# Loss of alignment

Initial Patients: 370

With Posterior Instrumented Fusion: 346

Posterior Instrumental Fusion is Iliac: 132

Differences smaller than 10º in 6W-2Y Lordosis (top of L1-S1): 110

Without complications (PJK, PJF, DJK, DJF) ever after surgery: 79

UIV frequencies

```
     uiv  N
 1:   L1  4
 2:   L2  3
 3:   L3  3
 4:  T10 22
 5:  T11  8
 6:  T12 12
 7:   T2  7
 8:   T3  6
 9:   T4  3
10:   T5  1
11:   T7  2
12:   T8  1
13:   T9  7
```

**Demographics**

```
Age
Age - mean
All
[1] 61.92
Age - sd
All
[1] 10.5


Gender
Gender - table
All
variable
Female    Male
    66      13
Gender - proportion
All
variable
```

```
   Female     Male
0.835443 0.164557


Prior Spine Surgery
Prior Spine Surgery - table
All
variable
 No Yes
 46  33
Prior Spine Surgery - proportion
All
variable
        No       Yes
0.5822785 0.4177215


Height (cm)_First Visit
Height (cm)_First Visit - mean
All
[1] 161.85
Height (cm)_First Visit - sd
All
[1] 9.14


Weight (kgs)_First Visit
Weight (kgs)_First Visit - mean
All
[1] 66.29
Weight (kgs)_First Visit - sd
All
[1] 12.82


BMI_First Visit
BMI_First Visit - mean
All
[1] 25.2
BMI_First Visit - sd
All
[1] 3.53


ASA classification
ASA classification - table
All
variable
 1  2  3
15 55  9
ASA classification - proportion
All
variable
        1         2         3
```

```
0.1898734 0.6962025 0.1139241


Tobacco use_First Visit
Tobacco use_First Visit - table
All
variable
 Current      Ex Non-User
     19      17       43
Tobacco use_First Visit - proportion
All
variable
  Current        Ex  Non-User
0.2405063 0.2151899 0.5443038


ESSG Diagnosis
ESSG Diagnosis - table
All
variable
    Congenital   Degenerative    Failed-back     Idiopathic  Neuromuscular
             3             36              8             26              2
Post-traumatic       Syndromic
             3               1
ESSG Diagnosis - proportion
All
variable
    Congenital   Degenerative    Failed-back     Idiopathic  Neuromuscular
    0.03797468     0.45569620     0.10126582     0.32911392     0.02531646
Post-traumatic       Syndromic
    0.03797468     0.01265823


Surgical Approach
Surgical Approach - table
All
variable
        Anterior-Posterior                          Posterior
                         1                                 70
        Posterior-Anterior Posterior-Posterior-Anterior
                         7                                  1
Surgical Approach - proportion
All
variable
        Anterior-Posterior                          Posterior
                0.01265823                         0.88607595
        Posterior-Anterior Posterior-Posterior-Anterior
                0.08860759                         0.01265823
```

## Radiology

```
Static Major curve Cobb angle
Static Major curve Cobb angle - mean
```

```
All
[1] 40.7
Static Major curve Cobb angle - sd
All
[1] 22.31


6W. Static Major curve Cobb angle
6W. Static Major curve Cobb angle - mean
All
[1] 23.88
6W. Static Major curve Cobb angle - sd
All
[1] 16.77


6M. Static Major curve Cobb angle
6M. Static Major curve Cobb angle - mean
All
[1] 21.54
6M. Static Major curve Cobb angle - sd
All
[1] 17.96


1Y. Static Major curve Cobb angle
1Y. Static Major curve Cobb angle - mean
All
[1] 19.63
1Y. Static Major curve Cobb angle - sd
All
[1] 16.49


2Y. Static Major curve Cobb angle
2Y. Static Major curve Cobb angle - mean
All
[1] 18.21
2Y. Static Major curve Cobb angle - sd
All
[1] 14.49


5Y. Static Major curve Cobb angle
5Y. Static Major curve Cobb angle - mean
All
[1] 24.77
5Y. Static Major curve Cobb angle - sd
All
[1] 15.97


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

```
1.081928e-06

Preop vs 2y p-value
7.143763e-11

Preop vs 5y p-value
3.559371e-05

6w vs 2y p-value
0.03582374

2y vs 5y p-value
0.04005799

6w vs 5y p-value
0.786102

Coronal Balance (C7PL to CSVL)
Coronal Balance (C7PL to CSVL) - mean
All
[1] 30.17
Coronal Balance (C7PL to CSVL) - sd
All
[1] 25.85


6W. Coronal Balance (C7PL to CSVL)
6W. Coronal Balance (C7PL to CSVL) - mean
All
[1] 20.3
6W. Coronal Balance (C7PL to CSVL) - sd
All
[1] 14.63


