# Clusters Descriptives

Initial Patients: 372

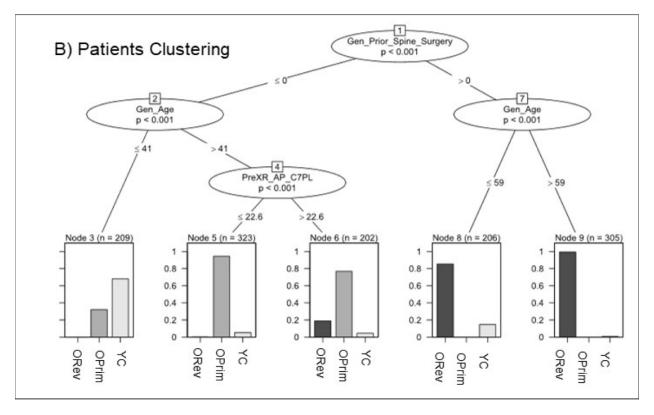


Figure 1: cluters Eurospine 2019

# Number of patients

	cluster	N
1:	5	63
2:	4	54
3:	1	93
4:	3	56
5:	2	95

# Statistics

# odi

ODI stats overall

```
mean sd
1: 37.25581 19.93045
```

# ODI stats by cluster

	cluster	mean	sd
1:	5	48.96610	17.38010
2:	4	37.60000	16.00383
3:	1	20.04598	15.67690
4:	3	42.37736	17.47441
5:	2	42.70526	18.18573

# 3CO: all vs each cluster

	cluster	p.val
1:	1	0.0041110494
2:	2	0.2257573637
3:	3	0.5238855687
4:	4	0.0304744548
5:	5	0.0008141409

# Pelvic fixation: all vs each cluster

	cluster	p.val
1:	1	1.560268e-10
2:	2	7.958378e-02
3:	3	6.074547e-03
4:	4	5.399423e-01
5:	5	1.738331e-03

### P-valor ASA 1 cluster vs cluster

	treatment	asa_1	N
1:	5	4	63
2:	4	21	54
3:	1	61	93
4:	3	11	56
5:	2	15	95

P-values Treatment 1 vs Treatment 2

[1] 9.881061e-12

P-values Treatment 1 vs Treatment 3

[1] 1.387645e-07

P-values Treatment 2 vs Treatment 3

[1] 0.7019407

### P-valor ASA 3 cluster vs cluster

```
treatment asa_3 N
1: 5 15 63
2: 4 7 54
3: 1 4 93
4: 3 10 56
5: 2 18 95
```

P-values Treatment 1 vs Treatment 2

[1] 0.003772065

P-values Treatment 1 vs Treatment 3

[1] 0.01401138

P-values Treatment 2 vs Treatment 3

[1] 1

# P-valor Prior Spine Surgery Yes cluster vs cluster

	${\tt treatment}$	prior_yes	N
1:	5	63	63
2:	4	54	54
3:	1	0	93
4:	3	0	56
5:	2	0	95

P-values Treatment 1 vs Treatment 2

[1] NaN

P-values Treatment 1 vs Treatment 3

[1] NaN

P-values Treatment 2 vs Treatment 3

[1] NaN

# 3CO cluster vs cluster

	treatment	<pre>prior_yes</pre>	N
1:	5	21	63
2:	4	15	54
3:	1	3	93
4:	3	6	56
5:	2	9	95

P-values Treatment 1 vs Treatment 2

[1] 0.1460115

P-values Treatment 1 vs Treatment 3

[1] 0.1327384

P-values Treatment 2 vs Treatment 3

[1] 1

### Pelvic Fixation cluster vs cluster

	${\tt treatment}$	<pre>prior_yes</pre>	1
1:	5	37	63
2:	4	17	54
3:	1	2	93
4:	3	32	56
5:	2	45	95

P-values Treatment 1 vs Treatment 2

[1] 2.743841e-12

P-values Treatment 1 vs Treatment 3

[1] 4.500986e-14

P-values Treatment 2 vs Treatment 3

[1] 0.3211624

# Demographics

			var	iable .	All.mean	All.sd	l 1.mean	1.sd
Age				Age	51.98	19.46	26.45	7.18
<pre>Height (cm)_First Visit</pre>	Height	(cm)_	_First	Visit	163.06	9.39	166.28	9.46
Weight (kgs)_First Visit	Weight	(kgs)	_First	Visit	65.76	13.06	62.28	13.84
BMI_First Visit		BMI_	_First	Visit	24.75	4.61	22.47	4.41
	2.mean	2.sd	3.mean	3.sd	4.mean	4.sd 5	.mean	5.sd
Age	63.06	9.66	64.39	10.76	42.87	13.05	69.73	5.86
<pre>Height (cm)_First Visit</pre>	162.27	8.44	160.30	8.33	164.65	10.68 1	60.52	8.95
Weight (kgs)_First Visit	66.32	11.70	64.23	10.69	67.35	14.56	70.11 1	3.19
BMI_First Visit	25.22	4.31	24.98	3.54	24.75	4.21	27.27	5.09
	p.val_1	.2 p.v	val_1.3	p.val	_1.4 p.v	al_1.5	p.val_1	.all
Age	0.00	00	0.0000	0.	0000	0e+00	0.	0000
<pre>Height (cm)_First Visit</pre>	0.00	25	0.0001	0.	3543	2e-04	0.	0039
Weight (kgs)_First Visit	0.03	26	0.3381	0.0	0408	5e-04	0.	0308
BMI_First Visit	0.00	00	0.0002	0.	0024	0e+00	0.	0000

p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.	5
Age 0.0000 0.4483 0.0000 0.000	0
Height (cm)_First Visit 0.0002 0.1650 0.1639 0.220	9
Weight (kgs)_First Visit 0.0046 0.2664 0.6558 0.067	9
BMI_First Visit 0.0000 0.7100 0.5200 0.009	9
p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_	3.5
Age 0.0000 0.0000 0.0000 0.0	014
Height (cm)_First Visit 0.4344 0.3138 0.0195 0.8	939
Weight (kgs)_First Visit 0.6883 0.6054 0.2047 0.0	087
BMI_First Visit 0.3610 0.2363 0.7621 0.0	050
p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_	4.all
Age 0.0000 0.0000 0.0000 0	.0000
Height (cm)_First Visit 0.0266 0.0102 0.0272 0	.3034
Weight (kgs)_First Visit 0.3383 0.2682 0.2897 0	.4506
BMI_First Visit 0.6789 0.6335 0.0042 0	.9943
p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_r	est
Age 0.0000 0.0000 0.0	000
Height (cm)_First Visit 0.2292 0.0435 0.0	169
Weight (kgs)_First Visit 0.3783 0.0185 0.0	052
BMI_First Visit 0.9934 0.0005 0.0	000
p.val_all	
Age 0.0000	
Height (cm)_First Visit 0.0001	
Weight (kgs)_First Visit 0.0039	
BMI_First Visit 0.0000	

\$Gender \$Gender\$All \$Gender\$All\$table variable Female Male 283 78

\$Gender\$All\$proportion variable Female Male 0.7839335 0.2160665

\$Gender\$'1'\$table
variable
Female Male
67 26

\$Gender\$'1'\$proportion variable Female Male 0.7204301 0.2795699

\$Gender\$'2'
\$Gender\$'2'\$table
variable

Female Male 79 16

\$Gender\$'2'\$proportion variable Female Male 0.8315789 0.1684211

\$Gender\$'3'\$table
variable
Female Male
48 8

\$Gender\$'3'\$proportion variable Female Male 0.8571429 0.1428571

\$Gender\$'4'\$table
variable
Female Male
40 14

\$Gender\$'4'\$proportion variable Female Male 0.7407407 0.2592593

\$Gender\$'5'\$table
variable
Female Male
49 14

\$Gender\$'5'\$proportion
variable
 Female Male
0.7777778 0.2222222

\$'Prior Spine Surgery'
\$'Prior Spine Surgery'\$All
\$'Prior Spine Surgery'\$All\$table
variable
No Yes
244 117

\$'Prior Spine Surgery'\$All\$proportion

```
variable
       Nο
                Yes
0.6759003 0.3240997
$'Prior Spine Surgery'$'1'
$'Prior Spine Surgery'$'1'$table
variable
No
93
$'Prior Spine Surgery'$'1'$proportion
variable
No
1
$'Prior Spine Surgery'$'2'
$'Prior Spine Surgery'$'2'$table
variable
No
95
$'Prior Spine Surgery'$'2'$proportion
variable
No
1
$'Prior Spine Surgery'$'3'
$'Prior Spine Surgery'$'3'$table
variable
No
56
$'Prior Spine Surgery'$'3'$proportion
variable
No
1
$'Prior Spine Surgery'$'4'
$'Prior Spine Surgery'$'4'$table
variable
Yes
54
$'Prior Spine Surgery'$'4'$proportion
variable
Yes
  1
$'Prior Spine Surgery'$'5'
```

```
$'Prior Spine Surgery'$'5'$table
variable
Yes
63
$'Prior Spine Surgery'$'5'$proportion
variable
Yes
  1
$'ASA classification'
$'ASA classification'$All
$'ASA classification'$All$table
variable
 1 2
112 195 54
$'ASA classification'$All$proportion
variable
0.3102493 0.5401662 0.1495845
$'ASA classification'$'1'
$'ASA classification'$'1'$table
variable
1 2 3
61 28 4
$'ASA classification'$'1'$proportion
variable
                   2
0.65591398 0.30107527 0.04301075
$'ASA classification'$'2'
$'ASA classification'$'2'$table
variable
1 2 3
15 62 18
$'ASA classification'$'2'$proportion
variable
                  2
       1
0.1578947 0.6526316 0.1894737
$'ASA classification'$'3'
$'ASA classification'$'3'$table
variable
1 2 3
```

11 35 10

```
$'ASA classification'$'3'$proportion
variable
                 2
0.1964286 0.6250000 0.1785714
$'ASA classification'$'4'
$'ASA classification'$'4'$table
variable
1 2 3
21 26 7
$'ASA classification'$'4'$proportion
variable
0.3888889 0.4814815 0.1296296
$'ASA classification'$'5'
$'ASA classification'$'5'$table
variable
1 2 3
4 44 15
$'ASA classification'$'5'$proportion
variable
0.06349206 0.69841270 0.23809524
$'Tobacco use_First Visit'
$'Tobacco use_First Visit'$All
$'Tobacco use_First Visit'$All$table
variable
Current
              Ex Non-User
              64
                       225
$'Tobacco use_First Visit'$All$proportion
variable
               Ex Non-User
  Current
0.1994460 0.1772853 0.6232687
$'Tobacco use_First Visit'$'1'
$'Tobacco use_First Visit'$'1'$table
variable
Current
              Ex Non-User
      24
               8
                        61
$'Tobacco use_First Visit'$'1'$proportion
variable
```

Ex Non-User

Current

#### 0.25806452 0.08602151 0.65591398

\$'Tobacco use\_First Visit'\$'2' \$'Tobacco use\_First Visit'\$'2'\$table variable Current Ex Non-User 17 21 57 \$'Tobacco use\_First Visit'\$'2'\$proportion variable Current Ex Non-User 0.1789474 0.2210526 0.6000000 \$'Tobacco use\_First Visit'\$'3' \$'Tobacco use\_First Visit'\$'3'\$table variable Ex Non-User Current 5 13 38 \$'Tobacco use\_First Visit'\$'3'\$proportion variable Current Ex Non-User 0.08928571 0.23214286 0.67857143 \$'Tobacco use\_First Visit'\$'4' \$'Tobacco use\_First Visit'\$'4'\$table variable Current Ex Non-User 17 12 25 \$'Tobacco use\_First Visit'\$'4'\$proportion variable Current Ex Non-User 0.3148148 0.2222222 0.4629630 \$'Tobacco use\_First Visit'\$'5' \$'Tobacco use First Visit'\$'5'\$table variable Ex Non-User Current 10 44

Current Ex Non-User 0.1428571 0.1587302 0.6984127

\$'Tobacco use\_First Visit'\$'5'\$proportion

\$'ESSG Diagnosis'
\$'ESSG Diagnosis'\$All

variable

\$'ESSG Diagnosis'\$All\$table variable Congenital Degenerative 10 124 Failed-back Idiopathic 163 Neuromuscular Other: Ankylosing spondylitis Other: hyperkyphosis Other: radiotherapy induced 1 Other: spondylolisthesis Post-traumatic 15 Syndromic Scheuermann 15 5 \$'ESSG Diagnosis'\$All\$proportion variable Congenital Degenerative 0.027700831 0.343490305 Failed-back Idiopathic 0.055401662 0.451523546 Neuromuscular Other: Ankylosing spondylitis 0.013850416 0.002770083 Other: radiotherapy induced Other: hyperkyphosis 0.002770083 0.002770083 Other: spondylolisthesis Post-traumatic 0.002770083 0.041551247 Scheuermann Syndromic 0.041551247 0.013850416 \$'ESSG Diagnosis'\$'1' \$'ESSG Diagnosis'\$'1'\$table variable Congenital Degenerative Idiopathic Post-traumatic Scheuermann 67 13 Syndromic \$'ESSG Diagnosis'\$'1'\$proportion variable Congenital Degenerative Idiopathic Post-traumatic Scheuermann 0.07526882 0.01075269 0.72043011 0.01075269 0.13978495 Syndromic 0.04301075 \$'ESSG Diagnosis'\$'2' \$'ESSG Diagnosis'\$'2'\$table variable Degenerative Idiopathic Neuromuscular Other: Ankylosing spondylitis

Other: spondylolisthesis Post-traumatic Scheuermann Syndromic \$'ESSG Diagnosis'\$'2'\$proportion variable Degenerative Idiopathic 0.52631579 0.37894737 Neuromuscular Other: Ankylosing spondylitis 0.01052632 0.01052632 Other: spondylolisthesis Post-traumatic 0.01052632 0.04210526 Scheuermann Syndromic 0.01052632 0.01052632 \$'ESSG Diagnosis'\$'3' \$'ESSG Diagnosis'\$'3'\$table variable Degenerative Idiopathic Neuromuscular Post-traumatic \$'ESSG Diagnosis'\$'3'\$proportion variable Degenerative Idiopathic Neuromuscular Post-traumatic 0.62500000 0.32142857 0.03571429 0.01785714 \$'ESSG Diagnosis'\$'4' \$'ESSG Diagnosis'\$'4'\$table variable Congenital Degenerative Failed-back Idiopathic Neuromuscular Other: hyperkyphosis Other: radiotherapy induced Post-traumatic 5 \$'ESSG Diagnosis'\$'4'\$proportion variable Congenital Degenerative 0.0555556 0.07407407 Failed-back Idiopathic 0.16666667 0.53703704 Neuromuscular Other: hyperkyphosis 0.01851852 0.03703704 Other: radiotherapy induced Post-traumatic 0.01851852 0.09259259

<sup>\$&#</sup>x27;ESSG Diagnosis'\$'5'

\$'ESSG Diagnosis'\$'5'\$table variable Degenerative Idiopathic Post-traumatic Failed-back Scheuermann 34 13 1 11 \$'ESSG Diagnosis'\$'5'\$proportion variable Degenerative Idiopathic Post-traumatic Failed-back Scheuermann 0.53968254 0.17460317 0.20634921 0.06349206 0.01587302 \$'Surgical Approach' \$'Surgical Approach'\$All \$'Surgical Approach'\$All\$table variable Anterior Anterior-Posterior Posterior Posterior-Anterior 341 Posterior-Posterior Posterior-Posterior-Anterior \$'Surgical Approach'\$All\$proportion variable Anterior Anterior-Posterior 0.002770083 0.011080332 Posterior Posterior-Anterior 0.944598338 0.030470914 Posterior-Posterior Posterior-Posterior-Anterior 0.008310249 0.002770083 \$'Surgical Approach'\$'1' \$'Surgical Approach'\$'1'\$table variable Anterior Anterior-Posterior Posterior Posterior-Posterior 89 1 \$'Surgical Approach'\$'1'\$proportion variable Anterior Anterior-Posterior Posterior Posterior-Posterior 0.01075269 0.02150538 0.95698925 0.01075269 \$'Surgical Approach'\$'2' \$'Surgical Approach'\$'2'\$table variable Anterior-Posterior Posterior Posterior-Anterior Posterior-Posterior 1 \$'Surgical Approach'\$'2'\$proportion variable

Posterior Posterior-Anterior Posterior-Posterior

Anterior-Posterior

0.01052632 0.96842105 0.01052632 0.01052632

\$'Surgical Approach'\$'3'

\$'Surgical Approach'\$'3'\$table

variable

Posterior Posterior-Anterior

52

Posterior-Posterior-Anterior

1

\$'Surgical Approach'\$'3'\$proportion

variable

Posterior Posterior-Anterior 0.92857143 0.05357143

Posterior-Posterior-Anterior

0.01785714

\$'Surgical Approach'\$'4'

\$'Surgical Approach'\$'4'\$table

variable

Anterior-Posterior Posterior Posterior-Anterior Posterior-Posterior

51 1

\$'Surgical Approach'\$'4'\$proportion

variable

Anterior-Posterior Posterior Posterior-Anterior Posterior-Posterior

0.01851852 0.9444444 0.01851852 0.01851852

\$'Surgical Approach'\$'5'

\$'Surgical Approach'\$'5'\$table

variable

Posterior Posterior-Anterior

\$'Surgical Approach'\$'5'\$proportion

variable

Posterior Posterior-Anterior 0.0952381

0.9047619

# Radiology

[1] "Static Major curve Cobb angle"

[1] "6W. Static Major curve Cobb angle"

[1] "6M. Static Major curve Cobb angle"

[1] "1Y. Static Major curve Cobb angle"

[1] "2Y. Static Major curve Cobb angle"

[1] "5Y. Static Major curve Cobb angle"

#### [1] "Static Major curve Cobb angle"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd
Static Major curve Cobb angle
                                     42.77 21.39 56.46 17.94 39.45 17.74
6W. Static Major curve Cobb angle
                                     23.11 16.36 26.68 14.17
                                                                20.55 13.33
6M. Static Major curve Cobb angle
                                    23.23 17.33 27.43 15.90 19.83 12.22
1Y. Static Major curve Cobb angle
                                     20.83 16.21 24.84 16.33 18.11 13.37
2Y. Static Major curve Cobb angle
                                                   27.22 16.42 19.33 11.79
                                     22.67 17.17
                                     25.59 17.46 34.09 19.97 21.77 13.01
5Y. Static Major curve Cobb angle
                                  3.mean 3.sd 4.mean 4.sd 5.mean 5.sd
Static Major curve Cobb angle
                                   43.20 20.56
                                               40.18 24.41 29.79 18.85
6W. Static Major curve Cobb angle 19.76 12.30 33.19 24.49 17.34 15.21
6M. Static Major curve Cobb angle 19.09 12.63 35.26 26.08 17.14 16.04
1Y. Static Major curve Cobb angle 18.77 12.40 27.80 23.26 15.63 13.51
2Y. Static Major curve Cobb angle
                                  19.77 15.05 31.11 23.83 17.41 17.65
5Y. Static Major curve Cobb angle 21.63 13.90 37.15 21.63 17.79 14.42
                                  maes.mae maes.rel_mae p.val_1.2 p.val_1.3
Static Major curve Cobb angle
                                  30.96464
                                              0.7239824
                                                           0.0000
                                                                     0.0002
6W. Static Major curve Cobb angle 23.24866
                                              1.0081978
                                                           0.0054
                                                                     0.0032
6M. Static Major curve Cobb angle 24.99950
                                              1.0770433
                                                           0.0011
                                                                     0.0014
1Y. Static Major curve Cobb angle 23.76594
                                              1.1412475
                                                           0.0041
                                                                     0.0163
2Y. Static Major curve Cobb angle 24.49510
                                                           0.0013
                                                                     0.0119
                                              1.0901857
5Y. Static Major curve Cobb angle 24.69163
                                              0.9782530
                                                           0.0054
                                                                     0.0081
                                  p.val_1.4 p.val_1.5 p.val_1.all
Static Major curve Cobb angle
                                     0.0001
                                               0.0000
                                                           0.0000
6W. Static Major curve Cobb angle
                                     0.1210
                                               0.0004
                                                           0.0514
6M. Static Major curve Cobb angle
                                     0.0879
                                               0.0004
                                                           0.0446
1Y. Static Major curve Cobb angle
                                     0.4550
                                               0.0004
                                                           0.0478
2Y. Static Major curve Cobb angle
                                     0.3822
                                                           0.0406
                                               0.0026
5Y. Static Major curve Cobb angle
                                     0.6369
                                               0.0016
                                                           0.0401
                                  p.val_1.vs_the_rest p.val_2.3 p.val_2.4
Static Major curve Cobb angle
                                               0.0000
                                                         0.2647
                                                                   0.8560
6W. Static Major curve Cobb angle
                                               0.0126
                                                         0.7295
                                                                   0.0033
6M. Static Major curve Cobb angle
                                                         0.7424
                                               0.0099
                                                                   0.0009
1Y. Static Major curve Cobb angle
                                               0.0099
                                                         0.7717
                                                                   0.0134
2Y. Static Major curve Cobb angle
                                               0.0078
                                                         0.8648
                                                                   0.0076
5Y. Static Major curve Cobb angle
                                               0.0110
                                                         0.9646
                                                                   0.0123
                                  p.val_2.5 p.val_2.all p.val_2.vs_the_rest
Static Major curve Cobb angle
                                     0.0021
                                                 0.1339
                                                                     0.0562
6W. Static Major curve Cobb angle
                                                 0.1502
                                     0.2052
                                                                     0.0711
6M. Static Major curve Cobb angle
                                     0.2987
                                                 0.0472
                                                                     0.0141
1Y. Static Major curve Cobb angle
                                     0.2803
                                                 0.1153
                                                                     0.0458
2Y. Static Major curve Cobb angle
                                     0.5088
                                                 0.0578
                                                                     0.0201
5Y. Static Major curve Cobb angle
                                     0.2918
                                                 0.1265
                                                                     0.0483
                                  p.val_3.4 p.val_3.5 p.val_3.all
Static Major curve Cobb angle
                                               0.0004
                                     0.5016
                                                           0.8856
6W. Static Major curve Cobb angle
                                     0.0022
                                               0.3589
                                                           0.0858
6M. Static Major curve Cobb angle
                                     0.0007
                                               0.4903
                                                           0.0464
1Y. Static Major curve Cobb angle
                                     0.0243
                                               0.2070
                                                           0.2961
2Y. Static Major curve Cobb angle
                                     0.0152
                                               0.4800
                                                           0.2319
5Y. Static Major curve Cobb angle
                                     0.0139
                                               0.3515
                                                           0.1893
                                  p.val 3.vs the rest p.val 4.5 p.val 4.all
Static Major curve Cobb angle
                                               0.8658
                                                         0.0174
                                                                     0.4878
6W. Static Major curve Cobb angle
                                               0.0456
                                                         0.0005
                                                                     0.0138
```

```
0.0003
                                                                     0.0069
6M. Static Major curve Cobb angle
                                               0.0212
1Y. Static Major curve Cobb angle
                                               0.2278
                                                         0.0029
                                                                     0.0600
2Y. Static Major curve Cobb angle
                                               0.1579
                                                                     0.0464
                                                         0.0050
5Y. Static Major curve Cobb angle
                                               0.1130
                                                         0.0039
                                                                     0.0477
                                  p.val_4.vs_the_rest p.val_5.all
Static Major curve Cobb angle
                                              0.4217
                                                           0.0000
6W. Static Major curve Cobb angle
                                               0.0049
                                                           0.0110
6M. Static Major curve Cobb angle
                                                           0.0132
                                               0.0020
1Y. Static Major curve Cobb angle
                                               0.0300
                                                           0.0101
2Y. Static Major curve Cobb angle
                                                           0.0579
                                              0.0228
5Y. Static Major curve Cobb angle
                                               0.0261
                                                           0.0326
                                  p.val_5.vs_the_rest p.val_all
Static Major curve Cobb angle
                                               0.0000
6W. Static Major curve Cobb angle
                                               0.0024
                                                          0e+00
6M. Static Major curve Cobb angle
                                               0.0032
                                                          0e+00
1Y. Static Major curve Cobb angle
                                               0.0023
                                                          1e-04
2Y. Static Major curve Cobb angle
                                               0.0234
                                                          1e-04
5Y. Static Major curve Cobb angle
                                               0.0143
                                                          1e-04
                               3
     t0 t1
                        2
                                      4
1: Preop 2Y 0.0000 0.0000 0.0000 0.0919 0.0006 0.0000
2: Preop 5Y 0.0000 0.0000 0.6351 0.0042 0.0000
3: Preop 6W 0.0000 0.0000 0.0000 0.1830 0.0001 0.0000
     6W 2Y 0.8305 0.5556 0.9978 0.7068 0.9826 0.7521
      6W 5Y 0.0737 0.6244 0.5480 0.5467 0.9041 0.1572
5:
     2Y 5Y 0.1078 0.3180 0.5838 0.3654 0.9249 0.1074
[1] "Coronal Balance (C7PL to CSVL)"
[1] "6W. Coronal Balance (C7PL to CSVL)"
[1] "6M. Coronal Balance (C7PL to CSVL)"
[1] "1Y. Coronal Balance (C7PL to CSVL)"
[1] "2Y. Coronal Balance (C7PL to CSVL)"
[1] "5Y. Coronal Balance (C7PL to CSVL)"
```

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

	All.mean All.sd 1.mean 1.sd 2.mean 2.sd
Coronal Balance (C7PL to CSVL)	22.49 19.35 20.42 15.73 10.76 6.01
6W. Coronal Balance (C7PL to CSVL)	20.13 15.05 19.26 15.20 19.64 13.43
6M. Coronal Balance (C7PL to CSVL)	18.50 14.63 17.23 13.16 19.15 14.65
1Y. Coronal Balance (C7PL to CSVL)	17.99 13.77 16.56 12.11 16.86 11.25
2Y. Coronal Balance (C7PL to CSVL)	18.08 15.53 15.54 12.59 17.30 12.88
5Y. Coronal Balance (C7PL to CSVL)	20.84 17.42 15.21 11.00 22.28 18.65
	3.mean 3.sd 4.mean 4.sd 5.mean 5.sd
Coronal Balance (C7PL to CSVL)	42.92 21.19 19.23 16.03 27.50 21.95
6W. Coronal Balance (C7PL to CSVL)	28.57 18.40 16.26 14.28 17.21 11.34
6M. Coronal Balance (C7PL to CSVL)	21.50 17.45 15.44 12.92 19.02 14.90
1Y. Coronal Balance (C7PL to CSVL)	22.15 18.90 14.04 12.81 21.25 13.70
2Y. Coronal Balance (C7PL to CSVL)	22.07 20.43 15.46 12.91 20.68 18.16
5Y. Coronal Balance (C7PL to CSVL)	18.61 14.17 15.24 13.34 32.67 22.78
	<pre>maes.mae maes.rel_mae p.val_1.2 p.val_1.3</pre>
Coronal Balance (C7PL to CSVL)	23.43538 1.042160 0.0000 0.0000
6W. Coronal Balance (C7PL to CSVL)	23.12779 1.149109 0.8706 0.0040

