Clusters Descriptives

```
$vars
 [1] "Weight (kgs)_First Visit"
                                        "Age"
 [3] "Sagittal Balance"
                                        "Coronal Balance (C7PL to CSVL)"
                                       "Pelvic Tilt"
 [5] "Static Major curve Cobb angle"
 [7] "ODI - Score (%)"
                                       "SRS22 - Function / Activity"
 [9] "SRS22 - Mental health"
                                       "SRS22 - Pain"
[11] "SRS22 - Self image / Appearance" "SRS22 - SRS Subtotal score"
Initial Patients: 372
Number of patients
   cluster
         1 205
1:
         2 63
3:
         3 104
Demographics
                                         variable All.mean 1.mean 2.mean 3.mean
                                                     52.42 60.46 63.22 30.03
Age
                                              Age
Height (cm) First Visit
                          Height (cm)_First Visit
                                                    163.08 162.49 161.35 165.28
Weight (kgs)_First Visit Weight (kgs)_First Visit
                                                     65.62 65.10 72.59 62.41
BMI_First Visit
                                  BMI_First Visit
                                                      24.69 24.66 27.98 22.75
                         p.val_1.2 p.val_1.3 p.val_2.3 p.val_all
Age
                            0.1000
                                      0.0000
                                                0.0000
                                                           0.0000
Height (cm)_First Visit
                            0.4221
                                      0.0202
                                                0.0191
                                                           0.0131
Weight (kgs)_First Visit
                            0.0000
                                      0.1051
                                                0.0000
                                                           0.0000
BMI_First Visit
                            0.0000
                                      0.0002
                                                0.0000
                                                           0.0000
$Gender
$Gender$All
$Gender$All$table
variable
Female
        Male
   291
          81
$Gender$All$proportion
variable
  Female
0.7822581 0.2177419
```

\$Gender\$'1'

\$Gender\$'1'\$table

variable Female Male 168 37

\$Gender\$'1'\$proportion variable Female Male 0.8195122 0.1804878

\$Gender\$'2' \$Gender\$'2'\$table variable Female Male 49 14

\$Gender\$'2'\$proportion
variable
 Female Male
0.7777778 0.2222222

\$Gender\$'3'\$table
variable
Female Male
74 30

\$Gender\$'3'\$proportion variable Female Male 0.7115385 0.2884615

\$'Prior Spine Surgery'
\$'Prior Spine Surgery'\$All
\$'Prior Spine Surgery'\$All\$table
variable
No Yes
255 117

\$'Prior Spine Surgery'\$All\$proportion
variable
 No Yes
0.6854839 0.3145161

\$'Prior Spine Surgery'\$'1'
\$'Prior Spine Surgery'\$'1'\$table
variable
No Yes
139 66

\$'Prior Spine Surgery'\$'1'\$proportion variable Yes No 0.6780488 0.3219512 \$'Prior Spine Surgery'\$'2' \$'Prior Spine Surgery'\$'2'\$table variable No Yes 29 34 \$'Prior Spine Surgery'\$'2'\$proportion variable No Yes 0.4603175 0.5396825 \$'Prior Spine Surgery'\$'3' \$'Prior Spine Surgery'\$'3'\$table variable No Yes 87 17 \$'Prior Spine Surgery'\$'3'\$proportion variable No Yes 0.8365385 0.1634615 \$'ASA classification' \$'ASA classification'\$All \$'ASA classification'\$All\$table variable 2 112 203 57 \$'ASA classification'\$All\$proportion variable 0.3010753 0.5456989 0.1532258 \$'ASA classification'\$'1' \$'ASA classification'\$'1'\$table variable 1 2 39 129 37 \$'ASA classification'\$'1'\$proportion

2

0.1902439 0.6292683 0.1804878

variable

```
$'ASA classification'$'2'
$'ASA classification'$'2'$table
variable
1 2 3
7 40 16
$'ASA classification'$'2'$proportion
variable
0.1111111 0.6349206 0.2539683
$'ASA classification'$'3'
$'ASA classification'$'3'$table
variable
1 2 3
66 34 4
$'ASA classification'$'3'$proportion
variable
                   2
0.63461538 0.32692308 0.03846154
$'Tobacco use_First Visit'
$'Tobacco use_First Visit'$All
$'Tobacco use_First Visit'$All$table
variable
Current
              Ex Non-User
     74
              67
                      231
$'Tobacco use_First Visit'$All$proportion
variable
 Current
                Ex Non-User
0.1989247 0.1801075 0.6209677
$'Tobacco use First Visit'$'1'
$'Tobacco use_First Visit'$'1'$table
variable
Current
              Ex Non-User
              43
                      122
$'Tobacco use_First Visit'$'1'$proportion
variable
                Ex Non-User
  Current
0.1951220 0.2097561 0.5951220
$'Tobacco use_First Visit'$'2'
```

\$'Tobacco use_First Visit'\$'2'\$table

variable Current Ex Non-User 14 7 42 \$'Tobacco use_First Visit'\$'2'\$proportion variable Current Ex Non-User 0.222222 0.1111111 0.6666667 \$'Tobacco use_First Visit'\$'3' \$'Tobacco use_First Visit'\$'3'\$table variable Current Ex Non-User 20 17 67 \$'Tobacco use_First Visit'\$'3'\$proportion variable Current Ex Non-User 0.1923077 0.1634615 0.6442308 \$'ESSG Diagnosis' \$'ESSG Diagnosis'\$All \$'ESSG Diagnosis'\$All\$table variable Congenital Degenerative 10 132 Failed-back Idiopathic 20 166 Neuromuscular Other: Ankylosing spondylitis Other: hyperkyphosis Other: radiotherapy induced Other: spondylolisthesis Post-traumatic 15 Scheuermann Syndromic 15 \$'ESSG Diagnosis'\$All\$proportion variable Congenital Degenerative 0.026881720 0.354838710 Failed-back Idiopathic 0.053763441 0.446236559 Neuromuscular Other: Ankylosing spondylitis 0.013440860 0.002688172 Other: hyperkyphosis Other: radiotherapy induced 0.002688172 0.002688172

 Scheuermann
 Syndromic

 0.040322581
 0.013440860

Other: spondylolisthesis

0.002688172

Post-traumatic

0.040322581

\$'ESSG Diagnosis'\$'1' \$'ESSG Diagnosis'\$'1'\$table variable Congenital Degenerative 96 Failed-back Idiopathic Neuromuscular Other: Ankylosing spondylitis Other: hyperkyphosis Other: spondylolisthesis Post-traumatic Scheuermann Syndromic \$'ESSG Diagnosis'\$'1'\$proportion variable Congenital Degenerative 0.004878049 0.468292683 Failed-back Idiopathic 0.058536585 0.380487805 Neuromuscular Other: Ankylosing spondylitis 0.009756098 0.004878049 Other: hyperkyphosis Other: spondylolisthesis 0.004878049 0.004878049 Scheuermann Post-traumatic 0.034146341 0.019512195 Syndromic 0.009756098 \$'ESSG Diagnosis'\$'2' \$'ESSG Diagnosis'\$'2'\$table variable Congenital Degenerative Failed-back Idiopathic Neuromuscular 2 35 10 Post-traumatic Scheuermann \$'ESSG Diagnosis'\$'2'\$proportion variable Congenital Degenerative Failed-back Idiopathic Neuromuscular 0.03174603 0.03174603 0.5555556 0.11111111 0.15873016 Post-traumatic Scheuermann 0.09523810 0.01587302 \$'ESSG Diagnosis'\$'3' \$'ESSG Diagnosis'\$'3'\$table variable

