal Tilt - sd
All
[1] 5.01
L4
[1] 4.6
L5
[1] 4.05



2Y. T1 Sagittal Tilt - mean
All
[1] -3.64
L4
[1] -5.16
L5
[1] -3.13

L4 vs L5 p-value:[1] 0.01624378



2Y. T1 Sagittal Tilt - sd
All
[1] 4.49
L4
[1] 3.13
L5
[1] 3.39



5Y. T1 Sagittal Tilt - mean
All
[1] -2.81
L4
[1] -5.11
L5
[1] -2.46

L4 vs L5 p-value:[1] 0.009462915



5Y. T1 Sagittal Tilt - sd
All
[1] 4.93
L4
[1] 2.83
L5
[1] 3.46
```

T1 Sagittal Tilt tests all
Preop vs 6w p-value
2.950444e-05

Preop vs 2y p-value
2.561922e-05

Preop vs 5y p-value
0.04732429

6w vs 2y p-value
0.7813274

2y vs 5y p-value
0.09785102

6w vs 5y p-value
0.1322135

T1 Sagittal Tilt tests L4
Preop vs 6w p-value
0.5723161

Preop vs 2y p-value
0.3950976

Preop vs 5y p-value
0.4607995

6w vs 2y p-value
0.1568297

2y vs 5y p-value
0.9538986

6w vs 5y p-value
0.2052346

T1 Sagittal Tilt tests L5
Preop vs 6w p-value
0.6672455

Preop vs 2y p-value
0.5177708

Preop vs 5y p-value
0.932823

6w vs 2y p-value
0.156091

2y vs 5y p-value

0.4890376

6w vs 5y p-value
0.527774

Thoracolumbar L2-T10 - mean
All
[1] 10.15
L4
[1] 24.82
L5
[1] 11.15

L4 vs L5 p-value:[1] 0.004158729

Thoracolumbar L2-T10 - sd
All
[1] 20.63
L4
[1] 19.97
L5
[1] 20.96

6W. Thoracolumbar L2-T10 - mean
All
[1] 4.75
L4
[1] 1.5
L5
[1] 3.38

L4 vs L5 p-value:[1] 0.534681

6W. Thoracolumbar L2-T10 - sd
All
[1] 12.09
L4
[1] 14.33
L5
[1] 10.2

6M. Thoracolumbar L2-T10 - mean
All
[1] 4.95
L4
[1] 3.24
L5
[1] 5.31