```
6M. Coronal Balance (C7PL to CSVL) 23.37385
                                                  1.266973
                                                              0.4137
                                                                        0.1517
1Y. Coronal Balance (C7PL to CSVL) 20.46187
                                                                        0.0805
                                                  1.140523
                                                              0.8788
2Y. Coronal Balance (C7PL to CSVL) 23.63257
                                                  1.322327
                                                              0.4292
                                                                        0.0609
5Y. Coronal Balance (C7PL to CSVL) 24.06047
                                                  1.204504
                                                              0.0494
                                                                        0.3173
                                    p.val_1.4 p.val_1.5 p.val_1.all
Coronal Balance (C7PL to CSVL)
                                       0.6821
                                                 0.0367
                                                              0.3102
6W. Coronal Balance (C7PL to CSVL)
                                       0.3075
                                                  0.3695
                                                              0.6481
6M. Coronal Balance (C7PL to CSVL)
                                       0.4869
                                                 0.4939
                                                              0.4746
1Y. Coronal Balance (C7PL to CSVL)
                                       0.3176
                                                 0.0603
                                                              0.3854
2Y. Coronal Balance (C7PL to CSVL)
                                       0.9787
                                                 0.0989
                                                              0.1712
5Y. Coronal Balance (C7PL to CSVL)
                                       0.9950
                                                 0.0025
                                                              0.0295
                                    p.val_1.vs_the_rest p.val_2.3 p.val_2.4
Coronal Balance (C7PL to CSVL)
                                                            0.0000
                                                 0.2069
                                                                      0.0008
6W. Coronal Balance (C7PL to CSVL)
                                                            0.0051
                                                                      0.2431
                                                 0.5426
6M. Coronal Balance (C7PL to CSVL)
                                                  0.3583
                                                            0.4463
                                                                      0.1730
1Y. Coronal Balance (C7PL to CSVL)
                                                  0.2633
                                                            0.0935
                                                                      0.2557
2Y. Coronal Balance (C7PL to CSVL)
                                                            0.1687
                                                                      0.5053
                                                 0.0865
5Y. Coronal Balance (C7PL to CSVL)
                                                  0.0103
                                                            0.3549
                                                                      0.1116
                                    p.val_2.5 p.val_2.all p.val_2.vs_the_rest
Coronal Balance (C7PL to CSVL)
                                       0.0000
                                                    0.0000
6W. Coronal Balance (C7PL to CSVL)
                                       0.2748
                                                    0.7888
                                                                        0.7357
6M. Coronal Balance (C7PL to CSVL)
                                       0.9632
                                                    0.7421
                                                                        0.6723
1Y. Coronal Balance (C7PL to CSVL)
                                       0.0722
                                                    0.4697
                                                                        0.3590
2Y. Coronal Balance (C7PL to CSVL)
                                       0.2757
                                                    0.6734
                                                                        0.5928
5Y. Coronal Balance (C7PL to CSVL)
                                       0.0739
                                                    0.6583
                                                                        0.5398
                                    p.val_3.4 p.val_3.5 p.val_3.all
Coronal Balance (C7PL to CSVL)
                                       0.0000
                                                 0.0002
                                                              0.0000
6W. Coronal Balance (C7PL to CSVL)
                                                 0.0004
                                       0.0009
                                                              0.0038
6M. Coronal Balance (C7PL to CSVL)
                                       0.0652
                                                 0.4522
                                                              0.2648
1Y. Coronal Balance (C7PL to CSVL)
                                       0.0231
                                                 0.7951
                                                              0.1619
2Y. Coronal Balance (C7PL to CSVL)
                                       0.0850
                                                 0.7317
                                                              0.2176
5Y. Coronal Balance (C7PL to CSVL)
                                       0.4265
                                                 0.0161
                                                              0.4713
                                    p.val_3.vs_the_rest p.val_4.5 p.val_4.all
                                                 0.0000
Coronal Balance (C7PL to CSVL)
                                                            0.0266
                                                                        0.2044
6W. Coronal Balance (C7PL to CSVL)
                                                 0.0006
                                                            0.7388
                                                                        0.1341
6M. Coronal Balance (C7PL to CSVL)
                                                            0.2260
                                                                        0.1745
                                                 0.1815
1Y. Coronal Balance (C7PL to CSVL)
                                                 0.0957
                                                            0.0149
                                                                        0.0837
2Y. Coronal Balance (C7PL to CSVL)
                                                 0.1362
                                                            0.1370
                                                                        0.2904
5Y. Coronal Balance (C7PL to CSVL)
                                                 0.3857
                                                            0.0051
                                                                         0.1289
                                    p.val_4.vs_the_rest p.val_5.all
Coronal Balance (C7PL to CSVL)
                                                 0.1473
                                                              0.1036
6W. Coronal Balance (C7PL to CSVL)
                                                 0.0910
                                                              0.1012
6M. Coronal Balance (C7PL to CSVL)
                                                 0.1195
                                                              0.8197
1Y. Coronal Balance (C7PL to CSVL)
                                                 0.0482
                                                              0.1401
2Y. Coronal Balance (C7PL to CSVL)
                                                 0.2325
                                                              0.3604
5Y. Coronal Balance (C7PL to CSVL)
                                                 0.0897
                                                              0.0282
                                    p.val_5.vs_the_rest p.val_all
Coronal Balance (C7PL to CSVL)
                                                            0.0000
                                                 0.0514
6W. Coronal Balance (C7PL to CSVL)
                                                 0.0527
                                                            0.0004
6M. Coronal Balance (C7PL to CSVL)
                                                 0.7846
                                                            0.3421
1Y. Coronal Balance (C7PL to CSVL)
                                                            0.0243
                                                 0.0816
2Y. Coronal Balance (C7PL to CSVL)
                                                 0.2667
                                                            0.1293
5Y. Coronal Balance (C7PL to CSVL)
                                                 0.0102
                                                            0.0027
```

```
t0 t1 1 2 3 4 5 All

1: Preop 2Y 0.0390 0.0002 0.0000 0.2463 0.0830 0.0022

2: Preop 5Y 0.0561 0.0003 0.0000 0.3223 0.3653 0.3650

3: Preop 6W 0.6321 0.0000 0.0004 0.3731 0.0021 0.0863

4: 6W 2Y 0.1091 0.3002 0.1112 0.8086 0.2593 0.1193

5: 6W 5Y 0.1316 0.4261 0.0103 0.8006 0.0055 0.6818

6: 2Y 5Y 0.9004 0.1341 0.3970 0.9545 0.0373 0.1212

[1] "Sagittal Balance"

[1] "6W. Sagittal Balance"

[1] "1Y. Sagittal Balance"

[1] "1Y. Sagittal Balance"

[1] "5Y. Sagittal Balance"
```

#### [1] "Sagittal Balance"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd
Sagittal Balance
                        42.04 63.31 -4.38 32.40 37.88 48.29
                                                                 70.54 67.19
6W. Sagittal Balance
                        18.97 38.04 -0.05 33.70 21.72 32.53
                                                                 27.82 34.78
6M. Sagittal Balance
                        16.82 44.97 -6.66 36.63 22.74 34.38
                                                                 23.65 47.82
1Y. Sagittal Balance
                               48.94 -10.36 36.19
                                                   21.66 40.23
                        19.03
                                                                 41.54 49.44
                        24.73 49.99 -9.12 33.63
                                                   26.06 39.04 47.60 50.63
2Y. Sagittal Balance
                                       9.52 34.49 42.34 43.71 39.44 51.28
5Y. Sagittal Balance
                        34.60 48.82
                     4.mean 4.sd 5.mean 5.sd maes.mae maes.rel_mae p.val_1.2
Sagittal Balance
                      42.31 61.01 87.48 68.93 87.00369
                                                             2.066084
                                                                          0e + 00
6W. Sagittal Balance 13.41 35.14 39.76 42.51 56.21815
                                                             2.962572
                                                                          1e-04
6M. Sagittal Balance 22.42 47.66
                                  31.71 52.40 67.03006
                                                             3.974081
                                                                          0e+00
1Y. Sagittal Balance 17.86 46.94
                                   39.84 56.45 70.63738
                                                                          0e+00
                                                             3.711569
2Y. Sagittal Balance
                     17.65 40.03 54.01 58.63 69.36408
                                                             2.802880
                                                                          0e+00
5Y. Sagittal Balance 22.36 31.83 55.04 67.40 71.33064
                                                             2.171038
                                                                          8e-04
                     p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
                        0.0000
                                  0.0000
                                            0.0000
Sagittal Balance
                                                          0.000
6W. Sagittal Balance
                        0.0000
                                  0.0485
                                            0.0000
                                                          0.000
                        0.0003
                                  0.0008
                                            0.0000
                                                          0.000
6M. Sagittal Balance
1Y. Sagittal Balance
                        0.0000
                                  0.0015
                                            0.0000
                                                          0.000
2Y. Sagittal Balance
                        0.0000
                                            0.0000
                                                          0.000
                                  0.0013
5Y. Sagittal Balance
                        0.0125
                                            0.0072
                                  0.2042
                                                          0.002
                     p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
Sagittal Balance
                                   0e+00
                                            0.0024
                                                      0.6539
                                                                 0.0000
6W. Sagittal Balance
                                            0.3439
                                                       0.2202
                                                                 0.0100
                                   0e+00
6M. Sagittal Balance
                                   0e+00
                                            0.9105
                                                       0.9686
                                                                 0.2879
1Y. Sagittal Balance
                                   0e+00
                                            0.0238
                                                       0.6672
                                                                 0.0518
2Y. Sagittal Balance
                                   0e+00
                                            0.0194
                                                       0.3195
                                                                 0.0056
5Y. Sagittal Balance
                                   3e-04
                                            0.8034
                                                       0.0527
                                                                 0.4292
                     p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
Sagittal Balance
                          0.4961
                                               0.3943
                                                         0.0255
                                                                   0.1816
6W. Sagittal Balance
                          0.5324
                                               0.4300
                                                         0.0614
                                                                   0.1257
6M. Sagittal Balance
                          0.2225
                                               0.1305
                                                         0.9021
                                                                   0.4253
                                                         0.0246
1Y. Sagittal Balance
                          0.6360
                                               0.5523
                                                                   0.8744
2Y. Sagittal Balance
                          0.8216
                                               0.7804
                                                         0.0041
                                                                   0.5735
5Y. Sagittal Balance
                          0.3264
                                               0.1880
                                                         0.1657
                                                                   0.3712
                     p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
```

```
Sagittal Balance
                          0.0047
                                              0.0010
                                                        0.0003
                                                                     0.9759
                                                                     0.3566
6W. Sagittal Balance
                          0.1217
                                              0.0727
                                                        0.0014
6M. Sagittal Balance
                          0.3590
                                              0.2772
                                                        0.3678
                                                                     0.4675
1Y. Sagittal Balance
                                                        0.0456
                                                                     0.8839
                          0.0052
                                              0.0011
2Y. Sagittal Balance
                          0.0069
                                              0.0013
                                                        0.0012
                                                                     0.3461
5Y. Sagittal Balance
                          0.6439
                                              0.5670
                                                        0.0525
                                                                    0.1635
                     p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
Sagittal Balance
                                  0.9720
                                              0.0000
                                                                  0.0000
6W. Sagittal Balance
                                  0.2923
                                              0.0012
                                                                  0.0001
6M. Sagittal Balance
                                  0.3963
                                              0.0606
                                                                  0.0244
1Y. Sagittal Balance
                                  0.8668
                                              0.0161
                                                                  0.0039
2Y. Sagittal Balance
                                                                  0.0002
                                  0.2849
                                              0.0019
5Y. Sagittal Balance
                                  0.1200
                                              0.1840
                                                                  0.1171
                     p.val_all
                        0.0000
Sagittal Balance
6W. Sagittal Balance
                        0.0000
                        0.0000
6M. Sagittal Balance
1Y. Sagittal Balance
                        0.0000
2Y. Sagittal Balance
                        0.0000
5Y. Sagittal Balance
                        0.0068
      t0 t1
                        2
1: Preop 2Y 0.3795 0.0975 0.0560 0.0253 0.0068 0.0002
2: Preop 5Y 0.0666 0.5948 0.0212 0.0829 0.0609 0.1653
3: Preop 6W 0.3997 0.0115 0.0001 0.0054 0.0000 0.0000
      6W 2Y 0.1060 0.4877 0.0338 0.6298 0.1669 0.1329
5:
      6W 5Y 0.2099 0.0089 0.2898 0.3442 0.3318 0.0010
      2Y 5Y 0.0192 0.0533 0.5041 0.6436 0.9512 0.0574
[1] "Sagittal T2-T5"
[1] "6W. Sagittal T2-T5"
[1] "6M. Sagittal T2-T5"
[1] "1Y. Sagittal T2-T5"
[1] "2Y. Sagittal T2-T5"
[1] "5Y. Sagittal T2-T5"
[1] "Sagittal T2-T5"
                   All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd
                              9.89 10.72 8.93 10.58 10.24 10.47 8.82
Sagittal T2-T5
                      11.11
6W. Sagittal T2-T5
                              8.18 13.81 8.65 13.03 7.69 12.65 6.65
                      13.62
6M. Sagittal T2-T5
                      14.10
                              9.66 15.35
                                           7.75
                                                 13.09 10.31 12.95 8.58
1Y. Sagittal T2-T5
                      13.81
                              9.59 16.48 7.88
                                                12.16 8.95 11.24 9.23
```

```
2Y. Sagittal T2-T5
                     14.30
                             9.97 17.66 9.57 12.15 9.73 12.75 9.91
                     15.80 11.74 18.61 11.64 15.39 11.32 16.51 12.15
5Y. Sagittal T2-T5
                  4.mean 4.sd 5.mean 5.sd maes.mae maes.rel_mae p.val_1.2
Sagittal T2-T5
                   12.50 13.07 11.83 8.72 14.88507
                                                       1.3403689
                                                                    0.9225
6W. Sagittal T2-T5 14.42 9.38 14.48 8.59 12.95002
                                                       0.9523632
                                                                    0.5485
6M. Sagittal T2-T5 13.17 10.28 15.55 11.62 14.93038
                                                       1.0546917
                                                                    0.1273
1Y. Sagittal T2-T5 11.99 10.10 15.94 11.42 15.01795
                                                       1.0853120
                                                                    0.0022
2Y. Sagittal T2-T5 11.03 8.51 16.06 10.47 15.09281
                                                       1.0476301
                                                                    0.0011
5Y. Sagittal T2-T5 11.39 6.92 15.41 14.63 17.60237
                                                       1.0989357
                                                                    0.2469
                  p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
```

```
Sagittal T2-T5
                      0.8698
                                0.4008
                                           0.4500
                                                       0.7286
6W. Sagittal T2-T5
                      0.3920
                                0.7409
                                                       0.8596
                                           0.6563
6M. Sagittal T2-T5
                                                       0.2244
                      0.1109
                                0.2195
                                           0.9150
1Y. Sagittal T2-T5
                      0.0014
                                           0.7673
                                                       0.0128
                                0.0171
2Y. Sagittal T2-T5
                      0.0083
                                0.0005
                                           0.3942
                                                       0.0099
5Y. Sagittal T2-T5
                      0.5041
                                0.0114
                                           0.4045
                                                       0.2444
                   p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
Sagittal T2-T5
                                0.6575
                                           0.9437
                                                     0.3770
                                                                0.4193
6W. Sagittal T2-T5
                                 0.8113
                                           0.7690
                                                     0.4439
                                                                0.3252
6M. Sagittal T2-T5
                                 0.1233
                                           0.9390
                                                     0.9635
                                                               0.2279
1Y. Sagittal T2-T5
                                 0.0015
                                           0.5847
                                                     0.9288
                                                                0.0502
2Y. Sagittal T2-T5
                                           0.7497
                                                     0.5499
                                                                0.0449
                                 0.0007
5Y. Sagittal T2-T5
                                 0.1526
                                           0.6937
                                                     0.1010
                                                                0.9948
                   p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
                        0.6645
                                             0.5670
                                                       0.3661
                                                                  0.4102
Sagittal T2-T5
6W. Sagittal T2-T5
                        0.5572
                                             0.4499
                                                       0.3400
                                                                  0.2303
6M. Sagittal T2-T5
                                                                 0.2066
                        0.4460
                                             0.3227
                                                       0.9105
1Y. Sagittal T2-T5
                        0.1722
                                             0.0814
                                                       0.7168
                                                                  0.0247
2Y. Sagittal T2-T5
                                                       0.3974
                        0.1156
                                             0.0449
                                                                  0.1137
5Y. Sagittal T2-T5
                        0.8345
                                             0.7749
                                                       0.0752
                                                                  0.7772
                   p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
Sagittal T2-T5
                        0.6349
                                             0.5822
                                                       0.7582
                                                                    0.4766
6W. Sagittal T2-T5
                        0.3694
                                             0.2984
                                                       0.9740
                                                                    0.6295
6M. Sagittal T2-T5
                        0.3955
                                             0.3182
                                                       0.2924
                                                                    0.5739
1Y. Sagittal T2-T5
                        0.0776
                                             0.0372
                                                       0.0827
                                                                    0.2892
2Y. Sagittal T2-T5
                        0.3237
                                             0.2378
                                                       0.0176
                                                                    0.0416
5Y. Sagittal T2-T5
                        0.7758
                                             0.7251
                                                       0.2639
                                                                    0.0311
                   p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
Sagittal T2-T5
                                0.4068
                                             0.5556
                                                                  0.4819
6W. Sagittal T2-T5
                                 0.5846
                                             0.4987
                                                                  0.4149
6M. Sagittal T2-T5
                                 0.5119
                                             0.4046
                                                                  0.3198
1Y. Sagittal T2-T5
                                 0.2231
                                             0.2089
                                                                  0.1288
2Y. Sagittal T2-T5
                                 0.0214
                                             0.2801
                                                                  0.1932
5Y. Sagittal T2-T5
                                             0.9060
                                                                  0.8891
                                 0.0174
                   p.val all
Sagittal T2-T5
                      0.7555
6W. Sagittal T2-T5
                      0.7309
6M. Sagittal T2-T5
                      0.3540
1Y. Sagittal T2-T5
                      0.0032
2Y. Sagittal T2-T5
                      0.0012
5Y. Sagittal T2-T5
                      0.3763
      t0 t1
                 1
                        2
                               3
                                       4
                                              5
1: Preop 2Y 0.0000 0.3325 0.2279 0.5345 0.0249 0.0001
2: Preop 5Y 0.0019 0.0196 0.0230 0.6599 0.2878 0.0000
3: Preop 6W 0.0229 0.0797 0.1660 0.4327 0.1009 0.0005
      6W 2Y 0.0098 0.5574 0.9515 0.1151 0.4082 0.3811
4:
5:
      6W 5Y 0.0485 0.2241 0.1239 0.1937 0.7813 0.0479
6:
      2Y 5Y 0.6982 0.1253 0.1657 0.8717 0.8537 0.1957
[1] "Sagittal T5-T12"
[1] "6W. Sagittal T5-T12"
[1] "6M. Sagittal T5-T12"
[1] "1Y. Sagittal T5-T12"
[1] "2Y. Sagittal T5-T12"
```

#### [1] "Sagittal T5-T12"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd
                       32.93 18.74 37.12 21.26 32.05 17.73 26.73 15.59
Sagittal T5-T12
                       33.82 13.86 29.00 14.25 36.00 13.47
6W. Sagittal T5-T12
                                                                34.05 11.23
6M. Sagittal T5-T12
                       34.80
                              13.70 30.45 13.32 37.09 13.33
                                                                34.09 13.58
1Y. Sagittal T5-T12
                       35.54
                              13.85 31.29 12.47
                                                  38.22 14.23
                                                                35.82 13.25
2Y. Sagittal T5-T12
                       36.26 15.70 30.49 11.12 42.12 19.43
                                                                36.69 14.93
5Y. Sagittal T5-T12
                       40.27 16.59 31.73 13.69 41.91 15.63 42.17 13.92
                    4.mean 4.sd 5.mean 5.sd maes.mae maes.rel_mae p.val_1.2
                     32.46 18.58 34.05 17.91 31.25685
                                                           0.9489433
                                                                        0.0814
Sagittal T5-T12
6W. Sagittal T5-T12 35.51 14.93 36.70 13.63 22.69556
                                                           0.6751209
                                                                        0.0017
6M. Sagittal T5-T12 35.20 14.71 38.50 12.62 22.72849
                                                           0.6570999
                                                                        0.0023
1Y. Sagittal T5-T12
                     34.18 15.23 38.68 13.43 22.80846
                                                           0.6452597
                                                                        0.0019
2Y. Sagittal T5-T12 35.15 12.90 37.58 16.16 24.43965
                                                           0.6800767
                                                                        0.0001
5Y. Sagittal T5-T12 41.96 20.87 44.37 18.87 24.28229
                                                           0.6127512
                                                                        0.0046
                    p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
Sagittal T5-T12
                       0.0009
                                 0.1800
                                           0.3363
                                                        0.0903
6W. Sagittal T5-T12
                                 0.0242
                                           0.0017
                                                        0.0066
                       0.0265
6M. Sagittal T5-T12
                                           0.0007
                       0.1371
                                 0.0770
                                                        0.0111
1Y. Sagittal T5-T12
                       0.0608
                                 0.3012
                                           0.0020
                                                        0.0109
2Y. Sagittal T5-T12
                       0.0159
                                 0.0688
                                           0.0086
                                                        0.0005
5Y. Sagittal T5-T12
                       0.0056
                                                        0.0050
                                 0.0760
                                           0.0116
                    p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
Sagittal T5-T12
                                 0.0255
                                           0.0588
                                                      0.8983
                                                                0.4918
6W. Sagittal T5-T12
                                 0.0003
                                           0.3859
                                                      0.8620
                                                                0.7688
6M. Sagittal T5-T12
                                 0.0009
                                           0.2260
                                                      0.4822
                                                                0.5473
                                                      0.1672
1Y. Sagittal T5-T12
                                 0.0011
                                           0.3454
                                                                0.8532
2Y. Sagittal T5-T12
                                 0.0000
                                           0.0975
                                                      0.0342
                                                                0.1764
5Y. Sagittal T5-T12
                                 0.0007
                                           0.9413
                                                      0.9931
                                                                0.6017
                    p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
Sagittal T5-T12
                                                        0.0922
                         0.6726
                                             0.5818
                                                                  0.0193
6W. Sagittal T5-T12
                         0.2129
                                             0.1093
                                                        0.6125
                                                                  0.2792
6M. Sagittal T5-T12
                                             0.0905
                                                        0.7054
                                                                  0.0933
                         0.1872
1Y. Sagittal T5-T12
                                             0.0604
                                                        0.5921
                                                                  0.2851
                         0.1483
2Y. Sagittal T5-T12
                         0.0275
                                             0.0043
                                                        0.6133
                                                                  0.7776
5Y. Sagittal T5-T12
                         0.5508
                                             0.4175
                                                        0.9700
                                                                  0.6486
                    p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
Sagittal T5-T12
                         0.0094
                                             0.0027
                                                        0.6468
                                                                    0.8672
6W. Sagittal T5-T12
                         0.9004
                                             0.8847
                                                        0.6895
                                                                    0.5023
6M. Sagittal T5-T12
                         0.7359
                                             0.6904
                                                        0.2431
                                                                    0.8635
1Y. Sagittal T5-T12
                         0.8916
                                             0.8725
                                                        0.1389
                                                                    0.5914
2Y. Sagittal T5-T12
                         0.8559
                                             0.8286
                                                        0.4401
                                                                    0.6376
5Y. Sagittal T5-T12
                         0.5211
                                             0.4377
                                                        0.7070
                                                                    0.7447
                    p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
Sagittal T5-T12
                                 0.8471
                                             0.6511
                                                                  0.5891
                                                                  0.0847
6W. Sagittal T5-T12
                                 0.4429
                                             0.1515
6M. Sagittal T5-T12
                                 0.8412
                                             0.0578
                                                                  0.0250
1Y. Sagittal T5-T12
                                 0.5351
                                             0.1233
                                                                  0.0651
2Y. Sagittal T5-T12
                                 0.5934
                                             0.5959
                                                                  0.5221
```

```
0.7099
5Y. Sagittal T5-T12
                                             0.3447
                                                                 0.2678
                    p.val_all
Sagittal T5-T12
                       0.0260
6W. Sagittal T5-T12
                       0.0041
6M. Sagittal T5-T12
                       0.0064
1Y. Sagittal T5-T12
                       0.0103
2Y. Sagittal T5-T12
                       0.0005
5Y. Sagittal T5-T12
                       0.0376
      t0 t1
                 1
                        2
                               3
                                                  All
1: Preop 2Y 0.0117 0.0012 0.0013 0.4304 0.2737 0.0161
2: Preop 5Y 0.1160 0.0013 0.0000 0.0998 0.0318 0.0000
3: Preop 6W 0.0034 0.1006 0.0070 0.3902 0.3620 0.4837
      6W 2Y 0.4639 0.0358 0.3299 0.9106 0.7644 0.0500
5:
      6W 5Y 0.3651 0.0392 0.0105 0.2482 0.0930 0.0001
      2Y 5Y 0.6677 0.9510 0.1087 0.2169 0.1515 0.0183
[1] "Sagittal T2-T12"
[1] "6W. Sagittal T2-T12"
[1] "6M. Sagittal T2-T12"
[1] "1Y. Sagittal T2-T12"
[1] "2Y. Sagittal T2-T12"
[1] "5Y. Sagittal T2-T12"
[1] "Sagittal T2-T12"
                    All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd
                       39.94 19.67 43.41 20.67 38.76 19.00 33.08 15.99
Sagittal T2-T12
6W. Sagittal T2-T12
                       43.21
                             15.32 38.60 15.48 45.69 14.99 40.88 13.53
6M. Sagittal T2-T12
                       44.84
                              15.23 41.85 13.78 46.07 14.66
                                                               43.73 15.10
1Y. Sagittal T2-T12
                       45.05
                             15.11 42.06 14.12 46.61 15.03 44.19 16.24
2Y. Sagittal T2-T12
                       45.63 15.41 43.66 13.39 47.79 16.65
                                                              45.90 16.71
5Y. Sagittal T2-T12
                       49.56 16.96 45.09 15.23 52.40 16.39 50.83 15.39
                    4.mean 4.sd 5.mean 5.sd maes.mae maes.rel mae p.val 1.2
Sagittal T2-T12
                     40.69 22.27 42.16 18.76 31.83132
                                                          0.7967957
                                                                       0.1131
6W. Sagittal T2-T12 45.33 16.62 47.46 14.38 25.09977
                                                          0.5828532
                                                                       0.0035
6M. Sagittal T2-T12 43.32 16.63 50.36 16.09 24.65436
                                                                       0.0639
                                                          0.5514830
1Y. Sagittal T2-T12 42.80 15.87 50.02 13.93 24.36400
                                                          0.5420928
                                                                       0.0547
2Y. Sagittal T2-T12 41.84 13.22 48.22 16.32 25.70461
                                                          0.5669541
                                                                       0.1096
5Y. Sagittal T2-T12 43.25 17.97 52.95 20.17 27.23099
                                                          0.5530753
                                                                       0.0560
                    p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
Sagittal T2-T12
                       0.0010
                                 0.4757
                                           0.6971
                                                       0.1534
6W. Sagittal T2-T12
                       0.3738
                                 0.0359
                                           0.0008
                                                       0.0161
6M. Sagittal T2-T12
                       0.4753
                                 0.6117
                                           0.0025
                                                       0.0905
1Y. Sagittal T2-T12
                       0.4505
                                 0.8015
                                           0.0020
                                                       0.1019
2Y. Sagittal T2-T12
                       0.4369
                                 0.5012
                                           0.1081
                                                       0.2803
```

0.1350

0.0532

0.0654

0.3904

0.4049

0.5504

p.val\_1.vs\_the\_rest p.val\_2.3 p.val\_2.4 p.val\_2.5

0.1660

0.2691

0.4934

0.1313

0.1950

0.8916

0.6008

0.9110

0.3572

0.2113

0.0487

5Y. Sagittal T2-T12

6W. Sagittal T2-T12

6M. Sagittal T2-T12

1Y. Sagittal T2-T12

2Y. Sagittal T2-T12

Sagittal T2-T12

0.1595

0.7246

0.0626

0.0013

0.0282

0.0332

0.1656

```
5Y. Sagittal T2-T12
                                 0.0916
                                           0.6773
                                                      0.0787
                    p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
                                                                  0.0054
Sagittal T2-T12
                         0.5929
                                             0.4839
                                                        0.0479
                         0.2005
6W. Sagittal T2-T12
                                              0.0987
                                                        0.1806
                                                                  0.0181
6M. Sagittal T2-T12
                         0.5161
                                              0.4033
                                                        0.9003
                                                                  0.0360
1Y. Sagittal T2-T12
                         0.4231
                                              0.2994
                                                        0.6836
                                                                  0.0576
2Y. Sagittal T2-T12
                         0.3364
                                              0.2133
                                                        0.2149
                                                                  0.4921
5Y. Sagittal T2-T12
                         0.3218
                                              0.1745
                                                        0.1565
                                                                  0.6823
                    p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
Sagittal T2-T12
                         0.0053
                                              0.0013
                                                        0.7080
                                                                    0.8214
6W. Sagittal T2-T12
                         0.2761
                                              0.2039
                                                        0.5197
                                                                    0.4537
                                                        0.0380
6M. Sagittal T2-T12
                         0.6316
                                              0.5719
                                                                    0.5617
1Y. Sagittal T2-T12
                         0.7301
                                              0.6822
                                                        0.0248
                                                                    0.3966
                         0.9170
2Y. Sagittal T2-T12
                                              0.9005
                                                        0.0489
                                                                    0.1156
                                              0.6306
5Y. Sagittal T2-T12
                         0.6935
                                                        0.1216
                                                                    0.1844
                    p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
Sagittal T2-T12
                                 0.7931
                                              0.3937
                                                                  0.3090
6W. Sagittal T2-T12
                                 0.3933
                                              0.0494
                                                                  0.0191
                                                                  0.0091
6M. Sagittal T2-T12
                                 0.4978
                                              0.0268
1Y. Sagittal T2-T12
                                 0.3291
                                              0.0231
                                                                  0.0073
2Y. Sagittal T2-T12
                                 0.0738
                                              0.3073
                                                                  0.2201
5Y. Sagittal T2-T12
                                 0.1352
                                              0.4602
                                                                  0.3847
                    p.val_all
Sagittal T2-T12
                       0.0291
6W. Sagittal T2-T12
                       0.0029
6M. Sagittal T2-T12
                       0.0261
1Y. Sagittal T2-T12
                       0.0319
2Y. Sagittal T2-T12
                       0.1886
5Y. Sagittal T2-T12
                       0.1550
                        2
                               3
1: Preop 2Y 0.9276 0.0016 0.0001 0.7617 0.0708 0.0001
2: Preop 5Y 0.6391 0.0000 0.0000 0.6363 0.0346 0.0000
3: Preop 6W 0.0818 0.0083 0.0083 0.2606 0.0855 0.0168
      6W 2Y 0.0290 0.4289 0.1078 0.3139 0.8039 0.0591
5:
      6W 5Y 0.0538 0.0280 0.0057 0.6862 0.2533 0.0002
      2Y 5Y 0.6585 0.1529 0.1927 0.7760 0.3395 0.0221
[1] "Lordosis (top of L1-S1)"
[1] "6W. Lordosis (top of L1-S1)"
[1] "6M. Lordosis (top of L1-S1)"
[1] "1Y. Lordosis (top of L1-S1)"
[1] "2Y. Lordosis (top of L1-S1)"
[1] "5Y. Lordosis (top of L1-S1)"
[1] "Lordosis (top of L1-S1)"
                            All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean
Lordosis (top of L1-S1)
                              -43.65 20.54 -56.00 18.89 -44.15 18.03 -31.03
                              -51.29 14.25 -54.02 13.57 -50.69 13.50 -46.39
6W. Lordosis (top of L1-S1)
6M. Lordosis (top of L1-S1)
                              -50.93 14.34 -55.15 13.14 -50.62 12.89 -45.82
1Y. Lordosis (top of L1-S1)
                              -51.20 14.45 -56.42 13.29 -50.87 12.76 -44.39
```

2Y. Lordosis (top of L1-S1)

-51.60 15.12 -56.37 13.34 -52.82 13.37 -45.17