Degenerative

Congenital

7			1
Failed-back		Id	iopathic
1			78
Neuromuscular	Other:	radiotherapy	${\tt induced}$
1			1
${\tt Post-traumatic}$		Sche	euermann
2			10
Syndromic			
3			

\$'ESSG Diagnosis'\$'3'\$proportion variable

Congenital		Deger	nerative
0.067307692		0.00	09615385
Failed-back		Id	iopathic
0.009615385		0.75	50000000
Neuromuscular	Other:	radiotherapy	${\tt induced}$
0.009615385		0.00	09615385
Post-traumatic		Sche	euermann
0.019230769		0.09	96153846
Syndromic			
0.028846154			

Radiology

[1] "Static Major curve Cobb angle"

	All.mean	1.mean	2.mean	3.mean	p.val_1.2
Static Major curve Cobb angle	42.46	37.88	31.68	58.24	0.0343
6W. Static Major curve Cobb angle	23.00	21.64	15.42	29.73	0.0021
6M. Static Major curve Cobb angle	23.05	20.44	17.86	30.82	0.2925
1Y. Static Major curve Cobb angle	20.74	19.98	13.61	26.41	0.0006
2Y. Static Major curve Cobb angle	22.52	20.61	16.39	29.50	0.0629
5Y. Static Major curve Cobb angle	25.54	24.30	15.43	35.48	0.0009
į	p.val_1.3	p.val	2.3 p.v	al_all	
Static Major curve Cobb angle	0.0000	-	0	_ 0	
6W. Static Major curve Cobb angle	0.0004	<u> </u>	0	0	
6M. Static Major curve Cobb angle)	0	0	
1Y. Static Major curve Cobb angle)	0	0	
2Y. Static Major curve Cobb angle		3	0	0	
5Y. Static Major curve Cobb angle		Ĺ	0	0	
3					
t0 t1 1 2 3	All				
1: Preop 2Y 0.0000 0.0000 0.0000 (0.000				
2: Preop 5Y 0.0000 0.0000 0.0000 (
3: Preop 6W 0.0000 0.0000 0.0000 (
4: 6W 2Y 0.5335 0.6962 0.9397 0					
5: 6W 5Y 0.2164 0.9974 0.1254 0	0.1398				
6: 2Y 5Y 0.0972 0.7108 0.1242 0	0.0902				

[1] "Coronal Balance (C7PL to CSVL)"

```
All.mean 1.mean 2.mean 3.mean p.val_1.2
Coronal Balance (C7PL to CSVL)
                                      22.49 21.81 30.02 19.08
                                                                    0.0464
6W. Coronal Balance (C7PL to CSVL)
                                      20.14 20.72 21.00 18.61
                                                                    0.9094
6M. Coronal Balance (C7PL to CSVL)
                                      18.59 19.26 23.15 14.68
                                                                    0.1859
1Y. Coronal Balance (C7PL to CSVL)
                                      18.02 18.41 21.43 15.27
                                                                    0.3103
2Y. Coronal Balance (C7PL to CSVL)
                                      18.12 18.71 22.14 14.11
                                                                    0.2598
5Y. Coronal Balance (C7PL to CSVL)
                                      20.81 24.28 20.21 14.39
                                                                    0.2868
                                   p.val_1.3 p.val_2.3 p.val_all
Coronal Balance (C7PL to CSVL)
                                                0.0098
                                                          0.0022
                                      0.1559
6W. Coronal Balance (C7PL to CSVL)
                                      0.2816
                                                0.3487
                                                          0.5238
6M. Coronal Balance (C7PL to CSVL)
                                      0.0074
                                                0.0051
                                                          0.0044
1Y. Coronal Balance (C7PL to CSVL)
                                      0.0547
                                                0.0456
                                                          0.0440
2Y. Coronal Balance (C7PL to CSVL)
                                                0.0105
                                                          0.0138
                                      0.0161
5Y. Coronal Balance (C7PL to CSVL)
                                      0.0009
                                                0.1098
                                                          0.0149
                        2
                               3
      t0 t1
                1
1: Preop 2Y 0.0827 0.0986 0.0150 0.0023
2: Preop 5Y 0.3334 0.0497 0.0489 0.3511
3: Preop 6W 0.5375 0.0419 0.8216 0.0873
     6W 2Y 0.2672 0.7386 0.0286 0.1213
5:
     6W 5Y 0.1678 0.8319 0.0775 0.6961
     2Y 5Y 0.0326 0.6396 0.9017 0.1253
```

[1] "Sagittal Balance"

			_	_		
	All.mean	1.mean	2.mean	3.mean	p.val_1.2	p.val_1.3
Sagittal Balance	41.67	48.71	93.82	-4.12	0.0000	0
6W. Sagittal Balance	18.93	24.17	35.93	-1.75	0.0528	0
6M. Sagittal Balance	16.75	21.65	38.57	-4.90	0.0402	0
1Y. Sagittal Balance	19.20	23.53	49.10	-7.66	0.0030	0
2Y. Sagittal Balance	24.55	28.22	60.15	-6.29	0.0003	0
5Y. Sagittal Balance						0
S	p.val_2.3					
Sagittal Balance	0	-	0			
•			•			
6W. Sagittal Balance	0		0			
6M. Sagittal Balance	0		0			
1Y. Sagittal Balance	0		0			
2Y. Sagittal Balance	0		0			
5Y. Sagittal Balance	0		0			
	_		-			
t0 t1 1	2	3 1	A11			
1: Preop 2Y 0.0005 0	.0022 0.66	51 0.00	002			
2: Preop 5Y 0.1691 0						
•						
3: Preop 6W 0.0000 0						
4: 6W 2Y 0.4029 0	.0102 0.37	29 0.13	367			
5: 6W 5Y 0.0236 0	.0113 0.27	00 0.00	011			
6: 2Y 5Y 0.1241 0	8715 0.08	85 0.0	573			