6M. Coronal Balance (C7PL to CSVL)
6M. Coronal Balance (C7PL to CSVL) - mean
All
[1] 21.44
6M. Coronal Balance (C7PL to CSVL) - sd
All
[1] 16.85


1Y. Coronal Balance (C7PL to CSVL)
1Y. Coronal Balance (C7PL to CSVL) - mean
All
[1] 21.86
1Y. Coronal Balance (C7PL to CSVL) - sd
All
[1] 16.67


2Y. Coronal Balance (C7PL to CSVL)
```

```
2Y. Coronal Balance (C7PL to CSVL) - mean
All
[1] 20.39
2Y. Coronal Balance (C7PL to CSVL) - sd
All
[1] 17.39


5Y. Coronal Balance (C7PL to CSVL)
5Y. Coronal Balance (C7PL to CSVL) - mean
All
[1] 30.43
5Y. Coronal Balance (C7PL to CSVL) - sd
All
[1] 21.9


Coronal Balance (C7PL to CSVL) tests
Preop vs 6w p-value
0.004540926

Preop vs 2y p-value
0.00839223

Preop vs 5y p-value
0.955953

6w vs 2y p-value
0.9753007

2y vs 5y p-value
0.01830705

6w vs 5y p-value
0.0127905

Sagittal Balance
Sagittal Balance - mean
All
[1] 71.93
Sagittal Balance - sd
All
[1] 57.9


6W. Sagittal Balance
6W. Sagittal Balance - mean
All
[1] 23.79
6W. Sagittal Balance - sd
All
[1] 29.77
```

```
6M. Sagittal Balance
6M. Sagittal Balance - mean
All
[1] 18.74
6M. Sagittal Balance - sd
All
[1] 34.63


1Y. Sagittal Balance
1Y. Sagittal Balance - mean
All
[1] 23.48
1Y. Sagittal Balance - sd
All
[1] 39.48


2Y. Sagittal Balance
2Y. Sagittal Balance - mean
All
[1] 31.53
2Y. Sagittal Balance - sd
All
[1] 39.13


5Y. Sagittal Balance
5Y. Sagittal Balance - mean
All
[1] 34.87
5Y. Sagittal Balance - sd
All
[1] 54.02


Sagittal Balance tests
Preop vs 6w p-value
3.928081e-09

Preop vs 2y p-value
3.07691e-06

Preop vs 5y p-value
0.001191174

6w vs 2y p-value
0.1989772

2y vs 5y p-value
0.7405965

6w vs 5y p-value
0.2453602
```

```
Sagittal T2-T5
Sagittal T2-T5 - mean
All
[1] 9.62
Sagittal T2-T5 - sd
All
[1] 7.73


6W. Sagittal T2-T5
6W. Sagittal T2-T5 - mean
All
[1] 14.17
6W. Sagittal T2-T5 - sd
All
[1] 8.81


6M. Sagittal T2-T5
6M. Sagittal T2-T5 - mean
All
[1] 12.52
6M. Sagittal T2-T5 - sd
All
[1] 7.62


1Y. Sagittal T2-T5
1Y. Sagittal T2-T5 - mean
All
[1] 11.79
1Y. Sagittal T2-T5 - sd
All
[1] 6.99


2Y. Sagittal T2-T5
2Y. Sagittal T2-T5 - mean
All
[1] 11.77
2Y. Sagittal T2-T5 - sd
All
[1] 7.7


5Y. Sagittal T2-T5
5Y. Sagittal T2-T5 - mean
All
[1] 13.96
5Y. Sagittal T2-T5 - sd
All
[1] 8.79
```

```
Sagittal T2-T5 tests
Preop vs 6w p-value
0.001243825


Preop vs 2y p-value
0.1025086


Preop vs 5y p-value
0.01202848


6w vs 2y p-value
0.09573296


2y vs 5y p-value
0.2081884


6w vs 5y p-value
0.9063471


Sagittal T5-T12
Sagittal T5-T12 - mean
All
[1] 28.76
Sagittal T5-T12 - sd
All
[1] 18.77



6W. Sagittal T5-T12
6W. Sagittal T5-T12 - mean
All
[1] 33.6
6W. Sagittal T5-T12 - sd
All
[1] 14.5



6M. Sagittal T5-T12
6M. Sagittal T5-T12 - mean
All
[1] 36.98
6M. Sagittal T5-T12 - sd
All
[1] 14.06



1Y. Sagittal T5-T12
1Y. Sagittal T5-T12 - mean
All
[1] 36.32
1Y. Sagittal T5-T12 - sd
All
[1] 13.76
```

```
2Y. Sagittal T5-T12
2Y. Sagittal T5-T12 - mean
All
[1] 38.1
2Y. Sagittal T5-T12 - sd
All
[1] 14.15


5Y. Sagittal T5-T12
5Y. Sagittal T5-T12 - mean
All
[1] 40.9
5Y. Sagittal T5-T12 - sd
All
[1] 16.5


