



BRITISH SOCIETY OF  
UROGYNAECOLOGY (BSUG)

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**MANCHESTER REPAIR FOR UTERINE  
AND CERVICAL PROLAPSE IN THE UK:  
2007 – 2022**

BSUG AUDIT AND DATABASE COMMITTEE 2023

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# Abbreviations

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

# Preface

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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 182 000 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 1st national report on the Manchester technique for uterine and cervical prolapse from the BSUG Audit and Database Committee and includes over 10 years of data collection (2007 – 2022). 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 2023

# CHAPTER 1: Introduction

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## 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 2022, there were more than 182 000 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 2007 to the end of 2022. Data was downloaded on 2nd February 2023 so not all episodes intended to be entered into the database may have been uploaded. The procedures included were:

1. Manchester repair on its own (MR only)
2. Manchester repair + pelvic floor repair (MR + PFR, this excludes sacrospinous fixation)
3. Manchester repair + sacrospinous fixation (MR + SSF, this may include a pelvic floor repair)

Procedures performed concomitantly at the time of Manchester repair, include anterior repair, posterior repair and sacrospinous fixation. These have all been included and analysed according to the groups listed above. 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 (*Table 1*).

**Table 1:** *Method of follow-up*

Outpatient visit (face-to-face)
Postal questionnaire
Online questionnaire
Telephone follow-up
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 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 specified intraoperative and postoperative complications (*Table 3*).

**Table 3:** *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 MANCHESTER REPAIR PROCEDURES 2007-2022

For the timeframe 2007 to 2023 inclusive, there were 652 procedures which have been included in this audit. Manchester repair alone was the most common procedure (337, 51.7%) (Table 4).

**Table 4:** Number of Manchester repair procedures 2007-2023

Surgery	n (%)
MR only	337 (51.7)
MR + PFR	285 (43.7)
MR + SSF	30 (4.6)
<b>Total</b>	<b>652</b>

Table 5 shows the number of procedures per year for each of the operations.

**Table 5:** Number of Manchester repair procedures per year 2007-2022

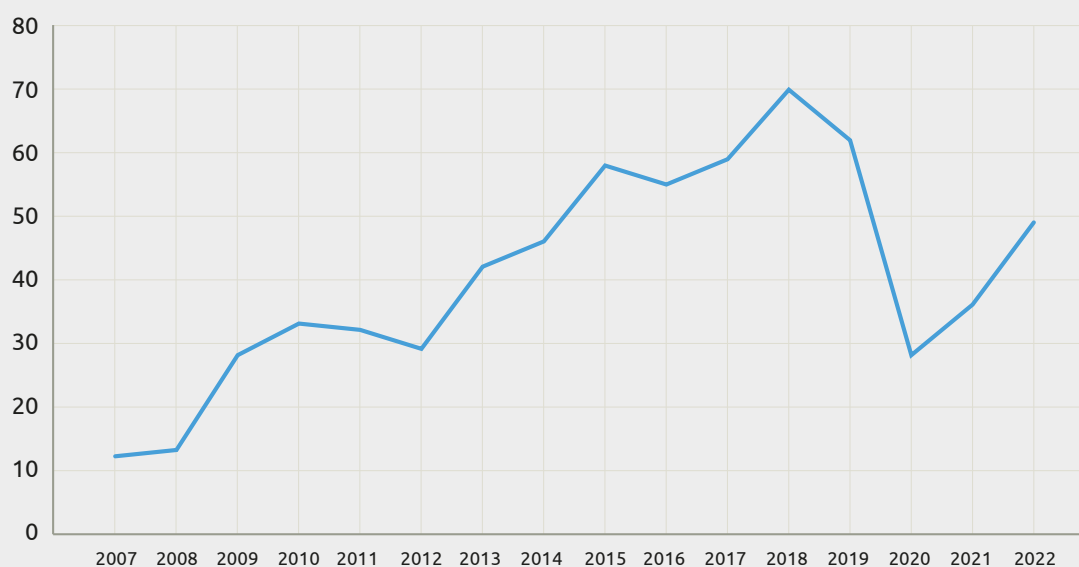
	MR only	MR + PFR	Lap MR + SSF	Total
2007	8	4	0	12
2008	9	4	0	13
2009	19	8	1	28
2010	20	12	1	33
2011	12	17	3	32
2012	18	11	0	29
2013	27	13	2	42
2014	25	19	2	46
2015	32	22	4	58
2016	26	24	5	55
2017	33	22	4	59
2018	32	35	3	70
2019	32	29	1	62
2020	13	15	0	28
2021	12	22	2	36
2022	19	28	2	49

