



BRITISH SOCIETY OF
UROGYNAECOLOGY (BSUG)

PELVIC FLOOR REPAIR IN THE UK 2008-2017

POSTERIOR REPAIR REPORT

BSUG AUDIT AND DATABASE COMMITTEE 2019

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ABBREVIATIONS

British Society of Urogynaecology (BSUG)

National Institute for Health and Care Excellence (NICE)

National Health Service (NHS)

Global impression of improvement (GII)

Hospital Episode Statistics (HES)

Royal College of Obstetricians and Gynaecologists (RCOG)

Preface

The British Society of Urogynaecology (BSUG) database has been available online since 2007. It allows BSUG members to record details of procedures performed to treat urinary incontinence and pelvic organ prolapse. Although voluntary, use of the database is recommended by The National Institute for Health and Care Excellence (NICE). In addition, since July 2018, its use is required for 'high vigilance restriction' procedures [1].

The main aim of the BSUG database is to allow outcomes of individual operations to be studied in detail. Thanks to the commitment of BSUG members - and the patients who kindly allowed their data to be recorded – the database has been extremely successful. Currently more than 140 000 individual surgical episodes have been recorded by many consultants and centres. There have also been many publications which are listed on the BSUG website.

Individual consultants use the BSUG database to examine their own practice and for annual appraisal. It is also one of the requirements to become a BSUG accredited urogynaecology centre.

Continual improvements have been made to the BSUG database by many consultants who have worked in their own time without payment. While not perfect, the large number of cases entered by many consultants allows a valid assessment of the outcome of prolapse and incontinence procedures in the UK to be made.

This is the first National Report on Posterior Vaginal Repair from the BSUG Audit and Database Committee and includes the first full 10 years of data collection (2008 – 2017). We have included information on national trends and details on posterior vaginal repair. A conscious decision was taken to not interpret or comment on the results apart from where an explanation is necessary.

Thank you again to the patients and BSUG members who have contributed to this report which we hope you will find useful.

BSUG Audit and Database Committee 2019

CHAPTER 1: Introduction

1.1 BSUG DATABASE

The British Society of Urogynaecology (BSUG) database was established in 2004 and launched online in 2007. It collects data on operations for urinary incontinence and pelvic organ prolapse from the UK and is open to BSUG members. Access to the database is password-protected and the database is held within the secure NHS N3 network. Data entry is self-reported and voluntary but is recommended by NICE and is currently required for a centre to be accredited in urogynaecology by BSUG. Patient consent is required for data entry.

1.2 DATABASE USAGE

From 2008 to 2017, 116 037 procedures for urinary incontinence and prolapse were entered onto the database. There were 145 centres which entered data and these included teaching hospitals, district general hospitals and private hospitals. The cases entered also include operations carried out by trainees on patients under the care of consultants. These cases are included in the audit as they cannot be easily separated.

1.3 AUDIT TIMEFRAME AND OPERATIONS INCLUDED

The timeframe of the audit was from the start of 2008 (the first full year of online data collection) to the end of 2017. We have also shown the number of procedures undertaken in 2018 but have not analysed their outcomes because at the time of writing this report many patients had not completed their follow up.

Only sole posterior vaginal repairs without concomitant procedures were analysed. Repairs with mesh were excluded. Posterior vaginal repairs carried out in conjunction with vaginal hysterectomies, vault suspension procedures and continence procedures were included in datasets that have been analysed and reported in other BSUG National Reports on incontinence and prolapse surgery.

1.4 OUTCOMES

1.4.1 FOLLOW-UP INTERVAL AFTER SURGERY

The database records the 1st follow-up after surgery at 4 prespecified intervals of 6 weeks, 3 months, 6 months and 1 year. How the follow-up was carried out can also be recorded (*Table 1*).

Table 1: *Method of follow-up.*

Outpatient visit
Postal questionnaire
Online questionnaire
Telephone follow-up
Follow-up at the GP practice
As per local agreement

1.4.2 GLOBAL IMPRESSION OF IMPROVEMENT (GII) AFTER SURGERY

The outcome of surgery was assessed by looking at the patient-reported global impression of improvement (GII). The scale has 7 outcome categories and is specific to an improvement in prolapse (*Table 2*).