Sagittal T5-T12 tests
Preop vs 6w p-value
0.07676986

Preop vs 2y p-value
0.0009650035

Preop vs 5y p-value
0.0006522661

6w vs 2y p-value
0.06482325

2y vs 5y p-value
0.3835138

6w vs 5y p-value
0.02347735

Sagittal T2-T12
Sagittal T2-T12 - mean
All
[1] 34.48
Sagittal T2-T12 - sd
All
[1] 18.67


6W. Sagittal T2-T12
6W. Sagittal T2-T12 - mean
All
[1] 43.38
6W. Sagittal T2-T12 - sd
All
```

```
[1] 14.77


6M. Sagittal T2-T12
6M. Sagittal T2-T12 - mean
All
[1] 46.83
6M. Sagittal T2-T12 - sd
All
[1] 14.59


1Y. Sagittal T2-T12
1Y. Sagittal T2-T12 - mean
All
[1] 44.26
1Y. Sagittal T2-T12 - sd
All
[1] 13.49


2Y. Sagittal T2-T12
2Y. Sagittal T2-T12 - mean
All
[1] 44.79
2Y. Sagittal T2-T12 - sd
All
[1] 14.77


5Y. Sagittal T2-T12
5Y. Sagittal T2-T12 - mean
All
[1] 49.3
5Y. Sagittal T2-T12 - sd
All
[1] 15.72


Sagittal T2-T12 tests
Preop vs 6w p-value
0.001322645

Preop vs 2y p-value
0.0003114677

Preop vs 5y p-value
2.334696e-05

6w vs 2y p-value
0.57168

2y vs 5y p-value
0.1538301
```

```
6w vs 5y p-value
0.05741022

Lordosis (top of L1-S1)
Lordosis (top of L1-S1) - mean
All
[1] -34.34
Lordosis (top of L1-S1) - sd
All
[1] 17.68


6W. Lordosis (top of L1-S1)
6W. Lordosis (top of L1-S1) - mean
All
[1] -52.91
6W. Lordosis (top of L1-S1) - sd
All
[1] 12.88


6M. Lordosis (top of L1-S1)
6M. Lordosis (top of L1-S1) - mean
All
[1] -52.85
6M. Lordosis (top of L1-S1) - sd
All
[1] 11.22


1Y. Lordosis (top of L1-S1)
1Y. Lordosis (top of L1-S1) - mean
All
[1] -50.64
1Y. Lordosis (top of L1-S1) - sd
All
[1] 11.08


2Y. Lordosis (top of L1-S1)
2Y. Lordosis (top of L1-S1) - mean
All
[1] -51.04
2Y. Lordosis (top of L1-S1) - sd
All
[1] 11.32


5Y. Lordosis (top of L1-S1)
5Y. Lordosis (top of L1-S1) - mean
All
[1] -50.11
5Y. Lordosis (top of L1-S1) - sd
```

```
All
[1] 11.15


Lordosis (top of L1-S1) tests
Preop vs 6w p-value
5.895114e-12

Preop vs 2y p-value
1.926436e-10

Preop vs 5y p-value
4.204462e-08

6w vs 2y p-value
0.3561141

2y vs 5y p-value
0.680315

6w vs 5y p-value
0.2289314

Pelvic Incidence
Pelvic Incidence - mean
All
[1] 56.16
Pelvic Incidence - sd
All
[1] 13.13


6W. Pelvic Incidence
6W. Pelvic Incidence - mean
All
[1] 56.47
6W. Pelvic Incidence - sd
All
[1] 12.57


6M. Pelvic Incidence
6M. Pelvic Incidence - mean
All
[1] 56.52
6M. Pelvic Incidence - sd
All
[1] 12.99


1Y. Pelvic Incidence
1Y. Pelvic Incidence - mean
All
[1] 55.38
```

```
1Y. Pelvic Incidence - sd
All
[1] 12.04


2Y. Pelvic Incidence
2Y. Pelvic Incidence - mean
All
[1] 55.35
2Y. Pelvic Incidence - sd
All
[1] 12.58


5Y. Pelvic Incidence
5Y. Pelvic Incidence - mean
All
[1] 55.02
5Y. Pelvic Incidence - sd
All
[1] 12.24


Pelvic Incidence tests
Preop vs 6w p-value
0.8841369

Preop vs 2y p-value
0.7023452

Preop vs 5y p-value
0.6416791

6w vs 2y p-value
0.5961933

2y vs 5y p-value
0.893582

6w vs 5y p-value
0.5534516

Pelvic Tilt
Pelvic Tilt - mean
All
[1] 26.29
Pelvic Tilt - sd
All
[1] 9.56


6W. Pelvic Tilt
6W. Pelvic Tilt - mean
All
```

```
[1] 18.91
6W. Pelvic Tilt - sd
All
[1] 9.07


6M. Pelvic Tilt
6M. Pelvic Tilt - mean
All
[1] 21.13
6M. Pelvic Tilt - sd
All
[1] 8.32


