

**Supplementary table 1.** Patient reported symptoms prior to laparoscopic surgical excision of rectovaginal endometriosis and at six months, one year and two years post treatment (median scores are presented (0-10 for the first nine symptoms and 0-4 for the remaining 5 symptoms) with total number of patients in round brackets and 95% confidence interval of the median in square brackets). Analysis restricted to the seven British Society for Gynaecological Endoscopy (BSGE) Endometriosis Centres with the most complete follow-up. A lower score is associated with less severe symptoms.

	<b>Pre-surgery</b>	<b>6 months</b>	<b>12 months</b>	<b>24 months</b>	<b>Short – term<sup>1</sup></b> <b>(baseline vs. 6 months)</b>	<b>Long – term<sup>1</sup></b> <b>(baseline vs. 24 months)</b>	<b>Change<sup>2</sup></b> <b>(6 months vs. 24 months)</b>
Premenstrual pain*	7 [6 7] (632)	3 [2 3] (436)	3 [2 3] (278)	4 [3 5] (119)	0.000v (427)	0.000v (119)	0.108 (97)
Menstrual pain*	9 [8 9] (633)	4 [3 5] (435)	4 [4 5] (278)	6 [5 7] (118)	0.000v (427)	0.000v (118)	0.017^ (96)
Noncyclical pelvic pain	6 [5 6] (676)	2 [2 2] (517)	2 [2 3] (333)	3 [2 4] (152)	0.000v (516)	0.000v (151)	0.007^ (125)
Deep dyspareunia	6 [5 6] (646)	1 [0 2] (453)	1 [0 2] (303)	2 [1 3] (137)	0.000v (449)	0.000v (136)	0.317 (105)
Cyclical dyschezia*	6 [5 6] (632)	0 [0 0] (444)	1 [0 2] (289)	3 [1 4] (125)	0.000v (434)	0.000v (125)	0.000^ (100)
Non cyclical dyschezia	3 [2 3] (673)	0 [0 0] (519)	0 [0 0] (339)	0 [0 2] (151)	0.000v (516)	0.000v (149)	0.192 (123)
Lower back pain	6 [5 6] (671)	2 [2 3] (521)	2 [2 3] (341)	4 [2 5] (152)	0.000v (515)	0.000v (151)	0.905 (126)
Bladder pain or pain passing urine	0 [0 1] (668)	0 [0 0] (518)	0 [0 0] (337)	0 [0 0] (153)	0.000v (511)	0.000v (151)	0.560 (126)
Difficulty emptying bladder	0 [0 0] (662)	0 [0 0] (516)	0 [0 0] (336)	0 [0 0] (153)	0.000v (506)	0.136 (150)	0.558 (124)
Frequent bowel movements	2 [2 2] (665)	2 [2 2] (521)	2 [2 2] (340)	2 [2 3] (151)	0.000v (513)	0.343 (146)	0.096 (125)
Urgent bowel movements	1 [1 1] (665)	1 [1 1] (521)	1 [0 1] (339)	1 [1 2] (150)	0.000v (513)	0.524 (145)	0.000^ (124)
Incomplete emptying sensation	1 [1 2] (662)	1 [1 1] (519)	1 [0 1] (340)	1 [1 2] (153)	0.000v (509)	0.426 (147)	0.001^ (126)
Constipation	1 [1 2] (664)	1 [1 1] (521)	1 [1 1] (340)	1 [1 1] (151)	0.000v (512)	0.093 (146)	0.024^ (125)
Blood in the stool	0 [0 0] (641)	0 [0 0] (450)	0 [0 0] (294)	0 [0 0] (125)	0.000v (439)	0.019v (118)	0.074 (98)

<sup>1</sup> Statistical comparison (Mann Whitney U test) of short term symptom scores (6 months post surgery) and long term symptom scores (2 years post surgery) with baseline scores (pre-surgery)

<sup>2</sup> Statistical comparison (Mann Whitney U test) of change in symptom scores over time post treatment (between 6 months and 2 years)

^ = statistically significant increase, v = statistically significant decrease.

Note that there is some variation in total number of responses depending on whether patients chose not to answer some questions

\* Excludes patients that had a hysterectomy prior to this surgery.

**Supplementary table 2.** Median scores for patient reported quality of life prior to treatment and at six months, one year and two years post treatment with total number of patients in round brackets and 95% confidence intervals in square brackets restricted to the seven British Society for Gynaecological Endoscopy (BSGE) Endometriosis Centres with the most complete follow-up. Median EQVAS lies in the range 0-100 with a higher score associated with a better quality of life. Mean EQ5D index is 1 for perfect health and 0 for death with possible negative values associated with 'worse than death'. The other median scores (EQ5D) lie in the range 0-2 where a lower score is associated with a better quality of life.