[1] "Sagittal T2-T5"

```
All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3 p.val_2.3
Sagittal T2-T5
                      11.09 11.18 10.67 11.18
                                                    0.7345
                                                              0.9965
                                                                        0.7605
6W. Sagittal T2-T5
                     13.65 13.47 14.64 13.40
                                                    0.4266
                                                              0.9472
                                                                        0.4369
6M. Sagittal T2-T5
                     14.05 14.07 13.60 14.27
                                                                        0.7124
                                                    0.7934
                                                              0.8609
1Y. Sagittal T2-T5
                     13.92 12.98
                                    14.70 15.22
                                                    0.3417
                                                              0.0589
                                                                        0.7822
2Y. Sagittal T2-T5
                      14.33 12.59
                                    16.11 16.13
                                                    0.0498
                                                              0.0077
                                                                        0.9924
5Y. Sagittal T2-T5
                      15.76 14.93
                                   17.54 16.16
                                                    0.4150
                                                              0.5673
                                                                        0.6893
                   p.val_all
Sagittal T2-T5
                     0.9352
6W. Sagittal T2-T5
                     0.6332
6M. Sagittal T2-T5
                     0.9245
1Y. Sagittal T2-T5
                     0.1863
2Y. Sagittal T2-T5
                     0.0127
5Y. Sagittal T2-T5
                      0.5889
                1
                        2
1: Preop 2Y 0.1871 0.0098 0.0007 0.0001
2: Preop 5Y 0.0077 0.0391 0.0169 0.0000
3: Preop 6W 0.0144 0.0372 0.0928 0.0003
      6W 2Y 0.3776 0.4781 0.0464 0.3771
5:
      6W 5Y 0.2775 0.3725 0.1673 0.0525
6:
      2Y 5Y 0.1040 0.6693 0.9864 0.2119
```

[1] "Sagittal T5-T12"

```
All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3 p.val_2.3
Sagittal T5-T12
                       32.91
                             31.43 32.25 36.24
                                                     0.7588
                                                               0.0464
                                                                         0.1970
6W. Sagittal T5-T12
                       33.74
                              34.94 36.00 30.05
                                                     0.6017
                                                               0.0096
                                                                         0.0114
6M. Sagittal T5-T12
                       34.66
                              35.84 37.34 30.99
                                                     0.4915
                                                               0.0078
                                                                         0.0089
1Y. Sagittal T5-T12
                       35.43
                             36.49 37.85 31.85
                                                     0.5383
                                                               0.0118
                                                                         0.0141
2Y. Sagittal T5-T12
                       36.18 38.61 37.17 31.60
                                                     0.5785
                                                               0.0004
                                                                         0.0273
5Y. Sagittal T5-T12
                       40.10 41.50 44.81 33.92
                                                     0.3310
                                                               0.0249
                                                                         0.0081
                    p.val_all
Sagittal T5-T12
                       0.1114
6W. Sagittal T5-T12
                       0.0108
6M. Sagittal T5-T12
                       0.0083
1Y. Sagittal T5-T12
                       0.0173
2Y. Sagittal T5-T12
                       0.0044
5Y. Sagittal T5-T12
                       0.0148
      t0 t1
                 1
                        2
                               3
1: Preop 2Y 0.0003 0.1204 0.0545 0.0174
2: Preop 5Y 0.0000 0.0012 0.4995 0.0000
3: Preop 6W 0.0364 0.1985 0.0157 0.5127
4:
      6W 2Y 0.0432 0.6677 0.4452 0.0475
5:
      6W 5Y 0.0020 0.0113 0.2281 0.0001
6:
     2Y 5Y 0.2161 0.0362 0.4524 0.0197
```

[1] "Sagittal T2-T12"

```
All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3 p.val_2.3
Sagittal T2-T12
                       39.93 38.61 40.27 42.32
                                                     0.5546
                                                               0.1324
                                                                         0.5174
6W. Sagittal T2-T12
                       43.16 44.43 46.84 38.61
                                                     0.3012
                                                               0.0050
                                                                         0.0024
6M. Sagittal T2-T12
                       44.77 45.40 48.90 41.43
                                                                         0.0117
                                                     0.2053
                                                               0.0347
1Y. Sagittal T2-T12
                       44.92
                             45.55 47.84 41.95
                                                     0.3932
                                                               0.0636
                                                                         0.0401
2Y. Sagittal T2-T12
                       45.64
                             45.61
                                    49.21 43.46
                                                     0.1970
                                                               0.2833
                                                                         0.0484
5Y. Sagittal T2-T12
                       49.45 51.02 52.61 44.13
                                                     0.7182
                                                               0.0285
                                                                         0.0817
                    p.val_all
Sagittal T2-T12
                       0.3042
6W. Sagittal T2-T12
                       0.0021
6M. Sagittal T2-T12
                       0.0137
1Y. Sagittal T2-T12
                       0.0654
2Y. Sagittal T2-T12
                       0.1077
5Y. Sagittal T2-T12
                       0.0631
                1
                        2
1: Preop 2Y 0.0003 0.0107 0.6540 0.0000
2: Preop 5Y 0.0000 0.0118 0.5795 0.0000
3: Preop 6W 0.0012 0.0400 0.1639 0.0172
      6W 2Y 0.4947 0.4567 0.0353 0.0527
5:
      6W 5Y 0.0018 0.2077 0.0759 0.0002
6:
      2Y 5Y 0.0138 0.4737 0.8208 0.0245
```

[1] "Lordosis (top of L1-S1)"

```
All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3
Lordosis (top of L1-S1)
                               -43.79 -40.72 -32.81 -56.42
                                                              0.0050
                                                                         0.0000
6W. Lordosis (top of L1-S1)
                               -51.20 -50.24 -49.95 -53.79
                                                              0.9016
                                                                         0.0376
6M. Lordosis (top of L1-S1)
                               -50.88 -49.83 -46.07 -55.58
                                                              0.1417
                                                                         0.0005
1Y. Lordosis (top of L1-S1)
                               -51.16 -50.04 -47.19 -55.87
                                                              0.2514
                                                                         0.0009
2Y. Lordosis (top of L1-S1)
                               -51.59 -50.42 -46.87 -56.52
                                                              0.1664
                                                                         0.0011
5Y. Lordosis (top of L1-S1)
                               -50.64 -48.59 -49.25 -55.84
                                                              0.8435
                                                                         0.0209
                            p.val_2.3 p.val_all
Lordosis (top of L1-S1)
                               0.0000
                                          0.0000
6W. Lordosis (top of L1-S1)
                                0.1300
                                          0.1032
6M. Lordosis (top of L1-S1)
                               0.0006
                                          0.0001
1Y. Lordosis (top of L1-S1)
                                0.0014
                                          0.0006
2Y. Lordosis (top of L1-S1)
                                0.0003
                                          0.0004
5Y. Lordosis (top of L1-S1)
                                0.0839
                                          0.0574
      t0 t1
                 1
                        2
                                3
1: Preop 2Y 0.0000 0.0000 0.9617 0.0000
2: Preop 5Y 0.0005 0.0000 0.8520 0.0001
3: Preop 6W 0.0000 0.0000 0.2404 0.0000
4:
      6W 2Y 0.9092 0.3172 0.1531 0.7430
5:
      6W 5Y 0.4268 0.8430 0.4707 0.7105
6:
      2Y 5Y 0.4058 0.5085 0.8110 0.5499
```