1Y. Pelvic Tilt
1Y. Pelvic Tilt - mean
All
[1] 21.7
1Y. Pelvic Tilt - sd
All
[1] 9.31


2Y. Pelvic Tilt
2Y. Pelvic Tilt - mean
All
[1] 21.27
2Y. Pelvic Tilt - sd
All
[1] 8.05


5Y. Pelvic Tilt
5Y. Pelvic Tilt - mean
All
[1] 22.63
5Y. Pelvic Tilt - sd
All
[1] 9.61


Pelvic Tilt tests
Preop vs 6w p-value
2.102386e-06

Preop vs 2y p-value
0.0007470959

Preop vs 5y p-value
0.05534472

6w vs 2y p-value
0.101533
```

```
2y vs 5y p-value
0.456605


6w vs 5y p-value
0.04853272


Sacral Slope
Sacral Slope - mean
All
[1] 29.84
Sacral Slope - sd
All
[1] 10.05


6W. Sacral Slope
6W. Sacral Slope - mean
All
[1] 37.66
6W. Sacral Slope - sd
All
[1] 9.95


6M. Sacral Slope
6M. Sacral Slope - mean
All
[1] 35.39
6M. Sacral Slope - sd
All
[1] 9.4


1Y. Sacral Slope
1Y. Sacral Slope - mean
All
[1] 33.67
1Y. Sacral Slope - sd
All
[1] 8.33


2Y. Sacral Slope
2Y. Sacral Slope - mean
All
[1] 34.49
2Y. Sacral Slope - sd
All
[1] 9.26


5Y. Sacral Slope
5Y. Sacral Slope - mean
```

```
All
[1] 32.39
5Y. Sacral Slope - sd
All
[1] 7.5


Sacral Slope tests
Preop vs 6w p-value
2.7412e-06

Preop vs 2y p-value
0.004108511

Preop vs 5y p-value
0.1261418

6w vs 2y p-value
0.04901675

2y vs 5y p-value
0.204354

6w vs 5y p-value
0.001933727

RLL
RLL - mean
All
[1] -29.48
RLL - sd
All
[1] 16.34


6W. RLL
6W. RLL - mean
All
[1] -11.05
6W. RLL - sd
All
[1] 11.44


6M. RLL
6M. RLL - mean
All
[1] -11.2
6M. RLL - sd
All
[1] 9.34


1Y. RLL
```

```
1Y. RLL - mean
All
[1] -12.7
1Y. RLL - sd
All
[1] 10.08


2Y. RLL
2Y. RLL - mean
All
[1] -12.12
2Y. RLL - sd
All
[1] 9.61


5Y. RLL
5Y. RLL - mean
All
[1] -13.01
5Y. RLL - sd
All
[1] 11.48


RLL tests
Preop vs 6w p-value
1.75324e-13

Preop vs 2y p-value
7.793784e-13

Preop vs 5y p-value
6.439074e-09

6w vs 2y p-value
0.5432825

2y vs 5y p-value
0.6868596

6w vs 5y p-value
0.3893075

Global Tilt
Global Tilt - mean
All
[1] 34.57
Global Tilt - sd
All
[1] 16.1
```

```
6W. Global Tilt
6W. Global Tilt - mean
All
[1] 19.97
6W. Global Tilt - sd
All
[1] 10.64


6M. Global Tilt
6M. Global Tilt - mean
All
[1] 21.59
6M. Global Tilt - sd
All
[1] 11.42


1Y. Global Tilt
1Y. Global Tilt - mean
All
[1] 22.73
1Y. Global Tilt - sd
All
[1] 12.15


2Y. Global Tilt
2Y. Global Tilt - mean
All
[1] 24.11
2Y. Global Tilt - sd
All
[1] 10.95


5Y. Global Tilt
5Y. Global Tilt - mean
All
[1] 25.92
5Y. Global Tilt - sd
All
[1] 15.63


Global Tilt tests
Preop vs 6w p-value
6.917725e-10

Preop vs 2y p-value
9.240089e-06

Preop vs 5y p-value
0.006439899
```

```
6w vs 2y p-value
0.02722186


2y vs 5y p-value
0.5276001


6w vs 5y p-value
0.03771507


T1 Sagittal Tilt
T1 Sagittal Tilt - mean
All
[1] 0.25
T1 Sagittal Tilt - sd
All
[1] 6.35



6W. T1 Sagittal Tilt
6W. T1 Sagittal Tilt - mean
All
[1] -3.67
6W. T1 Sagittal Tilt - sd
All
[1] 3.34



6M. T1 Sagittal Tilt
6M. T1 Sagittal Tilt - mean
All
[1] -4.16
6M. T1 Sagittal Tilt - sd
All
[1] 3.65