	<b>Pre-surgery</b>	<b>6 months</b>	<b>12 months</b>	<b>24 months</b>	<b>Short – term<sup>2</sup> (baseline vs. 6 months)</b>	<b>Long – term<sup>2</sup> (baseline vs. 24 months)</b>	<b>Change<sup>3</sup> (6 months vs. 24 months)</b>
EQVAS numeric <sup>1</sup>	55 [50 60] (664)	80 [80 80] (510)	80 [75 80] (328)	75 [70 80] (136)	0.000 <sup>^</sup> (508)	0.000 <sup>^</sup> (136)	0.036 <sup>v</sup> (116)
EQ5D Usual Activities	1 [1 1] (666)	0 [0 0] (510)	0 [0 0] (330)	0 [0 1] (135)	0.000 <sup>v</sup> (510)	0.000 <sup>v</sup> (135)	0.140 (116)
EQ5D Pain discomfort	1 [1 1] (667)	1 [0 1] (510)	1 [0 1] (332)	1 [1 1] (135)	0.000 <sup>v</sup> (510)	0.000 <sup>v</sup> (135)	0.025 <sup>^</sup> (116)
EQ5D Anxiety depression	1 [1 1] (663)	0 [0 0] (510)	0 [0 0] (332)	0 [0 0] (134)	0.000 <sup>v</sup> (507)	0.000 <sup>v</sup> (134)	0.490 (116)
EQ5D Mobility	0 [0 0] (667)	0 [0 0] (510)	0 [0 0] (332)	0 [0 0] (134)	0.000 <sup>v</sup> (510)	0.000 <sup>v</sup> (134)	0.034 <sup>^</sup> (116)
EQ5D SelfCare	0 [0 0] (666)	0 [0 0] (509)	0 [0 0] (332)	0 [0 0] (135)	0.000 <sup>v</sup> (508)	0.134 (135)	0.453 (116)
EQ5D index <sup>1*</sup>	0.673 [0.620 0.689] (662)	0.796 [0.796 0.812] (509)	0.796 [0.796 0.848] (330)	0.796 [0.743 0.796] (134)	0.000 <sup>^</sup> (506)	0.000 <sup>^</sup> (134)	0.008 <sup>v</sup> (116)

<sup>1</sup>A high Euroqol Visual Analogue Scale (EQ-VAS) score or a high EQ5D index score is associated with an improvement in QoL whereas with all other QoL and symptom scores a low value is associated with improvement.

<sup>2</sup>Statistical comparison (Mann Whitney U test ) of short term symptom scores (6 months post surgery) and long term symptom scores (2 years post surgery) with baseline scores (pre-surgery)

<sup>3</sup>Statistical comparison (Mann Whitney U test ) of change in symptom scores over time post treatment (between 6 months and 2 years)

<sup>^</sup> = statistically significant increase, <sup>v</sup> = statistically significant decrease.

Note that there is some variation in total number of responses depending on whether patients chose not to answer some questions.

\* EQ5D index of 1 is equivalent to perfect health and 0 equivalent to death. Means are reported rather than medians..



**Supplementary table 3.** Analgesia use prior to surgery and at six months, one year and two years post surgery restricted to the seven British Society for Gynaecological Endoscopy (BSGE) Endometriosis Centres with the most complete follow-up. Percentage of patients using medication with total number of patients in brackets.

	<b>Pre-surgery</b>	<b>6 months</b>	<b>12 months</b>	<b>24 months</b>	<b>Short – term<sup>1</sup> (baseline vs. 6 months)</b>	<b>Long – term<sup>1</sup> (baseline vs. 24 months)</b>	<b>Change<sup>2</sup> (6 months vs. 24 months)</b>
Paracetamol	68.3% (672)	51.1% (464)	50.3% (302)	56.3% (144)	0.000v (461)	0.002v (142)	0.031^ (100)
NSAID	74.0% (672)	48.0% (465)	47.0% (302)	59.0% (144)	0.000v (462)	0.053 (142)	0.003^ (100)
Opiates	27.2% (669)	16.6% (465)	16.9% (301)	25.7% (144)	0.000v (462)	0.418 (142)	0.001^ (100)

Denominator (responses) shown in parentheses

NSAID – non-steroidal anti-inflammatory drug

<sup>1</sup> Statistical comparisons of short term change in analgesia use (6 months post surgery) and long term change in analgesia use (2 years post surgery) with baseline analgesia use (pre-surgery) assessed using a 2-tailed sign test.

<sup>2</sup> Statistical comparison of change in analgesia use over time post treatment (between 6 months and 2 years) using a 2-tailed sign-test.

^ = statistically significant increase, v = statistically significant decrease.

Note that there is some variation in total number of responses depending on whether patients chose not to answer some questions