[1] "Pelvic Incidence"

```
All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3
Pelvic Incidence
                       54.11 55.27 55.85 50.68 0.7701
                                                              0.0018
6W. Pelvic Incidence
                       54.15 55.41 56.27 50.37
                                                     0.6755
                                                              0.0008
6M. Pelvic Incidence
                       53.99 55.20 54.70 51.26
                                                     0.8098
                                                              0.0085
1Y. Pelvic Incidence
                       53.66 54.38 56.59
                                            50.44
                                                     0.2699
                                                              0.0109
2Y. Pelvic Incidence
                       53.75 54.57 56.40 50.67
                                                     0.3915
                                                              0.0121
5Y. Pelvic Incidence
                       54.90 54.49 58.62 53.06
                                                     0.1437
                                                              0.5288
                    p.val_2.3 p.val_all
Pelvic Incidence
                       0.0134
                                 0.0075
                       0.0064
                                 0.0033
6W. Pelvic Incidence
                       0.1158
6M. Pelvic Incidence
                                 0.0430
1Y. Pelvic Incidence
                       0.0045
                                 0.0090
2Y. Pelvic Incidence
                       0.0095
                                 0.0147
5Y. Pelvic Incidence
                       0.0644
                                 0.1774
                       2
                            3
     t0 t1
               1
                                   All
1: Preop 2Y 0.6193 0.8289 0.9951 0.7170
2: Preop 5Y 0.6500 0.3499 0.2533 0.5238
3: Preop 6W 0.9190 0.8664 0.8408 0.9695
     6W 2Y 0.5583 0.9610 0.8467 0.6936
     6W 5Y 0.5975 0.4341 0.1964 0.5476
5:
     2Y 5Y 0.9634 0.4627 0.2534 0.3628
```

[1] "Pelvic Tilt"

	All.mean	1.mean	2.mean	3.mean	p.val_1.2	p.val_1.3	p.val_2.3
Pelvic Tilt	21.99	24.33	27.72	13.63	0.0091	0	0
6W. Pelvic Tilt	18.18	19.76	22.18	12.62	0.0822	0	0
6M. Pelvic Tilt	19.60	21.42	24.40	13.25	0.0471	0	0
1Y. Pelvic Tilt	19.40	20.95	24.32	13.18	0.0145	0	0
2Y. Pelvic Tilt	19.25	21.14	24.20	12.91	0.0252	0	0
5Y. Pelvic Tilt	21.93	23.68	27.04	14.67	0.0820	0	0
	p.val_all						
Pelvic Tilt	0						
6W. Pelvic Tilt	0						
6M. Pelvic Tilt	0						
1Y. Pelvic Tilt	0						
2Y. Pelvic Tilt	0						
5Y. Pelvic Tilt	0						
t0 t1	1 2	3	Al]	L			
1: Preop 2Y 0.0	024 0.0242	0.5468	0.0007	7			
2: Preop 5Y 0.6	063 0.7262	0.5340	0.9521	L			
3: Preop 6W 0.0							
-	656 0.2242						
5: 6W 5Y 0.0	014 0.0186	0.2261	0.0001	L			
6: 2Y 5Y 0.03	398 0.1555	0.3011	0.0072	2			

[1] "Sacral Slope"

```
All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3 p.val_2.3
Sacral Slope
                    32.56 31.61 28.08 37.22
                                                  0.0298
                                                            0.0000
                                                                      0.0000
6W. Sacral Slope
                    35.90 35.54 34.00 37.66
                                                  0.3953
                                                            0.0681
                                                                      0.0553
                           33.59 30.28 38.16
6M. Sacral Slope
                                                            0.0001
                                                                      0.0000
                    34.37
                                                  0.0497
1Y. Sacral Slope
                    34.30
                           33.33 32.28
                                         37.47
                                                  0.4930
                                                            0.0007
                                                                      0.0021
                    34.58 33.57 32.18 37.83
                                                            0.0013
2Y. Sacral Slope
                                                  0.4327
                                                                      0.0028
5Y. Sacral Slope
                    32.97
                          30.80 31.58 38.42
                                                  0.7421
                                                            0.0001
                                                                      0.0088
                 p.val_all
Sacral Slope
                    0.0000
6W. Sacral Slope
                    0.0800
6M. Sacral Slope
                    0.0000
1Y. Sacral Slope
                    0.0009
2Y. Sacral Slope
                    0.0016
5Y. Sacral Slope
                    0.0008
                        2
                               3
     t0 t1
                1
                                    All
1: Preop 2Y 0.0905 0.0520 0.6573 0.0172
2: Preop 5Y 0.5706 0.1598 0.5022 0.7005
3: Preop 6W 0.0003 0.0075 0.7352 0.0000
     6W 2Y 0.0765 0.4246 0.9005 0.1096
5:
      6W 5Y 0.0008 0.3578 0.6675 0.0053
     2Y 5Y 0.0583 0.8143 0.7453 0.1360
```

[1] "RLL"

		All.mean	1.mean	2.mean	3.mean	p.val_1.2	p.val_1.3	p.val_2.3	p.val_all
RLL		-18.81	-22.55	-30.81	-3.79	0.0021	0.0000	0.0000	0.000
6W.	RLL	-11.30	-13.11	-13.94	-6.08	0.6671	0.0000	0.0003	0.000
6M.	RLL	-11.56	-13.32	-16.63	-5.33	0.1557	0.0000	0.0000	0.000
1Y.	RLL	-11.22	-12.67	-17.05	-4.54	0.0493	0.0000	0.0000	0.000
2Y.	RLL	-10.54	-12.03	-17.09	-3.85	0.0252	0.0000	0.0000	0.000
5Y.	R.L.L.	-12.40	-14.20	-16.10	-6.05	0.5044	0.0052	0.0037	0.004

t0 t1 1 2 3 All
1: Preop 2Y 0.0000 0.0000 0.9746 0.0000
2: Preop 5Y 0.0001 0.0000 0.4366 0.0001
3: Preop 6W 0.0000 0.0000 0.2780 0.0000
4: 6W 2Y 0.4740 0.2156 0.2026 0.4850
5: 6W 5Y 0.5519 0.4589 0.9925 0.4275
6: 2Y 5Y 0.2677 0.7428 0.4089 0.1988

[1] "Global Tilt"