## 2.2 CHANGES IN THE NUMBER OF APICAL SUSPENSION PROCEDURES

Events of note during the audit timeframe were the classification of sacrocolpopexies and sacrohysteropexies as 'high vigilance restriction' procedures by NHS England in July 2018 [1] and the 1st Coronavirus lockdown in the UK in March 2020.

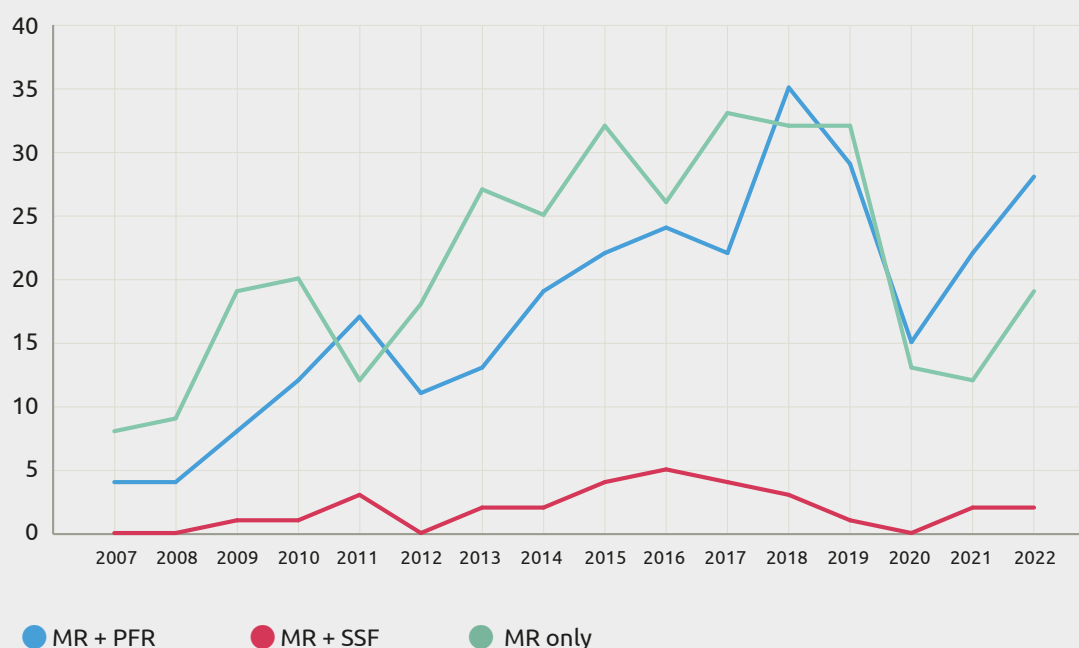
The number of Manchester repair procedures rose steadily to reach a peak in 2018. The numbers fell steeply in 2020 due to the Coronavirus lockdown (*Figure 1 & 2*).

**Figure 1:** Total number of Manchester repair procedures per year from 2007 to 2022





**Figure 2:** Number of Manchester repair (alone and combined) procedures per year from 2007 to 2022



The rise in number Manchester repairs from 2014 can be due to 2 main reasons:

1. **Increase in non-mesh operations** - Mesh ban in Scotland 2014 and subsequent UK high vigilant restrictions in July 2018 resulted in the reduction in uptake of abdominal sacrohysteropexies. Proportionately non-mesh operations for uterine prolapse including Manchester repair increased.
2. **Increased reporting on BSUG database** - The BSUG database entry is voluntary. Since the Scottish mesh ban in 2014 and subsequent high vigilance restrictions on mesh procedures in 2018, more Urogynaecology surgeons utilise the BSUG database to audit their practice. The NHS Digital national registry was subsequently introduced.