```
5Y. Lordosis (top of L1-S1)
                              -50.58 16.04 -56.26 17.51 -48.37 15.69 -44.50
                              3.sd 4.mean 4.sd 5.mean 5.sd maes.mae
                            19.49 -44.62 19.25 -34.64 17.94 29.96166
Lordosis (top of L1-S1)
6W. Lordosis (top of L1-S1) 14.94 -53.98 13.97 -50.76 14.92 24.51301
6M. Lordosis (top of L1-S1) 14.51 -52.68 14.64 -48.55 16.03 22.86428
1Y. Lordosis (top of L1-S1) 14.61 -53.94 14.87 -48.45 15.14 22.47006
2Y. Lordosis (top of L1-S1) 15.00 -52.67 14.44 -48.10 17.91 23.96828
5Y. Lordosis (top of L1-S1) 14.77 -57.43 10.68 -50.13 16.93 24.34826
                            maes.rel_mae p.val_1.2 p.val_1.3 p.val_1.4
                                             0.0000
                                                       0.0000
Lordosis (top of L1-S1)
                               -0.6865306
                                                                  0.0007
6W. Lordosis (top of L1-S1)
                               -0.4779135
                                             0.1063
                                                       0.0028
                                                                  0.9873
6M. Lordosis (top of L1-S1)
                                             0.0250
                                                       0.0003
                                                                  0.3409
                               -0.4490623
1Y. Lordosis (top of L1-S1)
                               -0.4389231
                                             0.0072
                                                       0.0000
                                                                  0.3638
                               -0.4658434
                                                                  0.1901
2Y. Lordosis (top of L1-S1)
                                             0.1076
                                                       0.0001
5Y. Lordosis (top of L1-S1)
                                             0.0531
                                                       0.0077
                                                                  0.7777
                               -0.4845646
                            p.val_1.5 p.val_1.all p.val_1.vs_the_rest p.val_2.3
                                0.0000
                                            0.0000
Lordosis (top of L1-S1)
                                                                 0.0000
                                                                           0.0001
6W. Lordosis (top of L1-S1)
                                0.1782
                                            0.1022
                                                                 0.0350
                                                                           0.0843
                                                                 0.0012
6M. Lordosis (top of L1-S1)
                                0.0115
                                            0.0114
                                                                           0.0509
1Y. Lordosis (top of L1-S1)
                                0.0017
                                            0.0025
                                                                 0.0001
                                                                           0.0102
2Y. Lordosis (top of L1-S1)
                                0.0057
                                            0.0080
                                                                 0.0006
                                                                           0.0053
5Y. Lordosis (top of L1-S1)
                                                                 0.0523
                                0.2131
                                            0.1145
                                                                           0.2844
                            p.val_2.4 p.val_2.5 p.val_2.all p.val_2.vs_the_rest
Lordosis (top of L1-S1)
                                0.8845
                                          0.0014
                                                      0.8148
                                                                           0.7635
6W. Lordosis (top of L1-S1)
                                0.1974
                                          0.9787
                                                      0.7145
                                                                           0.6343
6M. Lordosis (top of L1-S1)
                                0.4201
                                          0.4158
                                                      0.8474
                                                                           0.8042
1Y. Lordosis (top of L1-S1)
                                0.2528
                                          0.3205
                                                      0.8383
                                                                           0.7928
2Y. Lordosis (top of L1-S1)
                                0.9588
                                          0.1121
                                                      0.5032
                                                                           0.3950
5Y. Lordosis (top of L1-S1)
                                          0.6844
                                0.0111
                                                      0.4110
                                                                           0.2549
                            p.val_3.4 p.val_3.5 p.val_3.all p.val_3.vs_the_rest
Lordosis (top of L1-S1)
                                0.0004
                                          0.3035
                                                      0.0000
                                                                           0.0000
6W. Lordosis (top of L1-S1)
                                0.0102
                                          0.1183
                                                      0.0262
                                                                           0.0088
6M. Lordosis (top of L1-S1)
                                0.0208
                                          0.3509
                                                      0.0199
                                                                           0.0063
1Y. Lordosis (top of L1-S1)
                                0.0024
                                          0.1571
                                                      0.0029
                                                                           0.0005
2Y. Lordosis (top of L1-S1)
                                0.0211
                                          0.3762
                                                      0.0078
                                                                           0.0017
5Y. Lordosis (top of L1-S1)
                                0.0012
                                          0.2212
                                                      0.0526
                                                                           0.0187
                            p.val_4.5 p.val_4.all p.val_4.vs_the_rest
Lordosis (top of L1-S1)
                                0.0047
                                            0.7332
                                                                 0.6926
6W. Lordosis (top of L1-S1)
                                0.2575
                                            0.2319
                                                                 0.1722
6M. Lordosis (top of L1-S1)
                                            0.4440
                                0.1725
                                                                 0.3760
1Y. Lordosis (top of L1-S1)
                                0.0721
                                            0.2610
                                                                 0.1975
2Y. Lordosis (top of L1-S1)
                                0.1839
                                            0.6714
                                                                 0.6284
5Y. Lordosis (top of L1-S1)
                                0.1058
                                            0.0232
                                                                 0.0117
                             p.val_5.all p.val_5.vs_the_rest p.val_all
Lordosis (top of L1-S1)
                                  0.0005
                                                      0.0000
                                                                 0.0000
6W. Lordosis (top of L1-S1)
                                                      0.7563
                                                                 0.0206
                                  0.7968
6M. Lordosis (top of L1-S1)
                                  0.2968
                                                      0.2107
                                                                 0.0024
1Y. Lordosis (top of L1-S1)
                                  0.2040
                                                      0.1255
                                                                 0.0000
2Y. Lordosis (top of L1-S1)
                                  0.1892
                                                      0.1116
                                                                 0.0005
5Y. Lordosis (top of L1-S1)
                                  0.9072
                                                      0.8916
                                                                 0.0157
      t0 t1
                 1
                        2
                                3
                                       4
1: Preop 2Y 0.8796 0.0005 0.0001 0.0242 0.0001 0.0000
2: Preop 5Y 0.9451 0.1571 0.0007 0.0009 0.0008 0.0001
```

```
3: Preop 6W 0.4193 0.0057 0.0000 0.0062 0.0000 0.0000
4: 6W 2Y 0.2674 0.3199 0.6810 0.6783 0.3980 0.7935
5: 6W 5Y 0.5331 0.3955 0.5804 0.2971 0.8779 0.6457
6: 2Y 5Y 0.9748 0.1158 0.8480 0.1736 0.6459 0.5257
[1] "Pelvic Incidence"
[1] "6W. Pelvic Incidence"
[1] "6M. Pelvic Incidence"
[1] "1Y. Pelvic Incidence"
[1] "2Y. Pelvic Incidence"
[1] "5Y. Pelvic Incidence"
```

#### [1] "Pelvic Incidence"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd
                        54.04 13.15 49.21 11.24 55.73 13.15
                                                                 53.16 13.53
Pelvic Incidence
6W. Pelvic Incidence
                        54.13 13.02 49.44 11.42 56.63 12.75
                                                                 52.54 13.93
6M. Pelvic Incidence
                        53.98 12.73 49.92 11.54 55.96 12.50
                                                                 52.29 13.73
1Y. Pelvic Incidence
                        53.63 12.63 49.23 11.96 56.19 12.70
                                                                 52.68 13.54
2Y. Pelvic Incidence
                        53.75 12.49 50.17 10.51 56.00 13.34
                                                                 53.27 13.23
5Y. Pelvic Incidence
                        54.87 12.46 53.39 12.20 55.12 12.66 50.32 13.46
                     4.mean 4.sd 5.mean 5.sd maes.mae maes.rel_mae p.val_1.2
                      54.51 13.43 58.73 13.19 21.12984
                                                            0.3910207
Pelvic Incidence
                                                                         0.0004
6W. Pelvic Incidence 53.80 13.07
                                   58.56 12.66 20.52208
                                                            0.3791202
                                                                         0.0001
6M. Pelvic Incidence 54.74 12.48
                                   57.83 12.48 20.40980
                                                            0.3780618
                                                                         0.0013
1Y. Pelvic Incidence
                      53.65 12.17
                                   56.72 11.42 20.27857
                                                            0.3781244
                                                                         0.0004
                      53.30 12.43
                                   56.62 12.38 20.21954
2Y. Pelvic Incidence
                                                            0.3759398
                                                                         0.0040
5Y. Pelvic Incidence 58.69 9.39 59.18 11.78 20.76556
                                                            0.3819449
                                                                         0.5581
                     p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
Pelvic Incidence
                        0.0728
                                  0.0169
                                             0.0000
                                                         0.0006
6W. Pelvic Incidence
                        0.1766
                                  0.0638
                                             0.0000
                                                         0.0015
6M. Pelvic Incidence
                        0.3013
                                  0.0328
                                             0.0003
                                                         0.0061
1Y. Pelvic Incidence
                        0.1422
                                  0.0572
                                             0.0003
                                                         0.0046
2Y. Pelvic Incidence
                        0.1775
                                  0.1882
                                             0.0028
                                                         0.0129
5Y. Pelvic Incidence
                                  0.1013
                                             0.0934
                        0.3669
                                                         0.5553
                     p.val 1.vs the rest p.val 2.3 p.val 2.4 p.val 2.5
Pelvic Incidence
                                  0.0000
                                             0.2596
                                                       0.5917
                                                                 0.1629
6W. Pelvic Incidence
                                  0.0001
                                             0.0822
                                                       0.2364
                                                                 0.3629
6M. Pelvic Incidence
                                  0.0005
                                             0.1154
                                                       0.5889
                                                                 0.3854
1Y. Pelvic Incidence
                                  0.0003
                                             0.1380
                                                       0.2770
                                                                 0.7949
2Y. Pelvic Incidence
                                  0.0015
                                             0.2758
                                                       0.2939
                                                                 0.7911
5Y. Pelvic Incidence
                                  0.4705
                                             0.1296
                                                       0.2237
                                                                 0.2006
                     p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
                                                         0.6026
Pelvic Incidence
                          0.2665
                                              0.1445
                                                                   0.0258
6W. Pelvic Incidence
                          0.1061
                                               0.0345
                                                         0.6439
                                                                   0.0174
6M. Pelvic Incidence
                          0.1934
                                               0.0880
                                                         0.3523
                                                                   0.0300
1Y. Pelvic Incidence
                          0.1028
                                               0.0319
                                                         0.7132
                                                                   0.0976
2Y. Pelvic Incidence
                          0.2008
                                               0.0958
                                                         0.9920
                                                                   0.1972
5Y. Pelvic Incidence
                          0.9085
                                               0.8726
                                                         0.0159
                                                                   0.0158
                     p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
Pelvic Incidence
                          0.6544
                                              0.6007
                                                         0.0899
                                                                     0.8104
6W. Pelvic Incidence
                          0.4340
                                               0.3550
                                                         0.0633
                                                                     0.8728
6M. Pelvic Incidence
                          0.4029
                                              0.3226
                                                         0.2136
                                                                     0.7006
```

```
1Y. Pelvic Incidence
                                                                     0.9894
                          0.6399
                                              0.5806
                                                         0.2023
2Y. Pelvic Incidence
                          0.8155
                                              0.7820
                                                         0.2125
                                                                     0.8325
5Y. Pelvic Incidence
                          0.1008
                                                         0.8849
                                              0.0438
                                                                     0.1305
                     p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
Pelvic Incidence
                                  0.7797
                                              0.0108
                                                                   0.0024
6W. Pelvic Incidence
                                  0.8543
                                              0.0143
                                                                   0.0033
6M. Pelvic Incidence
                                  0.6568
                                              0.0370
                                                                   0.0135
1Y. Pelvic Incidence
                                  0.9879
                                              0.0660
                                                                   0.0281
2Y. Pelvic Incidence
                                  0.8088
                                              0.1293
                                                                   0.0684
5Y. Pelvic Incidence
                                  0.0906
                                                                   0.0744
                                              0.1236
                     p.val_all
Pelvic Incidence
                        0.0002
6W. Pelvic Incidence
                        0.0002
6M. Pelvic Incidence
                        0.0020
1Y. Pelvic Incidence
                        0.0019
2Y. Pelvic Incidence
                        0.0217
5Y. Pelvic Incidence
                        0.0688
     t0 t1
                        2
                               3
                                      4
                                             5
                                                  All
                1
1: Preop 2Y 0.5754 0.8953 0.9672 0.6574 0.3793 0.7806
2: Preop 5Y 0.1098 0.7906 0.3625 0.1523 0.8826 0.5054
3: Preop 6W 0.8941 0.6390 0.8136 0.7910 0.9409 0.9244
4:
     6W 2Y 0.6795 0.7646 0.7875 0.8585 0.4138 0.7138
5:
     6W 5Y 0.1347 0.5139 0.4821 0.1041 0.8367 0.5585
     2Y 5Y 0.2167 0.7176 0.3541 0.0784 0.4054 0.3823
6:
[1] "Pelvic Tilt"
[1] "6W. Pelvic Tilt"
[1] "6M. Pelvic Tilt"
[1] "1Y. Pelvic Tilt"
[1] "2Y. Pelvic Tilt"
[1] "5Y. Pelvic Tilt"
```

#### [1] "Pelvic Tilt"

	All.mean All.s	d 1.mean 1.sd	2.mean 2.sd 3.mean	3.sd	4.mean
Pelvic Tilt	22.04 11.0	06 12.48 8.04	23.43 9.06 26.91	10.18	21.88
6W. Pelvic Tilt	18.14 9.6	66 11.70 7.98	20.93 7.86 19.69	9.45	16.28
6M. Pelvic Tilt	19.59 10.0	9 12.52 8.95	21.75 7.84 21.59	8.95	18.75
1Y. Pelvic Tilt	19.40 10.2	27 11.55 8.29	22.50 8.46 22.10	9.75	17.83
2Y. Pelvic Tilt	19.21 9.4	11.94 7.33	22.02 8.67 23.04	8.96	18.12
5Y. Pelvic Tilt	21.92 9.9	3 13.63 8.77	25.01 8.53 22.08	8.17	21.54
	4.sd 5.mean	5.sd maes.mae	<pre>maes.rel_mae p.val</pre>	_1.2 p.	val_1.3
Pelvic Tilt	11.00 29.23	9.10 15.15162	0.6875691	0	0e+00
6W. Pelvic Tilt	10.06 22.76	9.41 14.78218	0.8150496	0	0e+00
6M. Pelvic Tilt	10.92 25.14	9.69 14.28917	0.7294654	0	0e+00
1Y. Pelvic Tilt	9.98 24.11	9.85 14.87529	0.7669901	0	0e+00
2Y. Pelvic Tilt	8.18 23.27	8.44 13.90592	0.7236243	0	0e+00
5Y. Pelvic Tilt	9.28 26.49 1	0.77 14.89437	0.6893047	0	4e-04
	p.val_1.4 p.va	al_1.5 p.val_1.	.all p.val_1.vs_the	_rest p	val_2.3
Pelvic Tilt	0.0000	0	0	0	0.0395
6W. Pelvic Tilt	0.0104	0	0	0	0.4211
6M. Pelvic Tilt	0.0014	0	0	0	0.9145

```
0.0008
                                                                        0.8094
1Y. Pelvic Tilt
                                  0
                                               0
                                                                   0
2Y. Pelvic Tilt
                   0.0002
                                  0
                                               0
                                                                   0
                                                                        0.5411
                   0.0064
5Y. Pelvic Tilt
                                  0
                                               0
                                                                        0.1421
                p.val_2.4 p.val_2.5 p.val_2.all p.val_2.vs_the_rest p.val_3.4
Pelvic Tilt
                   0.3885
                           0.0001
                                       0.2068
                                                              0.1073
                                                                        0.0164
                                         0.0055
6W. Pelvic Tilt
                   0.0085
                             0.2139
                                                              0.0004
                                                                        0.0877
6M. Pelvic Tilt
                   0.1009
                             0.0300
                                         0.0341
                                                              0.0074
                                                                        0.1625
1Y. Pelvic Tilt
                   0.0106
                             0.3105
                                         0.0051
                                                              0.0003
                                                                        0.0396
2Y. Pelvic Tilt
                   0.0226
                             0.4273
                                         0.0181
                                                              0.0025
                                                                        0.0098
                                                              0.0063
5Y. Pelvic Tilt
                   0.1798
                             0.5768
                                         0.0431
                                                                        0.8412
                p.val_3.5 p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
Pelvic Tilt
                                                              0.0002
                   0.2002
                               0.0018
                                                    0.0003
                                                                          0.9252
6W. Pelvic Tilt
                                                              0.0011
                   0.0838
                               0.2690
                                                    0.1933
                                                                          0.2474
6M. Pelvic Tilt
                   0.0488
                               0.1432
                                                    0.0867
                                                              0.0025
                                                                          0.6231
1Y. Pelvic Tilt
                   0.2858
                               0.0730
                                                    0.0355
                                                              0.0022
                                                                          0.3393
2Y. Pelvic Tilt
                   0.8973
                               0.0090
                                                    0.0022
                                                              0.0048
                                                                          0.4516
5Y. Pelvic Tilt
                   0.1176
                               0.9267
                                                    0.9118
                                                              0.1272
                                                                          0.8732
                p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest p.val_all
Pelvic Tilt
                             0.9133
                                         0.0000
                                                              0.0000
6W. Pelvic Tilt
                                         0.0007
                             0.1845
                                                              0.0001
                                                                             0
6M. Pelvic Tilt
                             0.5682
                                         0.0002
                                                              0.0000
                                                                             0
1Y. Pelvic Tilt
                             0.2735
                                         0.0013
                                                              0.0001
                                                                             0
2Y. Pelvic Tilt
                             0.3917
                                         0.0027
                                                              0.0004
                                                                             0
5Y. Pelvic Tilt
                             0.8567
                                         0.0723
                                                              0.0367
                                                                             0
                 1
                        2
                               3
1: Preop 2Y 0.6547 0.3100 0.0447 0.0658 0.0004 0.0006
2: Preop 5Y 0.5362 0.3148 0.0216 0.8996 0.2931 0.9094
3: Preop 6W 0.5264 0.0468 0.0002 0.0102 0.0002 0.0000
      6W 2Y 0.8442 0.4117 0.0705 0.3609 0.7651 0.1664
      6W 5Y 0.3034 0.0083 0.2330 0.0551 0.1600 0.0001
5:
6:
      2Y 5Y 0.3630 0.0686 0.6340 0.1903 0.2211 0.0071
[1] "Sacral Slope"
[1] "6W. Sacral Slope"
[1] "6M. Sacral Slope"
[1] "1Y. Sacral Slope"
[1] "2Y. Sacral Slope"
[1] "5Y. Sacral Slope"
```

#### [1] "Sacral Slope"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd 4.mean
                  32.41 11.21 36.90 9.91 32.19 11.76 27.18 10.94 33.99
Sacral Slope
                  35.93 10.21 37.65 9.34 35.65 10.13 32.68 10.09
6W. Sacral Slope
                  34.38 10.10 37.63 9.21
                                           34.11 9.61
6M. Sacral Slope
                                                        30.50 10.98
1Y. Sacral Slope
                  34.27
                          9.71 37.80 10.00 33.63 9.59
                                                        30.52 10.44
2Y. Sacral Slope
                  34.63 10.43 38.33 10.53 33.91 9.83 30.31 10.90 35.08
                  32.96 10.82 39.79 10.77 30.11 10.54 28.24 10.60 37.15
5Y. Sacral Slope
                4.sd 5.mean 5.sd maes.mae maes.rel_mae p.val_1.2 p.val_1.3
Sacral Slope
               10.07 29.39 10.75 17.58225 0.5425349
                                                         0.0035
                                                                  0.0000
6W. Sacral Slope 9.15 35.72 11.81 16.27706 0.4530464
                                                         0.1777
                                                                  0.0044
6M. Sacral Slope 8.83 32.58 10.84 15.89300 0.4623270
                                                         0.0163
                                                                  0.0002
```

```
0.0001
1Y. Sacral Slope 7.52 32.54 8.71 14.67280
                                                0.4281119
                                                              0.0072
2Y. Sacral Slope 7.69 33.84 10.90 16.02320
                                                0.4625706
                                                              0.0097
                                                                        0.0001
5Y. Sacral Slope 7.32 32.70 9.07 15.48150
                                                              0.0003
                                                                        0.0001
                                                0.4724905
                 p.val_1.4 p.val_1.5 p.val_1.all p.val_1.vs_the_rest p.val_2.3
Sacral Slope
                    0.0955
                              0.0000
                                          0.0002
                                                               0.0000
                                                                         0.0100
                                                                         0.0926
6W. Sacral Slope
                    0.8775
                              0.2908
                                          0.1387
                                                               0.0577
6M. Sacral Slope
                    0.2457
                              0.0052
                                          0.0059
                                                               0.0004
                                                                         0.0503
1Y. Sacral Slope
                    0.2048
                              0.0013
                                          0.0054
                                                               0.0003
                                                                         0.0864
2Y. Sacral Slope
                    0.0646
                              0.0226
                                          0.0077
                                                               0.0005
                                                                         0.0711
5Y. Sacral Slope
                    0.3220
                              0.0140
                                          0.0034
                                                               0.0004
                                                                         0.4593
                 p.val_2.4 p.val_2.5 p.val_2.all p.val_2.vs_the_rest p.val_3.4
Sacral Slope
                    0.3294
                              0.1249
                                          0.8738
                                                               0.8335
                                                                         0.0011
6W. Sacral Slope
                                                               0.7639
                    0.3192
                              0.9691
                                          0.8185
                                                                         0.0169
6M. Sacral Slope
                    0.3361
                              0.3892
                                          0.8238
                                                               0.7714
                                                                         0.0100
1Y. Sacral Slope
                    0.1737
                              0.4811
                                          0.5879
                                                               0.4777
                                                                         0.0059
2Y. Sacral Slope
                    0.4985
                              0.9702
                                          0.5894
                                                               0.4892
                                                                         0.0209
5Y. Sacral Slope
                    0.0040
                              0.3020
                                          0.1167
                                                               0.0296
                                                                         0.0014
                 p.val_3.5 p.val_3.all p.val_3.vs_the_rest p.val_4.5
Sacral Slope
                               0.0017
                                                    0.0003
                                                               0.0192
                    0.2731
                                                    0.0119
6W. Sacral Slope
                    0.1401
                                0.0321
                                                               0.4142
6M. Sacral Slope
                    0.3216
                                0.0186
                                                    0.0056
                                                               0.1094
1Y. Sacral Slope
                    0.2796
                                0.0190
                                                    0.0058
                                                               0.0495
2Y. Sacral Slope
                                0.0140
                                                    0.0038
                                                               0.5312
                    0.1110
5Y. Sacral Slope
                    0.1127
                                0.0351
                                                    0.0103
                                                               0.0939
                 p.val_4.all p.val_4.vs_the_rest p.val_5.all
Sacral Slope
                      0.2963
                                          0.2277
                                                      0.0446
6W. Sacral Slope
                      0.3254
                                          0.2623
                                                      0.8979
6M. Sacral Slope
                      0.3464
                                          0.2793
                                                       0.2508
1Y. Sacral Slope
                      0.2467
                                          0.1894
                                                      0.1743
2Y. Sacral Slope
                      0.7504
                                          0.7194
                                                       0.6316
5Y. Sacral Slope
                      0.0402
                                          0.0224
                                                      0.9034
                 p.val_5.vs_the_rest p.val_all
Sacral Slope
                              0.0168
                                        0.0000
6W. Sacral Slope
                              0.8762
                                        0.0632
6M. Sacral Slope
                              0.1704
                                        0.0007
1Y. Sacral Slope
                              0.1050
                                        0.0002
2Y. Sacral Slope
                              0.5627
                                        0.0009
5Y. Sacral Slope
                              0.8885
                                        0.0001
      t0 t1
                1
                        2
                               3
1: Preop 2Y 0.3722 0.3067 0.1528 0.5619 0.0305 0.0099
2: Preop 5Y 0.2059 0.2912 0.6689 0.1609 0.1693 0.6118
3: Preop 6W 0.6054 0.0343 0.0077 0.0835 0.0023 0.0000
      6W 2Y 0.6680 0.2776 0.2623 0.2144 0.3822 0.1211
4:
      6W 5Y 0.3446 0.0043 0.0692 0.9138 0.2241 0.0055
      2Y 5Y 0.5349 0.0531 0.4147 0.3366 0.6422 0.1272
6:
[1] "RLL"
[1] "6W. RLL"
[1] "6M. RLL"
[1] "1Y. RLL"
[1] "2Y. RLL"
[1] "5Y. RLL"
```

#### [1] "RLL"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd 4.mean 4.sd
          -18.90 20.37 -3.28 17.07 -19.40 16.91 -30.93 18.61 -18.18 18.63
RLL
6W. RLL
         -11.20 13.03 -5.11 11.89 -13.50 11.31 -15.23 12.19 -8.36 13.39
6M. RLL
         -11.50 13.36 -4.96 11.76 -12.92 11.19 -15.60 12.14 -10.25 14.92
         -11.16 13.85 -3.19 11.49 -12.96 11.37 -17.27 13.21 -8.33 14.46
1Y. RLL
2Y. RLL
         -10.52 14.03 -3.68 11.12 -10.86 12.31 -16.73 13.17 -9.37 13.02
5Y. RLL
        -12.44 14.28 -5.84 14.61 -14.80 13.58 -15.70 12.30 -7.96 10.88
        5.mean 5.sd maes.mae maes.rel_mae p.val_1.2 p.val_1.3 p.val_1.4
                                 -1.513288
                                              0.0000
                                                         0.0000
        -30.78 17.49 28.60548
                                                                   0.0000
6W. RLL -14.55 14.19 22.67043
                                 -2.026028
                                              0.0000
                                                         0.0000
                                                                   0.1806
6M. RLL -16.07 14.83 21.22989
                                 -1.846048
                                              0.0000
                                                         0.0000
                                                                   0.0398
1Y. RLL -15.71 15.06 21.85180
                                 -1.954495
                                              0.0000
                                                         0.0000
                                                                   0.0496
2Y. RLL -15.15 17.14 21.93886
                                 -2.053996
                                              0.0003
                                                         0.0000
                                                                   0.0247
5Y. RLL -15.57 17.21 22.87642
                                 -1.835856
                                              0.0102
                                                         0.0075
                                                                   0.5723
        p.val_1.5 p.val_1.all p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
RLL
           0.0000
                       0.0000
                                           0.0000
                                                      0.0003
                                                                0.6913
                                                                          0.0001
6W. RLL
           0.0001
                                           0.0000
                       0.0001
                                                      0.3997
                                                                0.0320
                                                                          0.6308
6M. RLL
           0.0000
                       0.0000
                                           0.0000
                                                      0.1954
                                                                0.2874
                                                                          0.1782
1Y. RLL
           0.0000
                       0.0000
                                           0.0000
                                                      0.0561
                                                                0.0711
                                                                          0.2412
2Y. RLL
                                                      0.0171
           0.0001
                       0.0000
                                           0.0000
                                                                0.5628
                                                                          0.1282
5Y. RLL
           0.0391
                       0.0317
                                           0.0087
                                                      0.7683
                                                                0.0422
                                                                          0.8560
        p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5 p.val_3.all
RLL
             0.8072
                                 0.7558
                                           0.0006
                                                      0.9649
                                                                  0.0000
6W. RLL
             0.1032
                                 0.0361
                                           0.0101
                                                      0.7817
                                                                  0.0287
6M. RLL
                                 0.2027
                                           0.0542
                                                      0.8581
                                                                  0.0276
             0.3179
1Y. RLL
                                           0.0026
             0.2210
                                 0.1186
                                                      0.5666
                                                                  0.0033
2Y. RLL
             0.8390
                                 0.7966
                                           0.0119
                                                      0.6074
                                                                  0.0043
5Y. RLL
             0.3137
                                 0.1654
                                           0.0299
                                                      0.9753
                                                                  0.2122
        p.val_3.vs_the_rest p.val_4.5 p.val_4.all p.val_4.vs_the_rest
RLL
                     0.0000
                               0.0003
                                           0.7934
                                                                0.7613
6W. RLL
                     0.0103
                               0.0249
                                           0.1907
                                                                0.1347
6M. RLL
                     0.0100
                               0.0511
                                           0.5899
                                                                0.5311
1Y. RLL
                     0.0006
                               0.0144
                                           0.2312
                                                                0.1690
2Y. RLL
                     0.0008
                               0.0726
                                           0.6146
                                                                0.5656
5Y. RLL
                     0.1315
                               0.0981
                                           0.1261
                                                                0.0869
        p.val_5.all p.val_5.vs_the_rest p.val_all
RLL
             0.0000
                                 0.0000
                                            0.000
6W. RLL
             0.0902
                                 0.0403
                                            0.000
6M. RLL
             0.0343
                                 0.0116
                                            0.000
1Y. RLL
                                 0.0110
             0.0354
                                            0.000
2Y. RLL
             0.0709
                                 0.0283
                                            0.000
5Y. RLL
             0.4251
                                 0.3494
                                            0.017
                 1
                        2
                               3
1: Preop 2Y 0.8561 0.0002 0.0000 0.0090 0.0000 0.0000
2: Preop 5Y 0.4357 0.0853 0.0000 0.0066 0.0010 0.0001
3: Preop 6W 0.4144 0.0058 0.0000 0.0032 0.0000 0.0000
      6W 2Y 0.4402 0.1665 0.5580 0.7302 0.8414 0.5387
4:
      6W 5Y 0.8088 0.5787 0.8689 0.9044 0.8054 0.3727
      2Y 5Y 0.4769 0.1157 0.7326 0.6745 0.9246 0.1878
[1] "Global Tilt"
```

```
[1] "6W. Global Tilt"
[1] "6M. Global Tilt"
[1] "1Y. Global Tilt"
[1] "2Y. Global Tilt"
[1] "5Y. Global Tilt"
```