	All.mean	1.mean	2.mean	3.mean	p.val_1.2	p.val_1.3	p.val_2.3
Global Tilt	26.29	29.71	38.32	11.31	0.0001	0	0
6W. Global Tilt	18.64	20.99	24.07	10.61	0.0843	0	0

```
6M. Global Tilt
                  20.43 22.97 27.11 11.47
                                                0.0547
1Y. Global Tilt
                  20.75 22.46 28.51 11.81
                                                0.0027
                                                               0
                                                                         0
2Y. Global Tilt
                  20.89 23.74 29.75 10.58
                                                0.0048
                                                               0
                                                                         0
5Y. Global Tilt
                  24.89 27.22 33.16 14.17
                                                               0
                                                                         0
                                                0.0405
               p.val_all
Global Tilt
6W. Global Tilt
6M. Global Tilt
                       0
1Y. Global Tilt
                       0
2Y. Global Tilt
5Y. Global Tilt
      t0 t1
                1
                       2
                              3
                                   A11
1: Preop 2Y 0.0003 0.0007 0.6427 0.0000
2: Preop 5Y 0.2226 0.0794 0.1859 0.3675
3: Preop 6W 0.0000 0.0000 0.6185 0.0000
      6W 2Y 0.0528 0.0165 0.9862 0.0418
5:
      6W 5Y 0.0011 0.0019 0.1012 0.0000
6:
     2Y 5Y 0.0721 0.2500 0.1151 0.0080
[1] "T1 Sagittal Tilt"
                     All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3
T1 Sagittal Tilt
                       -1.86 -1.64 2.22 -4.83
                                                     0.0002
                                                               0.0000
6W. T1 Sagittal Tilt
                       -3.59 -3.35 -3.37 -4.20
                                                     0.9776
                                                               0.1143
6M. T1 Sagittal Tilt
                       -4.12 -4.12 -2.52 -5.03
                                                     0.0630
                                                               0.0698
1Y. T1 Sagittal Tilt
                       -3.88 -3.93 -2.11 -4.97
                                                     0.0427
                                                               0.1176
2Y. T1 Sagittal Tilt
                       -3.63 -3.44 -1.39 -5.24
                                                     0.0305
                                                               0.0005
                       -2.75 -2.84 -0.99 -3.87
5Y. T1 Sagittal Tilt
                                                     0.0811
                                                               0.2096
                    p.val_2.3 p.val_all
T1 Sagittal Tilt
                       0.0000
                                 0.0000
6W. T1 Sagittal Tilt
                       0.2714
                                 0.2959
6M. T1 Sagittal Tilt
                       0.0043
                                 0.0057
1Y. T1 Sagittal Tilt
                       0.0030
                                 0.0093
2Y. T1 Sagittal Tilt
                       0.0001
                                 0.0000
5Y. T1 Sagittal Tilt
                       0.0059
                                 0.0584
      t0 t1
                       2
                1
1: Preop 2Y 0.0029 0.0042 0.4455 0.0001
2: Preop 5Y 0.1223 0.0106 0.1630 0.0932
3: Preop 6W 0.0030 0.0000 0.2863 0.0000
     6W 2Y 0.8571 0.0631 0.0584 0.9135
4:
5:
     6W 5Y 0.4656 0.0269 0.6327 0.0780
6:
     2Y 5Y 0.4051 0.7404 0.0372 0.0758
[1] "Thoracolumbar L2-T10"
                        All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3
Thoracolumbar L2-T10
```

7.37

7.38

1.17

0.6594

0.4764

0.1930

0.0032

10.03 10.75 12.01

4.91 6.15

6W. Thoracolumbar L2-T10

```
6M. Thoracolumbar L2-T10
                             5.08
                                    6.75
                                            6.98
                                                   0.58
                                                           0.8864
                                                                     0.0007
1Y. Thoracolumbar L2-T10
                             5.27
                                    7.60
                                            7.36
                                                 -0.40
                                                           0.8940
                                                                     0.0000
2Y. Thoracolumbar L2-T10
                             6.07
                                                   1.76
                                                                     0.0008
                                    7.70
                                            8.45
                                                           0.7050
5Y. Thoracolumbar L2-T10
                             7.26
                                    8.98 10.45
                                                   1.49
                                                           0.6059
                                                                     0.0144
                         p.val_2.3 p.val_all
Thoracolumbar L2-T10
                            0.1531
                                      0.2903
6W. Thoracolumbar L2-T10
                            0.0017
                                      0.0028
6M. Thoracolumbar L2-T10
                            0.0025
                                      0.0003
1Y. Thoracolumbar L2-T10
                            0.0004
                                      0.0000
2Y. Thoracolumbar L2-T10
                            0.0022
                                      0.0011
5Y. Thoracolumbar L2-T10
                            0.0114
                                      0.0134
      t0 t1
                        2
                               3
                1
                                    All
1: Preop 2Y 0.0983 0.2274 0.0271 0.0032
2: Preop 5Y 0.4179 0.6460 0.0766 0.0907
3: Preop 6W 0.0103 0.1018 0.0141 0.0001
4:
      6W 2Y 0.2899 0.6175 0.7588 0.2713
      6W 5Y 0.1338 0.2645 0.9114 0.0955
5:
      2Y 5Y 0.5090 0.4860 0.9249 0.4062
6:
```

[1] "RSA"

	All.mean	1.mean	2.mean	3.mean	p.val_1.2	p.val_1.3	$p.val_2.3$	p.val_all
RSA	15.26	18.19	26.40	1.87	0.0000	0	0	0
6W. RS	7.59	9.35	12.02	1.38	0.0668	0	0	0
6M. RS	9.46	11.41	15.62	1.94	0.0140	0	0	0
1Y. RS	9.81	11.27	16.16	2.34	0.0021	0	0	0
2Y. RS	10.09	12.40	17.87	1.34	0.0027	0	0	0
5Y. RS	13.54	16.07	20.03	3.70	0.1024	0	0	0

t0 t1 1 2 3 All
1: Preop 2Y 0.0000 0.0001 0.6917 0.0000
2: Preop 5Y 0.2221 0.0108 0.3290 0.2017
3: Preop 6W 0.0000 0.0000 0.6733 0.0000
4: 6W 2Y 0.0059 0.0042 0.9771 0.0058
5: 6W 5Y 0.0000 0.0012 0.2162 0.0000
6: 2Y 5Y 0.0226 0.3920 0.2344 0.0072

[1] "RPV"

	All.mean	1.mean	2.mean	3.mean	p.val_1.2	p.val_1.3	p.val_2.3	p.val_all
RPV	-8.42	-10.11	-13.87	-1.67	0.0005	0	0	0
6W. RPV	-5.03	-6.15	-8.20	-0.94	0.0940	0	0	0
6M. RPV	-6.49	-7.98	-10.99	-1.09	0.0117	0	0	0
1Y. RPV	-6.39	-7.75	-10.10	-1.35	0.0266	0	0	0
2Y. RPV	-6.14	-7.64	-10.10	-1.07	0.0305	0	0	0
5Y. RPV	-8.42	-10.34	-12.01	-1.89	0.2952	0	0	0

t0 t1 1 2 3 All 1: Preop 2Y 0.0042 0.0037 0.5505 0.0006

```
2: Preop 5Y 0.8161 0.2486 0.8743 0.9929
3: Preop 6W 0.0000 0.0001 0.4539 0.0000
4: 6W 2Y 0.0561 0.1961 0.9021 0.0718
5: 6W 5Y 0.0000 0.0328 0.4970 0.0000
6: 2Y 5Y 0.0071 0.2538 0.5624 0.0059
```

Quality of Life

```
[1] "ODI - Score (%)"
```

```
All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3 p.val_2.3
                       37.26 40.27 61.84 16.10
ODI - Score (%)
                                                          Ω
                                                                    Ω
6M. ODI - Score (%)
                       28.30 28.22 45.19 17.78
                                                          0
                                                                    0
1Y. ODI - Score (%)
                       25.72
                             26.46 44.66 12.83
                                                          0
                                                                    0
                                                                              0
2Y. ODI - Score (%)
                       27.53
                             28.07 50.35 12.76
                                                         0
                                                                              0
5Y. ODI - Score (%)
                       28.33 29.38 49.02 12.18
                                                                              0
                    p.val_all
ODI - Score (%)
6M. ODI - Score (%)
                            0
1Y. ODI - Score (%)
2Y. ODI - Score (%)
5Y. ODI - Score (%)
      t0 t1
                1
1: Preop 2Y 0.0000 0.0002 0.0418 0.0000
2: Preop 5Y 0.0000 0.0003 0.0307 0.0000
3: Preop 6M 0.0000 0.0000 0.3518 0.0000
     6M 2Y 0.9373 0.1463 0.0058 0.6108
5:
     6M 5Y 0.5634 0.3259 0.0047 0.9874
6:
     2Y 5Y 0.5455 0.7388 0.7490 0.6538
```

