BRITISH SOCIETY OF UROGYNAECOLOGY (BSUG)

VAGINAL HYSTERECTOMY AND PELVIC FLOOR REPAIR FOR PELVIC ORGAN PROLAPSE IN THE UK: 2020 – 2021

BSUG AUDIT AND DATABASE COMMITTEE 2022

Registered charity No 1143157

Contents

Abbreviations

- British Society of Urogynaecology (BSUG)
- Global impression of improvement (GII)
- Hospital Episode Statistics (HES)
- National Institute for Health and Care Excellence (NICE)

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.

The main aim of the BSUG database is to allow outcomes of 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 160 000 surgical episodes have been recorded and the database has generated many publications which are listed on the BSUG website.

Individual consultants use the BSUG database to examine their own practice and for annual appraisal. Using the database 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 allows a valid assessment of the outcome of prolapse and incontinence procedures in the UK to be made.

This is the 2nd national report on vaginal hysterectomy and pelvic floor surgery for pelvic organ prolapse from the BSUG Audit and Database Committee and includes data from 2020 and 2021. We have included information on national trends and outcomes of surgery. 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 2022

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. Data entry is self-reported and voluntary but is currently required for a centre to be accredited in urogynaecology by BSUG. Patient consent is required for data entry.

1.2 DATABASE USAGE

At the end of 2021, there were more than 160 000 recorded procedures for urinary incontinence and prolapse in the database. Centres entering data 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 2020 to the end of 2021. Data was downloaded on 28th January 2022 so not all episodes intended to be entered into the database may have been uploaded. The procedures included were:

1. Vaginal hysterectomy +/- pelvic floor repair (VH+/-PFR)
2. Anterior repair with posterior repair (AR+PR)
3. Anterior repair on its own (AR)
4. Posterior repair on its own (PR)

Procedures with sacrospinous fixation were excluded as these have been analysed in a separate report for suspension procedures for apical prolapse. This report also excludes pelvic floor repairs utilising mesh.

1.4 OUTCOMES

1.4.1 FOLLOW-UP INTERVAL AFTER SURGERY

The database records the 1st follow-up after surgery at 4 specific intervals of 6 weeks, 3 months, 6 months and 1 year. How the follow-up was carried out can also be recorded: Face-to-face outpatient visit, postal questionnaire, online questionnaire, telephone follow-up or follow-up at the GP practice.

1.4.2 GLOBAL IMPRESSION OF IMPROVEMENT (GII) AFTER SURGERY

The outcome of surgery was assessed using patient-reported global impression of improvement (GII). The scale has 7 outcome categories *(Table 1)*.

Table 1: *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 specified intraoperative and postoperative complications *(Table 2)*.

Table 2: *Intraoperative and postoperative complications*

Intraoperative	Postoperative
Ureteric injury	Blood transfusion
Bladder injury	Thromboembolism
Bowel injury	Return to theatre < 72 hours of the procedure
Urethral injury	Catheterisation > 10 days
Nerve injury	Readmission within 30 days of the procedure
Estimated blood loss > 500 ml	Death
	Persistent postoperative pain

CHAPTER 2: Number of procedures and trends

2.1 VAGINAL HYSTERECTOMY AND PELVIC FLOOR REPAIR PROCEDURES 2020-2021

For the timeframe 2020 to 2021 inclusive, there were 5493 procedures which have been included in this audit. Vaginal hysterectomy +/- pelvic floor repair was the most common procedure (2334, 42.5%) *(Table 3)*.

We have shown the number of procedures added to the BSUG database in 2018 for comparison but have not included them in the overall analysis. The 2018 numbers are of interest as sacrocolpopexies and sacrohysteropexies were classified as 'high vigilance restriction' procedures by NHS England in July 2018 [1] and the 1st coronavirus lockdown in the UK occurred in March 2020. Table 3 shows the number of procedures per year for each of the operations.