```
L4 vs L5 p-value:[1] 0.4708201


6M. Thoracolumbar L2-T10 - sd
All
[1] 12.19
L4
[1] 10.87
L5
[1] 11.07



1Y. Thoracolumbar L2-T10 - mean
All
[1] 5.37
L4
[1] 4.33
L5
[1] 6.91

L4 vs L5 p-value:[1] 0.4209241


1Y. Thoracolumbar L2-T10 - sd
All
[1] 12.62
L4
[1] 10.26
L5
[1] 14.37



2Y. Thoracolumbar L2-T10 - mean
All
[1] 5.79
L4
[1] 4.02
L5
[1] 7.7

L4 vs L5 p-value:[1] 0.2159588


2Y. Thoracolumbar L2-T10 - sd
All
[1] 12.67
L4
[1] 10.74
L5
[1] 11.77
```

```
5Y. Thoracolumbar L2-T10 - mean
All
[1] 6.98
L4
[1] 5.65
L5
[1] 9.37

L4 vs L5 p-value:[1] 0.3128641


5Y. Thoracolumbar L2-T10 - sd
All
[1] 13.96
L4
[1] 11.3
L5
[1] 12.25



Thoracolumbar L2-T10 tests all
Preop vs 6w p-value
5.465972e-05

Preop vs 2y p-value
0.001546628

Preop vs 5y p-value
0.05238359

6w vs 2y p-value
0.3165752

2y vs 5y p-value
0.3984091

6w vs 5y p-value
0.1027737

Thoracolumbar L2-T10 tests L4
Preop vs 6w p-value
9.798708e-08

Preop vs 2y p-value
2.345396e-07

Preop vs 5y p-value
1.110709e-05

6w vs 2y p-value
0.4177206
```

```
2y vs 5y p-value
0.6064043


6w vs 5y p-value
0.2446928


Thoracolumbar L2-T10 tests L5
Preop vs 6w p-value
0.04948556


Preop vs 2y p-value
0.4054651


Preop vs 5y p-value
0.6810473


6w vs 2y p-value
0.1378671


2y vs 5y p-value
0.6315653


6w vs 5y p-value
0.06436168

RSA - mean
All
[1] 15.35
L4
[1] 9.16
L5
[1] 13.83

L4 vs L5 p-value:[1] 0.07113172



RSA - sd
All
[1] 15.39
L4
[1] 11.44
L5
[1] 11.35



6W. RSA - mean
All
[1] 7.57
L4
[1] 5.67
L5
[1] 13.1
```

```
L4 vs L5 p-value:[1] 0.001320824



6W. RSA - sd
All
[1] 9.3
L4
[1] 8.85
L5
[1] 9.74



6M. RSA - mean
All
[1] 9.33
L4
[1] 5.33
L5
[1] 12.52

L4 vs L5 p-value:[1] 0.0009051997



6M. RSA - sd
All
[1] 10.52
L4
[1] 8.02
L5
[1] 8.11



1Y. RSA - mean
All
[1] 9.85
L4
[1] 5.17
L5
[1] 11.99

L4 vs L5 p-value:[1] 0.0005692798



1Y. RSA - sd
All
[1] 10.95
L4
[1] 7.36
L5
[1] 7.24
```

```
2Y. RSA - mean
All
[1] 10.09
L4
[1] 4.16
L5
[1] 12.57

L4 vs L5 p-value:[1] 0.0002771497


2Y. RSA - sd
All
[1] 11.55
L4
[1] 9.35
L5
[1] 8.09



5Y. RSA - mean
All
[1] 13.34
L4
[1] 7.43
L5
[1] 17.45

L4 vs L5 p-value:[1] 0.003816685


5Y. RSA - sd
All
[1] 12.69
L4
[1] 11.86
L5
[1] 8.63



RSA tests all
Preop vs 6w p-value
4.959458e-14

Preop vs 2y p-value
2.441125e-06

Preop vs 5y p-value
0.1393535
```

6w vs 2y p-value
0.005318745

2y vs 5y p-value
0.01148679

6w vs 5y p-value
2.49948e-06

RSA tests L4
Preop vs 6w p-value
0.1314663

Preop vs 2y p-value
0.04077405

Preop vs 5y p-value
0.5912976

6w vs 2y p-value
0.4903931

2y vs 5y p-value
0.2999071

6w vs 5y p-value
0.5642791

RSA tests L5
Preop vs 6w p-value
0.7694667

Preop vs 2y p-value
0.5937744

Preop vs 5y p-value
0.1704213

6w vs 2y p-value
0.8130623

2y vs 5y p-value
0.04350424

6w vs 5y p-value
0.08640004

RPV - mean
All
[1] -8.4
L4
[1] -6.15
L5
[1] -8.53