# [1] "Global Tilt"

	All.mean	All.sd 1.mea	n 1.sd 2.r	nean 2.sd	3.mean 3.	sd 4.mean
Global Tilt	26.40			7.21 12.91		
6W. Global Tilt	18.61	12.17 10.1		1.65 9.40		.03 16.46
6M. Global Tilt			7 11.91 22	2.98 10.31	23.11 12	.25 19.93
1Y. Global Tilt			0 10.23 24	1.39 10.94	24.85 13	.56 18.32
2Y. Global Tilt				1.05 11.87		
5Y. Global Tilt			8 11.53 28	3.85 12.53	25.85 13	
		ean 5.sd ma				
Global Tilt		.79 15.54 23		0.8984177	0	0e+00
6W. Global Tilt	12.57 26	.19 11.92 17	.78497 (	0.9545129	0	0e+00
6M. Global Tilt	15.28 28	.66 13.08 19		0.9550356	0	0e+00
1Y. Global Tilt	13.41 27	.80 14.41 20			0	0e+00
2Y. Global Tilt		.40 14.16 19			0	0e+00
5Y. Global Tilt				0.8913238	0	3e-04
		p.val_1.5 p			s the rest	
Global Tilt	0.0000		0	F	0	0.0051
6W. Global Tilt			0		0	0.5958
6M. Global Tilt	0.0009		0		0	0.9510
1Y. Global Tilt	0.0011		0		0	0.8461
2Y. Global Tilt	0.0000		0		0	0.1212
5Y. Global Tilt			0		0	0.3327
or. diobal file		p.val_2.5 p	· ·	n val 2 vs	_	
Global Tilt	0.5006		0.6205	p. var_2. v.	0.5362	0.0053
6W. Global Tilt	0.0252		0.0199		0.0035	0.1243
6M. Global Tilt	0.2498		0.0135		0.0030	0.2828
1Y. Global Tilt	0.0168		0.0189		0.0032	0.0270
2Y. Global Tilt	0.0362		0.0643		0.0201	0.0017
5Y. Global Tilt			0.0820		0.0201	0.4463
or. Grobar fire		p.val_3.all		the rest		
Global Tilt	0.1474	=	_	0.0002	0.0000	0.6837
6W. Global Tilt	0.0204			0.2245		0.3138
6M. Global Tilt	0.0204			0.1092		0.8412
1Y. Global Tilt	0.0317			0.1092		0.2880
2Y. Global Tilt	0.2927			0.0276		0.3631
5Y. Global Tilt				0.6872	0.0010	0.5314
51. GIODAI IIIC		s_the_rest p	****1 E **11			
Global Tilt	p.var_4.v	0.6352	0.0000	p.var_5.v	0.0000	
						0
6W. Global Tilt		0.2478	0.0001		0.0000	0
6M. Global Tilt		0.8161	0.0001		0.0000	0
1Y. Global Tilt		0.2216	0.0015		0.0001	0
2Y. Global Tilt		0.3037	0.0011		0.0001	0
5Y. Global Tilt		0.4827	0.0980		0.0531	0
t0 t1	1 2	3	4 5	All		

```
1: Preop 2Y 0.4385 0.1141 0.0255 0.0440 0.0001 0.0000 2: Preop 5Y 0.2653 0.4733 0.0085 0.5390 0.1199 0.3519 3: Preop 6W 0.8386 0.0014 0.0000 0.0064 0.0000 0.0000 4: 6W 2Y 0.5495 0.1898 0.0068 0.3605 0.3984 0.0442 5: 6W 5Y 0.2047 0.0012 0.0840 0.0555 0.1760 0.0000 6: 2Y 5Y 0.1013 0.0453 0.5043 0.2198 0.3930 0.0077 [1] "T1 Sagittal Tilt" [1] "6W. T1 Sagittal Tilt" [1] "6M. T1 Sagittal Tilt" [1] "1Y. T1 Sagittal Tilt" [1] "2Y. T1 Sagittal Tilt" [1] "5Y. T1 Sagittal Tilt"
```

#### [1] "T1 Sagittal Tilt"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd 4.mean
T1 Sagittal Tilt
                               6.17 -4.73 4.11 -2.82 5.19
                        -1.83
                                                              0.62 6.88 -1.67
6W. T1 Sagittal Tilt
                        -3.58
                               4.02 -4.13 4.00 -3.74 3.96 -3.10 3.48
                                                                         -4.00
6M. T1 Sagittal Tilt
                       -4.11
                               4.33 -5.01 3.59 -4.42 3.55 -3.85 5.24
                                                                         -3.68
1Y. T1 Sagittal Tilt
                       -3.92 5.02 -4.99 4.37 -3.88 4.93 -3.09 5.64
2Y. T1 Sagittal Tilt
                       -3.60
                                4.51 -5.11 3.49 -4.00 3.85 -2.35 4.99
                                                                         -4.24
5Y. T1 Sagittal Tilt
                               4.90 -3.79 3.35 -2.71 4.08 -1.96 5.48 -4.01
                       -2.71
                     4.sd 5.mean 5.sd maes.mae maes.rel_mae p.val_1.2 p.val_1.3
T1 Sagittal Tilt
                     5.31
                           1.57 7.68 8.921313
                                                 -4.976519
                                                               0.0094
                                                                         0.0000
6W. T1 Sagittal Tilt 3.26 -2.69 5.02 6.426720
                                                  -1.793597
                                                               0.5563
                                                                         0.1427
6M. T1 Sagittal Tilt 4.20 -3.00 5.24 6.765222
                                                 -1.648027
                                                               0.3224
                                                                         0.1836
1Y. T1 Sagittal Tilt 4.08 -3.10 5.88 7.565408
                                                 -1.932951
                                                               0.1731
                                                                         0.0707
2Y. T1 Sagittal Tilt 3.61 -1.55 5.70 6.742267
                                                  -1.885323
                                                               0.0833
                                                                         0.0022
5Y. T1 Sagittal Tilt 3.18 -1.28 7.64 6.799088
                                                  -2.486134
                                                               0.2213
                                                                         0.1344
                     p.val_1.4 p.val_1.5 p.val_1.all p.val_1.vs_the_rest
T1 Sagittal Tilt
                        0.0007
                                  0.0000
                                              0.0000
                                                                  0.0000
6W. T1 Sagittal Tilt
                        0.8572
                                  0.1063
                                              0.3083
                                                                  0.1846
6M. T1 Sagittal Tilt
                       0.0889
                                  0.0219
                                              0.0729
                                                                  0.0237
1Y. T1 Sagittal Tilt
                       0.3736
                                  0.0622
                                              0.0951
                                                                  0.0370
2Y. T1 Sagittal Tilt
                        0.2671
                                  0.0003
                                              0.0035
                                                                  0.0002
5Y. T1 Sagittal Tilt
                        0.8173
                                  0.1630
                                              0.1607
                                                                  0.0990
                     p.val_2.3 p.val_2.4 p.val_2.5 p.val_2.all
                               0.2220
T1 Sagittal Tilt
                                           0.0003
                        0.0038
                                                        0.1371
6W. T1 Sagittal Tilt
                        0.3624
                                  0.7189
                                            0.2382
                                                        0.7711
6M. T1 Sagittal Tilt
                        0.5147
                                  0.3425
                                            0.1037
                                                        0.5407
1Y. T1 Sagittal Tilt
                        0.4571
                                  0.6989
                                           0.4459
                                                        0.9545
2Y. T1 Sagittal Tilt
                        0.0700
                                  0.7721
                                            0.0133
                                                        0.4723
5Y. T1 Sagittal Tilt
                        0.5304
                                  0.1813
                                            0.4185
                                                        0.9946
                     p.val_2.vs_the_rest p.val_3.4 p.val_3.5 p.val_3.all
T1 Sagittal Tilt
                                  0.0573
                                            0.0706
                                                      0.5106
                                                                  0.0249
6W. T1 Sagittal Tilt
                                  0.7041
                                            0.2377
                                                      0.6492
                                                                  0.3987
6M. T1 Sagittal Tilt
                                  0.4430
                                            0.8628
                                                      0.4268
                                                                  0.7436
1Y. T1 Sagittal Tilt
                                  0.9404
                                            0.3040
                                                      0.9961
                                                                  0.3769
2Y. T1 Sagittal Tilt
                                  0.3609
                                            0.0646
                                                      0.4825
                                                                  0.1292
5Y. T1 Sagittal Tilt
                                  0.9929
                                            0.1109
                                                      0.7255
                                                                  0.4972
                     p.val_3.vs_the_rest p.val_4.5 p.val_4.all
T1 Sagittal Tilt
                                  0.0093
                                            0.0123
                                                        0.8472
```

```
6M. T1 Sagittal Tilt
                                  0.6945
                                            0.4963
                                                        0.5356
1Y. T1 Sagittal Tilt
                                  0.2971
                                            0.2921
                                                        0.6766
2Y. T1 Sagittal Tilt
                                  0.0706
                                            0.0139
                                                        0.3792
5Y. T1 Sagittal Tilt
                                  0.4008
                                            0.1380
                                                        0.1383
                     p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
T1 Sagittal Tilt
                                  0.8224
                                              0.0026
                                                                   0.0003
6W. T1 Sagittal Tilt
                                  0.4420
                                              0.2598
                                                                   0.1754
6M. T1 Sagittal Tilt
                                  0.4720
                                              0.1656
                                                                  0.0953
1Y. T1 Sagittal Tilt
                                  0.6319
                                              0.3601
                                                                  0.2628
2Y. T1 Sagittal Tilt
                                  0.3255
                                              0.0244
                                                                  0.0065
                                  0.0990
5Y. T1 Sagittal Tilt
                                              0.4025
                                                                  0.3223
                     p.val_all
                        0.0000
T1 Sagittal Tilt
6W. T1 Sagittal Tilt
                        0.3213
6M. T1 Sagittal Tilt
                        0.1226
1Y. T1 Sagittal Tilt
                        0.2476
2Y. T1 Sagittal Tilt
                        0.0002
5Y. T1 Sagittal Tilt
                        0.2718
      t0 t1
                 1
                        2
                               3
                                      4
                                                  A 1 1
1: Preop 2Y 0.5399 0.1111 0.0210 0.0117 0.0210 0.0001
2: Preop 5Y 0.2342 0.8956 0.0756 0.0308 0.1472 0.1004
3: Preop 6W 0.3749 0.2122 0.0015 0.0142 0.0011 0.0000
      6W 2Y 0.1292 0.6972 0.4112 0.7873 0.3090 0.9637
      6W 5Y 0.6627 0.1817 0.3208 0.9893 0.4363 0.0705
     2Y 5Y 0.0874 0.0960 0.7627 0.8252 0.8859 0.0766
[1] "Thoracolumbar L2-T10"
[1] "6W. Thoracolumbar L2-T10"
[1] "6M. Thoracolumbar L2-T10"
[1] "1Y. Thoracolumbar L2-T10"
[1] "2Y. Thoracolumbar L2-T10"
[1] "5Y. Thoracolumbar L2-T10"
[1] "Thoracolumbar L2-T10"
                         All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd
Thoracolumbar L2-T10
                             9.89 20.53
                                           5.42 18.92 13.58 21.60 14.20 18.20
                             4.96 12.52 -0.47 12.79
                                                       6.78 13.83
6W. Thoracolumbar L2-T10
6M. Thoracolumbar L2-T10
                             5.17 12.16 -0.03 13.63
                                                        6.93 10.36
                                                                     8.02 10.57
1Y. Thoracolumbar L2-T10
                             5.35 12.70 -0.56 13.04
                                                        6.91 11.62
                                                                     9.46 9.83
2Y. Thoracolumbar L2-T10
                             6.09 12.82
                                           0.62 11.31
                                                        6.55 11.71
                                                                      9.62 11.81
5Y. Thoracolumbar L2-T10
                             7.29 14.76 -2.40 11.54
                                                        9.34 13.04
                                                                      8.56 11.22
                         4.mean 4.sd 5.mean 5.sd maes.mae maes.rel_mae
Thoracolumbar L2-T10
                           5.44 23.71 10.74 18.88 32.77307
                                                                3.317439
6W. Thoracolumbar L2-T10
                           5.88 10.58
                                        8.33 12.00 17.53529
                                                                3.576897
```

0.3181

0.1625

0.4954

6W. T1 Sagittal Tilt

6M. Thoracolumbar L2-T10

1Y. Thoracolumbar L2-T10

2Y. Thoracolumbar L2-T10

5Y. Thoracolumbar L2-T10

Thoracolumbar L2-T10

0.0067 0.9967

8.12 17.36 13.49 18.62 21.25132

8.59 11.35 18.31507

9.33 12.75 18.34972

8.97 14.23 20.46553

p.val\_1.2 p.val\_1.3 p.val\_1.4 p.val\_1.5 p.val\_1.all

3.633731

3.476510

3.481372

2.950947

0.0920

4.13 12.18

3.74 12.98

7.57 13.80

0.0073

```
6W. Thoracolumbar L2-T10
                             0.0008
                                       0.0006
                                                 0.0046
                                                            0.0001
                                                                        0.0010
6M. Thoracolumbar L2-T10
                             0.0005
                                       0.0003
                                                 0.0892
                                                            0.0002
                                                                        0.0030
                                                            0.0000
                                                                        0.0006
1Y. Thoracolumbar L2-T10
                             0.0003
                                       0.0000
                                                 0.0966
2Y. Thoracolumbar L2-T10
                             0.0033
                                       0.0001
                                                 0.0105
                                                            0.0008
                                                                        0.0006
5Y. Thoracolumbar L2-T10
                             0.0001
                                       0.0005
                                                 0.0311
                                                            0.0013
                                                                        0.0003
                         p.val 1.vs the rest p.val 2.3 p.val 2.4 p.val 2.5
Thoracolumbar L2-T10
                                                            0.0466
                                       0.0122
                                                 0.8546
                                                                      0.3909
6W. Thoracolumbar L2-T10
                                       0.0000
                                                 0.8421
                                                            0.6914
                                                                      0.4929
6M. Thoracolumbar L2-T10
                                       0.0001
                                                 0.5751
                                                            0.2087
                                                                      0.4064
1Y. Thoracolumbar L2-T10
                                       0.0000
                                                 0.1983
                                                            0.2044
                                                                      0.2827
2Y. Thoracolumbar L2-T10
                                       0.0000
                                                  0.1799
                                                            0.7075
                                                                      0.3298
5Y. Thoracolumbar L2-T10
                                       0.0000
                                                            0.7888
                                                                      0.3547
                                                  0.7839
                         p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
Thoracolumbar L2-T10
                               0.1428
                                                              0.0383
                                                   0.0529
                                                                        0.3198
6W. Thoracolumbar L2-T10
                               0.2918
                                                              0.8148
                                                   0.1639
                                                                        0.3501
6M. Thoracolumbar L2-T10
                               0.2063
                                                   0.1091
                                                              0.1091
                                                                        0.7970
1Y. Thoracolumbar L2-T10
                               0.3118
                                                              0.0268
                                                                        0.9548
                                                   0.1927
2Y. Thoracolumbar L2-T10
                               0.7815
                                                   0.7270
                                                              0.4747
                                                                         0.8062
5Y. Thoracolumbar L2-T10
                               0.3745
                                                   0.2318
                                                              0.9240
                                                                        0.2789
                         p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
Thoracolumbar L2-T10
                               0.1160
                                                   0.0681
                                                              0.2027
                                                                          0.2121
6W. Thoracolumbar L2-T10
                               0.3494
                                                   0.2846
                                                              0.2906
                                                                          0.6118
6M. Thoracolumbar L2-T10
                               0.0939
                                                   0.0505
                                                              0.0715
                                                                          0.6049
1Y. Thoracolumbar L2-T10
                               0.0133
                                                   0.0042
                                                              0.0449
                                                                          0.4698
2Y. Thoracolumbar L2-T10
                               0.0686
                                                   0.0318
                                                              0.6432
                                                                          0.5408
5Y. Thoracolumbar L2-T10
                               0.6017
                                                   0.5328
                                                              0.3515
                                                                          0.8480
                          p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
Thoracolumbar L2-T10
                                       0.1476
                                                   0.7492
                                                                        0.7043
6W. Thoracolumbar L2-T10
                                       0.5634
                                                   0.0591
                                                                        0.0234
6M. Thoracolumbar L2-T10
                                       0.5490
                                                   0.0529
                                                                        0.0220
1Y. Thoracolumbar L2-T10
                                       0.4074
                                                   0.0440
                                                                        0.0163
2Y. Thoracolumbar L2-T10
                                       0.4817
                                                   0.1825
                                                                        0.1047
5Y. Thoracolumbar L2-T10
                                       0.8271
                                                   0.1477
                                                                        0.0899
                         p.val_all
Thoracolumbar L2-T10
                             0.0160
6W. Thoracolumbar L2-T10
                             0.0002
6M. Thoracolumbar L2-T10
                             0.0001
1Y. Thoracolumbar L2-T10
                             0.0000
2Y. Thoracolumbar L2-T10
                             0.0004
5Y. Thoracolumbar L2-T10
                             0.0011
      t0 t1
                        2
                                3
                                              5
                 1
1: Preop 2Y 0.0472 0.0098 0.1343 0.5999 0.5738 0.0051
2: Preop 5Y 0.0092 0.1565 0.0853 0.6152 0.5568 0.1169
3: Preop 6W 0.0176 0.0142 0.0066 0.9062 0.4072 0.0002
4:
      6W 2Y 0.5794 0.9132 0.1410 0.5492 0.8009 0.2877
      6W 5Y 0.4561 0.3080 0.3804 0.6170 0.2373 0.1048
5:
      2Y 5Y 0.2371 0.2543 0.6962 0.9076 0.3162 0.4132
6:
[1] "RSA"
[1] "6W. RSA"
[1] "6M. RSA"
[1] "1Y. RSA"
[1] "2Y. RSA"
[1] "5Y. RSA"
```

#### [1] "RSA"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd 4.mean 4.sd
RSA
           15.34 15.50
                          1.74 9.59 15.42 11.68 24.67 15.43 13.94 14.93
                   9.56
6W. RSA
            7.56
                          1.37 7.81
                                        9.47 7.76 10.51 8.90
                                                                  5.16 9.16
6M. RSA
            9.44
                  10.92
                          1.67 10.06
                                      11.18
                                             7.69
                                                    13.15 9.26
                                                                   8.17 12.06
                  11.07
                          0.98 8.74
                                      12.19 8.39
                                                    14.68 10.03
                                                                  7.33 9.88
1Y. RSA
            9.81
2Y. RSA
           10.06 11.70
                          0.24 8.35 12.08 9.31
                                                    17.23 10.86
                                                                   8.07 8.02
5Y. RSA
                          2.65 10.49 17.39 10.85
           13.59 12.87
                                                    16.70 10.40
                                                                   9.88 9.13
        5.mean 5.sd maes.mae maes.rel_mae p.val_1.2 p.val_1.3 p.val_1.4
         26.60 13.10 20.38488
                                  1.323889
                                                              0
                                                                   0.0000
RSA
                                                    0
6W. RSA 12.85 10.08 14.70458
                                  1.938114
                                                    0
                                                              0
                                                                    0.0293
6M. RSA 15.48 10.63 15.68789
                                  1.659412
                                                    0
                                                              0
                                                                    0.0042
1Y. RSA 15.32 11.54 15.90345
                                                    0
                                                              0
                                                                    0.0012
                                  1.620229
2Y. RSA 16.59 11.85 15.72603
                                   1.564727
                                                    0
                                                                    0.0000
5Y. RSA 19.00 16.26 18.14030
                                                    0
                                                              0
                                                                    0.0170
                                  1.358111
        p.val_1.5 p.val_1.all p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
RSA
            0e+00
                            0
                                                 0
                                                      0.0003
                                                                0.5381
                                                                           0.0000
6W. RSA
            0e+00
                            0
                                                      0.5068
                                                                 0.0135
                                                                           0.0429
6M. RSA
            0e+00
                            0
                                                 0
                                                      0.2197
                                                                0.1491
                                                                           0.0146
1Y. RSA
            0e+00
                            0
                                                 0
                                                      0.1613
                                                                 0.0103
                                                                           0.0952
2Y. RSA
            0e+00
                            0
                                                      0.0120
                                                 0
                                                                 0.0268
                                                                           0.0305
5Y. RSA
            2e-04
                            0
                                                 0
                                                      0.7821
                                                                 0.0081
                                                                           0.6761
        p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5 p.val_3.all
RSA
                                 0.9409
                                            0.0005
             0.9531
                                                      0.4760
                                                                  0.0001
                                  0.0228
                                            0.0070
6W. RSA
             0.0715
                                                      0.2187
                                                                  0.0390
6M. RSA
             0.1105
                                 0.0479
                                            0.0330
                                                      0.2472
                                                                  0.0147
1Y. RSA
             0.0459
                                  0.0126
                                            0.0009
                                                      0.7687
                                                                   0.0034
2Y. RSA
             0.1394
                                  0.0657
                                            0.0000
                                                      0.7874
                                                                   0.0002
5Y. RSA
             0.0515
                                 0.0089
                                            0.0235
                                                      0.5648
                                                                   0.1667
        p.val_3.vs_the_rest p.val_4.5 p.val_4.all p.val_4.vs_the_rest
RSA
                     0.0000
                               0.0000
                                            0.5344
                                                                0.4703
6W. RSA
                     0.0156
                               0.0002
                                            0.1280
                                                                0.0819
6M. RSA
                     0.0045
                               0.0029
                                            0.5218
                                                                 0.4576
1Y. RSA
                     0.0006
                               0.0005
                                            0.1487
                                                                0.0979
2Y. RSA
                     0.0000
                               0.0002
                                            0.1995
                                                                0.1499
5Y. RSA
                     0.0966
                               0.0321
                                            0.1350
                                                                0.0952
        p.val_5.all p.val_5.vs_the_rest p.val_all
RSA
             0.0000
                                 0.0000
6W. RSA
             0.0007
                                 0.0001
                                                 0
6M. RSA
                                                 0
             0.0004
                                 0.0000
1Y. RSA
                                                 0
             0.0019
                                 0.0002
2Y. RSA
             0.0007
                                  0.0001
                                                 0
5Y. RSA
                                  0.0907
             0.1482
      t0 t1
                 1
                        2
                               3
                                       4
1: Preop 2Y 0.3003 0.0470 0.0066 0.0199 0.0001 0.0000
2: Preop 5Y 0.6815 0.3281 0.0068 0.1803 0.0570 0.1998
3: Preop 6W 0.7895 0.0001 0.0000 0.0008 0.0000 0.0000
4:
      6W 2Y 0.3979 0.0753 0.0018 0.1474 0.0904 0.0064
      6W 5Y 0.5526 0.0000 0.0102 0.0776 0.1103 0.0000
5:
```

```
2Y 5Y 0.2749 0.0085 0.8344 0.4798 0.5361 0.0067
[1] "RPV"
[1] "6W. RPV"
[1] "6M. RPV"
[1] "1Y. RPV"
[1] "2Y. RPV"
[1] "5Y. RPV"
[1] "RPV"
        All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd 4.mean 4.sd 5.mean
RPV
           -8.54
                 9.20 -1.13 7.06 -9.69 7.98 -13.45 8.66 -7.26 8.47 -14.26
6W. RPV
           -4.99
                   7.63 -0.40 6.57 -6.77 6.34 -7.31 6.90 -3.35 7.14 -7.83
6M. RPV
           -6.48
                  7.95 -0.83 7.10 -7.90 6.01 -9.36 7.17 -5.59 7.74 -10.54
1Y. RPV
           -6.39
                  7.96 -0.23 6.94 -8.52 6.41 -9.56 7.56 -4.90 6.76 -9.93
                  7.77 -0.27 7.12 -8.13 6.40 -10.11 7.35 -5.37 5.14 -8.57
2Y. RPV
           -6.09
5Y. RPV
           -8.42
                 8.28 -0.70 7.55 -11.41 7.06 -10.45 6.45 -6.48 7.17 -11.22
       5.sd maes.mae maes.rel mae p.val 1.2 p.val 1.3 p.val 1.4 p.val 1.5
RPV
       7.33 12.37226
                       -1.448387
                                           0
                                                     Ω
                                                          0.0000
                                                                         0
6W. RPV 8.64 11.94784
                        -2.395055
                                           0
                                                     0
                                                          0.0240
                                                                         0
6M. RPV 8.17 10.85436
                        -1.676294
                                           0
                                                                         0
                                                     0
                                                          0.0008
1Y. RPV 7.54 11.31923
                         -1.771314
                                           0
                                                     0
                                                          0.0005
                                                                         0
                                           0
                                                     0
                                                          0.0000
                                                                         0
2Y. RPV 7.65 11.33785
                        -1.857264
5Y. RPV 8.28 11.55045
                         -1.389759
                                           0
                                                     0
       p.val_1.all p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
RPV
                                           0.0100
                  0
                                      0
                                                   0.0915
                                                               0.0003
                  0
                                                     0.0083
6W. RPV
                                           0.6366
                                      0
                                                               0.4120
6M. RPV
                  0
                                           0.2208
                                      0
                                                     0.0786
                                                               0.0403
1Y. RPV
                  0
                                      0
                                           0.4141
                                                     0.0047
                                                               0.2475
2Y. RPV
                  0
                                      0
                                           0.1342
                                                     0.0164
                                                               0.7319
                                           0.5457
5Y. RPV
                  0
                                      0
                                                     0.0186
                                                               0.9262
       p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5 p.val_3.all
RPV
            0.2302
                                0.1230
                                         0.0003
                                                   0.5904
                                                                0.0003
6W. RPV
            0.0271
                                 0.0048
                                           0.0064
                                                     0.7208
                                                                 0.0267
6M. RPV
            0.0689
                                 0.0223
                                           0.0136
                                                     0.4216
                                                                 0.0093
1Y. RPV
            0.0115
                                 0.0013
                                           0.0022
                                                     0.7995
                                                                 0.0075
2Y. RPV
            0.0238
                                 0.0045
                                           0.0008
                                                     0.3071
                                                                 0.0010
5Y. RPV
            0.0185
                                 0.0015
                                           0.0639
                                                     0.7192
                                                                 0.1479
       p.val_3.vs_the_rest p.val_4.5 p.val_4.all p.val_4.vs_the_rest
R.P.V
                                           0.3155
                     0.0000
                              0.0000
                                                               0.2455
6W. RPV
                     0.0096
                               0.0043
                                           0.1573
                                                               0.1063
6M. RPV
                     0.0024
                               0.0021
                                           0.4666
                                                               0.4005
1Y. RPV
                     0.0018
                               0.0007
                                           0.1890
                                                               0.1348
2Y. RPV
                     0.0001
                               0.0190
                                           0.4493
                                                               0.3962
                     0.0832
5Y. RPV
                               0.0598
                                           0.2996
                                                               0.2428
       p.val_5.all p.val_5.vs_the_rest p.val_all
R.P.V
            0.0000
                                 0.0000
                                                0
6W. RPV
             0.0187
                                 0.0045
                                                0
6M. RPV
            0.0009
                                 0.0001
                                                0
1Y. RPV
                                                0
            0.0017
                                 0.0002
2Y. RPV
            0.0340
                                 0.0108
                                                0
5Y. RPV
            0.1501
                                 0.0945
                                                0
```

```
t0 t1 1 2 3 4 5 All
1: Preop 2Y 0.4398 0.1648 0.0387 0.1894 0.0001 0.0003
2: Preop 5Y 0.7915 0.1951 0.0783 0.7051 0.1369 0.8855
3: Preop 6W 0.4827 0.0065 0.0001 0.0149 0.0000 0.0000
4: 6W 2Y 0.9056 0.1823 0.0522 0.1395 0.6285 0.0769
5: 6W 5Y 0.8464 0.0003 0.0436 0.1274 0.1119 0.0000
6: 2Y 5Y 0.7891 0.0125 0.8351 0.5608 0.2053 0.0055
```