Table 2: *Global impression of improvement after surgery.*

Very much better
Much better
A little better
No change
A little worse
Much worse
Very much worse

1.4.3 SURGICAL COMPLICATIONS

The database records prespecified intraoperative and postoperative complications (Table 3 & 4).

Table 3: *Intraoperative complications.*

Ureteric injury
Bladder injury
Bowel injury
Urethral injury
Nerve injury
Estimated blood loss > 500 ml

Table 4: *Postoperative complications.*

Graft complications (where relevant)
Blood transfusion
Thromboembolism
Return to theatre within 72 hours of the procedure
Catheterisation > 10 days
Readmission within 30 days of the procedure
Death

1.4.4 ASSIGNMENT OF RISK FOR COMPLICATIONS

The incidence of each intraoperative and postoperative complication was assigned a level of risk based on guidance by the Royal College of Obstetricians and Gynaecologists [2] (Table 5).

Table 5: *Assignment of risk for complications.*

Term	Equivalent numerical ratio	Colloquial equivalent
Very common	1/1 to 1/10	A person in a family
Common	1/10 to 1/100	A person in a street
Uncommon	1/100 to 1/1000	A person in a village
Rare	1/1000 to 1/10 000	A person in a small town
Very rare	Less than 1/10 000	A person in a large town

CHAPTER 2: Number of procedures and trends

2.1 NUMBER OF PROCEDURES 2008-2017

There were 9234 posterior vaginal repairs.

Figure 1, Table 6 shows the number of posterior repair procedures per year. Although not included in the audit, the number of posterior repairs in 2018 is also shown as all continence and some prolapse operations were designated as 'high vigilance restriction' procedures by NHS England in July 2018 [1]. This may have influenced the number of posterior repairs performed that year.

2.2 TRENDS 2008-2018

There was a rise in the number of episodes entered into the database from 2008 to 2014. The number of procedures remained relatively stable from 2014 to 2017. There was a rise in the number of posterior repairs entered into the database in 2018.

Figure 1: Number of posterior vaginal repair procedures added to the BSUG database per year 2008-2018.

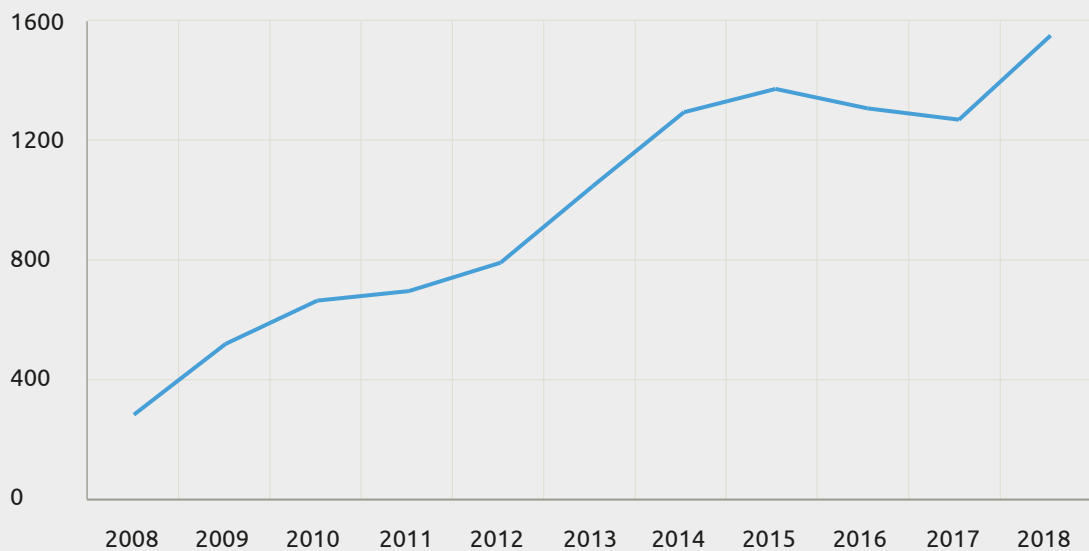


Table 6: Number of posterior vaginal repair procedures added to the BSUG database per year 2008-2018.