1Y. T1 Sagittal Tilt
1Y. T1 Sagittal Tilt - mean
All
[1] -4.33
1Y. T1 Sagittal Tilt - sd
All
[1] 4.13



2Y. T1 Sagittal Tilt
2Y. T1 Sagittal Tilt - mean
All
[1] -3.44
2Y. T1 Sagittal Tilt - sd
All
[1] 3.96
```

```
5Y. T1 Sagittal Tilt
5Y. T1 Sagittal Tilt - mean
All
[1] -2.23
5Y. T1 Sagittal Tilt - sd
All
[1] 6.83


T1 Sagittal Tilt tests
Preop vs 6w p-value
1.792356e-05

Preop vs 2y p-value
0.0001073372

Preop vs 5y p-value
0.06767916

6w vs 2y p-value
0.7212967

2y vs 5y p-value
0.318619

6w vs 5y p-value
0.2222358

Thoracolumbar L2-T10
Thoracolumbar L2-T10 - mean
All
[1] 6.97
Thoracolumbar L2-T10 - sd
All
[1] 20.37


6W. Thoracolumbar L2-T10
6W. Thoracolumbar L2-T10 - mean
All
[1] 6.72
6W. Thoracolumbar L2-T10 - sd
All
[1] 10.59


6M. Thoracolumbar L2-T10
6M. Thoracolumbar L2-T10 - mean
All
[1] 6.43
6M. Thoracolumbar L2-T10 - sd
All
[1] 9.13
```

```
1Y. Thoracolumbar L2-T10
1Y. Thoracolumbar L2-T10 - mean
All
[1] 5.71
1Y. Thoracolumbar L2-T10 - sd
All
[1] 9.85


2Y. Thoracolumbar L2-T10
2Y. Thoracolumbar L2-T10 - mean
All
[1] 5.26
2Y. Thoracolumbar L2-T10 - sd
All
[1] 11.91


5Y. Thoracolumbar L2-T10
5Y. Thoracolumbar L2-T10 - mean
All
[1] 4.26
5Y. Thoracolumbar L2-T10 - sd
All
[1] 11.67


Thoracolumbar L2-T10 tests
Preop vs 6w p-value
0.9260353

Preop vs 2y p-value
0.5379203

Preop vs 5y p-value
0.3719729

6w vs 2y p-value
0.4482013

2y vs 5y p-value
0.6789202

6w vs 5y p-value
0.28185

RSA
RSA - mean
All
[1] 22.61
RSA - sd
All
```

```
[1] 13.77


6W. RSA
6W. RSA - mean
All
[1] 7.75
6W. RSA - sd
All
[1] 8.01


6M. RSA
6M. RSA - mean
All
[1] 9.45
6M. RSA - sd
All
[1] 8.49


1Y. RSA
1Y. RSA - mean
All
[1] 11.1
1Y. RSA - sd
All
[1] 8.98


2Y. RSA
2Y. RSA - mean
All
[1] 12.31
2Y. RSA - sd
All
[1] 7.95


5Y. RSA
5Y. RSA - mean
All
[1] 14.51
5Y. RSA - sd
All
[1] 12.06


RSA tests
Preop vs 6w p-value
2.167031e-13

Preop vs 2y p-value
1.261418e-07
```

```
Preop vs 5y p-value
0.001543176

6w vs 2y p-value
0.001093646

2y vs 5y p-value
0.3156126

6w vs 5y p-value
0.002626864

RPV
RPV - mean
All
[1] -12.3
RPV - sd
All
[1] 7.31


6W. RPV
6W. RPV - mean
All
[1] -4.65
6W. RPV - sd
All
[1] 7.23


6M. RPV
6M. RPV - mean
All
[1] -6.96
6M. RPV - sd
All
[1] 6.02


1Y. RPV
1Y. RPV - mean
All
[1] -8.01
1Y. RPV - sd
All
[1] 6.66


2Y. RPV
2Y. RPV - mean
All
[1] -7.17
2Y. RPV - sd
```

```
All
[1] 6.21


5Y. RPV
5Y. RPV - mean
All
[1] -9.07
5Y. RPV - sd
All
[1] 6.43


RPV tests
Preop vs 6w p-value
8.487303e-10

Preop vs 2y p-value
9.351627e-06

Preop vs 5y p-value
0.01654346

6w vs 2y p-value
0.02599994

2y vs 5y p-value
0.1396

6w vs 5y p-value
0.001214952
```

**Quality of Life**

```
ODI - Score (%)
ODI - Score (%) - mean
All
[1] 44.72
ODI - Score (%) - sd
All
[1] 17.21


6M. ODI - Score (%)
6M. ODI - Score (%) - mean
All
[1] 29.04
6M. ODI - Score (%) - sd
All
[1] 17.16