#### Quality of Life

[1] "ODI - Score (%)"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd
                       37.26 19.93 20.05 15.68 42.71 18.19 42.38 17.47
ODI - Score (%)
6M. ODI - Score (%)
                       28.55
                              17.99
                                     18.18 13.86
                                                   30.80 17.20
                                                                 29.25 17.04
                       26.03
                                     14.01 11.93 28.02 17.60
1Y. ODI - Score (%)
                              18.13
                                                                29.59 18.02
2Y. ODI - Score (%)
                       27.81 21.31
                                     14.76 13.60 32.04 21.48
                                                                27.36 20.20
5Y. ODI - Score (%)
                       28.78 21.46 13.63 13.39 33.41 21.87 26.67 18.19
                    4.mean 4.sd 5.mean 5.sd maes.mae maes.rel mae p.val 1.2
ODI - Score (%)
                     37.60 16.00 48.97 17.38 27.58103
                                                           0.7397127
6M. ODI - Score (%)
                     28.10 16.67 38.75 19.41 27.44925
                                                            0.9607187
                                                                              0
1Y. ODI - Score (%)
                     26.33 16.79 35.87 18.75 27.66279
                                                            1.0630845
                                                                              0
2Y. ODI - Score (%)
                     27.04 18.21 40.71 23.50 32.90564
                                                                              0
                                                            1.1837147
5Y. ODI - Score (%)
                     28.30 16.82 41.98 24.39 32.46100
                                                                              0
                    p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
ODI - Score (%)
                        0e+00
                                   0e+00
                                                 0
                                                 0
                                                              0
6M. ODI - Score (%)
                        2e-04
                                   9e-04
1Y. ODI - Score (%)
                        0e+00
                                   1e-04
                                                 0
                                                              0
2Y. ODI - Score (%)
                                   1e-04
                        1e-04
                                                 0
                                                              0
5Y. ODI - Score (%)
                        2e-04
                                   1e-04
                                                 0
                    p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
ODI - Score (%)
                                            0.9143
                                       0
                                                      0.0845
6M. ODI - Score (%)
                                       0
                                            0.6018
                                                      0.3744
                                                                 0.0130
1Y. ODI - Score (%)
                                            0.6097
                                       0
                                                      0.5950
                                                                 0.0114
2Y. ODI - Score (%)
                                            0.1934
                                                      0.1548
                                                                 0.0246
                                       0
                                            0.0748
5Y. ODI - Score (%)
                                       0
                                                      0.1893
                                                                 0.0666
                    p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
ODI - Score (%)
                         0.0123
                                              0.0011
                                                        0.1507
                                                                   0.0483
6M. ODI - Score (%)
                         0.2807
                                              0.1558
                                                        0.7346
                                                                   0.0073
1Y. ODI - Score (%)
                         0.3524
                                              0.2250
                                                        0.3556
                                                                   0.0673
2Y. ODI - Score (%)
                         0.0986
                                              0.0291
                                                        0.9346
                                                                   0.0016
5Y. ODI - Score (%)
                         0.1085
                                              0.0259
                                                        0.6876
                                                                   0.0019
                    p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
ODI - Score (%)
                         0.0552
                                                        0.0006
                                              0.0265
                                                                     0.8911
6M. ODI - Score (%)
                         0.7844
                                              0.7477
                                                        0.0031
                                                                     0.8658
1Y. ODI - Score (%)
                                                        0.0078
                         0.1763
                                              0.1089
                                                                     0.9149
2Y. ODI - Score (%)
                         0.8820
                                              0.8620
                                                        0.0010
                                                                     0.7930
5Y. ODI - Score (%)
                         0.4986
                                              0.4241
                                                        0.0062
                                                                     0.8830
                    p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
ODI - Score (%)
                                  0.8754
                                              0.0000
                                                                    0e+00
```

```
6M. ODI - Score (%)
                                 0.8450
                                             0.0004
                                                                  0e+00
1Y. ODI - Score (%)
                                 0.9033
                                             0.0003
                                                                  0e+00
                                             0.0002
2Y. ODI - Score (%)
                                 0.7639
                                                                  0e+00
5Y. ODI - Score (%)
                                 0.8674
                                                                  3e-04
                                             0.0023
                    p.val_all
ODI - Score (%)
6M. ODI - Score (%)
1Y. ODI - Score (%)
2Y. ODI - Score (%)
5Y. ODI - Score (%)
      t0 t1
                1
                        2
                               3
1: Preop 2Y 0.0198 0.0004 0.0001 0.0032 0.0323 0.0000
2: Preop 5Y 0.0121 0.0034 0.0000 0.0144 0.1228 0.0000
3: Preop 6M 0.4202 0.0000 0.0002 0.0050 0.0035 0.0000
4:
     6M 2Y 0.1173 0.6686 0.6044 0.7678 0.6252 0.6312
5:
      6M 5Y 0.0660 0.4014 0.4806 0.9583 0.4894 0.8899
     2Y 5Y 0.6378 0.6871 0.8620 0.7508 0.7981 0.5898
6:
[1] "SRS22 - Function / Activity"
                                All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean
SRS22 - Function / Activity
                                    3.09
                                           0.88 3.82 0.83 2.91 0.72
                                                                          2.80
6M. SRS22 - Function / Activity
                                    3.26
                                           0.81
                                                  3.77 0.82
                                                              3.16 0.71
                                                                          3.10
1Y. SRS22 - Function / Activity
                                    3.39
                                           0.89
                                                  3.98 0.87
                                                              3.25 0.79
                                                                          3.14
2Y. SRS22 - Function / Activity
                                    3.47
                                           0.93
                                                  4.18 0.82
                                                              3.24 0.88
                                                                          3.35
5Y. SRS22 - Function / Activity
                                    3.49
                                           0.92
                                                  4.12 0.75
                                                              3.27 0.96
                                                                          3.41
                                3.sd 4.mean 4.sd 5.mean 5.sd maes.mae
SRS22 - Function / Activity
                                0.71 2.98 0.87
                                                   2.68 0.71 1.277156
6M. SRS22 - Function / Activity 0.59 3.18 0.87
                                                   2.90 0.78 1.280548
1Y. SRS22 - Function / Activity 0.71 3.45 0.82
                                                   2.98 0.86 1.391353
2Y. SRS22 - Function / Activity 0.75
                                      3.35 0.83
                                                   3.04 0.87 1.425230
5Y. SRS22 - Function / Activity 0.80
                                       3.57 0.82
                                                   3.14 0.85 1.391509
                               maes.rel_mae p.val_1.2 p.val_1.3 p.val_1.4
SRS22 - Function / Activity
                                  0.4135604
                                                    0
                                                              0
                                                                    0.0000
6M. SRS22 - Function / Activity
                                   0.3932254
                                                     0
                                                               0
                                                                    0.0003
1Y. SRS22 - Function / Activity
                                   0.4099958
                                                     0
                                                               0
                                                                    0.0010
2Y. SRS22 - Function / Activity
                                                     0
                                                               Ω
                                                                    0.0000
                                   0.4104300
5Y. SRS22 - Function / Activity
                                  0.3984919
                                                     0
                                p.val_1.5 p.val_1.all p.val_1.vs_the_rest
SRS22 - Function / Activity
                                       Ω
                                                    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
                                p.val_2.3 p.val_2.4 p.val_2.5 p.val_2.all
                                                                   0.0407
SRS22 - Function / Activity
                                  0.3780
                                             0.6395
                                                       0.0563
6M. SRS22 - Function / Activity
                                   0.5812
                                             0.8931
                                                       0.0488
                                                                   0.2571
1Y. SRS22 - Function / Activity
                                   0.3550
                                             0.1952
                                                       0.0557
                                                                   0.1588
2Y. SRS22 - Function / Activity
                                   0.4199
                                             0.4736
                                                       0.1861
                                                                   0.0300
5Y. SRS22 - Function / Activity
                                   0.3751
                                             0.0972
                                                       0.4455
                                                                   0.0737
                                p.val 2.vs the rest p.val 3.4 p.val 3.5
```

```
SRS22 - Function / Activity
                                           0.0088
                                                       0.2632
                                                                 0.3593
6M. SRS22 - Function / Activity
                                            0.1432
                                                       0.5928
                                                                 0.1410
1Y. SRS22 - Function / Activity
                                            0.0697
                                                       0.0465
                                                                 0.2967
2Y. SRS22 - Function / Activity
                                            0.0045
                                                       0.9854
                                                                 0.0472
5Y. SRS22 - Function / Activity
                                            0.0129
                                                       0.4076
                                                                 0.1269
                                p.val_3.all p.val_3.vs_the_rest p.val_4.5
SRS22 - Function / Activity
                                   0.0080
                                                         0.0021
                                                                   0.0560
6M. SRS22 - Function / Activity
                                     0.0836
                                                         0.0457
                                                                   0.0973
1Y. SRS22 - Function / Activity
                                    0.0176
                                                         0.0056
                                                                   0.0060
2Y. SRS22 - Function / Activity
                                    0.2953
                                                         0.2237
                                                                   0.0682
5Y. SRS22 - Function / Activity
                                    0.5679
                                                         0.4993
                                                                   0.0290
                                p.val_4.all p.val_4.vs_the_rest p.val_5.all
SRS22 - Function / Activity
                                    0.3838
                                                         0.3127
                                                                    0.0002
6M. SRS22 - Function / Activity
                                    0.5566
                                                         0.4960
                                                                     0.0023
1Y. SRS22 - Function / Activity
                                    0.6724
                                                         0.6299
                                                                     0.0011
2Y. SRS22 - Function / Activity
                                     0.3464
                                                         0.2789
                                                                     0.0010
5Y. SRS22 - Function / Activity
                                    0.6116
                                                         0.5627
                                                                     0.0171
                                p.val_5.vs_the_rest p.val_all
SRS22 - Function / Activity
                                            0.0000
                                                            0
6M. SRS22 - Function / Activity
                                             0.0003
                                                            0
1Y. SRS22 - Function / Activity
                                            0.0001
                                                            0
2Y. SRS22 - Function / Activity
                                             0.0001
                                                            0
5Y. SRS22 - Function / Activity
                                             0.0051
                                                            Ω
                        2
                               3
      t0 t1
                 1
1: Preop 2Y 0.0051 0.0062 0.0002 0.0317 0.0149 0.0000
2: Preop 5Y 0.0354 0.0078 0.0002 0.0023 0.0063 0.0000
3: Preop 6M 0.6770 0.0207 0.0202 0.2593 0.1134 0.0114
      6M 2Y 0.0015 0.4888 0.0518 0.3272 0.3575 0.0016
      6M 5Y 0.0138 0.4074 0.0329 0.0435 0.1687 0.0015
5:
     2Y 5Y 0.6251 0.8483 0.6984 0.2387 0.6028 0.8032
6:
[1] "SRS22 - Pain"
                 All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd 4.mean
SRS22 - Pain
                     2.63
                           0.98 3.31 0.99
                                               2.42 0.86
                                                          2.48 0.91
                                                                       2.52
                           0.89 3.69 0.87
6M. SRS22 - Pain
                     3.42
                                               3.37 0.80
                                                           3.39 0.89
                                                                       3.27
                           0.98 4.01 0.71
1Y. SRS22 - Pain
                     3.55
                                               3.39 0.89
                                                           3.48 1.05
                                                                       3.44
2Y. SRS22 - Pain
                     3.48
                           1.09 3.95 0.88
                                               3.26 1.14
                                                           3.72 1.11
                                                                       3.22
5Y. SRS22 - Pain
                     3.36
                           1.13 3.75 1.08
                                               3.17 1.18
                                                           3.46 1.09
                                                                       3.37
                 4.sd 5.mean 5.sd maes.mae maes.rel_mae p.val_1.2 p.val_1.3
                      2.18 0.79 1.541445
                                                        0.0000
                                                                     0.0000
SRS22 - Pain
                 0.89
                                              0.5876974
                       3.28 0.91 1.500744
                                                           0.0138
                                                                     0.0502
6M. SRS22 - Pain 1.01
                                              0.4383294
1Y. SRS22 - Pain 1.05
                       3.27 1.14 1.614461
                                                           0.0000
                                              0.4552284
                                                                     0.0014
                       3.17 1.07 1.773239
2Y. SRS22 - Pain 1.03
                                              0.5090933
                                                           0.0000
                                                                     0.2231
5Y. SRS22 - Pain 0.96
                     3.10 1.19 2.006441
                                              0.5972925
                                                           0.0048
                                                                     0.2039
                 p.val_1.4 p.val_1.5 p.val_1.all p.val_1.vs_the_rest p.val_2.3
                   0.0000
                             0.0000
SRS22 - Pain
                                         0.0000
                                                             0.0000
                                                                        0.6596
6M. SRS22 - Pain
                   0.0179
                             0.0082
                                          0.0138
                                                             0.0016
                                                                        0.9289
                   0.0019
                             0.0000
                                                             0.0000
1Y. SRS22 - Pain
                                          0.0000
                                                                        0.5971
2Y. SRS22 - Pain
                   0.0001
                             0.0000
                                          0.0001
                                                             0.0000
                                                                        0.0177
5Y. SRS22 - Pain
                   0.0954
                             0.0081
                                          0.0219
                                                             0.0048
                                                                        0.1736
```

```
SRS22 - Pain
                    0.5042
                              0.0818
                                           0.0439
                                                               0.0091
                                                                          0.8391
                    0.5385
                              0.5217
                                                               0.5130
                                                                          0.5367
6M. SRS22 - Pain
                                           0.6141
1Y. SRS22 - Pain
                    0.8062
                              0.5093
                                                               0.0682
                                                                          0.8346
                                           0.1572
2Y. SRS22 - Pain
                    0.8316
                              0.6174
                                           0.1001
                                                                0.0288
                                                                          0.0189
5Y. SRS22 - Pain
                    0.3496
                              0.7725
                                           0.2161
                                                                          0.6971
                                                               0.0856
                 p.val_3.5 p.val_3.all p.val_3.vs_the_rest p.val_4.5
SRS22 - Pain
                    0.0593
                                0.2885
                                                     0.2133
                                                                0.0375
6M. SRS22 - Pain
                    0.5288
                                0.7819
                                                     0.7438
                                                                0.9568
1Y. SRS22 - Pain
                    0.3130
                                0.6615
                                                     0.6021
                                                               0.4567
2Y. SRS22 - Pain
                    0.0079
                                0.1405
                                                     0.0827
                                                                0.8006
5Y. SRS22 - Pain
                    0.1514
                                0.5718
                                                     0.5009
                                                                0.2846
                 p.val_4.all p.val_4.vs_the_rest p.val_5.all
SRS22 - Pain
                      0.4307
                                           0.3630
                                                       0.0002
6M. SRS22 - Pain
                      0.3233
                                           0.2522
                                                       0.2705
1Y. SRS22 - Pain
                      0.5129
                                           0.4535
                                                       0.0870
2Y. SRS22 - Pain
                                                       0.0417
                      0.1051
                                           0.0620
5Y. SRS22 - Pain
                      0.9514
                                           0.9448
                                                       0.2012
                 p.val_5.vs_the_rest p.val_all
SRS22 - Pain
                              0.0000
                                        0.0000
6M. SRS22 - Pain
                              0.1890
                                        0.0292
1Y. SRS22 - Pain
                              0.0385
                                        0.0000
2Y. SRS22 - Pain
                              0.0155
                                         0.0000
5Y. SRS22 - Pain
                              0.1300
                                         0.0279
                        2
                               3
1: Preop 2Y 0.0000 0.0000 0.0000 0.0005 0.0000 0.0000
2: Preop 5Y 0.0201 0.0000 0.0000 0.0001 0.0000 0.0000
3: Preop 6M 0.0090 0.0000 0.0000 0.0002 0.0000 0.0000
      6M 2Y 0.0682 0.4419 0.0841 0.8140 0.5474 0.4439
5:
      6M 5Y 0.7614 0.1987 0.7192 0.6523 0.4223 0.4567
6:
      2Y 5Y 0.2731 0.6091 0.2436 0.5039 0.7740 0.1852
[1] "SRS22 - Self image / Appearance"
                                     All.mean All.sd 1.mean 1.sd 2.mean 2.sd
SRS22 - Self image / Appearance
                                         2.40
                                                0.75
                                                       2.77 0.70
                                                                   2.39 0.73
6M. SRS22 - Self image / Appearance
                                                       3.84 0.68
                                         3.46
                                                0.83
                                                                   3.36 0.75
1Y. SRS22 - Self image / Appearance
                                         3.50
                                                0.80
                                                       3.95 0.61
                                                                    3.45 0.71
2Y. SRS22 - Self image / Appearance
                                         3.41
                                                0.94
                                                       3.96 0.68
                                                                   3.18 0.95
5Y. SRS22 - Self image / Appearance
                                                0.93
                                                       3.91 0.72
                                         3.35
                                                                    3.17 1.00
                                    3.mean 3.sd 4.mean 4.sd 5.mean 5.sd
SRS22 - Self image / Appearance
                                                   2.45 0.81
                                       2.14 0.66
                                                               2.07 0.67
6M. SRS22 - Self image / Appearance
                                                                3.17 1.01
                                       3.49 0.76
                                                   3.32 0.88
1Y. SRS22 - Self image / Appearance
                                       3.41 0.87
                                                   3.37 0.77
                                                                3.14 0.85
2Y. SRS22 - Self image / Appearance
                                       3.48 0.87
                                                   3.22 0.89
                                                                3.08 0.99
5Y. SRS22 - Self image / Appearance
                                       3.37 0.88
                                                   3.30 0.77
                                                                2.99 0.92
                                    maes.mae maes.rel_mae p.val_1.2 p.val_1.3
SRS22 - Self image / Appearance
                                                               4e-04
                                                                         0.0000
                                     1.249325
                                                 0.5215599
6M. SRS22 - Self image / Appearance 1.325436
                                                               0e+00
                                                                         0.0077
                                                 0.3829526
1Y. SRS22 - Self image / Appearance 1.207594
                                                 0.3446947
                                                               0e+00
                                                                         0.0001
2Y. SRS22 - Self image / Appearance 1.466400
                                                 0.4297900
                                                               0e+00
                                                                         0.0008
```

p.val\_2.4 p.val\_2.5 p.val\_2.all p.val\_2.vs\_the\_rest p.val\_3.4

```
5Y. SRS22 - Self image / Appearance 1.476082
                                                0.4410252
                                                              0e+00
                                                                        0.0019
                                    p.val_1.4 p.val_1.5 p.val_1.all
SRS22 - Self image / Appearance
                                       0.0195
6M. SRS22 - Self image / Appearance
                                       0.0007
                                                      0
                                                                   0
1Y. SRS22 - Self image / Appearance
                                       0.0000
                                                       0
                                                                   0
2Y. SRS22 - Self image / Appearance
                                                      0
                                                                   0
                                       0.0000
5Y. SRS22 - Self image / Appearance
                                       0.0005
                                                      0
                                    p.val_1.vs_the_rest p.val_2.3 p.val_2.4
SRS22 - Self image / Appearance
                                                      0
                                                           0.0334
6M. SRS22 - Self image / Appearance
                                                           0.2984
                                                                      0.7979
                                                      0
1Y. SRS22 - Self image / Appearance
                                                       0
                                                           0.7881
                                                                      0.5948
2Y. SRS22 - Self image / Appearance
                                                       0
                                                           0.0579
                                                                      0.7830
5Y. SRS22 - Self image / Appearance
                                                       0
                                                           0.2463
                                                                      0.4595
                                    p.val_2.5 p.val_2.all p.val_2.vs_the_rest
SRS22 - Self image / Appearance
                                       0.0067
                                                   0.8987
                                                                        0.8670
6M. SRS22 - Self image / Appearance
                                       0.2299
                                                   0.2636
                                                                        0.1467
1Y. SRS22 - Self image / Appearance
                                       0.0232
                                                   0.5321
                                                                        0.4213
2Y. SRS22 - Self image / Appearance
                                       0.5613
                                                   0.0415
                                                                        0.0070
5Y. SRS22 - Self image / Appearance
                                       0.3317
                                                                        0.0517
                                                   0.1644
                                    p.val_3.4 p.val_3.5 p.val_3.all
SRS22 - Self image / Appearance
                                       0.0325
                                                 0.5846
                                                             0.0089
6M. SRS22 - Self image / Appearance
                                       0.2903
                                                 0.0577
                                                              0.7721
1Y. SRS22 - Self image / Appearance
                                                 0.0924
                                                             0.4565
                                       0.8219
2Y. SRS22 - Self image / Appearance
                                                 0.0274
                                                             0.6123
                                       0.1516
5Y. SRS22 - Self image / Appearance
                                       0.6981
                                                 0.0529
                                                             0.8681
                                    p.val_3.vs_the_rest p.val_4.5 p.val_4.all
SRS22 - Self image / Appearance
                                                 0.0023
                                                           0.0092
                                                                        0.6739
6M. SRS22 - Self image / Appearance
                                                           0.4214
                                                                        0.3010
                                                 0.7339
1Y. SRS22 - Self image / Appearance
                                                 0.3749
                                                           0.1477
                                                                        0.3020
2Y. SRS22 - Self image / Appearance
                                                 0.5520
                                                           0.4430
                                                                        0.1812
5Y. SRS22 - Self image / Appearance
                                                 0.8435
                                                           0.1183
                                                                        0.7383
                                    p.val_4.vs_the_rest p.val_5.all
SRS22 - Self image / Appearance
                                                 0.6243
                                                              0.0010
6M. SRS22 - Self image / Appearance
                                                 0.2317
                                                              0.0433
1Y. SRS22 - Self image / Appearance
                                                 0.2389
                                                              0.0029
2Y. SRS22 - Self image / Appearance
                                                 0.1233
                                                              0.0215
5Y. SRS22 - Self image / Appearance
                                                 0.7042
                                                              0.0240
                                    p.val_5.vs_the_rest p.val_all
SRS22 - Self image / Appearance
                                                 0.0001
6M. SRS22 - Self image / Appearance
                                                 0.0154
                                                                 0
1Y. SRS22 - Self image / Appearance
                                                 0.0004
                                                                 0
2Y. SRS22 - Self image / Appearance
                                                 0.0061
                                                                 0
5Y. SRS22 - Self image / Appearance
                                                 0.0079
1: Preop 2Y 0.0000 0.0000 0.0000 0.0000 0.0000
2: Preop 5Y 0.0000 0.0000 0.0000 0.0000 0.0000
3: Preop 6M 0.0000 0.0000 0.0000 0.0000 0.0000
4:
      6M 2Y 0.2463 0.1668 0.9186 0.6047 0.6486 0.4759
      6M 5Y 0.5900 0.1709 0.4682 0.9054 0.3506 0.1286
5:
     2Y 5Y 0.6541 0.9226 0.5517 0.7002 0.6099 0.4061
```

#### [1] "SRS22 - Mental health"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd
                                           3.42 0.69 3.04 0.94
SRS22 - Mental health
                              3.16
                                     0.86
                                                                     3 20 0 94
6M. SRS22 - Mental health
                              3.54
                                     0.85
                                            3.83 0.60
                                                        3.45 0.91
                                                                     3.60 0.90
1Y. SRS22 - Mental health
                              3.59
                                     0.83
                                            3.84 0.60
                                                        3.49 0.86
                                                                     3.59 0.91
2Y. SRS22 - Mental health
                              3.50
                                      0.95
                                            3.80 0.71
                                                         3.33 0.99
                                                                     3.59 1.04
5Y. SRS22 - Mental health
                                             3.87 0.67
                              3.54
                                      0.89
                                                         3.38 0.93
                                                                     3.71 0.96
                          4.mean 4.sd 5.mean 5.sd maes.mae maes.rel mae
SRS22 - Mental health
                            3.08 0.68
                                        3.03 0.96 1.362041
                                                               0.4307394
6M. SRS22 - Mental health
                           3.36 0.80
                                        3.36 0.96 1.425137
                                                               0.4025846
1Y. SRS22 - Mental health
                            3.51 0.74
                                        3.44 0.99 1.377615
                                                               0.3834923
2Y. SRS22 - Mental health
                            3.45 0.76
                                        3.30 1.11 1.548939
                                                               0.4425729
5Y. SRS22 - Mental health
                                        3.40 1.00 1.430974
                            3.31 0.72
                                                               0.4044890
                          p.val_1.2 p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
SRS22 - Mental health
                             0.0021
                                       0.1498
                                                  0.0062
                                                            0.0097
                                                                        0.0044
6M. SRS22 - Mental health
                             0.0013
                                       0.0961
                                                  0.0007
                                                            0.0013
                                                                        0.0004
1Y. SRS22 - Mental health
                             0.0028
                                       0.0775
                                                  0.0146
                                                            0.0074
                                                                        0.0025
2Y. SRS22 - Mental health
                             0.0004
                                                  0.0099
                                                            0.0030
                                       0.1913
                                                                        0.0016
5Y. SRS22 - Mental health
                             0.0008
                                       0.3512
                                                  0.0006
                                                            0.0125
                                                                        0.0028
                          p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
SRS22 - Mental health
                                        4e-04
                                                 0.2918
                                                            0.7561
                                                                      0.9742
6M. SRS22 - Mental health
                                        0e+00
                                                  0.3376
                                                            0.5453
                                                                      0.5703
1Y. SRS22 - Mental health
                                        2e-04
                                                  0.5242
                                                            0.8903
                                                                      0.7516
2Y. SRS22 - Mental health
                                        1e-04
                                                  0.1450
                                                            0.4513
                                                                      0.8513
5Y. SRS22 - Mental health
                                        3e-04
                                                  0.0763
                                                            0.6482
                                                                      0.9131
                          p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
SRS22 - Mental health
                               0.2358
                                                    0.1125
                                                              0.4283
                                                                        0.3324
6M. SRS22 - Mental health
                               0.4008
                                                    0.2623
                                                              0.1554
                                                                        0.1742
1Y. SRS22 - Mental health
                               0.3487
                                                    0.2176
                                                              0.6397
                                                                        0.4048
2Y. SRS22 - Mental health
                               0.1512
                                                    0.0563
                                                              0.4253
                                                                        0.1530
5Y. SRS22 - Mental health
                               0.2055
                                                    0.0785
                                                              0.0413
                                                                        0.1597
                          p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
                               0.7633
                                                              0.7645
SRS22 - Mental health
                                                    0.7216
                                                                          0.4252
6M. SRS22 - Mental health
                               0.6515
                                                    0.5929
                                                              0.9939
                                                                          0.1523
1Y. SRS22 - Mental health
                               0.9963
                                                    0.9956
                                                              0.6807
                                                                          0.5264
2Y. SRS22 - Mental health
                               0.5552
                                                    0.4851
                                                              0.4176
                                                                          0.6579
5Y. SRS22 - Mental health
                               0.2808
                                                    0.1965
                                                              0.6334
                                                                          0.1028
                          p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
SRS22 - Mental health
                                                    0.3254
                                       0.3606
                                                                        0.2416
6M. SRS22 - Mental health
                                       0.0996
                                                    0.1839
                                                                        0.1115
1Y. SRS22 - Mental health
                                       0.4710
                                                    0.2828
                                                                        0.1926
2Y. SRS22 - Mental health
                                       0.6124
                                                    0.1943
                                                                        0.1188
5Y. SRS22 - Mental health
                                       0.0646
                                                    0.4282
                                                                        0.3457
                          p.val_all
SRS22 - Mental health
                             0.0207
6M. SRS22 - Mental health
                             0.0032
1Y. SRS22 - Mental health
                             0.0281
2Y. SRS22 - Mental health
                             0.0054
5Y. SRS22 - Mental health
                             0.0060
      t0 t1
                 1
                        2
                               3
1: Preop 2Y 0.0005 0.0398 0.0442 0.0133 0.1686 0.0000
2: Preop 5Y 0.0002 0.0164 0.0105 0.1473 0.0655 0.0000
```

```
3: Preop 6M 0.0000 0.0028 0.0262 0.0678 0.0687 0.0000
4: 6M 2Y 0.7555 0.4075 0.9557 0.5829 0.7510 0.5666
5: 6M 5Y 0.7471 0.6502 0.5685 0.7782 0.8191 0.9738
6: 2Y 5Y 0.5698 0.7224 0.5581 0.4138 0.6158 0.6243
```