[1] "SRS22 - Function / Activity"

1: Preop 2Y 0.0000 0.0001 0.0099 0.0000

```
All.mean 1.mean 2.mean 3.mean p.val 1.2
SRS22 - Function / Activity
                                                          4.01
                                    3.09
                                           2.94
                                                   2.11
                                                                       0
6M. SRS22 - Function / Activity
                                    3.26
                                           3.19
                                                   2.59
                                                          3.81
                                                                       0
1Y. SRS22 - Function / Activity
                                    3.40
                                           3.30
                                                   2.59
                                                          4.10
                                                                       0
2Y. SRS22 - Function / Activity
                                    3.48
                                           3.33
                                                   2.63
                                                          4.27
                                                                       0
5Y. SRS22 - Function / Activity
                                    3.50
                                           3.45
                                                   2.67
                                                          4.16
                                                                       0
                                p.val_1.3 p.val_2.3 p.val_all
SRS22 - Function / Activity
                                        0
                                                   0
6M. SRS22 - Function / Activity
                                        0
                                                   0
                                                             0
1Y. SRS22 - Function / Activity
                                        0
                                                   0
                                                             0
2Y. SRS22 - Function / Activity
                                        0
                                                   0
                                                             0
5Y. SRS22 - Function / Activity
                                        0
                 1
                        2
```

```
2: Preop 5Y 0.0000 0.0005 0.2157 0.0000
3: Preop 6M 0.0001 0.0001 0.0640 0.0082
      6M 2Y 0.0522 0.8295 0.0000 0.0013
5:
      6M 5Y 0.0010 0.6438 0.0067 0.0009
6:
      2Y 5Y 0.1493 0.7954 0.3911 0.7342
[1] "SRS22 - Pain"
                 All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3 p.val_2.3
                                                             0.0000
SRS22 - Pain
                     2.62
                            2.48
                                  1.52
                                          3.60
                                                        0
6M. SRS22 - Pain
                     3.42
                            3.46
                                   2.79
                                           3.75
                                                             0.0068
                                                                            0
                                                        0
1Y. SRS22 - Pain
                     3.57
                            3.57
                                   2.68
                                          4.08
                                                             0.0000
                                                                            0
                                                        0
2Y. SRS22 - Pain
                     3.49
                            3.49
                                   2.51
                                           4.07
                                                        0
                                                             0.0000
                                                                            0
5Y. SRS22 - Pain
                     3.38
                            3.35
                                   2.50
                                          4.02
                                                             0.0000
                                                                            0
                 p.val_all
SRS22 - Pain
6M. SRS22 - Pain
                         0
1Y. SRS22 - Pain
                         0
2Y. SRS22 - Pain
                         0
5Y. SRS22 - Pain
                 1
1: Preop 2Y 0.0000 0.0000 0.0000 0.0000
2: Preop 5Y 0.0000 0.0000 0.0032 0.0000
3: Preop 6M 0.0000 0.0000 0.2089 0.0000
      6M 2Y 0.7086 0.1421 0.0062 0.3696
5:
      6M 5Y 0.3116 0.1692 0.0619 0.6041
      2Y 5Y 0.2105 0.9400 0.6934 0.2191
[1] "SRS22 - Self image / Appearance"
                                    All.mean 1.mean 2.mean 3.mean p.val_1.2
SRS22 - Self image / Appearance
                                        2.42
                                               2.45 1.65
                                                              2.84
                                                                       0e+00
6M. SRS22 - Self image / Appearance
                                        3.48
                                               3.48
                                                       2.93
                                                              3.82
                                                                       1e-04
1Y. SRS22 - Self image / Appearance
                                        3.52
                                               3.54
                                                       2.82
                                                              3.91
                                                                       0e+00
2Y. SRS22 - Self image / Appearance
                                        3.43
                                               3.42
                                                       2.60
                                                              3.95
                                                                       0e+00
5Y. SRS22 - Self image / Appearance
                                        3.37
                                                3.36
                                                       2.60
                                                              3.90
                                                                       0e+00
                                    p.val_1.3 p.val_2.3 p.val_all
SRS22 - Self image / Appearance
                                        0e+00
                                                       0
                                                                 0
6M. SRS22 - Self image / Appearance
                                         2e-04
                                                       0
                                                                 0
1Y. SRS22 - Self image / Appearance
                                         0e+00
                                                                 0
                                                       0
2Y. SRS22 - Self image / Appearance
                                                                 0
                                         0e+00
                                                       0
5Y. SRS22 - Self image / Appearance
                                                                 0
                                         0e+00
      t0 t1
                 1
                        2
                                    A11
1: Preop 2Y 0.0000 0.0000 0.0000 0.0000
2: Preop 5Y 0.0000 0.0000 0.0000 0.0000
3: Preop 6M 0.0000 0.0000 0.0000 0.0000
```

4:

5:

6M 2Y 0.4723 0.0573 0.2392 0.4681 6M 5Y 0.1890 0.0722 0.5067 0.1429

[1] "SRS22 - Mental health"

	All mean	1 mean	2 mean	3 mean	p.val_1.2	n val 13			
SRS22 - Mental health					-	0.0070			
6M. SRS22 - Mental health									
1Y. SRS22 - Mental health						0.0250			
2Y. SRS22 - Mental health	3.51	3.60	2.68	3.81	0	0.0253			
5Y. SRS22 - Mental health	3.55	3.64	2.66	3.91	0	0.0165			
p.val_2.3 p.val_all									
SRS22 - Mental health		0	0						
6M. SRS22 - Mental health		0	0						
1Y. SRS22 - Mental health		0	0						
2Y. SRS22 - Mental health		0	0						
5Y. SRS22 - Mental health		0	0						
t0 t1 1 2	3	All							
1: Preop 2Y 0.0002 0.0071	0.0032 0	.0000							
2: Preop 5Y 0.0000 0.0149	0.0008 0	.0000							
3: Preop 6M 0.0001 0.0000	0.0063 0	.0000							
4: 6M 2Y 0.8972 0.1214	0.7953 0	.5454							
5: 6M 5Y 0.7597 0.0969	0.2696 0	.9850							
6: 2Y 5Y 0.6746 0.8832	0.3777 0	.5706							

[1] "SRS22 - SRS Subtotal score"