```
L4 vs L5 p-value:[1] 0.1099413



RPV - sd
All
[1] 9.09
L4
[1] 6.91
L5
[1] 6.26



6W. RPV - mean
All
[1] -4.86
L4
[1] -3.79
L5
[1] -8.37

L4 vs L5 p-value:[1] 0.0036263



6W. RPV - sd
All
[1] 7.51
L4
[1] 7
L5
[1] 6.35



6M. RPV - mean
All
[1] -6.4
L4
[1] -3.88
L5
[1] -9.31

L4 vs L5 p-value:[1] 0.0004057546



6M. RPV - sd
All
[1] 7.67
L4
[1] 6.45
L5
[1] 6.28
```

```
1Y. RPV - mean
All
[1] -6.41
L4
[1] -5.11
L5
[1] -8.47

L4 vs L5 p-value:[1] 0.02849249


1Y. RPV - sd
All
[1] 7.84
L4
[1] 7.31
L5
[1] 5.76



2Y. RPV - mean
All
[1] -6.17
L4
[1] -3.58
L5
[1] -8.63

L4 vs L5 p-value:[1] 0.001881745


2Y. RPV - sd
All
[1] 7.73
L4
[1] 6.65
L5
[1] 5.99



5Y. RPV - mean
All
[1] -8.3
L4
[1] -5.95
L5
[1] -11.24

L4 vs L5 p-value:[1] 0.02152269
```

```
5Y. RPV - sd
All
[1] 8.12
L4
[1] 8.15
L5
[1] 5.74




RPV tests all
Preop vs 6w p-value
5.931477e-08

Preop vs 2y p-value
0.0009951724

Preop vs 5y p-value
0.9094059

6w vs 2y p-value
0.03599535

2y vs 5y p-value
0.009801427

6w vs 5y p-value
2.251031e-05

RPV tests L4
Preop vs 6w p-value
0.131529

Preop vs 2y p-value
0.1038785

Preop vs 5y p-value
0.9246635

6w vs 2y p-value
0.8939752

2y vs 5y p-value
0.2780007

6w vs 5y p-value
0.3206989

RPV tests L5
Preop vs 6w p-value
0.9094009

Preop vs 2y p-value
```

```
0.9493303

Preop vs 5y p-value
0.09522309

6w vs 2y p-value
0.8614437

2y vs 5y p-value
0.1128968

6w vs 5y p-value
0.07880649
```

Quality of Life

```
ODI - Score (%) - mean
All
[1] 37.48
L4
[1] 29.22
L5
[1] 40.79

L4 vs L5 p-value:[1] 0.004970222


ODI - Score (%) - sd
All
[1] 19.84
L4
[1] 17.7
L5
[1] 17.82



6M. ODI - Score (%) - mean
All
[1] 28.64
L4
[1] 26.24
L5
[1] 28.3

L4 vs L5 p-value:[1] 0.5870559


6M. ODI - Score (%) - sd
All
[1] 17.88
L4
[1] 15.96
```

```
L5
[1] 15.87



1Y. ODI - Score (%) - mean
All
[1] 25.89
L4
[1] 18.9
L5
[1] 29.66

L4 vs L5 p-value:[1] 0.006735415



1Y. ODI - Score (%) - sd
All
[1] 18.01
L4
[1] 15.16
L5
[1] 17.66



2Y. ODI - Score (%) - mean
All
[1] 27.66
L4
[1] 21.02
L5
[1] 27.68

L4 vs L5 p-value:[1] 0.1289585



2Y. ODI - Score (%) - sd
All
[1] 21.22
L4
[1] 18.02
L5
[1] 20.52



5Y. ODI - Score (%) - mean
All
[1] 28.82
L4
[1] 23.66
L5
[1] 29.47
```

L4 vs L5 p-value:[1] 0.1752142

5Y. ODI - Score (%) - sd
All
[1] 21.57
L4
[1] 17.71
L5
[1] 16.43

ODI - Score (%) tests all
Preop vs 6m p-value
4.234456e-09

Preop vs 2y p-value
1.669532e-09

Preop vs 5y p-value
1.3154e-06

6m vs 2y p-value
0.531449

2y vs 5y p-value
0.5283208

6w vs 5y p-value
3.523138e-53

ODI - Score (%) tests L4
Preop vs 6m p-value
0.4333096

Preop vs 2y p-value
0.03972036

Preop vs 5y p-value
0.1763392

6m vs 2y p-value
0.1739929

2y vs 5y p-value
0.5212302

6m vs 5y p-value
0.5166256

ODI - Score (%) tests L5
Preop vs 6m p-value

0.0003512974

Preop vs 2y p-value
0.004010115

Preop vs 5y p-value
0.00842788

6m vs 2y p-value
0.7324842

2y vs 5y p-value
0.6920722

6w vs 5y p-value
4.821621e-14

SRS22 - Function / Activity - mean
All
[1] 3.09
L4
[1] 3.28
L5
[1] 2.87

L4 vs L5 p-value:[1] 0.02683056

SRS22 - Function / Activity - sd
All
[1] 0.86
L4
[1] 0.87
L5
[1] 0.72

6M. SRS22 - Function / Activity - mean
All
[1] 3.24
L4
[1] 3.22
L5
[1] 3.07

L4 vs L5 p-value:[1] 0.4605215

6M. SRS22 - Function / Activity - sd
All
[1] 0.81
L4
[1] 0.85

```
L5
[1] 0.82




1Y. SRS22 - Function / Activity - mean
All
[1] 3.39
L4
[1] 3.67
L5
[1] 3.11

L4 vs L5 p-value:[1] 0.009749303




1Y. SRS22 - Function / Activity - sd
All
[1] 0.89
L4
[1] 0.91
L5
[1] 0.9




2Y. SRS22 - Function / Activity - mean
All
[1] 3.47
L4
[1] 3.71
L5
[1] 3.39

L4 vs L5 p-value:[1] 0.1080432




2Y. SRS22 - Function / Activity - sd
All
[1] 0.93
L4
[1] 0.89
L5
[1] 0.82




5Y. SRS22 - Function / Activity - mean
All
[1] 3.48
L4
[1] 3.58
L5
[1] 3.38
```

L4 vs L5 p-value:[1] 0.3105073

5Y. SRS22 - Function / Activity - sd
All
[1] 0.91
L4
[1] 0.9
L5
[1] 0.7

SRS22 - Function / Activity tests all
Preop vs 6m p-value
0.02173791

Preop vs 2y p-value
7.667214e-08

Preop vs 5y p-value
3.075026e-07

6m vs 2y p-value
0.0008535996

2y vs 5y p-value
0.9164978

6w vs 5y p-value
8.598641e-14

SRS22 - Function / Activity tests L4
Preop vs 6m p-value
0.7656171

Preop vs 2y p-value
0.02926171

Preop vs 5y p-value
0.1403798

6m vs 2y p-value
0.01448075

2y vs 5y p-value
0.5472829

6m vs 5y p-value
0.08226201

SRS22 - Function / Activity tests L5
Preop vs 6m p-value