#### [1] "SRS22 - SRS Subtotal score"

```
All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean
SRS22 - SRS Subtotal score
                                   2.82
                                          0.71
                                                  3.33 0.61
                                                              2.69 0.67
                                                                          3.40
6M. SRS22 - SRS Subtotal score
                                   3.42
                                          0.69
                                                  3.79 0.56
                                                              3.33 0.64
1Y. SRS22 - SRS Subtotal score
                                   3.51
                                          0.74
                                                  3.94 0.57
                                                              3.40 0.67
                                                                          3.41
2Y. SRS22 - SRS Subtotal score
                                          0.85
                                                  3.97 0.62
                                   3.47
                                                              3.25 0.89
                                                                          3.53
5Y. SRS22 - SRS Subtotal score
                                   3.42
                                          0.87
                                                  3.91 0.68
                                                              3.25 0.90
                                                                          3.49
                               3.sd 4.mean 4.sd 5.mean 5.sd maes.mae
SRS22 - SRS Subtotal score
                               0.64
                                      2.76 0.64
                                                  2.50 0.63 1.079351
6M. SRS22 - SRS Subtotal score 0.64
                                      3.28 0.74
                                                  3.18 0.76 1.122948
1Y. SRS22 - SRS Subtotal score 0.76
                                     3.45 0.70
                                                  3.21 0.82 1.184842
2Y. SRS22 - SRS Subtotal score 0.82
                                     3.31 0.74
                                                  3.15 0.88 1.365964
5Y. SRS22 - SRS Subtotal score 0.81
                                      3.39 0.71
                                                  3.08 0.98 1.371935
                               maes.rel_mae p.val_1.2 p.val_1.3 p.val_1.4
                                                                    0.0000
SRS22 - SRS Subtotal score
                                                          0.0000
                                  0.3824435
                                                    0
6M. SRS22 - SRS Subtotal score
                                  0.3282275
                                                          0.0004
                                                     0
                                                                    0.0001
1Y. SRS22 - SRS Subtotal score
                                                          0.0000
                                  0.3373141
                                                     0
                                                                    0.0001
2Y. SRS22 - SRS Subtotal score
                                  0.3940602
                                                     Λ
                                                          0.0011
                                                                    0.0000
5Y. SRS22 - SRS Subtotal score
                                  0.4010839
                                                          0.0081
                                                                    0.0012
                                                    0
                               p.val_1.5 p.val_1.all p.val_1.vs_the_rest
SRS22 - SRS Subtotal score
                                       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
                               p.val_2.3 p.val_2.4 p.val_2.5 p.val_2.all
SRS22 - SRS Subtotal score
                                 0.8322
                                            0.5612
                                                       0.0832
                                                                   0.0936
6M. SRS22 - SRS Subtotal score
                                  0.5711
                                            0.6651
                                                       0.2104
                                                                   0.2661
1Y. SRS22 - SRS Subtotal score
                                  0.9472
                                            0.7404
                                                       0.1416
                                                                   0.1882
2Y. SRS22 - SRS Subtotal score
                                  0.0586
                                            0.6808
                                                       0.4719
                                                                   0.0445
5Y. SRS22 - SRS Subtotal score
                                  0.1358
                                            0.3876
                                                       0.3685
                                                                   0.1423
                               p.val_2.vs_the_rest p.val_3.4 p.val_3.5
SRS22 - SRS Subtotal score
                                            0.0278
                                                       0.4711
                                                                 0.1654
6M. SRS22 - SRS Subtotal score
                                            0.1469
                                                       0.3961
                                                                 0.1074
1Y. SRS22 - SRS Subtotal score
                                            0.0897
                                                       0.8156
                                                                 0.1810
2Y. SRS22 - SRS Subtotal score
                                            0.0075
                                                       0.1566
                                                                 0.0176
5Y. SRS22 - SRS Subtotal score
                                            0.0421
                                                       0.5585
                                                                 0.0396
                               p.val_3.all p.val_3.vs_the_rest p.val_4.5
SRS22 - SRS Subtotal score
                                    0.0960
                                                         0.0516
                                                                   0.0398
6M. SRS22 - SRS Subtotal score
                                    0.7956
                                                         0.7609
                                                                   0.5080
                                                                   0.1253
1Y. SRS22 - SRS Subtotal score
                                    0.3598
                                                         0.2767
2Y. SRS22 - SRS Subtotal score
                                    0.5876
                                                         0.5237
                                                                   0.2924
5Y. SRS22 - SRS Subtotal score
                                    0.6127
                                                         0.5480
                                                                   0.1214
                               p.val_4.all p.val_4.vs_the_rest p.val_5.all
SRS22 - SRS Subtotal score
                                    0.4955
                                                       0.4311
                                                                     0.0007
6M. SRS22 - SRS Subtotal score
                                    0.2183
                                                        0.1545
                                                                     0.0292
```

```
1Y. SRS22 - SRS Subtotal score
                                    0.5617
                                                         0.5078
                                                                     0.0101
2Y. SRS22 - SRS Subtotal score
                                    0.1887
                                                                     0.0117
                                                         0.1313
5Y. SRS22 - SRS Subtotal score
                                    0.8049
                                                         0.7793
                                                                     0.0397
                               p.val_5.vs_the_rest p.val_all
SRS22 - SRS Subtotal score
                                             0.0001
                                             0.0092
6M. SRS22 - SRS Subtotal score
                                                            Λ
1Y. SRS22 - SRS Subtotal score
                                             0.0020
2Y. SRS22 - SRS Subtotal score
                                             0.0027
                                                            0
5Y. SRS22 - SRS Subtotal score
                                             0.0145
      t0 t1
                        2
1: Preop 2Y 0.0000 0.0000 0.0000 0.0001 0.0000 0.0000
2: Preop 5Y 0.0000 0.0000 0.0000 0.0001 0.0013 0.0000
3: Preop 6M 0.0000 0.0000 0.0000 0.0004 0.0000 0.0000
      6M 2Y 0.0433 0.4869 0.3394 0.8275 0.8232 0.4546
5:
      6M 5Y 0.2694 0.4835 0.5399 0.5109 0.5899 0.9920
      2Y 5Y 0.5936 0.9659 0.7976 0.6463 0.7366 0.5287
```

## [1] "SRS22 - Satisfaction with management"

```
All.mean All.sd 1.mean 1.sd 2.mean
SRS22 - Satisfaction with management
                                                     1.06
                                                            3.13 0.95
                                              3.08
                                                                        3.14
6M. SRS22 - Satisfaction with management
                                                     0.85
                                                                        4.22
                                              4.23
                                                            4.49 0.70
1Y. SRS22 - Satisfaction with management
                                              4.22
                                                     0.92
                                                            4.53 0.60
                                                                        4.14
2Y. SRS22 - Satisfaction with management
                                              4.14
                                                     1.00
                                                            4.48 0.68
                                                                        3.92
5Y. SRS22 - Satisfaction with management
                                              4.00
                                                     1.00
                                                            4.31 0.77
                                                                        3.65
                                          2.sd 3.mean 3.sd 4.mean 4.sd 5.mean
SRS22 - Satisfaction with management
                                          0.95
                                                 2.97 1.12
                                                             3.36 1.16
                                                                          2.75
6M. SRS22 - Satisfaction with management 0.83
                                                 4.34 0.75
                                                             4.07 0.79
                                                                          3.93
1Y. SRS22 - Satisfaction with management 1.00
                                                 4.20 0.91
                                                             4.08 0.91
                                                                          4.03
2Y. SRS22 - Satisfaction with management 1.17
                                                                          3.93
                                                 4.27 0.94
                                                             4.06 0.90
5Y. SRS22 - Satisfaction with management 1.13
                                                 4.07 1.03
                                                             4.08 0.79
                                                                         4.12
                                          5.sd maes.mae maes.rel mae p.val 1.2
SRS22 - Satisfaction with management
                                                           0.6018572
                                                                        0.9712
                                          1.11 1.844394
6M. SRS22 - Satisfaction with management 1.11 1.222050
                                                           0.2887423
                                                                        0.0234
1Y. SRS22 - Satisfaction with management 1.07 1.369700
                                                           0.3246786
                                                                        0.0022
2Y. SRS22 - Satisfaction with management 1.12 1.517045
                                                           0.3664860
                                                                        0.0002
5Y. SRS22 - Satisfaction with management 0.96 1.529793
                                                           0.3824255
                                                                        0.0001
                                          p.val_1.3 p.val_1.4 p.val_1.5
SRS22 - Satisfaction with management
                                             0.5368
                                                       0.3787
                                                                 0.1491
6M. SRS22 - Satisfaction with management
                                                       0.0039
                                                                 0.0015
                                             0.2519
1Y. SRS22 - Satisfaction with management
                                             0.0201
                                                       0.0045
                                                                 0.0016
2Y. SRS22 - Satisfaction with management
                                                       0.0073
                                             0.1798
                                                                 0.0015
5Y. SRS22 - Satisfaction with management
                                             0.2128
                                                       0.1973
                                                                 0.3158
                                          p.val_1.all p.val_1.vs_the_rest
SRS22 - Satisfaction with management
                                               0.7856
                                                                   0.7400
6M. SRS22 - Satisfaction with management
                                               0.0066
                                                                   0.0007
1Y. SRS22 - Satisfaction with management
                                               0.0002
                                                                   0.0000
2Y. SRS22 - Satisfaction with management
                                                                   0.0000
                                               0.0004
5Y. SRS22 - Satisfaction with management
                                               0.0151
                                                                   0.0033
                                          p.val_2.3 p.val_2.4 p.val_2.5
SRS22 - Satisfaction with management
                                             0.5007
                                                       0.3756
                                                                 0.1255
```

```
6M. SRS22 - Satisfaction with management
                                             0.3796
                                                       0.3314
                                                                 0.1009
1Y. SRS22 - Satisfaction with management
                                             0.6934
                                                       0.7512
                                                                 0.5352
                                                       0.4272
2Y. SRS22 - Satisfaction with management
                                             0.0510
                                                                 0.9541
5Y. SRS22 - Satisfaction with management
                                             0.0404
                                                       0.0268
                                                                 0.0186
                                          p.val_2.all p.val_2.vs_the_rest
SRS22 - Satisfaction with management
                                               0.7299
                                                                    0.6580
6M. SRS22 - Satisfaction with management
                                               0.8667
                                                                    0.8248
1Y. SRS22 - Satisfaction with management
                                               0.4881
                                                                    0.3593
2Y. SRS22 - Satisfaction with management
                                               0.1109
                                                                    0.0331
5Y. SRS22 - Satisfaction with management
                                               0.0163
                                                                    0.0007
                                          p.val_3.4 p.val_3.5 p.val_3.all
SRS22 - Satisfaction with management
                                                       0.4610
                                             0.1819
                                                                   0.6121
6M. SRS22 - Satisfaction with management
                                             0.0944
                                                       0.0276
                                                                    0.3689
1Y. SRS22 - Satisfaction with management
                                                                    0.8899
                                             0.5158
                                                       0.3499
2Y. SRS22 - Satisfaction with management
                                             0.2507
                                                       0.0831
                                                                    0.3426
5Y. SRS22 - Satisfaction with management
                                             0.9684
                                                       0.8104
                                                                    0.6815
                                          p.val_3.vs_the_rest p.val_4.5
SRS22 - Satisfaction with management
                                                       0.5459
                                                                 0.0388
6M. SRS22 - Satisfaction with management
                                                       0.2936
                                                                 0.4354
1Y. SRS22 - Satisfaction with management
                                                       0.8696
                                                                 0.7833
2Y. SRS22 - Satisfaction with management
                                                       0.2655
                                                                 0.5019
5Y. SRS22 - Satisfaction with management
                                                       0.6231
                                                                 0.8317
                                          p.val_4.all p.val_4.vs_the_rest
SRS22 - Satisfaction with management
                                               0.2108
                                                                    0.1286
6M. SRS22 - Satisfaction with management
                                               0.2075
                                                                    0.1459
1Y. SRS22 - Satisfaction with management
                                               0.3486
                                                                    0.2832
2Y. SRS22 - Satisfaction with management
                                                                    0.5298
                                               0.5860
5Y. SRS22 - Satisfaction with management
                                               0.6150
                                                                    0.5695
                                          p.val_5.all p.val_5.vs_the_rest
SRS22 - Satisfaction with management
                                               0.1399
                                                                    0.0778
6M. SRS22 - Satisfaction with management
                                               0.0570
                                                                    0.0229
1Y. SRS22 - Satisfaction with management
                                               0.1979
                                                                    0.1190
2Y. SRS22 - Satisfaction with management
                                               0.1894
                                                                    0.1156
5Y. SRS22 - Satisfaction with management
                                               0.4576
                                                                    0.3797
                                          p.val all
SRS22 - Satisfaction with management
                                             0.2216
6M. SRS22 - Satisfaction with management
                                             0.0022
1Y. SRS22 - Satisfaction with management
                                             0.0072
2Y. SRS22 - Satisfaction with management
                                             0.0015
5Y. SRS22 - Satisfaction with management
                                             0.0034
                        2
                               3
                                              5
      t.0 t.1
                 1
1: Preop 2Y 0.0000 0.0001 0.0000 0.0053 0.0000 0.0000
2: Preop 5Y 0.0000 0.0096 0.0001 0.0054 0.0000 0.0000
3: Preop 6M 0.0000 0.0000 0.0000 0.0037 0.0000 0.0000
      6M 2Y 0.9147 0.0552 0.7050 0.9450 0.9853 0.2028
      6M 5Y 0.1785 0.0004 0.1604 0.9840 0.3593 0.0037
5:
      2Y 5Y 0.2015 0.1351 0.3178 0.9350 0.3647 0.0994
6:
```

## [1] "SF36 - PCS"

All.mean All.sd 1.mean 1.sd 2.mean 2.sd 3.mean 3.sd 4.mean

```
9.54 43.78 9.42 34.66 8.23 33.60 8.15 37.20
SF36 - PCS
                  36.49
6M. SF36 - PCS
                  40.36
                          9.17 45.39 8.68 40.07 8.43
                                                          38.32 8.53
                                                                       40.71
1Y. SF36 - PCS
                  41.75
                          9.98 48.21 8.85 40.53 9.56
                                                          40.15 9.27
                                                                       41.53
                  41.87 10.40 47.86 9.49
2Y. SF36 - PCS
                                             40.25 10.51 41.84 8.32
                                                                      41.22
5Y. SF36 - PCS
                  41.41 11.23 49.13 10.36 38.97 10.71 41.36 9.39
                4.sd 5.mean 5.sd maes.mae maes.rel mae p.val 1.2 p.val 1.3
                8.69 31.06 7.34 13.25201
SF36 - PCS
                                              0.3632812
                                                             0e+00
6M. SF36 - PCS 10.02 35.63 7.57 13.88998
                                              0.3439976
                                                             1e-04
                                                                       0e+00
1Y. SF36 - PCS 9.20 36.30 8.80 15.25958
                                              0.3654182
                                                             0e+00
                                                                       0e+00
2Y. SF36 - PCS 9.93 36.65 9.80 16.45518
                                              0.3929796
                                                             0e+00
                                                                       2e-04
5Y. SF36 - PCS 10.16 35.68 11.01 17.36176
                                              0.4191772
                                                             0e+00
                                                                       3e-04
               p.val_1.4 p.val_1.5 p.val_1.all p.val_1.vs_the_rest p.val_2.3
SF36 - PCS
                  0.0001
                                 0
                                             0
                                                                  0
                                                                       0.4533
                  0.0094
                                 0
                                             0
                                                                  0
6M. SF36 - PCS
                                                                       0.2444
1Y. SF36 - PCS
                  0.0002
                                 0
                                             0
                                                                  0
                                                                       0.8151
2Y. SF36 - PCS
                  0.0004
                                 0
                                             0
                                                                  0
                                                                       0.3242
5Y. SF36 - PCS
                  0.0044
                                 0
                                                                       0.2107
                                             0
                                                                  0
               p.val_2.4 p.val_2.5 p.val_2.all p.val_2.vs_the_rest p.val_3.4
SF36 - PCS
                  0.0913
                            0.0058
                                        0.0667
                                                             0.0171
                                                                       0.0328
6M. SF36 - PCS
                  0.7143
                            0.0012
                                        0.7825
                                                             0.7191
                                                                       0.2097
                                                                       0.4625
1Y. SF36 - PCS
                  0.5625
                            0.0066
                                        0.2952
                                                             0.1721
2Y. SF36 - PCS
                  0.5981
                            0.0351
                                        0.1973
                                                             0.0871
                                                                       0.7367
5Y. SF36 - PCS
                  0.1209
                            0.1250
                                        0.0926
                                                             0.0221
                                                                       0.6592
               p.val_3.5 p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
                                                             0.0002
SF36 - PCS
                  0.0886
                              0.0221
                                                  0.0080
                                                                         0.5934
6M. SF36 - PCS
                  0.0866
                              0.1210
                                                  0.0702
                                                             0.0052
                                                                         0.8251
1Y. SF36 - PCS
                  0.0256
                              0.2479
                                                  0.1744
                                                             0.0045
                                                                         0.8830
2Y. SF36 - PCS
                  0.0033
                              0.9843
                                                  0.9818
                                                             0.0200
                                                                         0.6768
5Y. SF36 - PCS
                              0.9757
                                                  0.9713
                                                             0.0084
                  0.0131
                                                                         0.6183
               p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest p.val_all
SF36 - PCS
                            0.5376
                                        0.0000
                                                              0e+00
                                                                            0
6M. SF36 - PCS
                            0.7971
                                        0.0001
                                                              0e+00
                                                                            0
                                                                            0
1Y. SF36 - PCS
                            0.8666
                                        0.0000
                                                              0e+00
2Y. SF36 - PCS
                                                                            0
                            0.6309
                                        0.0004
                                                              0e+00
5Y. SF36 - PCS
                            0.5691
                                        0.0033
                                                              5e-04
                                                                            0
      t0 t1
                        2
                               3
                                                  All
1: Preop 2Y 0.0064 0.0001 0.0000 0.0373 0.0007 0.0000
2: Preop 5Y 0.0036 0.0048 0.0001 0.0195 0.0223 0.0000
3: Preop 6M 0.2620 0.0000 0.0048 0.0698 0.0013 0.0000
      6M 2Y 0.0898 0.9014 0.0373 0.8044 0.5294 0.0507
5:
      6M 5Y 0.0372 0.4739 0.1068 0.4708 0.9812 0.2379
      2Y 5Y 0.4834 0.4429 0.7946 0.6157 0.6506 0.6196
```

#### [1] "SF36 - MCS"

```
      All.mean
      All.mean
      1.mean
      1.sd
      2.mean
      2.sd
      3.mean
      3.sd
      4.mean

      SF36 - MCS
      42.88
      11.77
      44.68
      9.55
      42.07
      12.44
      44.20
      12.42
      40.49

      6M. SF36 - MCS
      47.02
      11.87
      48.99
      9.69
      46.38
      13.07
      49.05
      10.79
      44.97

      1Y. SF36 - MCS
      47.41
      11.61
      50.39
      8.75
      46.81
      12.36
      48.33
      11.67
      45.40

      2Y. SF36 - MCS
      46.88
      12.18
      50.91
      8.91
      45.41
      13.38
      48.64
      11.11
      44.58

      5Y. SF36 - MCS
      47.52
      11.39
      51.07
      8.34
      45.93
      12.09
      49.96
      11.69
      44.50
```

```
4.sd 5.mean 5.sd maes.mae maes.rel mae p.val 1.2 p.val 1.3
               11.82 42.50 12.72 20.09075
                                               0.4685285
                                                             0.1154
                                                                       0.8099
SF36 - MCS
                                               0.4273215
6M. SF36 - MCS 11.55 45.24 13.40 20.08873
                                                             0.1469
                                                                       0.9733
1Y. SF36 - MCS 10.69 44.83 13.73 20.33500
                                               0.4289717
                                                             0.0304
                                                                       0.2703
2Y. SF36 - MCS 11.23 43.99 14.28 19.84061
                                               0.4230018
                                                             0.0018
                                                                       0.2227
5Y. SF36 - MCS 11.03 45.92 12.20 18.94390
                                               0.3986253
                                                             0.0059
                                                                       0.6049
               p.val_1.4 p.val_1.5 p.val_1.all p.val_1.vs_the_rest p.val_2.3
                             0.2723
                                         0.1451
                                                                        0.3194
SF36 - MCS
                  0.0365
                                                              0.0691
6M. SF36 - MCS
                  0.0493
                             0.0741
                                         0.1292
                                                              0.0591
                                                                        0.1985
                  0.0096
1Y. SF36 - MCS
                             0.0070
                                         0.0109
                                                              0.0016
                                                                        0.4630
2Y. SF36 - MCS
                  0.0015
                             0.0015
                                         0.0010
                                                              0.0001
                                                                        0.1270
5Y. SF36 - MCS
                  0.0051
                             0.0247
                                         0.0122
                                                              0.0027
                                                                        0.0791
               p.val_2.4 p.val_2.5 p.val_2.all p.val_2.vs_the_rest p.val_3.4
                             0.8360
                                         0.5689
SF36 - MCS
                  0.4546
                                                              0.4434
                                                                        0.1235
6M. SF36 - MCS
                  0.5195
                             0.6106
                                         0.6831
                                                                        0.0745
                                                              0.5842
1Y. SF36 - MCS
                  0.5001
                             0.3731
                                         0.6858
                                                              0.5920
                                                                        0.1977
2Y. SF36 - MCS
                  0.7017
                                         0.3479
                            0.5442
                                                              0.2067
                                                                        0.0757
5Y. SF36 - MCS
                  0.5514
                             0.9979
                                         0.3182
                                                              0.1654
                                                                        0.0409
               p.val_3.5 p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
SF36 - MCS
                  0.4794
                             0.4726
                                                   0.3995
                                                             0.3960
                                                                          0.1858
6M. SF36 - MCS
                  0.1031
                              0.2226
                                                   0.1546
                                                              0.9125
                                                                          0.2618
1Y. SF36 - MCS
                  0.1439
                               0.5905
                                                   0.5250
                                                              0.8137
                                                                          0.2516
2Y. SF36 - MCS
                                                   0.2318
                  0.0579
                               0.3042
                                                              0.8126
                                                                          0.1984
5Y. SF36 - MCS
                  0.1256
                               0.2104
                                                   0.1336
                                                              0.6017
                                                                          0.1500
               p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest p.val_all
SF36 - MCS
                             0.1253
                                         0.8329
                                                              0.8011
                                                                        0.2697
6M. SF36 - MCS
                             0.1942
                                         0.3461
                                                              0.2547
                                                                        0.1603
1Y. SF36 - MCS
                                         0.1759
                             0.1912
                                                              0.1003
                                                                        0.0352
2Y. SF36 - MCS
                             0.1391
                                                              0.0802
                                                                        0.0026
                                         0.1479
5Y. SF36 - MCS
                             0.0997
                                         0.4379
                                                              0.3555
                                                                        0.0213
      t0 t1
                        2
                                3
                                              5
                                                   \Lambda 1 1
                 1
1: Preop 2Y 0.0000 0.0804 0.0572 0.0836 0.5525 0.0000
2: Preop 5Y 0.0001 0.0438 0.0218 0.1195 0.1812 0.0000
3: Preop 6M 0.0053 0.0240 0.0357 0.0622 0.2625 0.0000
      6M 2Y 0.1988 0.6253 0.8501 0.8699 0.6281 0.8866
5:
      6M 5Y 0.2003 0.8175 0.6985 0.8554 0.7928 0.6160
6.
      2Y 5Y 0.9172 0.7968 0.5786 0.9744 0.4711 0.5265
```