Table 3: *Number of vaginal hysterectomy and pelvic floor repair procedures in 2018, 2020 & 2021*

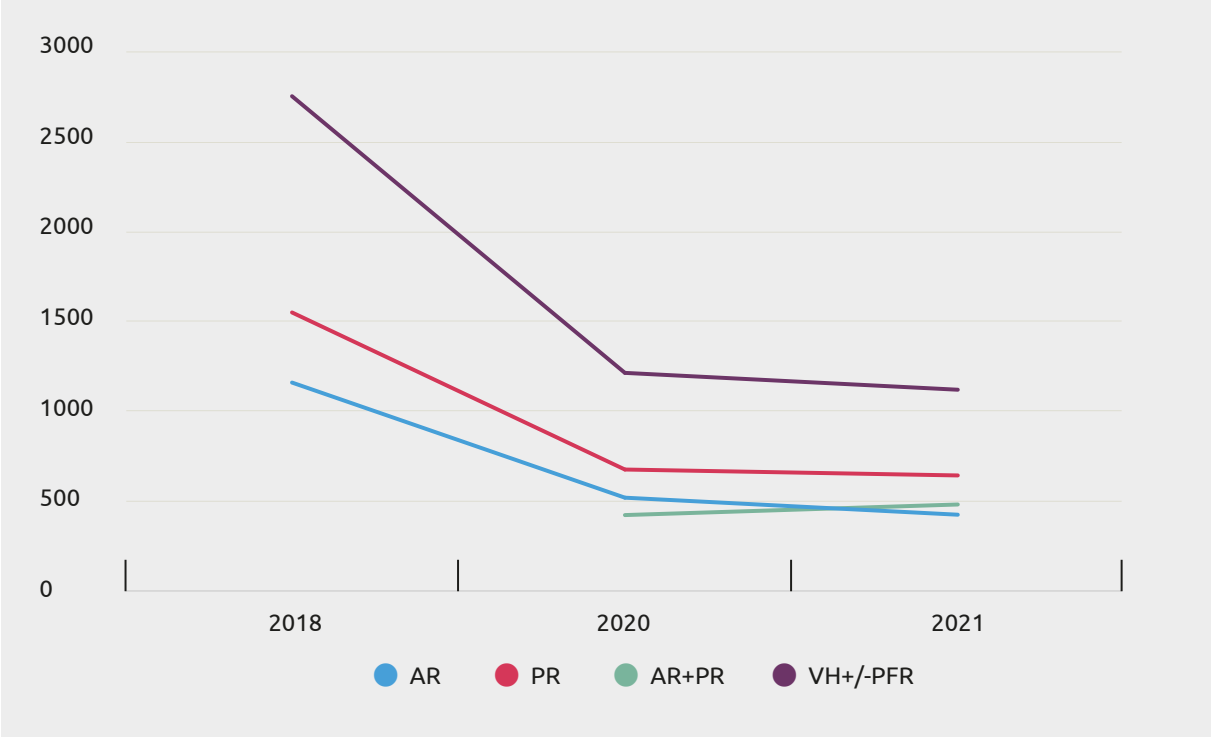
	2018	2020	2021	Total n for 2020 & 2021
AR	1160	518	423	941
PR	1551	675	642	1317
AR+PR	Not available*	421	480	901
VH+/-PFR	2757	1214	1120	2334

*Due to time constraints from having to manually inspect data

2.2 CHANGES IN THE NUMBER OF VAGINAL HYSTERECTOMY AND PELVIC FLOOR REPAIR PROCEDURES

As expected, there was a fall in the number of procedures in 2020 and 2021 compared with 2018 *(Table 3 & Figure 1)*.

Figure 1: Number of vaginal hysterectomy and pelvic floor repair procedures in 2018, 2020 & 2021



CHAPTER 3: Surgery for recurrent prolapse

3.1 SURGERY FOR PRIMARY AND RECURRENT PROLAPSE

Vaginal hysterectomy +/- pelvic floor repair was the most common procedure for primary prolapse. Anterior repair had the lowest proportion of primary prolapse *(Table 4)*.

Table 4. Vaginal hysterectomy and pelvic floor repair for primary prolapse

	Primary prolapse (n)	%
AR, n=818	583	71.3
PR, n=1186	939	79.2
AR+PR, n=825	662	80.2
VH+/-PFR , n=2094	1985	94.8

CHAPTER 4: Outcomes of surgery

4.1 GLOBAL IMPRESSION OF IMPROVEMENT (GII) AFTER VAGINAL HYSTERECTOMY AND PELVIC FLOOR REPAIR

GII was recorded at follow-up in:

AR	48.1% of episodes
PR	44.6% of episodes
AR+PR	46.7% of episodes
VH+/-PFR	48.4% of episodes

Episodes reporting 'Very much better' (VMB) or 'Much better' (MB) GII were considered 'cured'. All the procedures had high cure rates. The highest cure rate was after vaginal hysterectomy +/- pelvic floor repair and the lowest after anterior repair (95.9% and 88.3% respectively) *(Table 5)*.