	Posterior repair
2008	281
2009	518
2010	663
2011	695
2012	790
2013	1045
2014	1294
2015	1372
2016	1307
2017	1269
2018	1551
Total	10785

Note: Figures from 2018 excluded from audit analysis

CHAPTER 3: Primary and repeat operations for prolapse

3.1 SURGERY FOR RECURRENT PROLAPSE

14.2% of posterior repairs were for recurrent prolapse. 85.8% were primary procedures (Figure 2, Table 7).

Figure 2: Posterior vaginal repair: Primary and repeat procedures for prolapse.

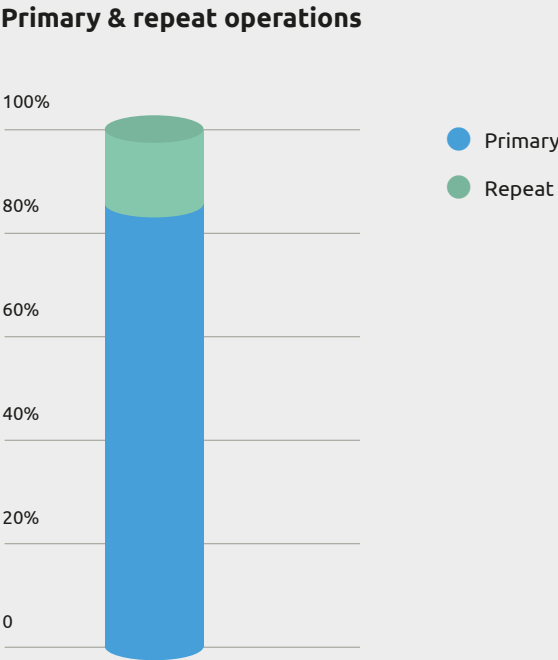


Table 7: Posterior vaginal repair: Primary and repeat procedures for prolapse.

Posterior repair	
Primary	7106 (85.8%)
Repeat	1178 (14.2%)
Unanswered	950
Total	9234

CHAPTER 4: Follow-up after surgery

4.1 FOLLOW-UP METHOD

Prespecified methods of follow-up can be recorded in the database (*Table 8*).

5495 (59.5%) of posterior repairs had the follow-up method recorded. Of these, 4973 (90.5%) were followed-up in clinic.

Table 8: *Posterior vaginal repair: Method of follow-up.*

	Posterior repair
As per local agreement	16 (0.3%)
GP Practice	31 (0.6%)
Online	4 (0.1%)
Outpatient visit	4973 (90.5%)
Postal questionnaire	350 (6.4%)
Telephone response	121 (2.2%)
Unanswered	3739
Total	9234

4.2 FOLLOW-UP INTERVAL AFTER SURGERY

The database records the interval to the 1st follow-up after surgery at 4 prespecified intervals; 6 weeks, 3 months, 6 months and 1 year (*Table 9*).

5431 (58.8%) of posterior repairs had the 1st follow-up interval recorded. The 1st follow-up occurred most frequently at 3 months (47.3%).

Table 9: *Posterior vaginal repair: Follow-up interval after surgery.*

	Posterior repair
6 Weeks	1571 (28.9%)
3 Months	2568 (47.3%)
6 Months	1137 (20.9%)
12 Months	155 (2.9%)
Unanswered	3803
Total	9234

CHAPTER 5: Global impression of improvement (GII) after surgery

The efficacy of surgery was assessed using patient-reported global impression of improvement (GII).

5.1 GII AT 1ST FOLLOW-UP

GII at the 1st follow-up was recorded in 55.1% (5085) episodes (*Table 10*).

Overall, 91.2% (4635) episodes were Very Much Better or Much Better after posterior vaginal repair.