```
0.05918874

Preop vs 2y p-value
0.005170153

Preop vs 5y p-value
0.004423053

6m vs 2y p-value
0.3791198

2y vs 5y p-value
0.9502907

6w vs 5y p-value
9.494831e-14

SRS22 - Pain - mean
All
[1] 2.6
L4
[1] 2.83
L5
[1] 2.35

L4 vs L5 p-value:[1] 0.02800391


SRS22 - Pain - sd
All
[1] 0.97
L4
[1] 1.01
L5
[1] 0.88



6M. SRS22 - Pain - mean
All
[1] 3.42
L4
[1] 3.42
L5
[1] 3.37

L4 vs L5 p-value:[1] 0.8011964


6M. SRS22 - Pain - sd
All
[1] 0.9
L4
[1] 0.86
```

```
L5
[1] 0.88




1Y. SRS22 - Pain - mean
All
[1] 3.56
L4
[1] 3.85
L5
[1] 3.4

L4 vs L5 p-value:[1] 0.05004134


1Y. SRS22 - Pain - sd
All
[1] 0.97
L4
[1] 0.94
L5
[1] 0.99




2Y. SRS22 - Pain - mean
All
[1] 3.49
L4
[1] 3.78
L5
[1] 3.31

L4 vs L5 p-value:[1] 0.04307255


2Y. SRS22 - Pain - sd
All
[1] 1.1
L4
[1] 1
L5
[1] 1.01




5Y. SRS22 - Pain - mean
All
[1] 3.34
L4
[1] 3.47
L5
[1] 3.08
```

L4 vs L5 p-value:[1] 0.1354012

5Y. SRS22 - Pain - sd
All
[1] 1.13
L4
[1] 1.06
L5
[1] 1.01

SRS22 - Pain tests all
Preop vs 6m p-value
8.395163e-27

Preop vs 2y p-value
6.671258e-26

Preop vs 5y p-value
1.989905e-15

6m vs 2y p-value
0.3762109

2y vs 5y p-value
0.1167575

6w vs 5y p-value
1.179657e-13

SRS22 - Pain tests L4
Preop vs 6m p-value
0.005996365

Preop vs 2y p-value
4.344815e-05

Preop vs 5y p-value
0.008788428

6m vs 2y p-value
0.08866341

2y vs 5y p-value
0.1923711

6m vs 5y p-value
0.8343482

SRS22 - Pain tests L5
Preop vs 6m p-value

```
9.020891e-07

Preop vs 2y p-value
4.950859e-05

Preop vs 5y p-value
0.002440434

6m vs 2y p-value
0.6089766

2y vs 5y p-value
0.3669379

6w vs 5y p-value
1.699573e-13

SRS22 - Self image / Appearance - mean
All
[1] 2.38
L4
[1] 2.59
L5
[1] 2.34

L4 vs L5 p-value:[1] 0.1548127


SRS22 - Self image / Appearance - sd
All
[1] 0.74
L4
[1] 0.82
L5
[1] 0.71



6M. SRS22 - Self image / Appearance - mean
All
[1] 3.49
L4
[1] 3.7
L5
[1] 3.5

L4 vs L5 p-value:[1] 0.2922336


6M. SRS22 - Self image / Appearance - sd
All
[1] 0.83
L4
[1] 0.68
```

```
L5
[1] 0.87




1Y. SRS22 - Self image / Appearance - mean
All
[1] 3.53
L4
[1] 3.82
L5
[1] 3.44

L4 vs L5 p-value:[1] 0.05463313


1Y. SRS22 - Self image / Appearance - sd
All
[1] 0.79
L4
[1] 0.74
L5
[1] 0.89




2Y. SRS22 - Self image / Appearance - mean
All
[1] 3.43
L4
[1] 3.76
L5
[1] 3.46

L4 vs L5 p-value:[1] 0.1454374


2Y. SRS22 - Self image / Appearance - sd
All
[1] 0.93
L4
[1] 0.87
L5
[1] 0.92




5Y. SRS22 - Self image / Appearance - mean
All
[1] 3.36
L4
[1] 3.6
L5
[1] 3.27
```

L4 vs L5 p-value:[1] 0.1483662

5Y. SRS22 - Self image / Appearance - sd
All
[1] 0.94
L4
[1] 0.91
L5
[1] 0.92

SRS22 - Self image / Appearance tests all
Preop vs 6m p-value
1.036098e-57

Preop vs 2y p-value
5.696223e-48

Preop vs 5y p-value
2.671698e-34

6m vs 2y p-value
0.4441466

2y vs 5y p-value
0.3449467

6w vs 5y p-value
1.159136e-13

SRS22 - Self image / Appearance tests L4
Preop vs 6m p-value
6.275197e-09

Preop vs 2y p-value
1.439882e-08

Preop vs 5y p-value
3.704997e-06

6m vs 2y p-value
0.7320808

2y vs 5y p-value
0.4365176

6m vs 5y p-value
0.5995715

SRS22 - Self image / Appearance tests L5
Preop vs 6m p-value