	All.mean 1.me	an 2.mean	3.mean p.v	al_1.2
SRS22 - SRS Subtotal score	2.83 2.	79 1.90	3.49	0
6M. SRS22 - SRS Subtotal score	3.43 3.	43 2.82	3.79	0
1Y. SRS22 - SRS Subtotal score	3.53 3.	53 2.76	3.99	0
2Y. SRS22 - SRS Subtotal score	3.48 3.	46 2.61	4.02	0
5Y. SRS22 - SRS Subtotal score	3.44 3.	43 2.61	4.00	0
	p.val_1.3 p.v	al_2.3 p.v	al_all	
SRS22 - SRS Subtotal score	0	0	0	
6M. SRS22 - SRS Subtotal score	0	0	0	
1Y. SRS22 - SRS Subtotal score	0	0	0	
2Y. SRS22 - SRS Subtotal score	0	0	0	
5Y. SRS22 - SRS Subtotal score	0	0	0	
t0 t1 1 2	3 All			
1: Preop 2Y 0.0000 0.0000 0.000	0.0000			
2: Preop 5Y 0.0000 0.0000 0.000	0.0000			
3: Preop 6M 0.0000 0.0000 0.000	0.0000			
4: 6M 2Y 0.7228 0.1317 0.005	57 0.4272			
5: 6M 5Y 0.9320 0.1710 0.052	26 0.8979			
6: 2Y 5Y 0.7049 1.0000 0.786	39 0.5885			

[1] "SF36 - PCS"

```
All.mean 1.mean 2.mean 3.mean p.val_1.2 p.val_1.3 p.val_2.3
SF36 - PCS
                36.45 34.10 29.12 46.26
                                             0e+00
                                                      0
                40.54 39.81 34.18 46.19
6M. SF36 - PCS
                                             0e+00
                                                           0
                                                                    0
1Y. SF36 - PCS
              41.94 41.20 33.24 48.71
                                             0e+00
                                                          0
                                                                    0
2Y. SF36 - PCS
              42.06 41.20 33.37 49.09
                                             0e+00
                                                         0
                                                                    0
5Y. SF36 - PCS 41.64 40.49 33.58 49.54
                                                         0
                                                                    0
                                             2e-04
              p.val_all
SF36 - PCS
                     0
6M. SF36 - PCS
1Y. SF36 - PCS
                     0
2Y. SF36 - PCS
                     0
5Y. SF36 - PCS
            1 2
                            3
1: Preop 2Y 0.0000 0.0068 0.0172 0.0000
2: Preop 5Y 0.0000 0.0139 0.0230 0.0000
3: Preop 6M 0.0000 0.0002 0.9534 0.0000
     6M 2Y 0.1297 0.6246 0.0202 0.0460
5:
     6M 5Y 0.5238 0.7485 0.0248 0.2103
6:
     2Y 5Y 0.5144 0.9172 0.7577 0.6449
```

[1] "SF36 - MCS"

	All.mean 1	.mean 2	2.mean	3.mean	p.val_1.2	p.val_1.3	p.val_2.3
SF36 - MCS	42.99	44.89	33.08	44.99	0e+00	0.9377	0e+00
6M. SF36 - MCS	47.14	48.09	41.17	49.01	2e-04	0.4961	1e-04
1Y. SF36 - MCS	47.55	48.75	40.03	49.67	0e+00	0.4584	0e+00
2Y. SF36 - MCS	46.96	47.64	38.38	50.88	0e+00	0.0094	0e+00
5Y. SF36 - MCS	47.66	48.74	38.90	50.64	0e+00	0.1917	0e+00
	p.val_all						
SF36 - MCS	0e+00						
6M. SF36 - MCS	1e-04						
1Y. SF36 - MCS	0e+00						
2Y. SF36 - MCS	0e+00						
5Y. SF36 - MCS	0e+00						
t0 t1	1 2	3	3 A]	L1			
1: Preop 2Y 0.	0242 0.0163	0.0000	0.000	00			
2: Preop 5Y 0.	0017 0.0172	0.0004	1 0.000	00			
3: Preop 6M 0.	0092 0.0001	0.0060	0.000	00			
4: 6M 2Y 0.	7244 0.2338	0.1533	0.841	l1			
5: 6M 5Y 0.	6143 0.3728	0.2823	0.597	74			
6: 2Y 5Y 0.	3891 0.8434	0.8638	3 0.475	52			

Surgery

```
All.mean 1.mean 2.mean 3.mean
Total Operative Blood Loss st1+st2+st3 1447.62 1425.86 1875.30 1152.39
Total surgical time st1+st2+st3 308.97 284.08 336.46 341.14
```

9.06 8.36 Number of Posterior Instrumented Levels Number of Interbody Fusions 0.80 1.05 p.val_1.2 p.val_1.3 p.val_2.3 p.val_all Total Operative Blood Loss st1+st2+st3 0.0192 0.0647 Total surgical time st1+st2+st3 0.0303 0.0067 Number of Posterior Instrumented Levels 0.1798 0.0006 Number of Interbody Fusions 0.6861 0.0000 \$'Pelvic fixation' \$'Pelvic fixation'\$All \$'Pelvic fixation'\$All\$table variable NA No Yes 24 214 134 \$'Pelvic fixation'\$All\$proportion variable NA No Yes 0.06451613 0.57526882 0.36021505 \$'Pelvic fixation'\$'1' \$'Pelvic fixation'\$'1'\$table variable NA No Yes 13 102 90 \$'Pelvic fixation'\$'1'\$proportion variable NANo Yes 0.06341463 0.49756098 0.43902439 \$'Pelvic fixation'\$'2' \$'Pelvic fixation'\$'2'\$table variable NA No Yes 3 22 38 \$'Pelvic fixation'\$'2'\$proportion variable NANo Yes 0.04761905 0.34920635 0.60317460 \$'Pelvic fixation'\$'3' \$'Pelvic fixation'\$'3'\$table variable NA No Yes 8 90

\$'Pelvic fixation'\$'3'\$proportion

No

Yes

variable

NA

9.26

0.98

0.0004

0.8665

0.1690

0.0000

10.24

0.18

0.0037 0.0056

0.0032

0.0000

0.07692308 0.86538462 0.05769231

\$'Surgical Approach'\$'3'

\$'Surgical Approach' \$'Surgical Approach'\$All \$'Surgical Approach'\$All\$table variable Anterior Anterior-Posterior 1 Posterior Posterior-Anterior 352 11 Posterior-Posterior Posterior-Posterior-Anterior 3 \$'Surgical Approach'\$All\$proportion variable Anterior-Posterior Anterior 0.002688172 0.010752688 Posterior Posterior-Anterior 0.946236559 0.029569892 Posterior-Posterior Posterior-Posterior-Anterior 0.008064516 0.002688172 \$'Surgical Approach'\$'1' \$'Surgical Approach'\$'1'\$table variable Anterior Anterior-Posterior Posterior Posterior-Anterior 196 1 Posterior-Posterior \$'Surgical Approach'\$'1'\$proportion variable Anterior Anterior-Posterior Posterior Posterior-Anterior 0.004878049 0.009756098 0.956097561 0.019512195 Posterior-Posterior 0.009756098 \$'Surgical Approach'\$'2' \$'Surgical Approach'\$'2'\$table variable Posterior Posterior-Anterior 56 7 \$'Surgical Approach'\$'2'\$proportion variable Posterior Posterior-Anterior 0.8888889 0.1111111

\$'Surgical Approach'\$'3'\$table variable Anterior-Posterior Posterior 100 Posterior-Posterior Posterior-Posterior-Anterior \$'Surgical Approach'\$'3'\$proportion variable Anterior-Posterior Posterior 0.019230769 0.961538462