1Y. ODI - Score (%)
```

```
1Y. ODI - Score (%) - mean
All
[1] 28.15
1Y. ODI - Score (%) - sd
All
[1] 17.31


2Y. ODI - Score (%)
2Y. ODI - Score (%) - mean
All
[1] 30.07
2Y. ODI - Score (%) - sd
All
[1] 21.55


5Y. ODI - Score (%)
5Y. ODI - Score (%) - mean
All
[1] 34.19
5Y. ODI - Score (%) - sd
All
[1] 23.39


ODI - Score (%) tests
Preop vs 6m p-value
1.453102e-07

Preop vs 2y p-value
1.538079e-05


Preop vs 5y p-value
0.004974261
2y vs 5y p-value
0.3064219

6m vs 5y p-value
0.1637094

SRS22 - Function / Activity
SRS22 - Function / Activity - mean
All
[1] 2.78
SRS22 - Function / Activity - sd
All
[1] 0.69


6M. SRS22 - Function / Activity
6M. SRS22 - Function / Activity - mean
All
```

```
[1] 3.13
6M. SRS22 - Function / Activity - sd
All
[1] 0.71


1Y. SRS22 - Function / Activity
1Y. SRS22 - Function / Activity - mean
All
[1] 3.22
1Y. SRS22 - Function / Activity - sd
All
[1] 0.77


2Y. SRS22 - Function / Activity
2Y. SRS22 - Function / Activity - mean
All
[1] 3.34
2Y. SRS22 - Function / Activity - sd
All
[1] 0.85


5Y. SRS22 - Function / Activity
5Y. SRS22 - Function / Activity - mean
All
[1] 3.24
5Y. SRS22 - Function / Activity - sd
All
[1] 0.97


SRS22 - Function / Activity tests
Preop vs 6m p-value
0.002551992

Preop vs 2y p-value
2.104039e-05


Preop vs 5y p-value
0.002503694
2y vs 5y p-value
0.5257554

6m vs 5y p-value
0.464826

SRS22 - Pain
SRS22 - Pain - mean
All
[1] 2.33
SRS22 - Pain - sd
```

```
All
[1] 0.74


6M. SRS22 - Pain
6M. SRS22 - Pain - mean
All
[1] 3.5
6M. SRS22 - Pain - sd
All
[1] 0.89


1Y. SRS22 - Pain
1Y. SRS22 - Pain - mean
All
[1] 3.67
1Y. SRS22 - Pain - sd
All
[1] 0.94


2Y. SRS22 - Pain
2Y. SRS22 - Pain - mean
All
[1] 3.43
2Y. SRS22 - Pain - sd
All
[1] 1.16


5Y. SRS22 - Pain
5Y. SRS22 - Pain - mean
All
[1] 3.23
5Y. SRS22 - Pain - sd
All
[1] 1.16


SRS22 - Pain tests
Preop vs 6m p-value
8.847335e-15

Preop vs 2y p-value
5.055356e-10


Preop vs 5y p-value
1.357452e-06
2y vs 5y p-value
0.3319813

6m vs 5y p-value
```

0.1451567

SRS22 - Self image / Appearance
SRS22 - Self image / Appearance - mean
All
[1] 2.06
SRS22 - Self image / Appearance - sd
All
[1] 0.65


6M. SRS22 - Self image / Appearance
6M. SRS22 - Self image / Appearance - mean
All
[1] 3.5
6M. SRS22 - Self image / Appearance - sd
All
[1] 0.79


1Y. SRS22 - Self image / Appearance
1Y. SRS22 - Self image / Appearance - mean
All
[1] 3.54
1Y. SRS22 - Self image / Appearance - sd
All
[1] 0.71


2Y. SRS22 - Self image / Appearance
2Y. SRS22 - Self image / Appearance - mean
All
[1] 3.41
2Y. SRS22 - Self image / Appearance - sd
All
[1] 0.87


5Y. SRS22 - Self image / Appearance
5Y. SRS22 - Self image / Appearance - mean
All
[1] 3.28
5Y. SRS22 - Self image / Appearance - sd
All
[1] 1.01


SRS22 - Self image / Appearance tests
Preop vs 6m p-value
1.548812e-23

Preop vs 2y p-value
3.564858e-19

```
Preop vs 5y p-value
2.188648e-12
2y vs 5y p-value
0.449701

6m vs 5y p-value
0.1740972

SRS22 - Mental health
SRS22 - Mental health - mean
All
[1] 2.97
SRS22 - Mental health - sd
All
[1] 0.9


6M. SRS22 - Mental health
6M. SRS22 - Mental health - mean
All
[1] 3.54
6M. SRS22 - Mental health - sd
All
[1] 0.87


1Y. SRS22 - Mental health
1Y. SRS22 - Mental health - mean
All
[1] 3.65
1Y. SRS22 - Mental health - sd
All
[1] 0.79