```
1.377997e-12

Preop vs 2y p-value
1.651947e-07

Preop vs 5y p-value
2.457011e-05

6m vs 2y p-value
0.2092055

2y vs 5y p-value
0.3972415

6w vs 5y p-value
1.113874e-13

SRS22 - Mental health - mean
All
[1] 3.15
L4
[1] 3.2
L5
[1] 3.22

L4 vs L5 p-value:[1] 0.9285385


SRS22 - Mental health - sd
All
[1] 0.85
L4
[1] 0.82
L5
[1] 0.86


6M. SRS22 - Mental health - mean
All
[1] 3.54
L4
[1] 3.57
L5
[1] 3.56

L4 vs L5 p-value:[1] 0.9320568


6M. SRS22 - Mental health - sd
All
[1] 0.85
L4
[1] 0.81
```

```
L5
[1] 0.88




1Y. SRS22 - Mental health - mean
All
[1] 3.59
L4
[1] 3.76
L5
[1] 3.51

L4 vs L5 p-value:[1] 0.2197001


1Y. SRS22 - Mental health - sd
All
[1] 0.82
L4
[1] 0.8
L5
[1] 0.93




2Y. SRS22 - Mental health - mean
All
[1] 3.5
L4
[1] 3.63
L5
[1] 3.57

L4 vs L5 p-value:[1] 0.7500067


2Y. SRS22 - Mental health - sd
All
[1] 0.94
L4
[1] 0.87
L5
[1] 0.85




5Y. SRS22 - Mental health - mean
All
[1] 3.53
L4
[1] 3.67
L5
[1] 3.43
```

L4 vs L5 p-value:[1] 0.2864843

5Y. SRS22 - Mental health - sd
All
[1] 0.89
L4
[1] 0.95
L5
[1] 0.83

SRS22 - Mental health tests all
Preop vs 6m p-value
8.276809e-09

Preop vs 2y p-value
9.80005e-07

Preop vs 5y p-value
3.57605e-07

6m vs 2y p-value
0.5414079

2y vs 5y p-value
0.6506869

6w vs 5y p-value
7.566897e-14

SRS22 - Mental health tests L4
Preop vs 6m p-value
0.04483037

Preop vs 2y p-value
0.02128555

Preop vs 5y p-value
0.02531553

6m vs 2y p-value
0.7520899

2y vs 5y p-value
0.8667876

6m vs 5y p-value
0.6500717

SRS22 - Mental health tests L5
Preop vs 6m p-value

0.06643112

Preop vs 2y p-value
0.07894434

Preop vs 5y p-value
0.2941027

6m vs 2y p-value
0.9883327

2y vs 5y p-value
0.5049983

6w vs 5y p-value
7.74375e-14

SRS22 - SRS Subtotal score - mean
All
[1] 2.81
L4
[1] 2.98
L5
[1] 2.71

L4 vs L5 p-value:[1] 0.09354685

SRS22 - SRS Subtotal score - sd
All
[1] 0.69
L4
[1] 0.76
L5
[1] 0.65

6M. SRS22 - SRS Subtotal score - mean
All
[1] 3.42
L4
[1] 3.48
L5
[1] 3.37

L4 vs L5 p-value:[1] 0.5144035

6M. SRS22 - SRS Subtotal score - sd
All
[1] 0.69
L4
[1] 0.66

```
L5
[1] 0.69




1Y. SRS22 - SRS Subtotal score - mean
All
[1] 3.52
L4
[1] 3.77
L5
[1] 3.36

L4 vs L5 p-value:[1] 0.02219664




1Y. SRS22 - SRS Subtotal score - sd
All
[1] 0.73
L4
[1] 0.72
L5
[1] 0.77




2Y. SRS22 - SRS Subtotal score - mean
All
[1] 3.47
L4
[1] 3.72
L5
[1] 3.44

L4 vs L5 p-value:[1] 0.111672




2Y. SRS22 - SRS Subtotal score - sd
All
[1] 0.85
L4
[1] 0.79
L5
[1] 0.78




5Y. SRS22 - SRS Subtotal score - mean
All
[1] 3.41
L4
[1] 3.58
L5
[1] 3.29
```

L4 vs L5 p-value:[1] 0.1461649

5Y. SRS22 - SRS Subtotal score - sd
All
[1] 0.88
L4
[1] 0.85
L5
[1] 0.76

SRS22 - SRS Subtotal score tests all
Preop vs 6m p-value
5.666437e-27

Preop vs 2y p-value
2.051315e-25

Preop vs 5y p-value
1.769115e-17

6m vs 2y p-value
0.4145993

2y vs 5y p-value
0.4257375

6w vs 5y p-value
1.013087e-13

SRS22 - SRS Subtotal score tests L4
Preop vs 6m p-value
0.002451528

Preop vs 2y p-value
3.60342e-05

Preop vs 5y p-value
0.001881916

6m vs 2y p-value
0.1367817

2y vs 5y p-value
0.4502338

6m vs 5y p-value
0.5740497

SRS22 - SRS Subtotal score tests L5
Preop vs 6m p-value