## Quality of Life change with respect baseline

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

```
All.mean All.sd All.effect size 1.mean 1.sd 1.effect size
6M. ODI - Score (%)
                      -9.37 17.24
                                             -0.54 -1.80 17.22
                                                                       -0.10
                                             -0.77 -6.45 13.99
1Y. ODI - Score (%)
                     -11.92 15.41
                                                                        -0.46
                      -9.71 16.72
                                             -0.58 -5.21 14.50
                                                                       -0.36
2Y. ODI - Score (%)
5Y. ODI - Score (%)
                      -9.06 17.78
                                             -0.51 -5.85 13.78
                                                                        -0.42
                   2.mean 2.sd 2.effect_size 3.mean 3.sd 3.effect_size
6M. ODI - Score (%) -11.10 16.38
                                   -0.68 -15.14 17.46
                                                                   -0.87
1Y. ODI - Score (%) -14.55 14.53
                                       -1.00 -13.92 17.99
                                                                   -0.77
```

```
-0.62 -16.06 19.06
2Y. ODI - Score (%) -10.61 17.02
                                                                    -0.84
5Y. ODI - Score (%) -8.79 18.48
                                        -0.48 -14.93 17.99
                                                                    -0.83
                    4.mean 4.sd 4.effect size 5.mean 5.sd 5.effect size
6M. ODI - Score (%) -10.09 15.84
                                     -0.64 -10.54 16.89
1Y. ODI - Score (%) -11.41 13.88
                                        -0.82 -13.75 15.61
                                                                    -0.88
2Y. ODI - Score (%) -10.07 13.38
                                        -0.75 -8.49 17.69
                                                                    -0.48
5Y. ODI - Score (%) -10.33 15.43
                                       -0.67 -6.14 21.24
                    maes.mae maes.rel_mae p.val_1.2 p.val_1.3 p.val_1.4
6M. ODI - Score (%) 27.44925
                             0.9607187 0.0007
                                                       0.0001
                                                       0.0127
1Y. ODI - Score (%) 27.66279
                               1.0630845
                                            0.0004
                                                                 0.0739
2Y. ODI - Score (%) 32.90564
                               1.1837147
                                             0.0281
                                                       0.0009
                                                                 0.0672
5Y. ODI - Score (%) 32.46100
                              1.1275226
                                            0.3165
                                                       0.0104
                                                                 0.2005
                    p.val_1.5 p.val_1.all p.val_1.vs_the_rest p.val_2.3
6M. ODI - Score (%)
                       0.0053
                                 0.0012
                                                       0.0000
                                                                 0.1840
1Y. ODI - Score (%)
                       0.0061
                                   0.0032
                                                       0.0002
                                                                 0.8304
2Y. ODI - Score (%)
                       0.2606
                                  0.0194
                                                       0.0032
                                                                 0.0959
5Y. ODI - Score (%)
                       0.9440
                                                       0.1015
                                                                 0.0848
                                  0.1719
                    p.val_2.4 p.val_2.5 p.val_2.all p.val_2.vs_the_rest
6M. ODI - Score (%)
                       0.7330
                                0.8451
                                           0.3870
                                                                 0.2487
1Y. ODI - Score (%)
                       0.2506
                                 0.7586
                                             0.1420
                                                                 0.0531
2Y. ODI - Score (%)
                       0.8425
                                 0.4791
                                             0.6577
                                                                 0.5510
5Y. ODI - Score (%)
                       0.6629
                                 0.5182
                                             0.9124
                                                                 0.8759
                    p.val_3.4 p.val_3.5 p.val_3.all p.val_3.vs_the_rest
6M. ODI - Score (%)
                       0.1450
                                 0.1754
                                           0.0335
                                                                 0.0125
1Y. ODI - Score (%)
                       0.4513
                                 0.9580
                                             0.4463
                                                                 0.3627
2Y. ODI - Score (%)
                       0.0799
                                 0.0380
                                             0.0299
                                                                 0.0107
5Y. ODI - Score (%)
                       0.2524
                                 0.0537
                                             0.0589
                                                                 0.0242
                    p.val_4.5 p.val_4.all p.val_4.vs_the_rest p.val_5.all
                                 0.7811
                                                       0.7493
6M. ODI - Score (%)
                      0.8932
                                                                   0.6421
1Y. ODI - Score (%)
                       0.4420
                                   0.8328
                                                       0.8115
                                                                   0.4153
2Y. ODI - Score (%)
                       0.6161
                                   0.8737
                                                       0.8567
                                                                   0.6357
5Y. ODI - Score (%)
                       0.3529
                                   0.6777
                                                       0.6377
                                                                   0.4318
                    p.val_5.vs_the_rest p.val_all
6M. ODI - Score (%)
                              0.5796
                                          0.0003
1Y. ODI - Score (%)
                                 0.3273
                                           0.0068
2Y. ODI - Score (%)
                                 0.5708
                                           0.0089
5Y. ODI - Score (%)
                                 0.3522
                                           0.1263
[1] "SRS22 - Function / Activity"
                                All.mean All.sd All.effect_size 1.mean 1.sd
6M. SRS22 - Function / Activity
                                                      0.22 -0.09 0.76
                                    0.16
                                           0.75
1Y. SRS22 - Function / Activity
                                    0.31
                                           0.70
                                                           0.44
                                                                0.15 0.80
2Y. SRS22 - Function / Activity
                                    0.36
                                                                  0.33 0.67
                                           0.71
                                                           0.51
5Y. SRS22 - Function / Activity
                                          0.78
                                    0.41
                                                           0.53
                                                                  0.36 0.70
                                1.effect_size 2.mean 2.sd 2.effect_size 3.mean
                                                                   0.29
6M. SRS22 - Function / Activity
                                       -0.12
                                              0.22 0.76
                                                                          0.31
1Y. SRS22 - Function / Activity
                                                0.35 0.63
                                        0.18
                                                                   0.55
                                                                          0.33
2Y. SRS22 - Function / Activity
                                        0.48
                                               0.32 0.71
                                                                   0.45
                                                                          0.52
5Y. SRS22 - Function / Activity
                                        0.51 0.33 0.77
                                                                   0.43 0.55
                                3.sd 3.effect_size 4.mean 4.sd 4.effect_size
                                         0.44 0.15 0.81
6M. SRS22 - Function / Activity 0.71
```

```
1Y. SRS22 - Function / Activity 0.66
                                            0.50 0.41 0.59
                                                                      0.70
2Y. SRS22 - Function / Activity 0.75
                                            0.69 0.34 0.71
                                                                      0.48
5Y. SRS22 - Function / Activity 0.78
                                             0.71 0.54 0.89
                                                                       0.60
                               5.mean 5.sd 5.effect_size maes.mae maes.rel_mae
6M. SRS22 - Function / Activity 0.28 0.66
                                                  0.43 1.280548
                                                                    0.3932254
1Y. SRS22 - Function / Activity 0.38 0.74
                                                  0.52 1.391353
                                                                     0.4099958
2Y. SRS22 - Function / Activity 0.36 0.72
                                                  0.50 1.425230
                                                                     0.4104300
5Y. SRS22 - Function / Activity 0.39 0.83
                                                   0.48 1.391509
                                                                     0.3984919
                               p.val_1.2 p.val_1.3 p.val_1.4 p.val_1.5
6M. SRS22 - Function / Activity
                                0.0106 0.0028 0.1204
                                                               0.0039
                                  0.0804
1Y. SRS22 - Function / Activity
                                            0.1471
                                                      0.0439
                                                                0.0850
2Y. SRS22 - Function / Activity
                                            0.1358
                                                                0.7802
                                  0.9335
                                                      0.9325
5Y. SRS22 - Function / Activity
                                  0.8375
                                            0.2256
                                                      0.3496
                                                                0.8322
                               p.val_1.all p.val_1.vs_the_rest p.val_2.3
6M. SRS22 - Function / Activity
                                   0.0115
                                                        0.0013
1Y. SRS22 - Function / Activity
                                    0.1042
                                                        0.0343
                                                                  0.8975
2Y. SRS22 - Function / Activity
                                    0.6661
                                                        0.5847
                                                                  0.1142
5Y. SRS22 - Function / Activity
                                    0.6282
                                                        0.5558
                                                                  0.1445
                               p.val_2.4 p.val_2.5 p.val_2.all
6M. SRS22 - Function / Activity
                                0.6168 0.6187
                                                      0.5202
1Y. SRS22 - Function / Activity
                                  0.5770
                                            0.7769
                                                        0.6350
2Y. SRS22 - Function / Activity
                                  0.8765
                                            0.7225
                                                        0.5827
5Y. SRS22 - Function / Activity
                                         0.6931
                                  0.2649
                                                        0.4202
                               p.val_2.vs_the_rest p.val_3.4 p.val_3.5
6M. SRS22 - Function / Activity
                                                     0.3051
                                                               0.8445
                                          0.3901
1Y. SRS22 - Function / Activity
                                            0.5372
                                                      0.5414
                                                                0.7162
2Y. SRS22 - Function / Activity
                                            0.4649
                                                      0.2178
                                                                0.2695
5Y. SRS22 - Function / Activity
                                            0.2645
                                                      0.9560
                                                                0.3860
                               p.val_3.all p.val_3.vs_the_rest p.val_4.5
6M. SRS22 - Function / Activity
                                   0.1690
                                                        0.1036
                                                                  0.3787
1Y. SRS22 - Function / Activity
                                    0.8147
                                                        0.7798
                                                                  0.8267
2Y. SRS22 - Function / Activity
                                    0.1617
                                                        0.0964
                                                                  0.8679
5Y. SRS22 - Function / Activity
                                    0.2989
                                                        0.2125
                                                                  0.4923
                               p.val_4.all p.val_4.vs_the_rest p.val_5.all
                                0.9109
6M. SRS22 - Function / Activity
                                                       0.8972
                                                                   0.2328
1Y. SRS22 - Function / Activity
                                    0.3155
                                                        0.2560
                                                                   0.5061
2Y. SRS22 - Function / Activity
                                    0.8135
                                                        0.7851
                                                                   0.9808
5Y. SRS22 - Function / Activity
                                  0.4664
                                                        0.4044
                                                                    0.8897
                               p.val_5.vs_the_rest p.val_all
6M. SRS22 - Function / Activity
                                          0.1610
                                                     0.0149
1Y. SRS22 - Function / Activity
                                           0.4264
                                                      0.2027
2Y. SRS22 - Function / Activity
                                            0.9772
                                                      0.5204
5Y. SRS22 - Function / Activity
                                            0.8696
                                                      0.5354
[1] "SRS22 - Pain"
                All.mean All.sd All.effect_size 1.mean 1.sd 1.effect_size
6M. SRS22 - Pain
                    0.81
                           0.96
                                          0.85 0.36 0.98
                                                                     0.37
1Y. SRS22 - Pain
                    0.92
                           0.93
                                           0.99
                                                  0.68 1.00
                                                                     0.68
2Y. SRS22 - Pain
                    0.87
                           0.99
                                           0.87
                                                  0.59 0.99
                                                                     0.59
5Y. SRS22 - Pain
                    0.76
                           1.06
                                          0.72
                                                  0.49 1.15
                 2.mean 2.sd 2.effect size 3.mean 3.sd 3.effect size 4.mean
```

```
1.16 0.94 0.98
1.25 1.00 0.93
6M. SRS22 - Pain 0.95 0.82
                                                                  0.78
                                                           0.96
1Y. SRS22 - Pain 0.98 0.79
                                                           1.07
                                                                  0.89
                           0.83 1.19 0.89
0.65 0.91 0.91
2Y. SRS22 - Pain 0.89 1.07
                                                           1.33
                                                                  0.75
                                                           0.99
5Y. SRS22 - Pain 0.73 1.14
                                                                  0.87
               4.sd 4.effect_size 5.mean 5.sd 5.effect_size maes.mae
6M. SRS22 - Pain 1.03 0.76 1.14 0.85 1.34 1.500744
                           0.95 1.11 0.99
1Y. SRS22 - Pain 0.95
                                                    1.13 1.614461
2Y. SRS22 - Pain 0.96
                           0.78 0.99 0.88
                                                    1.11 1.773239
                     0.85 0.92 0.97 0.95 2.006441
5Y. SRS22 - Pain 1.02
               maes.rel_mae p.val_1.2 p.val_1.3 p.val_1.4 p.val_1.5
6M. SRS22 - Pain 0.4383294 0.0001 0.0012 0.0300
1Y. SRS22 - Pain
                  0.4552284 0.0373 0.0648
                                               0.2562
                                                          0.0155
                                              0.3719
2Y. SRS22 - Pain
                  0.5090933 0.0634 0.0005
                                                          0.0183
5Y. SRS22 - Pain 0.5972925 0.2490 0.0571
                                                 0.1337
                                                          0.0625
               p.val_1.all p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
                  0.000<u>4</u>
6M. SRS22 - Pain
                                      0.0000
                                                0.9416 0.3406
                                                                   0.1861
1Y. SRS22 - Pain
                    0.0578
                                       0.0142
                                                0.9153
                                                         0.6183
                                                                   0.4046
2Y. SRS22 - Pain
                   0.0314
                                      0.0062
                                                0.0733 0.4499
                                                                 0.5639
                  0.1322
5Y. SRS22 - Pain
                                      0.0632
                                                0.3695
                                                        0.5657
                                                                   0.3684
               p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
6M. SRS22 - Pain 0.1915 0.0901 0.4394 0.2487
1Y. SRS22 - Pain
                  0.5605
                                      0.4543
                                                0.6014
                                                       0.5258
2Y. SRS22 - Pain
                  0.8470
                                      0.7948
                                                0.0210
                                                        0.2342
                0.8456
5Y. SRS22 - Pain
                                      0.7838
                                                0.8557
                                                        0.9571
               p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
6M. SRS22 - Pain 0.3960 0.3122 0.0636 0.8281
1Y. SRS22 - Pain
                   0.5848
                                       0.5132
                                                0.2774
                                                           0.8633
2Y. SRS22 - Pain
                    0.0174
                                       0.0052
                                                0.2123
                                                           0.4595
5Y. SRS22 - Pain 0.3595
                                                0.8251
                                                           0.6084
                                       0.2763
               p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest p.val_all
                0.8021 0.0126
6M. SRS22 - Pain
                                                        0.0034
                                                                   0.0000
1Y. SRS22 - Pain
                          0.8443
                                       0.1880
                                                         0.1155
                                                                   0.0847
2Y. SRS22 - Pain
                          0.3933
                                       0.3676
                                                         0.2888
                                                                   0.0100
5Y. SRS22 - Pain
                           0.5594
                                       0.3664
                                                         0.2889
                                                                   0.2737
[1] "SRS22 - Self image / Appearance"
                                 All.mean All.sd All.effect_size 1.mean 1.sd
6M. SRS22 - Self image / Appearance 1.08 0.98 1.10 1.07 0.90
                                 1.13 0.88
1.03 0.98
0.97 0.92
1Y. SRS22 - Self image / Appearance
                                                         1.28 1.18 0.93
2Y. SRS22 - Self image / Appearance
                                                         1.05
                                                                 1.17 0.94
5Y. SRS22 - Self image / Appearance
                                                         1.06 1.08 0.81
                                1.effect_size 2.mean 2.sd 2.effect_size
                                   1.19 0.97 0.85
1.28 1.07 0.77
6M. SRS22 - Self image / Appearance
1Y. SRS22 - Self image / Appearance
                                                                  1.40

      2Y. SRS22 - Self image / Appearance
      1.25
      0.84
      0.92

      5Y. SRS22 - Self image / Appearance
      1.33
      0.77
      0.92

                                                                 0.92
                                3.mean 3.sd 3.effect_size 4.mean 4.sd
6M. SRS22 - Self image / Appearance 1.36 0.86 1.58
                                                           0.91 1.19
1Y. SRS22 - Self image / Appearance 1.27 0.87
                                                           0.97 1.04
                                                    1.47
                                             1.61
1.52
2Y. SRS22 - Self image / Appearance 1.31 0.81
                                                           0.84 1.15
5Y. SRS22 - Self image / Appearance 1.19 0.78
                                                           0.98 1.07
```

```
4.effect_size 5.mean 5.sd 5.effect_size
6M. SRS22 - Self image / Appearance
                                            0.76
                                                    1.13 1.17
                                                                       0.96
1Y. SRS22 - Self image / Appearance
                                             0.93
                                                    1.12 0.88
                                                                       1.27
2Y. SRS22 - Self image / Appearance
                                                    1.01 1.06
                                                                       0.96
                                             0.73
5Y. SRS22 - Self image / Appearance
                                             0.91
                                                    0.96 0.99
                                                                       0.97
                                    maes.mae maes.rel_mae p.val_1.2 p.val_1.3
6M. SRS22 - Self image / Appearance 1.325436
                                             0.3829526
                                                             0.4586
1Y. SRS22 - Self image / Appearance 1.207594
                                                             0.4175
                                                0.3446947
                                                                       0.5644
2Y. SRS22 - Self image / Appearance 1.466400
                                                0.4297900
                                                             0.0225
                                                                       0.3807
5Y. SRS22 - Self image / Appearance 1.476082
                                                                       0.5405
                                               0.4410252
                                                             0.0536
                                    p.val_1.4 p.val_1.5 p.val_1.all
6M. SRS22 - Self image / Appearance
                                       0.4262 0.7656
                                                             0.9540
1Y. SRS22 - Self image / Appearance
                                       0.2729
                                                 0.7130
                                                             0.6577
2Y. SRS22 - Self image / Appearance
                                       0.0959
                                                 0.3735
                                                             0.2286
5Y. SRS22 - Self image / Appearance
                                       0.6552
                                                 0.5298
                                                             0.3915
                                    p.val_1.vs_the_rest p.val_2.3 p.val_2.4
6M. SRS22 - Self image / Appearance
                                                 0.9420
                                                           0.0099
                                                                     0.7520
1Y. SRS22 - Self image / Appearance
                                                 0.5675
                                                           0.1637
                                                                     0.5665
2Y. SRS22 - Self image / Appearance
                                                 0.1269
                                                           0.0018
                                                                     0.9854
5Y. SRS22 - Self image / Appearance
                                                 0.2977
                                                           0.0114
                                                                     0.3496
                                    p.val_2.5 p.val_2.all p.val_2.vs_the_rest
6M. SRS22 - Self image / Appearance
                                       0.3903
                                                 0.3048
1Y. SRS22 - Self image / Appearance
                                       0.7298
                                                   0.5545
                                                                       0.4451
2Y. SRS22 - Self image / Appearance
                                       0.3217
                                                   0.0942
                                                                       0.0275
5Y. SRS22 - Self image / Appearance
                                                                       0.0265
                                       0.3362
                                                   0.1113
                                    p.val_3.4 p.val_3.5 p.val_3.all
6M. SRS22 - Self image / Appearance
                                       0.0386 0.2552
                                                             0.0343
1Y. SRS22 - Self image / Appearance
                                                0.3713
                                                             0.2621
                                       0.1311
2Y. SRS22 - Self image / Appearance
                                       0.0216
                                                0.1058
                                                             0.0249
5Y. SRS22 - Self image / Appearance
                                       0.3718
                                                 0.2553
                                                             0.1092
                                    p.val_3.vs_the_rest p.val_4.5 p.val_4.all
6M. SRS22 - Self image / Appearance
                                                0.0127
                                                           0.3572
                                                                       0.3622
1Y. SRS22 - Self image / Appearance
                                                 0.1805
                                                           0.4432
                                                                       0.3446
2Y. SRS22 - Self image / Appearance
                                                 0.0087
                                                           0.4283
                                                                       0.2859
5Y. SRS22 - Self image / Appearance
                                                 0.0573
                                                           0.9264
                                                                       0.9524
                                    p.val_4.vs_the_rest p.val_5.all
6M. SRS22 - Self image / Appearance
                                              0.2913
                                                             0.7678
1Y. SRS22 - Self image / Appearance
                                                 0.2796
                                                             0.9575
2Y. SRS22 - Self image / Appearance
                                                0.2152
                                                             0.9244
5Y. SRS22 - Self image / Appearance
                                                 0.9454
                                                             0.9484
                                    p.val_5.vs_the_rest p.val_all
6M. SRS22 - Self image / Appearance
                                                0.7239
                                                           0.1375
1Y. SRS22 - Self image / Appearance
                                                0.9493
                                                           0.4845
2Y. SRS22 - Self image / Appearance
                                                           0.0231
                                                0.9100
5Y. SRS22 - Self image / Appearance
                                                 0.9388
                                                           0.1594
[1] "SRS22 - Mental health"
                          All.mean All.sd All.effect_size 1.mean 1.sd
6M. SRS22 - Mental health
                                                    0.45 0.39 0.74
                              0.36
                                     0.81
1Y. SRS22 - Mental health
                              0.43
                                     0.78
                                                    0.55 0.40 0.72
2Y. SRS22 - Mental health
                             0.34
                                                    0.42 0.38 0.92
                                     0.81
```

```
5Y. SRS22 - Mental health 0.33 0.78 0.42 0.38 0.66
                       1.effect_size 2.mean 2.sd 2.effect_size 3.mean 3.sd
6M. SRS22 - Mental health
                          0.53 0.37 0.83
                                                        0.45 0.40 0.85
1Y. SRS22 - Mental health
                              0.56 0.44 0.76
                                                        0.58 0.39 0.85
2Y. SRS22 - Mental health
                               0.41
                                     0.30 0.73
                                                        0.41 0.35 0.86
5Y. SRS22 - Mental health
                              0.57 0.30 0.69
                                                       0.43 0.44 0.81
                      3.effect size 4.mean 4.sd 4.effect size 5.mean 5.sd
                           0.47
                                      0.29 0.76
                                                       0.38
                                                             0.33 0.88
6M. SRS22 - Mental health
1Y. SRS22 - Mental health
                               0.46 0.43 0.76
                                                        0.56
                                                              0.50 0.84
2Y. SRS22 - Mental health
                              0.40 0.34 0.72
                                                       0.47
                                                             0.34 0.84
5Y. SRS22 - Mental health
                              0.54 0.17 0.76
                                                        0.22
                                                              0.31 1.03
                       5.effect_size maes.mae maes.rel_mae p.val_1.2
                        0.37 1.425137 0.4025846
6M. SRS22 - Mental health
                                                         0.8842
1Y. SRS22 - Mental health
                              0.60 1.377615
                                             0.3834923
                                                         0.7621
2Y. SRS22 - Mental health
                              0.41 1.548939
                                             0.4425729
                                                          0.5578
                          0.30 1.430974 0.4044890
5Y. SRS22 - Mental health
                                                           0.4998
                       p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
                        0.9554 0.4674 0.6793
6M. SRS22 - Mental health
1Y. SRS22 - Mental health
                        0.9164
                                   0.8743
                                            0.4878
                                                       0.7729
2Y. SRS22 - Mental health
                         0.8365
                                   0.7836
                                           0.8042
                                                       0.7321
5Y. SRS22 - Mental health 0.7007
                                   0.2076
                                            0.7257
                                                       0.6151
                       p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5
6M. SRS22 - Mental health
                                   0.7089
                                            0.8591 0.5539 0.7732
1Y. SRS22 - Mental health
                                   0.7138
                                            0.7217
                                                     0.9331
                                                               0.6567
                                   0.6582
                                                               0.7818
2Y. SRS22 - Mental health
                                          0.7543
                                                    0.7858
5Y. SRS22 - Mental health
                                   0.5428 0.3286
                                                    0.4196
                       p.val_2.all p.val_2.vs_the_rest p.val_3.4 p.val_3.5
6M. SRS22 - Mental health
                        0.9151
                                             0.8863 0.4926 0.6795
1Y. SRS22 - Mental health
                            0.9297
                                              0.9074
                                                       0.8192
                                                               0.4853
2Y. SRS22 - Mental health
                            0.6777
                                              0.5871
                                                       0.9575
                                                               0.9712
5Y. SRS22 - Mental health
                          0.7547
                                              0.6736
                                                       0.1434
                                                                0.5382
                       p.val_3.all p.val_3.vs_the_rest p.val_4.5 p.val_4.all
6M. SRS22 - Mental health
                          0.7690
                                             0.7261 0.7981 0.5430
                                                                  0.9752
1Y. SRS22 - Mental health
                            0.7324
                                              0.6809
                                                        0.6521
2Y. SRS22 - Mental health
                            0.9573
                                              0.9492
                                                       0.9870
                                                                  0.9884
                          0.3934
                                              0.3039
5Y. SRS22 - Mental health
                                                       0.5008
                                                                  0.2851
                       p.val_4.vs_the_rest p.val_5.all p.val_5.vs_the_rest
6M. SRS22 - Mental health
                                   0.4849
                                             0.8011
                                                                 0.7641
1Y. SRS22 - Mental health
                                   0.9717
                                              0.5634
                                                                 0.4889
2Y. SRS22 - Mental health
                                   0.9866
                                              0.9945
                                                                0.9935
5Y. SRS22 - Mental health
                                   0.2236
                                              0.9422
                                                                 0.9309
                       p.val_all
6M. SRS22 - Mental health
                        0.9531
1Y. SRS22 - Mental health
                          0.9502
2Y. SRS22 - Mental health
                          0.9851
5Y. SRS22 - Mental health
                          0.6365
[1] "SRS22 - SRS Subtotal score"
                            All.mean All.sd All.effect size 1.mean 1.sd
6M. SRS22 - SRS Subtotal score
                              0.60 0.64
                                                   0.93 0.43 0.62
1Y. SRS22 - SRS Subtotal score
                              0.70 0.62
                                                     1.12 0.60 0.68
```

```
2Y. SRS22 - SRS Subtotal score 0.65 0.68
5Y. SRS22 - SRS Subtotal score 0.60 0.73
                                                   0.95
                                                   0.82 0.58 0.67
                           1.effect_size 2.mean 2.sd 2.effect_size 3.mean
                             0.70 0.62 0.59 1.06
0.89 0.71 0.53 1.35
6M. SRS22 - SRS Subtotal score
1Y. SRS22 - SRS Subtotal score
                                                                 0.74
2Y. SRS22 - SRS Subtotal score
                                  0.92 0.58 0.68
                                                          0.85
                                                                 0.83
                              0.87 0.53 0.68
5Y. SRS22 - SRS Subtotal score
                                                          0.78
                           3.sd 3.effect_size 4.mean 4.sd 4.effect_size
1.03
2Y. SRS22 - SRS Subtotal score 0.62
                                      1.33 0.57 0.73
                                                               0.78
5Y. SRS22 - SRS Subtotal score 0.57
                                      1.35 0.64 0.74
                                                               0.86
                           5.mean 5.sd 5.effect_size maes.mae maes.rel_mae
6M. SRS22 - SRS Subtotal score
                            0.71 0.69 1.03 1.122948 0.3282275
1Y. SRS22 - SRS Subtotal score
                            0.77 0.65
                                             1.20 1.184842
                                                            0.3373141
2Y. SRS22 - SRS Subtotal score
                            0.67 0.69
                                             0.97 1.365964
                                                             0.3940602
5Y. SRS22 - SRS Subtotal score 0.53 1.01 0.52 1.371935
                                                            0.4010839
                          p.val_1.2 p.val_1.3 p.val_1.4 p.val_1.5
6M. SRS22 - SRS Subtotal score 0.0488 0.0050 0.4929 0.0222
                            0.2622
1Y. SRS22 - SRS Subtotal score
                                              0.5672
                                       0.2213
                                                         0.1518
                            0.7371 0.0707
                                              0.6918
2Y. SRS22 - SRS Subtotal score
                                                         0.6942
5Y. SRS22 - SRS Subtotal score 0.7000 0.1581 0.7283
                           p.val_1.all p.val_1.vs_the_rest p.val_2.3
                           0.0415
6M. SRS22 - SRS Subtotal score
                                                 0.0097 0.2467
1Y. SRS22 - SRS Subtotal score
                              0.2749
                                                  0.1569
                                                           0.7557
2Y. SRS22 - SRS Subtotal score
                              0.7627
                                                  0.7009
                                                           0.0305
5Y. SRS22 - SRS Subtotal score
                              0.8760
                                                  0.8493
                                                           0.0494
                           p.val_2.4 p.val_2.5 p.val_2.all
                            0.4567 0.4441 0.7468
6M. SRS22 - SRS Subtotal score
1Y. SRS22 - SRS Subtotal score
                            0.7722 0.5663
                                                0.8238
2Y. SRS22 - SRS Subtotal score
                            0.8955 0.4835
                                                 0.4537
5Y. SRS22 - SRS Subtotal score 0.4982 0.9787
                                                  0.4810
                          p.val_2.vs_the_rest p.val_3.4 p.val_3.5
                              0.6720 0.1242 0.8034
6M. SRS22 - SRS Subtotal score
                                              0.6214
1Y. SRS22 - SRS Subtotal score
                                       0.7745
                                                         0.8137
                                              0.0597
2Y. SRS22 - SRS Subtotal score
                                      0.3181
                                                         0.2059
                                       0.3364 0.4270
5Y. SRS22 - SRS Subtotal score
                                                         0.1962
                           p.val_3.all p.val_3.vs_the_rest p.val_4.5
6M. SRS22 - SRS Subtotal score 0.1115
                                                 0.0601 0.2156
1Y. SRS22 - SRS Subtotal score
                              0.6090
                                                  0.5405
                                                           0.4875
2Y. SRS22 - SRS Subtotal score
                              0.0530
                                                  0.0227
                                                           0.4836
                            0.0942
5Y. SRS22 - SRS Subtotal score
                                                  0.0489
                                                         0.5976
                           p.val_4.all p.val_4.vs_the_rest p.val_5.all
6M. SRS22 - SRS Subtotal score
                            0.5398
                                                0.4780
                                                         0.2800
1Y. SRS22 - SRS Subtotal score
                              0.8599
                                                  0.8402
                                                            0.4281
                            0.4942
0.7759
2Y. SRS22 - SRS Subtotal score
                                                  0.4282
                                                            0.8297
5Y. SRS22 - SRS Subtotal score
                                                  0.7454
                                                            0.6776
                          p.val_5.vs_the_rest p.val_all
                              0.1989 0.0426
6M. SRS22 - SRS Subtotal score
1Y. SRS22 - SRS Subtotal score
                                       0.3437
                                                0.5708
2Y. SRS22 - SRS Subtotal score
                                      0.7985
                                                0.2478
5Y. SRS22 - SRS Subtotal score
                                      0.6170
                                                0.5089
```