Posterior-Posterior Posterior-Posterior-Anterior

0.009615385 0.009615385

\$Decompression \$Decompression\$All \$Decompression\$All\$table variable No Yes 274 98

\$Decompression\$All\$proportion variable

Yes 0.7365591 0.2634409

\$Decompression\$'1' \$Decompression\$'1'\$table variable No Yes 135 70

\$Decompression\$'1'\$proportion variable

No Yes 0.6585366 0.3414634

\$Decompression\$'2' \$Decompression\$'2'\$table variable No Yes 41 22

\$Decompression\$'2'\$proportion variable

No Yes 0.6507937 0.3492063

\$Decompression\$'3'

```
$Decompression$'3'$table
variable
No Yes
98
     6
$Decompression$'3'$proportion
variable
        No
                  Yes
0.94230769 0.05769231
$'Interbody Fusion'
$'Interbody Fusion'$All
$'Interbody Fusion'$All$table
variable
No Yes
216 156
$'Interbody Fusion'$All$proportion
variable
      No
                Yes
0.5806452 0.4193548
$'Interbody Fusion'$'1'
$'Interbody Fusion'$'1'$table
variable
No Yes
90 115
$'Interbody Fusion'$'1'$proportion
variable
      No
                Yes
0.4390244 0.5609756
$'Interbody Fusion'$'2'
$'Interbody Fusion'$'2'$table
variable
No Yes
28 35
$'Interbody Fusion'$'2'$proportion
variable
      No
                Yes
0.444444 0.555556
$'Interbody Fusion'$'3'
$'Interbody Fusion'$'3'$table
variable
No Yes
```

98 6

\$'Interbody Fusion'\$'3'\$proportion
variable
 No Yes

0.94230769 0.05769231

\$Osteotomy
\$Osteotomy\$All
\$Osteotomy\$All\$table
variable
No Yes
201 171

\$Osteotomy\$All\$proportion
variable

No Yes 0.5403226 0.4596774

\$Osteotomy\$'1'
\$Osteotomy\$'1'\$table
variable
No Yes
107 98

\$Osteotomy\$'1'\$proportion
variable

No Yes 0.5219512 0.4780488

\$0steotomy\$'2'
\$0steotomy\$'2'\$table
variable
No Yes
24 39

\$Osteotomy\$'2'\$proportion
variable

No Yes 0.3809524 0.6190476

\$Osteotomy\$'3'
\$Osteotomy\$'3'\$table
variable
No Yes
70 34

0steotomy'3'\$proportion variable

No Yes

0.6730769 0.3269231

\$'3CO'
\$'3CO'\$A11
\$'3CO'\$A11\$table
variable
No Yes
318 54

\$'3CO'\$All\$proportion
variable
 No Yes

0.8548387 0.1451613

\$'3CO'\$'1'
\$'3CO'\$'1'\$table
variable
No Yes
174 31

\$'3CO'\$'1'\$proportion
variable
 No Yes

0.8487805 0.1512195

\$'3CO'\$'2'
\$'3CO'\$'2'\$table
variable
No Yes
45 18

\$'3C0'\$'2'\$proportion
variable
 No Yes
0.7142857 0.2857143

\$'3CO'\$'3'
\$'3CO'\$'3'\$table
variable
No Yes
99 5

\$'3CO'\$'3'\$proportion
variable
 No Yes
0.95192308 0.04807692

Reinterventions

```
group reiqs patients total
            161
                        64
2:
        2
            104
                        29
                               63
3:
        3
             21
                        14
                              104
4:
            286
                       107
                              372
     all
```

Impacts

```
Complication Impact all_num all_patients 1_num 1_patients 2_num 2_patients
1:
                               1
                                            1
                                                   0
                                                               0
                                                                     1
2:
         Adverse Event
                              9
                                            7
                                                   4
                                                               3
                                                                     0
                                                                                 0
   Major Complication
                            335
                                          118
                                                 193
                                                              69
                                                                   117
                                                                                32
4: Minor Complication
                            299
                                          180
                                                 189
                                                             107
                                                                    72
                                                                                42
   3 num 3 patients all
                                   3 p_val_all_1 p_val_all_2 p_val_all_3
                           1
                              2
1:
                   0 372 205 63 104
                                          1.0000
                                                       1.0000
2:
       5
                   4 372 205 63 104
                                          0.3438
                                                       0.0156
                                                                    0.5488
3:
                  17 372 205 63 104
                                          0.0004
                                                       0.0000
                                                                    0.0000
                                                                    0.0000
4:
                  31 372 205 63 104
                                          0.0000
                                                       0.0000
      38
   p_val_1_2 p_val_1_3 p_val_2_3
                           1.0000
1:
      1.0000
                      1
2:
      0.2500
                      1
                           0.1250
3:
      0.0003
                      0
                           0.0444
4:
      0.0000
                      0
                           0.2416
```

Categories

```
Category of the complication all_num all_patients 1_num 1_patients
      Central neurologic complications
                                                2
                                                                    2
1:
                                                              2
                                                                                2
                                                                               39
2:
                              Iatrogenic
                                               79
                                                             68
                                                                   46
3:
               Infectious complications
                                                                   19
                                               40
                                                             31
                                                                               15
4:
              Mechanical complications
                                              289
                                                            136
                                                                  162
                                                                               79
5:
                    Other complications
                                              148
                                                             89
                                                                   94
                                                                               50
                                               24
                                                                   20
                                                             23
                                                                               19
7: Peripheral neurologic complications
                                               62
                                                             50
                                                                   43
                                                                               34
   2 num 2 patients 3 num 3 patients all
                                              1 2
                                                     3 p_val_all_1 p_val_all_2
1:
       0
                         0
                                     0 372 205 63 104
                                                             1.0000
                                                                          0.5000
2:
      19
                  15
                        14
                                    14 372 205 63 104
                                                             0.0065
                                                                          0.0000
3:
      15
                         6
                                     5 372 205 63 104
                                                             0.0259
                                                                          0.0029
                  11
     108
                                    16 372 205 63 104
4:
                  41
                        19
                                                             0.0001
                                                                          0.0000
5:
      29
                  19
                        25
                                    20 372 205 63 104
                                                                          0.0000
                                                             0.0012
6:
       2
                   2
                         2
                                     2 372 205 63 104
                                                             0.6440
                                                                          0.0000
7:
                  14
                         2
                                     2 372 205 63 104
                                                             0.1011
                                                                          0.0000
   p_val_all_3 p_val_1_2 p_val_1_3 p_val_2_3
                   0.5000
                              0.5000
                                        1.0000
           0.5
1:
           0.0
                   0.0015
                              0.0008
                                        1.0000
2:
```

0.0	0.5572	0.0414	0.2101
0.0	0.0007	0.0000	0.0013
0.0	0.0002	0.0004	1.0000
0.0	0.0002	0.0002	1.0000
0.0	0.0055	0.0000	0.0042
	0.0 0.0 0.0	0.0 0.0007 0.0 0.0002 0.0 0.0002	0.0 0.0007 0.0000 0.0 0.0002 0.0004 0.0 0.0002 0.0002