```
2.169867e-06

Preop vs 2y p-value
4.559858e-05

Preop vs 5y p-value
0.001364516

6m vs 2y p-value
0.7999314

2y vs 5y p-value
0.4366109

6w vs 5y p-value
1.159859e-13

SF36 - PCS - mean
All
[1] 36.37
L4
[1] 40.25
L5
[1] 34.85

L4 vs L5 p-value:[1] 0.008001579


SF36 - PCS - sd
All
[1] 9.34
L4
[1] 9.03
L5
[1] 8.59



6M. SF36 - PCS - mean
All
[1] 40.33
L4
[1] 42.97
L5
[1] 38.69

L4 vs L5 p-value:[1] 0.02049346


6M. SF36 - PCS - sd
All
[1] 9.02
L4
[1] 7.65
```

```
L5
[1] 7.54




1Y. SF36 - PCS - mean
All
[1] 41.91
L4
[1] 46.18
L5
[1] 39.67

L4 vs L5 p-value:[1] 0.005079299


1Y. SF36 - PCS - sd
All
[1] 9.91
L4
[1] 9.57
L5
[1] 9.76




2Y. SF36 - PCS - mean
All
[1] 41.89
L4
[1] 45.34
L5
[1] 41.14

L4 vs L5 p-value:[1] 0.05009991


2Y. SF36 - PCS - sd
All
[1] 10.38
L4
[1] 10.01
L5
[1] 8.77




5Y. SF36 - PCS - mean
All
[1] 41.29
L4
[1] 43.55
L5
[1] 40.62
```

L4 vs L5 p-value:[1] 0.185434

5Y. SF36 - PCS - sd
All
[1] 11.28
L4
[1] 9.06
L5
[1] 8.38

SF36 - PCS tests all
Preop vs 6m p-value
7.448317e-08

Preop vs 2y p-value
3.406167e-12

Preop vs 5y p-value
7.205896e-08

6m vs 2y p-value
0.04488095

2y vs 5y p-value
0.5181065

6w vs 5y p-value
2.220629e-54

SF36 - PCS tests L4
Preop vs 6m p-value
0.154334

Preop vs 2y p-value
0.01781341

Preop vs 5y p-value
0.1206343

6m vs 2y p-value
0.2403903

2y vs 5y p-value
0.417447

6m vs 5y p-value
0.7736433

SF36 - PCS tests L5
Preop vs 6m p-value

4.836783e-05

Preop vs 2y p-value
0.002306935

Preop vs 5y p-value
0.00697263

6m vs 2y p-value
0.3381004

2y vs 5y p-value
0.8072016

6w vs 5y p-value
3.339344e-32

SF36 - MCS - mean
All
[1] 42.71
L4
[1] 41.89
L5
[1] 44.91

L4 vs L5 p-value:[1] 0.2671804

SF36 - MCS - sd
All
[1] 11.73
L4
[1] 11.8
L5
[1] 12.21

6M. SF36 - MCS - mean
All
[1] 46.87
L4
[1] 48.24
L5
[1] 47.58

L4 vs L5 p-value:[1] 0.8190889

6M. SF36 - MCS - sd
All
[1] 11.91
L4
[1] 11.55

```
L5
[1] 12.44




1Y. SF36 - MCS - mean
All
[1] 47.37
L4
[1] 50.8
L5
[1] 47


L4 vs L5 p-value:[1] 0.1710523



1Y. SF36 - MCS - sd
All
[1] 11.5
L4
[1] 9.86
L5
[1] 13.26




2Y. SF36 - MCS - mean
All
[1] 47.01
L4
[1] 49.38
L5
[1] 49.08


L4 vs L5 p-value:[1] 0.905938



2Y. SF36 - MCS - sd
All
[1] 12.04
L4
[1] 10.33
L5
[1] 12.11




5Y. SF36 - MCS - mean
All
[1] 47.46
L4
[1] 50.28
L5
[1] 47.63
```

L4 vs L5 p-value:[1] 0.3406633

5Y. SF36 - MCS - sd
All
[1] 11.35
L4
[1] 10.39
L5
[1] 11.5

SF36 - MCS tests all
Preop vs 6m p-value
1.116871e-05

Preop vs 2y p-value
5.388458e-06

Preop vs 5y p-value
1.783548e-06

6m vs 2y p-value
0.8787294

2y vs 5y p-value
0.6565847

6w vs 5y p-value
1.791352e-58

SF36 - MCS tests L4
Preop vs 6m p-value
0.0188427

Preop vs 2y p-value
0.003017321

Preop vs 5y p-value
0.001627255

6m vs 2y p-value
0.646381

2y vs 5y p-value
0.7112284

6m vs 5y p-value
0.4356675

SF36 - MCS tests L5
Preop vs 6m p-value

0.229428

Preop vs 2y p-value
0.1391076

Preop vs 5y p-value
0.3491436

6m vs 2y p-value
0.757567

2y vs 5y p-value
0.6157796

6w vs 5y p-value
2.171426e-26

Surgery

Total Operative Blood Loss st1+st2+st3 - mean
All
[1] 1541.9
L4
[1] 1102.82
L5
[1] 1356.53

L4 vs L5 p-value:[1] 0.2336043

Total Operative Blood Loss st1+st2+st3 - sd
All
[1] 1257.93
L4
[1] 778.62
L5
[1] 1021.54

Total surgical time st1+st2+st3 - mean
All
[1] 321.94
L4
[1] 268.21
L5
[1] 352.08

L4 vs L5 p-value:[1] 0.03805626

Total surgical time st1+st2+st3 - sd
All

```
[1] 163.2
L4
[1] 135.05
L5
[1] 210.24


Number of Posterior Instrumented Levels - mean
All
[1] 9.72
L4
[1] 9.33
L5
[1] 8.62

L4 vs L5 p-value:[1] 0.4527274


Number of Posterior Instrumented Levels - sd
All
[1] 4.01
L4
[1] 3.96
L5
[1] 4.55



Pelvic fixation - table
All
variable
 No Yes
214 134
L4
variable
No
42
L5
variable
No
39

Pelvic fixation - proportion
All
variable
        No       Yes
0.6149425 0.3850575
L4
variable
No
 1
L5
variable
```

```
No
 1


Surgical Approach - table
All
variable
        Anterior-Posterior                      Posterior
                       4                             329
        Posterior-Anterior         Posterior-Posterior
                      11                               3
Posterior-Posterior-Anterior
                       1
L4
variable
Posterior
      42
L5
variable
 Anterior-Posterior          Posterior Posterior-Posterior
                1                 37                       1

Surgical Approach - proportion
All
variable
        Anterior-Posterior                      Posterior
              0.011494253                    0.945402299
        Posterior-Anterior         Posterior-Posterior
              0.031609195                    0.008620690
Posterior-Posterior-Anterior
              0.002873563
L4
variable
Posterior
       1
L5
variable
 Anterior-Posterior          Posterior Posterior-Posterior
         0.02564103         0.94871795           0.02564103