### [1] "SRS22 - Satisfaction with management"

```
All.mean All.sd All.effect_size 1.mean
6M. SRS22 - Satisfaction with management
                                              1.16
                                                     1.33
                                                                      0.87
1Y. SRS22 - Satisfaction with management
                                              1.18
                                                                      0.95
                                                                             1.41
                                                     1.24
2Y. SRS22 - Satisfaction with management
                                              0.94
                                                                      0.74
                                                     1.28
                                                                             1.34
5Y. SRS22 - Satisfaction with management
                                                                             0.68
                                              0.79
                                                     1.21
                                                                      0.65
                                          1.sd 1.effect_size 2.mean 2.sd
6M. SRS22 - Satisfaction with management 1.31
                                                        1.14
                                                               1.08 1.11
1Y. SRS22 - Satisfaction with management 1.16
                                                        1.21
                                                                0.98 1.18
2Y. SRS22 - Satisfaction with management 1.23
                                                        1.09
                                                               0.70 1.18
5Y. SRS22 - Satisfaction with management 1.25
                                                        0.55
                                                               0.55 0.96
                                          2.effect_size 3.mean 3.sd
6M. SRS22 - Satisfaction with management
                                                   0.98
                                                          1.37 1.34
1Y. SRS22 - Satisfaction with management
                                                   0.82
                                                          1.34 1.24
2Y. SRS22 - Satisfaction with management
                                                   0.59
                                                          1.06 1.34
5Y. SRS22 - Satisfaction with management
                                                   0.58
                                                          0.98 1.29
                                          3.effect_size 4.mean 4.sd
6M. SRS22 - Satisfaction with management
                                                   1.02
                                                          0.66 1.35
                                                   1.08
1Y. SRS22 - Satisfaction with management
                                                          0.76 1.22
2Y. SRS22 - Satisfaction with management
                                                   0.79
                                                          0.54 1.13
5Y. SRS22 - Satisfaction with management
                                                   0.76
                                                          0.62 1.27
                                          4.effect size 5.mean 5.sd
6M. SRS22 - Satisfaction with management
                                                   0.49
                                                          1.19 1.58
1Y. SRS22 - Satisfaction with management
                                                   0.62
                                                          1.39 1.36
                                                          1.17 1.43
2Y. SRS22 - Satisfaction with management
                                                   0.47
5Y. SRS22 - Satisfaction with management
                                                   0.49
                                                          1.36 1.39
                                          5.effect_size maes.mae maes.rel_mae
6M. SRS22 - Satisfaction with management
                                                   0.75 1.222050
                                                                     0.2887423
1Y. SRS22 - Satisfaction with management
                                                   1.02 1.369700
                                                                     0.3246786
2Y. SRS22 - Satisfaction with management
                                                   0.82 1.517045
                                                                     0.3664860
5Y. SRS22 - Satisfaction with management
                                                   0.98 1.529793
                                                                     0.3824255
                                          p.val_1.2 p.val_1.3 p.val_1.4
6M. SRS22 - Satisfaction with management
                                             0.1733
                                                       0.7462
                                                                 0.0209
1Y. SRS22 - Satisfaction with management
                                             0.1147
                                                       0.8148
                                                                  0.0436
2Y. SRS22 - Satisfaction with management
                                             0.0263
                                                       0.4055
                                                                  0.0104
5Y. SRS22 - Satisfaction with management
                                             0.6934
                                                       0.4593
                                                                  0.8712
                                          p.val_1.5 p.val_1.all
                                             0.4571
6M. SRS22 - Satisfaction with management
                                                         0.2106
1Y. SRS22 - Satisfaction with management
                                             0.9449
                                                         0.2944
2Y. SRS22 - Satisfaction with management
                                             0.6159
                                                         0.1049
5Y. SRS22 - Satisfaction with management
                                             0.1294
                                                         0.7283
                                          p.val_1.vs_the_rest p.val_2.3
6M. SRS22 - Satisfaction with management
                                                       0.1260
                                                                  0.3588
1Y. SRS22 - Satisfaction with management
                                                                  0.2293
                                                       0.1927
2Y. SRS22 - Satisfaction with management
                                                       0.0465
                                                                  0.2631
5Y. SRS22 - Satisfaction with management
                                                       0.6825
                                                                  0.1821
                                          p.val_2.4 p.val_2.5 p.val_2.all
6M. SRS22 - Satisfaction with management
                                             0.1745
                                                       0.7600
                                                                   0.7207
1Y. SRS22 - Satisfaction with management
                                             0.4868
                                                       0.2042
                                                                   0.3479
2Y. SRS22 - Satisfaction with management
                                             0.5737
                                                       0.1602
                                                                    0.2400
5Y. SRS22 - Satisfaction with management
                                             0.8400
                                                       0.0357
                                                                    0.2204
                                          p.val_2.vs_the_rest p.val_3.4
```

```
6M. SRS22 - Satisfaction with management
                                                      0.6469
                                                                0.0556
1Y. SRS22 - Satisfaction with management
                                                                0.0926
                                                      0.2241
2Y. SRS22 - Satisfaction with management
                                                                0.1290
                                                      0.1275
5Y. SRS22 - Satisfaction with management
                                                      0.1081
                                                                0.3588
                                         p.val_3.5 p.val_3.all
6M. SRS22 - Satisfaction with management
                                           0.6610
                                                       0.4480
1Y. SRS22 - Satisfaction with management
                                            0.8883
                                                        0.5237
2Y. SRS22 - Satisfaction with management
                                            0.7753
                                                        0.6910
5Y. SRS22 - Satisfaction with management
                                            0.3731
                                                        0.5288
                                         p.val_3.vs_the_rest p.val_4.5
6M. SRS22 - Satisfaction with management
                                                      0.3654
1Y. SRS22 - Satisfaction with management
                                                      0.4437
                                                                0.0848
2Y. SRS22 - Satisfaction with management
                                                      0.6367
                                                                0.0759
5Y. SRS22 - Satisfaction with management
                                                      0.4414
                                                                0.0932
                                         p.val_4.all p.val_4.vs_the_rest
6M. SRS22 - Satisfaction with management
                                              0.0813
                                                                  0.0369
1Y. SRS22 - Satisfaction with management
                                              0.1241
                                                                  0.0714
2Y. SRS22 - Satisfaction with management
                                              0.0919
                                                                  0.0452
5Y. SRS22 - Satisfaction with management
                                              0.5678
                                                                  0.4932
                                         p.val_5.all p.val_5.vs_the_rest
6M. SRS22 - Satisfaction with management
                                              0.9123
                                                                  0.8952
1Y. SRS22 - Satisfaction with management
                                              0.4513
                                                                  0.3665
2Y. SRS22 - Satisfaction with management
                                              0.4547
                                                                  0.3697
5Y. SRS22 - Satisfaction with management
                                                                  0.0670
                                              0.1155
                                         p.val_all
6M. SRS22 - Satisfaction with management
                                           0.1586
1Y. SRS22 - Satisfaction with management
                                            0.1705
2Y. SRS22 - Satisfaction with management
                                            0.0695
5Y. SRS22 - Satisfaction with management
                                            0.1647
[1] "SF36 - PCS"
               All.mean All.sd All.effect_size 1.mean 1.sd 1.effect_size
                  4.24
                        8.76
                                   0.48
                                                1.63 8.78
                                                                    0.19
6M. SF36 - PCS
1Y. SF36 - PCS
                  5.56
                         8.70
                                          0.64
                                                4.93 9.09
                                                                     0.54
2Y. SF36 - PCS
                  5.41
                         9.23
                                         0.59
                                                 3.78 8.76
                                                                     0.43
                  5.09 10.12
5Y. SF36 - PCS
                                         0.50
                                                5.11 10.39
               2.mean 2.sd 2.effect_size 3.mean 3.sd 3.effect_size 4.mean
                5.63 7.80
                                0.72
                                          4.90 9.68
                                                                0.51
6M. SF36 - PCS
1Y. SF36 - PCS
               6.01 7.62
                                    0.79
                                           6.30 10.14
                                                                0.62
                                                                       4.27
2Y. SF36 - PCS
                5.50 9.16
                                    0.60
                                           8.50 8.62
                                                                0.99
                                                                       3.68
                 4.40 10.29
                                    0.43
                                            6.97 9.56
5Y. SF36 - PCS
                                                                0.73
                                                                       5.03
               4.sd 4.effect_size 5.mean 5.sd 5.effect_size maes.mae
6M. SF36 - PCS 8.85
                            0.39
                                                       0.61 13.88998
                                    5.38 8.76
                            0.49
1Y. SF36 - PCS 8.63
                                    5.93 8.54
                                                       0.69 15.25958
2Y. SF36 - PCS 8.90
                            0.41
                                    6.05 10.18
                                                       0.59 16.45518
5Y. SF36 - PCS 9.37
                            0.54
                                    4.52 10.87
                                                       0.42 17.36176
              maes.rel_mae p.val_1.2 p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
6M. SF36 - PCS
                 0.3439976 0.0035
                                       0.0634
                                                  0.2840
                                                             0.0204
                                                                         0.0279
                              0.4193
                                        0.4409
                                                   0.7027
                                                             0.5247
                                                                         0.5926
1Y. SF36 - PCS
                 0.3654182
                                                   0.9529
2Y. SF36 - PCS
                 0.3929796
                              0.2259
                                        0.0043
                                                             0.1905
                                                                         0.1641
5Y. SF36 - PCS
                 0.4191772
                              0.7222
                                        0.3953
                                                   0.9743
                                                             0.8021
                                                                         0.9942
```

```
p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5 p.val_2.all
6M. SF36 - PCS
                0.0056 0.6508 0.1725 0.8604
                                                                0.1562
                         0.4917
                                  0.8612 0.2769
                                                     0.9523
1Y. SF36 - PCS
2Y. SF36 - PCS
                                            0.2740
                         0.0797
                                  0.0596
                                                     0.7465
                                                                0.9299
5Y. SF36 - PCS
                         0.9929
                                  0.1871
                                           0.7645
                                                     0.9571
                                                                0.6157
             p.val_2.vs_the_rest p.val_3.4 p.val_3.5 p.val_3.all
                0.0621
                                 0.4574 0.7942
6M. SF36 - PCS
                                                     0.6570
1Y. SF36 - PCS
                         0.5349
                                  0.3052
                                           0.8392
                                                       0.6232
2Y. SF36 - PCS
                         0.9057
                                  0.0099
                                           0.1879
                                                       0.0250
5Y. SF36 - PCS
                                  0.3998
                         0.4800
                                         0.2915
                                                       0.2624
             p.val_3.vs_the_rest p.val_4.5 p.val_4.all p.val_4.vs_the_rest
6M. SF36 - PCS
                0.5994
                                0.2880
                                          0.5877
                                                                0.5303
1Y. SF36 - PCS
                         0.5583
                                  0.3557
                                             0.3793
                                                                0.3167
2Y. SF36 - PCS
                                  0.2211
                                                                0.1731
                         0.0092
                                             0.2366
5Y. SF36 - PCS
                         0.1827
                                0.8338
                                             0.9731
                                                                0.9694
             p.val_5.all p.val_5.vs_the_rest p.val_all
6M. SF36 - PCS
                  0.3833
                           0.2969
                                             0.0417
1Y. SF36 - PCS
                  0.7684
                                    0.7246
                                              0.7437
2Y. SF36 - PCS
                  0.6641
                                    0.6011
                                             0.0498
5Y. SF36 - PCS
                  0.7587
                                    0.7137
                                              0.7682
[1] "SF36 - MCS"
             All.mean All.sd All.effect_size 1.mean 1.sd 1.effect_size
6M. SF36 - MCS
               4.08 11.63
                             0.35 4.76 8.89
1Y. SF36 - MCS
                 4.55 11.20
                                      0.41
                                           5.85 10.46
                                                               0.56
2Y. SF36 - MCS
                 3.87 11.85
                                      0.33 6.03 11.26
                                                               0.54
                             0.31 5.88 11.41
5Y. SF36 - MCS
                3.78 12.38
             2.mean 2.sd 2.effect_size 3.mean 3.sd 3.effect_size 4.mean
6M. SF36 - MCS
             3.72 13.02
                           0.29 4.53 10.58
                                                          0.43
                                                                3.81
                                0.40
1Y. SF36 - MCS
             4.67 11.61
                                       4.53 9.97
                                                          0.45
                                                                4.06
                                                          0.26
2Y. SF36 - MCS 3.56 12.82
                                0.28
                                       3.09 11.73
                                                                 3.16
                           0.21
5Y. SF36 - MCS
              2.62 12.62
                                       4.68 11.46
              4.sd 4.effect_size 5.mean 5.sd 5.effect_size maes.mae
6M. SF36 - MCS 11.37
                    0.34 3.60 13.66 0.26 20.08873
1Y. SF36 - MCS 11.49
                           0.35
                                2.99 12.49
                                                    0.24 20.33500
2Y. SF36 - MCS 11.01
                          0.29
                                 2.83 11.76
                                                   0.24 19.84061
                         0.27 3.01 13.82
5Y. SF36 - MCS 12.72
                                                  0.22 18.94390
             maes.rel_mae p.val_1.2 p.val_1.3 p.val_1.4 p.val_1.5 p.val_1.all
6M. SF36 - MCS
                0.4273215 0.5551 0.9016 0.6422
                                                       0.5921
                                                                   0.5919
1Y. SF36 - MCS
                0.4289717
                            0.5017
                                    0.4788
                                              0.4158
                                                        0.1719
                                                                   0.3476
2Y. SF36 - MCS
                0.4230018
                            0.1946
                                     0.1752
                                              0.1804
                                                        0.1248
                                                                   0.1510
5Y. SF36 - MCS
                                   0.6322
                                              0.3949
                0.3986253
                            0.1534
                                                        0.3091
             p.val_1.vs_the_rest p.val_2.3 p.val_2.4 p.val_2.5 p.val_2.all
6M. SF36 - MCS
                         0.5132
                                  0.6942 0.9647
                                                     0.9613
                                                                0.8153
1Y. SF36 - MCS
                         0.2340
                                  0.9388
                                            0.7802
                                                     0.4227
                                                                0.9297
                         0.0705
                                                                0.8351
2Y. SF36 - MCS
                                  0.8290
                                            0.8517
                                                     0.7267
5Y. SF36 - MCS
                         0.1886
                                  0.3814
                                           0.7792
                                                     0.8860
                                                                0.4917
             p.val_2.vs_the_rest p.val_3.4 p.val_3.5 p.val_3.all
6M. SF36 - MCS
                0.7491 0.7558 0.7006
                                                     0.7868
1Y. SF36 - MCS
                         0.9055
                                  0.8371
                                            0.4827
                                                       0.9895
2Y. SF36 - MCS
                         0.7757
                                  0.9773
                                           0.9106
                                                       0.6683
```

```
5Y. SF36 - MCS
                           0.3329
                                     0.6663
                                             0.5612
                                                           0.6559
              p.val_3.vs_the_rest p.val_4.5 p.val_4.all p.val_4.vs_the_rest
6M. SF36 - MCS
                           0.7515
                                   0.9336
                                                 0.8863
                                                                     0.8687
1Y. SF36 - MCS
                           0.9876
                                     0.6672
                                                 0.7990
                                                                     0.7714
2Y. SF36 - MCS
                           0.6166
                                     0.8865
                                                 0.6908
                                                                     0.6472
5Y. SF36 - MCS
                                     0.9030
                                                                     0.8591
                           0.5964
                                                 0.8766
              p.val_5.all p.val_5.vs_the_rest p.val_all
6M. SF36 - MCS
                   0.8106
                                       0.7721
                                                 0.9735
1Y. SF36 - MCS
                   0.3889
                                       0.2989
                                                 0.7112
2Y. SF36 - MCS
                   0.5460
                                       0.4702
                                                 0.5209
5Y. SF36 - MCS
                                       0.6950
                                                 0.6850
                   0.7431
```

## Surgery

	All.mean All.sd 1.mean 1.sd 2.mean							
Total Operative Blood Loss st1+st2+st3	1479.66 1269.00 1322.13 967.70 1497.64							
Total surgical time st1+st2+st3	310.98 165.80 348.99 139.40 270.25							
Number of Posterior Instrumented Levels	9.17 4.46 10.98 3.13 9.14							
Number of Interbody Fusions	0.80 1.16 0.26 1.04 1.14							
	2.sd 3.mean 3.sd 4.mean 4.sd							
Total Operative Blood Loss st1+st2+st3	1219.41 1415.78 1036.52 1238.70 1286.15							
Total surgical time st1+st2+st3	148.83 296.12 167.44 292.17 200.62							
Number of Posterior Instrumented Levels	4.50 10.12 4.71 5.85 4.31							
Number of Interbody Fusions	1.25 1.09 1.05 0.41 0.69							
	5.mean 5.sd maes.mae							
Total Operative Blood Loss st1+st2+st3	1895.90 1692.93 1962.346316							
Total surgical time st1+st2+st3	345.32 178.09 251.179544							
Number of Posterior Instrumented Levels	8.56 4.36 6.910485							
Number of Interbody Fusions	1.14 1.24 1.699595							
	<pre>maes.rel_mae p.val_1.2 p.val_1.3</pre>							
Total Operative Blood Loss st1+st2+st3	1.3457322 0.3132 0.6159							
Total surgical time st1+st2+st3	0.8077018 0.0002 0.0499							
Number of Posterior Instrumented Levels	0.7550159 0.0020 0.2402							
Number of Interbody Fusions	2.1383999 0.0000 0.0000							
	p.val_1.4 p.val_1.5 p.val_1.all							
Total Operative Blood Loss st1+st2+st3	0.7003 0.0237 0.2505							
Total surgical time st1+st2+st3	0.0715 0.8908 0.0257							
Number of Posterior Instrumented Levels	0.0000 0.0004 0.0000							
Number of Interbody Fusions	0.2977 0.0000 0.0000							
	${\tt p.val\_1.vs\_the\_rest~p.val\_2.3~p.val\_2.4}$							
Total Operative Blood Loss st1+st2+st3	0.0027 0.6736 0.2478							
Total surgical time st1+st2+st3	0.0027 0.3417 0.4885							
Number of Posterior Instrumented Levels	0.0027 0.2332 0.0000							
Number of Interbody Fusions	0.0027 0.8029 0.0000							
	p.val_2.5 p.val_2.all							
Total Operative Blood Loss st1+st2+st3	0.1218 0.9027							
Total surgical time st1+st2+st3	0.0066 0.0219							
Number of Posterior Instrumented Levels	0.4389 0.9573							
Number of Interbody Fusions	0.9763 0.0176							
	<pre>p.val_2.vs_the_rest p.val_3.4 p.val_3.5</pre>							
Total Operative Blood Loss st1+st2+st3	0.1654 0.4486 0.0719							
Total surgical time st1+st2+st3	0.1654 0.9115 0.1233							
Number of Posterior Instrumented Levels	0.1654 0.0000 0.0751							

```
0.1654
                                                                         0.7992
Number of Interbody Fusions
                                                               0.0001
                                        p.val_3.all p.val_3.vs_the_rest
Total Operative Blood Loss st1+st2+st3
                                                                 0.1336
                                             0.6937
Total surgical time st1+st2+st3
                                             0.5382
                                                                 0.1336
Number of Posterior Instrumented Levels
                                             0.1783
                                                                 0.1336
Number of Interbody Fusions
                                             0.0581
                                                                 0.1336
                                        p.val_4.5 p.val_4.all
                                           0.0234
Total Operative Blood Loss st1+st2+st3
                                                       0.2217
Total surgical time st1+st2+st3
                                           0.1378
                                                       0.5176
Number of Posterior Instrumented Levels
                                           0.0012
                                                       0.0000
Number of Interbody Fusions
                                           0.0001
                                                       0.0008
                                        p.val_4.vs_the_rest p.val_5.all
Total Operative Blood Loss st1+st2+st3
                                                     0.0997
                                                                 0.0765
Total surgical time st1+st2+st3
                                                     0.0997
                                                                 0.1577
Number of Posterior Instrumented Levels
                                                     0.0997
                                                                 0.3263
Number of Interbody Fusions
                                                     0.0997
                                                                 0.0416
                                        p.val_5.vs_the_rest p.val_all
Total Operative Blood Loss st1+st2+st3
                                                     0.3555
                                                               0.0516
Total surgical time st1+st2+st3
                                                     0.3555
                                                               0.0055
Number of Posterior Instrumented Levels
                                                     0.3555
                                                               0.0000
Number of Interbody Fusions
                                                     0.3555
                                                               0.0000
$'Pelvic fixation'
$'Pelvic fixation'$All
$'Pelvic fixation'$All$table
variable
NA No Yes
19 209 133
$'Pelvic fixation'$All$proportion
variable
                             Yes
                   No
0.05263158 0.57894737 0.36842105
$'Pelvic fixation'$'1'
$'Pelvic fixation'$'1'$table
variable
NA No Yes
 1 90
$'Pelvic fixation'$'1'$proportion
variable
                             Yes
                   No
0.01075269 0.96774194 0.02150538
$'Pelvic fixation'$'2'
$'Pelvic fixation'$'2'$table
variable
NA No Yes
 3 47 45
```

\$'Pelvic fixation'\$'2'\$proportion

variable

NA No Yes 0.03157895 0.49473684 0.47368421

\$'Pelvic fixation'\$'3'
\$'Pelvic fixation'\$'3'\$table
variable
NA No Yes
2 22 32

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

NA No Yes 0.03571429 0.39285714 0.57142857

\$'Pelvic fixation'\$'4'
\$'Pelvic fixation'\$'4'\$table
variable
NA No Yes
11 26 17

\$'Pelvic fixation'\$'4'\$proportion
variable

NA No Yes 0.2037037 0.4814815 0.3148148

\$'Pelvic fixation'\$'5'
\$'Pelvic fixation'\$'5'\$table
variable
NA No Yes
2 24 37

\$'Pelvic fixation'\$'5'\$proportion
variable

NA No Yes 0.03174603 0.38095238 0.58730159

\$'Pelvic fixation'\$maes
\$'Pelvic fixation'\$maes\$mae
[1] NA

\$'Pelvic fixation'\$maes\$rel\_mae
[1] NA

\$'Surgical Approach'
\$'Surgical Approach'\$All
\$'Surgical Approach'\$All\$table
variable

Anterior Anterior-Posterior Posterior Posterior-Anterior 341 Posterior-Posterior Posterior-Posterior-Anterior \$'Surgical Approach'\$All\$proportion variable Anterior Anterior-Posterior 0.002770083 0.011080332 Posterior Posterior-Anterior 0.944598338 0.030470914 Posterior-Posterior Posterior-Posterior-Anterior 0.008310249 0.002770083 \$'Surgical Approach'\$'1' \$'Surgical Approach'\$'1'\$table variable Anterior Anterior-Posterior Posterior Posterior-Posterior 89 \$'Surgical Approach'\$'1'\$proportion variable Anterior Anterior-Posterior Posterior Posterior-Posterior 0.01075269 0.02150538 0.95698925 0.01075269 \$'Surgical Approach'\$'2' \$'Surgical Approach'\$'2'\$table variable Anterior-Posterior Posterior Posterior-Anterior Posterior-Posterior 1 1 \$'Surgical Approach'\$'2'\$proportion variable Anterior-Posterior Posterior Posterior-Anterior Posterior-Posterior 0.01052632 0.96842105 0.01052632 0.01052632 \$'Surgical Approach'\$'3' \$'Surgical Approach'\$'3'\$table variable Posterior Posterior-Anterior 52 Posterior-Posterior-Anterior \$'Surgical Approach'\$'3'\$proportion variable Posterior Posterior-Anterior 0.92857143 0.05357143 Posterior-Posterior-Anterior

## 0.01785714

\$Decompression\$'1'
\$Decompression\$'1'\$table

variable No Yes 86 7

\$'Surgical Approach'\$'4' \$'Surgical Approach'\$'4'\$table variable Anterior-Posterior Posterior Posterior-Anterior Posterior-Posterior 1 \$'Surgical Approach'\$'4'\$proportion variable Anterior-Posterior Posterior Posterior-Anterior Posterior-Posterior 0.01851852 0.9444444 0.01851852 0.01851852 \$'Surgical Approach'\$'5' \$'Surgical Approach'\$'5'\$table variable Posterior Posterior-Anterior \$'Surgical Approach'\$'5'\$proportion variable Posterior Posterior-Anterior 0.9047619 0.0952381 \$'Surgical Approach'\$maes \$'Surgical Approach'\$maes\$mae [1] NA \$'Surgical Approach'\$maes\$rel\_mae [1] NA \$Decompression \$Decompression\$All \$Decompression\$All\$table variable No Yes 271 90 \$Decompression\$All\$proportion variable No Yes 0.7506925 0.2493075

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

No Yes

0.92473118 0.07526882

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

65 30

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

No Yes

0.6842105 0.3157895

\$Decompression\$'3'
\$Decompression\$'3'\$table
variable
No Yes

41 15

\$Decompression\$'3'\$proportion
variable

No Yes

0.7321429 0.2678571

\$Decompression\$'4'
\$Decompression\$'4'\$table
variable
No Yes
42 12

\$Decompression\$'4'\$proportion
variable

No Yes 0.7777778 0.2222222

\$Decompression\$'5'
\$Decompression\$'5'\$table
variable
No Yes
37 26

\$Decompression\$'5'\$proportion
variable

No Yes 0.5873016 0.4126984

```
$Decompression$maes
$Decompression$maes$mae
[1] NA
$Decompression$maes$rel_mae
Γ1] NA
$'Interbody Fusion'
$'Interbody Fusion'$All
$'Interbody Fusion'$All$table
variable
No Yes
209 152
$'Interbody Fusion'$All$proportion
variable
      No
                Yes
0.5789474 0.4210526
$'Interbody Fusion'$'1'
$'Interbody Fusion'$'1'$table
variable
No Yes
84
$'Interbody Fusion'$'1'$proportion
variable
        No
                  Yes
0.90322581 0.09677419
$'Interbody Fusion'$'2'
$'Interbody Fusion'$'2'$table
variable
No Yes
39 56
$'Interbody Fusion'$'2'$proportion
variable
      No
                Yes
0.4105263 0.5894737
$'Interbody Fusion'$'3'
$'Interbody Fusion'$'3'$table
variable
No Yes
22 34
$'Interbody Fusion'$'3'$proportion
```

```
variable
```

No Yes

0.3928571 0.6071429

\$'Interbody Fusion'\$'4'
\$'Interbody Fusion'\$'4'\$table
variable
No Yes
38 16

\$'Interbody Fusion'\$'4'\$proportion
variable

No Yes 0.7037037 0.2962963

\$'Interbody Fusion'\$'5'
\$'Interbody Fusion'\$'5'\$table
variable
No Yes
26 37

\$'Interbody Fusion'\$'5'\$proportion
variable

No Yes 0.4126984 0.5873016

\$'Interbody Fusion'\$maes
\$'Interbody Fusion'\$maes\$mae
[1] NA

\$'Interbody Fusion'\$maes\$rel\_mae
[1] NA

\$Osteotomy
\$Osteotomy\$All
\$Osteotomy\$All\$table
variable
No Yes
192 169

\$Osteotomy\$All\$proportion
variable

No Yes 0.531856 0.468144

\$Osteotomy\$'1'
\$Osteotomy\$'1'\$table
variable

No Yes 63 30

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

No Yes 0.6774194 0.3225806

\$Osteotomy\$'2'
\$Osteotomy\$'2'\$table
variable
No Yes
54 41

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

No Yes 0.5684211 0.4315789

\$Osteotomy\$'3'
\$Osteotomy\$'3'\$table
variable
No Yes
25 31

\$Osteotomy\$'3'\$proportion
variable

No Yes 0.4464286 0.5535714

\$Osteotomy\$'4'
\$Osteotomy\$'4'\$table
variable
No Yes
26 28

\$Osteotomy\$'4'\$proportion
variable

No Yes 0.4814815 0.5185185

\$Osteotomy\$'5'
\$Osteotomy\$'5'\$table
variable
No Yes
24 39

\$Osteotomy\$'5'\$proportion
variable

No Yes

## 0.3809524 0.6190476

\$Osteotomy\$maes\$mae
[1] NA

\$Osteotomy\$maes\$rel\_mae
[1] NA

\$'3CO'
\$'3CO'\$All
\$'3CO'\$All\$table
variable
No Yes
307 54

\$'3C0'\$All\$proportion
variable
 No Yes
0.8504155 0.1495845

\$'3CO'\$'1'
\$'3CO'\$'1'\$table
variable
No Yes
90 3

\$'3CO'\$'1'\$proportion
variable
 No Yes
0.96774194 0.03225806

\$'3CO'\$'2'
\$'3CO'\$'2'\$table
variable
No Yes
86 9

\$'3CO'\$'2'\$proportion
variable
 No Yes
0.90526316 0.09473684

\$'3CO'\$'3'
\$'3CO'\$'3'\$table
variable
No Yes
50 6

```
$'3CO'$'3'$proportion
variable
                Yes
      No
0.8928571 0.1071429
$'3CO'$'4'
$'3CO'$'4'$table
variable
No Yes
39 15
$'3CO'$'4'$proportion
variable
      No
                Yes
0.7222222 0.2777778
$'3CO'$'5'
$'3CO'$'5'$table
variable
No Yes
42 21
$'3CO'$'5'$proportion
variable
      No
                Yes
0.6666667 0.33333333
$'3CO'$maes
$'3CO'$maes$mae
[1] NA
$'3CO'$maes$rel_mae
[1] NA
```

## Reinterventions

group reiqs patients total

1:	1	13	8	93	
2:	2	71	35	95	
3:	3	30	16	56	
4:	4	19	16	54	
5:	5	70	28	63	
6:	all	203	103	361	
	p_val_a	all_1 p	_val_all_	.2 p_va	al_all_3 p_val_all_4 p_val_all_5 p_val_1_2
1:	1	Le-04	0.148	9	1 0.996 0.0176 0
	p_val_1	L_3 p_v	al_1_4 p_	val_1	_5 p_val_2_3 p_val_2_4 p_val_2_5 p_val_3_4
1:	0.00	)29	0.002		0 0.3898 0.4762 0.4297 1

```
p_val_3_5 p_val_4_5
1: 0.1096 0.1449
```

## Impacts

	Complication	n Impact a	11_num	all_pa	atients	1_num	1_pa	atie	nts	2_1	num	2_F	oati	.ents
1:		0	1		1	0			0		0			0
2:	Adver	se Event	3		3	2			2		1			1
3:	Major Comp	lication	227		110	15			10		76			35
4:	Minor Comp	lication	205		139	27			21		51			33
	3_num	ients 4_nu	m 4_pat	ients	5_num	5_patie	ents	all	1	2	3	4	5	
1:	1	1	0	0	0		0	361	93	95	56	54	63	
2:	0	0	0	0	0		0	361	93	95	56	54	63	
3:	33	17 2	8	20	75		28	361	93	95	56	54	63	
4:	35	24 3	0	19	62		42	361	93	95	56	54	63	
	p_val_all_1	p_val_all	_2 p_va	l_all_	_3 p_va	1_all_4	1 p_v	val_a	all.	_5 <u>1</u>	o_va	al_1	L_2	
1:	1.0000	1.00	00	0.630	05	1.0000	)	1	.000	00		N	VaN	
2:	0.5960	1.00	00	1.000	00	1.0000	)	1	.000	00	(	).98	352	
3:	0.0002	0.28	79	1.000	00	0.4162	2	0	.04	15	(	0.00	001	
4:	0.0061	0.57	88	0.63	55	0.7503	3	0	.000	01	(	0.09	928	
	p_val_1_3 p	_val_1_4 p	_val_1_	5 p_va	al_2_3	p_val_2	2_4 <u>1</u>	o_val	1_2	_5 <u>1</u>	o_va	al_3	3_4	
1:	0.7970	NaN	Na	N (	7885	N	JaN		Na	aN	1	1.00	000	
2:	0.7114	0.7289	0.655	4 1	1.0000		1	1	.000	00		N	VaN	
3:	0.0053	0.0003	0.000	0 (	0.5269		1	0	.429	97	(	).58	396	
4:	0.0152	0.1434	0.000	0 (	0.4119		1	0	.000	)2	(	).52	294	
	p_val_3_5 p	_val_4_5												
1:	0.9528	NaN												
2:	NaN	NaN												
3:	0.1638	0.5329												
4:	0.0154	0.0013												

# Categories

	Category of the complication						num	all_pat	tients	1_num	1_pat	tient	ts
1:	Cer	ntral	neurol	logic c	omplications	3	1		1	0			0
2:					Iatrogeni	2	19		4	ŀ		4	
3:			Infect	cious c	omplications	3	33		2	2 1			
4:			Mechar	nical c	omplications	3	220		14	10			
5:			C	ther c	omplications	3	103		18		14		
6:					Pair	ı	16		16	1			1
7:	Periph	neral	neurol	logic c	omplications	3	44		37	5			5
	$2_{num}$	2_pat	tients	3_num 3	3_patients 4	1_num	4_pa	atients	$5\_num$	5_pati	ents	all	1
1:	0		0	0	0	0		0	1		1	361	93
2:	7		7	1	1	2		2	5		5	361	93
3:	8		8	2	2	5		5	16		12	361	93
4:	83		44	43	29	18		16	62		34	361	93
5:	16		10	13	12	19		12	37		19	361	93
6:	6		6	1	1	4		4	4		4	361	93
7:	8		7	9	6	10		10	12		9	361	93
	2 3	4 5	5 p_val	_all_1	p_val_all_2	2 p_va	al_al	1_3 p_v	al_all	L_4 p_t	/al_a	11_5	
1:	95 56	54 63	3	1.0000	1.0000	)	1.0	0000	1.00	000	0.6	6861	

```
2: 95 56 54 63
                     0.9107
                                  0.5901
                                                0.4254
                                                                          0.5811
                                                             0.8770
3: 95 56 54 63
                                                                          0.0094
                     0.0347
                                  1.0000
                                               0.3955
                                                             0.9115
4: 95 56 54 63
                                                                          0.0152
                     0.0000
                                  0.1170
                                                0.0469
                                                             0.3797
5: 95 56 54 63
                     0.5251
                                                0.7440
                                                             0.6501
                                                                          0.0520
                                  0.0881
6: 95 56 54 63
                     0.2247
                                  0.6218
                                                0.5696
                                                             0.5409
                                                                          0.7337
7: 95 56 54 63
                     0.2129
                                  0.5151
                                                1.0000
                                                             0.1192
                                                                          0.4648
   p_val_1_2 p_val_1_3 p_val_1_4 p_val_1_5 p_val_2_3 p_val_2_4 p_val_2_5
                                       0.8441
                                                                        0.8356
1:
         {\tt NaN}
                    {\tt NaN}
                               \mathtt{NaN}
                                                     {\tt NaN}
                                                                {\tt NaN}
2:
      0.5584
                 0.7217
                            1.0000
                                       0.5448
                                                  0.2699
                                                             0.5858
                                                                        1.0000
3:
      0.0437
                 0.6538
                            0.0471
                                       0.0002
                                                  0.4129
                                                             1.0000
                                                                        0.0850
4:
      0.0000
                 0.0000
                            0.0076
                                       0.0000
                                                  0.6304
                                                             0.0684
                                                                        0.4357
      0.4768
                            0.3822
                                                             0.0902
5:
                 0.4412
                                       0.0387
                                                  0.1106
                                                                        0.0036
      0.1305
                 1.0000
                            0.1164
                                       0.1701
                                                  0.3798
                                                             1.0000
                                                                        1.0000
6:
                                                  0.6835
7:
      0.7946
                 0.3770
                            0.0241
                                       0.1042
                                                             0.0735
                                                                        0.2535
   p_val_3_4 p_val_3_5 p_val_4_5
1:
         {\tt NaN}
                 1.0000
                            1.0000
2:
      0.9745
                 0.2666
                            0.5677
      0.4059
                 0.0198
                            0.2170
3:
4:
      0.0301
                 0.9568
                            0.0137
5:
      1.0000
                 0.3822
                            0.4475
6:
      0.3384
                 0.4349
                            1.0000
7:
      0.3734
                 0.7572
                            0.7133
```