Table 5. Global impression of improvement after vaginal hysterectomy and pelvic floor repair

	GII – Very much better or Much better outcomes, %(n)
AR, n=453	88.3 (400)
PR, n=587	89.8 (527)
AR+PR, n=421	93.4 (393)
VH+/-PFR , n=1130	95.9 (1084)

4.2 FOLLOW-UP INTERVAL

For all procedures, follow-up was short-term and occurred at 6 months or less in approximately 95% of cases *(Table 6)*.

Table 6: Follow-up interval

	6 months or less, % (n)
AR, n=454	94.9 (431)
PR, n=597	96.5 (576)
AR+PR, n=424	97.6 (414)
VH+/-PFR , n=1145	96.5 (1105)

4.3 METHOD OF FOLLOW-UP

Face-to-face outpatient visit and telephone consultations were the most common ways patients were reviewed after surgery *(Table 7)*.

Table 7: Method of follow-up

	Face-to-face, % (n)	Telephone, % (n)
AR, n=941	62.6 (285)	35.8 (163)
PR, n=603	65.7 (396)	31.2 (188)
AR+PR, n=424	71.5 (303)	27.4 (116)
VH+/-PFR , n=1151	65.7 (756)	30.9 (356)

CHAPTER 5: Complications

5.1 INTRAOPERATIVE AND POSTOPERATIVE COMPLICATIONS

The intraoperative and postoperative complications for each procedure are shown in *Table 8*.

Overall, when the intraoperative and postoperative rates were combined, vaginal hysterectomy +/- pelvic floor repair had the highest complication rate (8.8%) and anterior repair the lowest (3.1%).

5.2 PERSISTENT POSTOPERATIVE PAIN

The reported rate of persistent postoperative pain is shown in *Table 8*. It was:

- 8.8% after vaginal hysterectomy +/- pelvic floor repair
- 6.5% after anterior + posterior repair
- 8.0% after posterior repair
- 3.1% after anterior repair

Table 8: Intra and postoperative complications, % (number of occurrences) [number of cases]

	AR	PR	AR+PR	VH+/-PFR
Ureteric injury	0 [935]	0 [1300]	0 [893]	0.04 (1) [2300]
Bladder injury	0.2 (2) [935]	0.08 (1) [1300]	0 [893]	0.3 (7) [2301]
Vaginal button-hole	0.1 (1) [935]	0.2 (2) [1300]	0 [893]	0.2 (5) [2300]
Urethral injury	0 [935]	0 [1300]	0 [893]	0 [2300]
Bowel injury	0 [935]	0.08 (1) [1300]	0 [893]	0 [2300]
Vascular injury	0 [935]	0 [1300]	0 [893]	0.04 (1) [2300]
Neurological injury	0 [935]	0 [1300]	0 [893]	0 [2300]
EBL >500ml	0.1 (1) [935]	0.2 (2) [1300]	0.3 (3) [893]	0.7 (16) [2300]
Perioperative blood transfusion	0.1 (1) [935]	0 [1300]	0 [893]	0.1 (3) [2300]
Perioperative VTE	0 [935]	0 [1300]	0 [893]	0 [2300]
Death	0 [935]	0 [1300]	0 [893]	0.08 (2) [2300]
Catheterisation >10 days	0.8 (4) [494]	0.6 (4) [649]	1.7 (8) [471]	1.7 (21) [1271]
Readmission <30 days	0.2 (1) [484]	0.6 (4) [635]	0.9 (4) [461]	2.0 (25) [1242]
Return to theatre <72 hrs	0.2 (1) [495]	0.8 (5) [655}	0.8 (4) [472]	0.6 (7) [1272]
Persistent postop pain	1.4 (7) [493]	5.4 (28) [522]	2.8 (11) [393]	3.0 (30) [1000]
Cumulative rate	3.1	8.0	6.5	8.8

CHAPTER 6: Limitations of the audit

6.1 LIMITATION OF THE AUDIT

Not every operation performed in 2020 and 2021 will have 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 surgeons who are not members of BSUG. A comparison to 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

1) Letter from NHS England and NHS Improvement to trust medical directors regarding 'high vigilance restriction' procedures. NHS England & NHS Improvement. July 2018.

https://i.emlfiles4.com/cmpdoc/9/7/2/8/1/1/files/47633_mesh-letter-to-acute-ceosand-mds.pdf