Number of Interbody Fusions - mean
All
[1] 0.85
L4
[1] 0.31
L5
[1] 1.03

L4 vs L5 p-value:[1] 0.004462937
```

```
Number of Interbody Fusions - sd
All
[1] 1.18
L4
[1] 0.6
L5
[1] 1.39



Decompression - table
All
variable
 No Yes
261  87
L4
variable
 No Yes
 33   9
L5
variable
 No Yes
 26  13

Decompression - proportion
All
variable
  No  Yes
0.75 0.25
L4
variable
        No        Yes
0.7857143 0.2142857
L5
variable
        No        Yes
0.6666667 0.3333333



Interbody Fusion - table
All
variable
 No Yes
193 155
L4
variable
 No Yes
 32  10
L5
variable
 No Yes
 19  20
```

```
Interbody Fusion - proportion
All
variable
       No       Yes
0.5545977 0.4454023
L4
variable
       No       Yes
0.7619048 0.2380952
L5
variable
       No       Yes
0.4871795 0.5128205




Osteotomy - table
All
variable
 No Yes
178 170
L4
variable
 No Yes
 23  19
L5
variable
 No Yes
 25  14

Osteotomy - proportion
All
variable
       No       Yes
0.5114943 0.4885057
L4
variable
      No      Yes
0.547619 0.452381
L5
variable
       No       Yes
0.6410256 0.3589744




3CO - table
All
variable
 No Yes
295  53
L4
variable
 No Yes
```

```
37   5
L5
variable
 No Yes
 33   6
```

3CO - proportion
All
```
variable
       No       Yes
0.8477011 0.1522989
```
L4
```
variable
       No       Yes
0.8809524 0.1190476
```
L5
```
variable
       No       Yes
0.8461538 0.1538462
```

Before 2Y

Reinterventions

```
   group reiqs patients total
1:   all   143       80   348
2:    L4     3        3    42
3:    L5    19       10    39
```

```
  p_val_1_total p_val_2_total  p_val_1_2
1    0.02997251     0.8634625 0.04961024
```

Impacts

	Complication Impact	all_num	all_patients	L4_num	L4_patients	L5_num
1:		0	1	1	0	0
2:	Adverse Event	2	2	0	0	1
3:	Major Complication	166	91	4	3	23
4:	Minor Complication	170	119	7	7	18

	L5_patients	total_all	L4	L5	p_val_1_total	p_val_2_total	p_val_1_2
1:	0	348	42	39	1.00000000	1.0000000	NaN
2:	1	348	42	39	1.00000000	0.7035001	0.97025108
3:	12	348	42	39	0.01142290	0.6686503	0.01432929
4:	14	348	42	39	0.03400885	0.9725162	0.08549423

Categories

	Category of the complication	all_num	all_patients	L4_num	L4_patients
1:	Central neurologic complications	1	1	0	0
2:	Iatrogenic	16	16	1	1

```
3:          Infectious complications    29          25      2         2
4:          Mechanical complications   141          99      4         4
5:              Other complications    101          65      3         3
6:                             Pain     11          10      0         0
7: Peripheral neurologic complications  40          35      1         1
   L5_num L5_patients total_all L4 L5 p_val_1_total p_val_2_total  p_val_1_2
1:      0           0      348 42 39    1.00000000     1.0000000        NaN
2:      3           3      348 42 39    0.79129930     0.6473799 0.55572674
3:      7           5      348 42 39    0.79305213     0.3510713 0.37131720
4:     15          11      348 42 39    0.01458003     1.0000000 0.06059619
5:     11           9      348 42 39    0.09977667     0.6543683 0.08837420
6:      2           1      348 42 39    0.55102623     1.0000000 0.97025108
7:      4           4      348 42 39    0.17980406     1.0000000 0.31270068
```

Categories Major Complications

```
            Category of the complication all_num all_patients L4_num L4_patients
1:    Central neurologic complications        1            1      0           0
2:                        Iatrogenic         13           13      1           1
3:          Infectious complications         24           20      1           1
4:          Mechanical complications         81           57      0           0
5:              Other complications          30           23      1           1
6:                             Pain           6            5      0           0
7: Peripheral neurologic complications        11           11      1           1
   L5_num L5_patients total_all L4 L5 p_val_1_total p_val_2_total  p_val_1_2
1:      0           0      348 42 39   1.000000000     1.0000000        NaN
2:      2           2      348 42 39   0.994610877     1.0000000 0.94784205
3:      6           4      348 42 39   0.581546646     0.4489724 0.31270068
4:      9           7      348 42 39   0.009127102     0.9817283 0.01325498
5:      1           1      348 42 39   0.460972955     0.5201249 1.00000000
6:      2           1      348 42 39   0.955464299     1.0000000 0.97025108
7:      3           3      348 42 39   1.000000000     0.3246503 0.55572674
```

From 2Y - 5Y

Reinterventions

```
   group reiqs patients total
1:   all    55       37   348
2:    L4     3        3    42
3:    L5     8        5    39


  p_val_1_total p_val_2_total p_val_1_2
1     0.6636531     0.8845601 0.6290236
```

Impacts

```
   Complication Impact all_num all_patients L4_num L4_patients L5_num
1:       Adverse Event       1            1      0            0      0
2:  Major Complication      59           40      3            3      9
```