2Y. SRS22 - Mental health
2Y. SRS22 - Mental health - mean
All
[1] 3.5
2Y. SRS22 - Mental health - sd
All
[1] 0.94


5Y. SRS22 - Mental health
5Y. SRS22 - Mental health - mean
All
[1] 3.42
5Y. SRS22 - Mental health - sd
All
[1] 1.07
```

```
SRS22 - Mental health tests
Preop vs 6m p-value
0.0001476439


Preop vs 2y p-value
0.0007486448



Preop vs 5y p-value
0.01050373
2y vs 5y p-value
0.6823224


6m vs 5y p-value
0.5075833


SRS22 - SRS Subtotal score
SRS22 - SRS Subtotal score - mean
All
[1] 2.54
SRS22 - SRS Subtotal score - sd
All
[1] 0.55



6M. SRS22 - SRS Subtotal score
6M. SRS22 - SRS Subtotal score - mean
All
[1] 3.41
6M. SRS22 - SRS Subtotal score - sd
All
[1] 0.64



1Y. SRS22 - SRS Subtotal score
1Y. SRS22 - SRS Subtotal score - mean
All
[1] 3.53
1Y. SRS22 - SRS Subtotal score - sd
All
[1] 0.64



2Y. SRS22 - SRS Subtotal score
2Y. SRS22 - SRS Subtotal score - mean
All
[1] 3.42
2Y. SRS22 - SRS Subtotal score - sd
All
[1] 0.82



5Y. SRS22 - SRS Subtotal score
5Y. SRS22 - SRS Subtotal score - mean
```

```
All
[1] 3.29
5Y. SRS22 - SRS Subtotal score - sd
All
[1] 0.94


SRS22 - SRS Subtotal score tests
Preop vs 6m p-value
2.724014e-15

Preop vs 2y p-value
8.94817e-12


Preop vs 5y p-value
3.880301e-07
2y vs 5y p-value
0.4250599

6m vs 5y p-value
0.4054372

SF36 - PCS
SF36 - PCS - mean
All
[1] 33.54
SF36 - PCS - sd
All
[1] 7.36


6M. SF36 - PCS
6M. SF36 - PCS - mean
All
[1] 39.46
6M. SF36 - PCS - sd
All
[1] 8.69


1Y. SF36 - PCS
1Y. SF36 - PCS - mean
All
[1] 40.12
1Y. SF36 - PCS - sd
All
[1] 8.6


2Y. SF36 - PCS
2Y. SF36 - PCS - mean
All
[1] 40.62
```

```
2Y. SF36 - PCS - sd
All
[1] 9.47


5Y. SF36 - PCS
5Y. SF36 - PCS - mean
All
[1] 38.82
5Y. SF36 - PCS - sd
All
[1] 10.98


SF36 - PCS tests
Preop vs 6m p-value
2.059959e-05

Preop vs 2y p-value
1.932855e-06


Preop vs 5y p-value
0.00219123
2y vs 5y p-value
0.3295387

6m vs 5y p-value
0.7221152

SF36 - MCS
SF36 - MCS - mean
All
[1] 41.49
SF36 - MCS - sd
All
[1] 12.71


6M. SF36 - MCS
6M. SF36 - MCS - mean
All
[1] 47.05
6M. SF36 - MCS - sd
All
[1] 12.4


1Y. SF36 - MCS
1Y. SF36 - MCS - mean
All
[1] 47.29
1Y. SF36 - MCS - sd
All
```

```
[1] 11.39


2Y. SF36 - MCS
2Y. SF36 - MCS - mean
All
[1] 46.06
2Y. SF36 - MCS - sd
All
[1] 12.14


5Y. SF36 - MCS
5Y. SF36 - MCS - mean
All
[1] 44.59
5Y. SF36 - MCS - sd
All
[1] 13.14


SF36 - MCS tests
Preop vs 6m p-value
0.008596627


Preop vs 2y p-value
0.0291202


Preop vs 5y p-value
0.1752845
2y vs 5y p-value
0.5165029


6m vs 5y p-value
0.2805242
```

**Surgery**

```
Total Operative Blood Loss st1+st2+st3
Total Operative Blood Loss st1+st2+st3 - mean
All
[1] 1964.43
Total Operative Blood Loss st1+st2+st3 - sd
All
[1] 1463.17


Total surgical time st1+st2+st3
Total surgical time st1+st2+st3 - mean
All
[1] 314.22
Total surgical time st1+st2+st3 - sd
```

```
All
[1] 192.94


Number of Posterior Instrumented Levels
Number of Posterior Instrumented Levels - mean
All
[1] 10.68
Number of Posterior Instrumented Levels - sd
All
[1] 3.65


Pelvic fixation
Pelvic fixation - table
All
variable
Yes
 79
Pelvic fixation - proportion
All
variable
Yes
  1