Table 10: Posterior repair GII at 1st follow-up.

	Posterior repair
Very much better	3350 (65.9%)
Much better	1285 (25.3%)
A little better	263 (5.2%)
No change	140 (2.8%)
A little worse	24 (0.5%)
Much worse	14 (0.3%)
Very much worse	9 (0.2%)
Unanswered	4149
Total	9234

5.2 GII AT DIFFERENT FOLLOW-UP INTERVALS

54.6% (5046) of posterior vaginal repairs had both GII and the 1st follow-up interval recorded (*Table 11, shaded area*). At 6 weeks, 93.9% of patients were Very Much Better or Much Better. Of the much smaller number of reviews at 12 months, 76.4% were Very Much Better or Much Better.

Table 11: Posterior repair GII at different time intervals. n (%)

	Unanswered	VMB	MB	ALB	NC	ALW	MW	VMW	Total
Unanswered	3764	22	8	5	3	1	0	0	3803
6 weeks	122	1009 (69.6)	353 (24.3)	51 (3.5)	29 (2.0)	4 (0.3)	3 (0.2)	0	1571
3 months	175	1595 (66.7%)	612 (25.6%)	113 (4.7%)	57 (2.4%)	4 (0.2%)	5 (0.2%)	7 (0.3%)	2568
6 months	81	640 (60.6%)	283 (26.8%)	77 (7.3%)	42 (4.0%)	10 (0.9%)	3 (0.3%)	1 (0.1%)	1137
12 months	7	84 (56.8%)	29 (19.6%)	17 (11.5%)	9 (6.1%)	5 (3.4%)	3 (2.0%)	1 (0.7%)	155
Total	4149	3350	1285	263	140	24	14	9	9234

CHAPTER 6: Complications of surgery

6.1 INTRAOPERATIVE COMPLICATIONS

The most common intraoperative complications for posterior vaginal repair procedures were bowel injury (0.2%) and estimated blood loss > 500 ml (0.1%) (Table 12).

Table 12: Posterior repair intraoperative complications.

	Incidence %	Risk	No	Yes	Unrecorded	Total
Ureteric injury	0.01	Rare	9123	1	110	9234
Bladder injury	0.01	Rare	9124	1	109	9234
Urethral injury	0	Very rare	7338	0	1896	9234
Bowel injury	0.2	Uncommon	9107	16	111	9234
Vascular injury	0.02	Rare	9121	2	111	9234
Nerve injury	0.01	Rare	9122	1	111	9234
Estimated blood loss > 500 ml	0.1	Uncommon	9122	10	112	9234

6.2 POSTOPERATIVE COMPLICATIONS

The most common postoperative complications for posterior repair procedures were readmission within 30 days of the procedure (2.9%), catheterisation for > 10 days (0.7%) and return to theatre < 72 hours (Table 13).

Table 13: Posterior repair postoperative complications.

	Incidence %	Risk	No	Yes	Unrecorded	Total
Blood transfusion	0	Very rare	9123	0	111	9234
Venous thromboembolism	0.02	Rare	8861	2	371	9234
Death	0.01	Rare	8859	1 no details	374	9234
Return to theatre within 72 hrs	0.7	Uncommon	5748	43	3443	9234
Catheter for > 10 days	0.7	Uncommon	5733	38	3463	9234
Readmission within 30 days	2.9	Common	5489	165	3580	9234
Readmissions - 3 planned, 22 emergency, 140 not specified						

CHAPTER 7: Limitations of the audit

Not every operation performed for the treatment of vault prolapse over the last 10 years has been included in this analysis as use of the database is voluntary and open only to BSUG members. Some procedures will have been performed by Consultants who are not members of BSUG. A comparison to Hospital Episode Statistics (HES) has not been made.

In addition, caution must be applied to the use and interpretation of this report because of missing data and the limited recording of long-term outcomes – both positive and negative. This is particularly so for long-term complications which may arise after the initial period of follow-up and which may have been treated in other units.

REFERENCES

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