```
3:  Minor Complication      30          29      1          1      1
   L5_patients total_all L4 L5 p_val_1_total p_val_2_total p_val_1_2
1:          0     348 42 39     1.0000000      1.0000000       NaN
2:          6     348 42 39     0.5553676      0.6519918  0.409074
3:          1     348 42 39     0.2886960      0.3361080  1.000000
```

Categories

```
          Category of the complication all_num all_patients L4_num L4_patients
1:                          Iatrogenic       3            3      0           0
2:             Infectious complications       3            2      1           1
3:             Mechanical complications      75           57      3           2
4:                 Other complications       1            1      0           0
5:                                Pain       6            6      0           0
6: Peripheral neurologic complications       2            1      0           0
   L5_num L5_patients total_all L4 L5 p_val_1_total p_val_2_total p_val_1_2
1:      0           0     348 42 39    1.00000000    1.0000000       NaN
2:      2           1     348 42 39    0.74080389    0.7035001 1.0000000
3:      7           6     348 42 39    0.07894177    1.0000000 0.2192750
4:      0           0     348 42 39    1.00000000    1.0000000       NaN
5:      1           1     348 42 39    0.84619340    1.0000000 0.9702511
6:      0           0     348 42 39    1.00000000    1.0000000       NaN
```

Categories Major Complications

```
          Category of the complication all_num all_patients L4_num L4_patients
1:                          Iatrogenic       3            3      0           0
2:             Infectious complications       3            2      1           1
3:             Mechanical complications      45           32      2           2
4:                 Other complications       1            1      0           0
5:                                Pain       5            5      0           0
6: Peripheral neurologic complications       2            1      0           0
   L5_num L5_patients total_all L4 L5 p_val_1_total p_val_2_total p_val_1_2
1:      0           0     348 42 39    1.0000000     1.0000000       NaN
2:      2           1     348 42 39    0.7408039     0.7035001 1.0000000
3:      6           5     348 42 39    0.5012068     0.6578105 0.3713172
4:      0           0     348 42 39    1.0000000     1.0000000       NaN
5:      1           1     348 42 39    0.9554643     1.0000000 0.9702511
6:      0           0     348 42 39    1.0000000     1.0000000       NaN
```

Before 5Y

Reinterventions

```
   group reiqs patients total
1:   all   198      101   348
2:    L4     6        6    42
3:    L5    27       12    39


  p_val_1_total p_val_2_total p_val_1_2
1    0.06592413     0.9667017 0.1296407
```

Impacts

	Complication Impact	all_num	all_patients	L4_num	L4_patients	L5_num
1:	0	1	1	0	0	0
2:	Adverse Event	3	3	0	0	1
3:	Major Complication	225	109	7	6	32
4:	Minor Complication	200	134	8	8	19

	L5_patients	total_all	L4	L5	p_val_1_total	p_val_2_total	p_val_1_2
1:	0	348	42	39	1.00000000	1.0000000	NaN
2:	1	348	42	39	1.00000000	0.8714760	0.9702511
3:	14	348	42	39	0.03502475	0.6887118	0.0459426
4:	14	348	42	39	0.02111933	0.8854176	0.1460626

Categories

	Category of the complication	all_num	all_patients	L4_num	L4_patients
1:	Central neurologic complications	1	1	0	0
2:	Iatrogenic	19	19	1	1
3:	Infectious complications	32	27	3	3
4:	Mechanical complications	216	131	7	6
5:	Other complications	102	66	3	3
6:	Pain	17	16	0	0
7:	Peripheral neurologic complications	42	35	1	1

	L5_num	L5_patients	total_all	L4	L5	p_val_1_total	p_val_2_total	p_val_1_2
1:	0	0	348	42	39	1.000000000	1.0000000	NaN
2:	3	3	348	42	39	0.628230034	0.8365229	0.55572674
3:	9	6	348	42	39	1.000000000	0.1886083	0.40907399
4:	22	13	348	42	39	0.004737666	0.7237798	0.07856588
5:	11	9	348	42	39	0.092450867	0.6874134	0.08837420
6:	3	2	348	42	39	0.313810922	1.0000000	0.44155696
7:	4	4	348	42	39	0.179804061	1.0000000	0.31270068

Categories Major Complications

	Category of the complication	all_num	all_patients	L4_num	L4_patients
1:	Central neurologic complications	1	1	0	0
2:	Iatrogenic	16	16	1	1
3:	Infectious complications	27	22	2	2
4:	Mechanical complications	126	77	2	2
5:	Other complications	31	24	1	1
6:	Pain	11	10	0	0
7:	Peripheral neurologic complications	13	11	1	1

	L5_num	L5_patients	total_all	L4	L5	p_val_1_total	p_val_2_total	p_val_1_2
1:	0	0	348	42	39	1.00000000	1.0000000	NaN
2:	2	2	348	42	39	0.79129930	1.0000000	0.94784205
3:	8	5	348	42	39	0.95413446	0.2383003	0.37131720
4:	15	10	348	42	39	0.01461731	0.7669829	0.01980564
5:	1	1	348	42	39	0.42652041	0.4837680	1.00000000
6:	3	2	348	42	39	0.55102623	0.7770302	0.44155696
7:	3	3	348	42	39	1.00000000	0.3246503	0.55572674