Surgical Approach
Surgical Approach - table
All
variable
        Anterior-Posterior                      Posterior
                         1                             70
        Posterior-Anterior Posterior-Posterior-Anterior
                         7                              1
Surgical Approach - proportion
All
variable
        Anterior-Posterior                      Posterior
                0.01265823                     0.88607595
        Posterior-Anterior Posterior-Posterior-Anterior
                0.08860759                     0.01265823


Number of Interbody Fusions
Number of Interbody Fusions - mean
All
[1] 1.16
Number of Interbody Fusions - sd
All
[1] 1.26


Decompression
Decompression - table
```

```
All
variable
 No Yes
 59  20
Decompression - proportion
All
variable
        No       Yes
0.7468354 0.2531646


Interbody Fusion
Interbody Fusion - table
All
variable
 No Yes
 31  48
Interbody Fusion - proportion
All
variable
        No       Yes
0.3924051 0.6075949


Osteotomy
Osteotomy - table
All
variable
 No Yes
 34  45
Osteotomy - proportion
All
variable
        No       Yes
0.4303797 0.5696203


3CO
3CO - table
All
variable
 No Yes
 56  23
3CO - proportion
All
variable
        No       Yes
0.7088608 0.2911392
```

## Complications before 2Y

Number of reinterventions: 24

```
   Complication Impact  N
```

```
1:  Minor Complication 60
2:  Major Complication 37


          Category of the complication  N
1:           Mechanical complications 34
2:               Other complications 30
3:                       Iatrogenic 13
4: Peripheral neurologic complications 14
5:           Infectious complications  4
6:                             Pain  2
```

Category of Complication for Major Complications

```
          Category of the complication  N
1:               Other complications  9
2:           Mechanical complications 18
3:           Infectious complications  4
4:                       Iatrogenic  2
5: Peripheral neurologic complications  2
6:                             Pain  2
```

**Number of patients in Complications before 2Y**

Number of patients with reinterventions: 15

```
   Complication Impact patients_complications
1:  Minor Complication                     36
2:  Major Complication                     22


          Category of the complication patients_complications
1:           Mechanical complications                     24
2:               Other complications                     18
3:                       Iatrogenic                     11
4: Peripheral neurologic complications                     13
5:           Infectious complications                      4
6:                             Pain                      2
```

Category of Complication for Major Complications

```
          Category of the complication patients_complications
1:               Other complications                      7
2:           Mechanical complications                     11
3:           Infectious complications                      4
4:                       Iatrogenic                      2
5: Peripheral neurologic complications                      2
6:                             Pain                      2
```

**Complications between 2Y and 5Y**

Number of reinterventions: 13

```
    Complication Impact  N
1:  Minor Complication 12
2:  Major Complication 13
3:      Adverse Event  1


    Category of the complication  N
1:     Mechanical complications 22
2:                         Pain  3
3:                   Iatrogenic  1
```

Category of Complication for Major Complications

```
    Category of the complication  N
1:     Mechanical complications 10
2:                   Iatrogenic  1
3:                         Pain  2
```

## Number of patients in Complications between 2Y and 5Y

Number of patients with reinterventions: 9

```
    Complication Impact patients_complications
1:  Minor Complication                     12
2:  Major Complication                      9
3:      Adverse Event                       1


    Category of the complication patients_complications
1:     Mechanical complications                       18
2:                         Pain                        3
3:                   Iatrogenic                        1
```

Category of Complication for Major Complications

```
    Category of the complication patients_complications
1:     Mechanical complications                        7
2:                   Iatrogenic                        1
3:                         Pain                        2
```

## Complications before 5Y

Number of reinterventions: 37

```
    Complication Impact  N
1:  Minor Complication 72
2:  Major Complication 50
3:      Adverse Event  1


        Category of the complication  N
1:         Mechanical complications 56
2:               Other complications 30
```

```
3:                      Iatrogenic 14
4:                            Pain  5
5: Peripheral neurologic complications 14
6:          Infectious complications  4
```

Category of Complication for Major Complications

```
          Category of the complication  N
1:               Other complications  9
2:          Mechanical complications 28
3:          Infectious complications  4
4:                       Iatrogenic  3
5: Peripheral neurologic complications  2
6:                            Pain  4
```

## Number of patients in Complications before 5Y

Number of patients with reinterventions: 20

```
   Complication Impact patients_complications
1:  Minor Complication                    41
2:  Major Complication                    26
3:      Adverse Event                      1
```

```
          Category of the complication patients_complications
1:          Mechanical complications                       36
2:               Other complications                       18
3:                       Iatrogenic                       12
4:                            Pain                        5
5: Peripheral neurologic complications                      13
6:          Infectious complications                       4
```

Category of Complication for Major Complications

```
          Category of the complication patients_complications
1:               Other complications                        7
2:          Mechanical complications                       14
3:          Infectious complications                        4
4:                       Iatrogenic                        3
5: Peripheral neurologic complications                       2
6:                            Pain                         4
```