The fall in number cases performed/reported in 2020 - 2021 is associated with the cancellation of elective surgeries such as urogynaecological procedures.

## CHAPTER 3: Surgery for recurrent prolapse

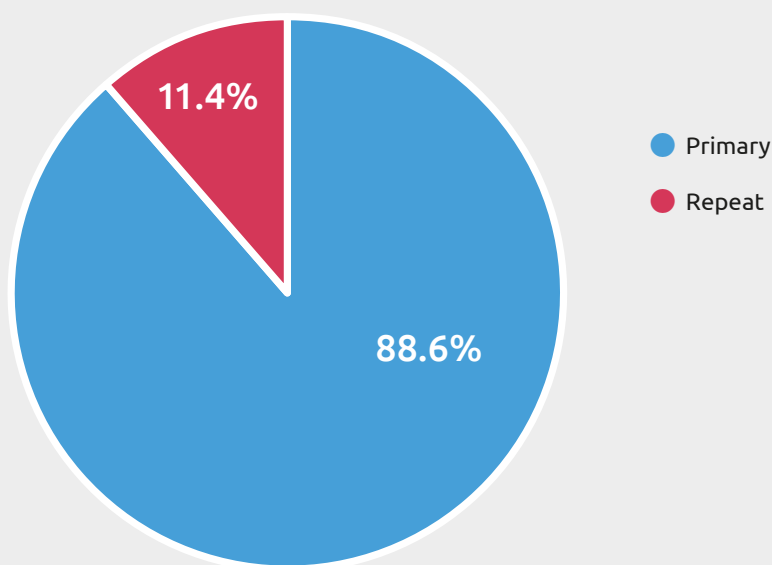
### 3.1 SURGERY FOR PRIMARY AND RECURRENT PROLAPSE

The majority of Manchester repair procedures were carried out for primary prolapse (*Table 6*).

**Table 6:** Manchester repair as primary and repeat procedures for prolapse

	n (%)
● Primary	483 (88.6)
● Repeat	62 (11.4)
Unanswered	107
<b>Total</b>	<b>652</b>

**Figure 3:** Percentage of Manchester repair as primary and repeat procedures for prolapse



## CHAPTER 4: Outcomes of surgery

### 4.1 FOLLOW-UP INTERVAL

372 (57.1%) of Manchester repairs had the 1st follow-up interval recorded. The 1st follow-up occurred most frequently at 3 months (55.1%), with 96.5% of follow-up occurring at 6 months or less.

**Table 7:** Manchester repair: Follow-up interval after surgery

	n (%)
6 weeks	87 (23.4)
3 months	205 (55.1)
6 months	67 (18.0)
12 months	13 (3.5)
Unanswered	280
<b>Total</b>	<b>652</b>

### 4.2 METHOD OF FOLLOW-UP

379 (58.1%) of Manchester repairs had the follow-up method recorded. Of these, 340 (89.7%) were followed-up in clinic with a face-to-face consultation. Face-to-face outpatient visits, telephone consultations and postal questionnaires were the only ways patients were reviewed after surgery.

**Table 8:** Manchester repair: Method of follow-up

	n (%)
Outpatient visit	340 (89.7)
Postal questionnaire	9 (2.4)
Telephone response	30 (7.9)
Unanswered	273
<b>Total</b>	<b>652</b>

### 4.3 GLOBAL IMPRESSION OF IMPROVEMENT (GII) AFTER MANCHESTER REPAIR

GII at the 1st follow-up was recorded in 55.2% (360) episodes (*Table 9*).

Overall, 95.6% (344) episodes were Very Much Better or Much Better after Manchester repair.

**Table 9:** Manchester repair GII at 1st follow-up

PGII	n (%)
Very much better	279 (77.5)
Much better	65 (18.1)
A little better	8 (2.2)
No change	3 (0.8)
A little worse	2 (0.6)
Much worse	1 (0.2)
Very much worse	2 (0.3)
Unanswered	292
<b>Total</b>	<b>652</b>

When considering specific operative groups, GII was recorded at follow-up in:

- MR only 54.6% of episodes
- MR + PFR 54.7% of episodes
- MR + SSF 66.7% of episodes

Episodes reporting 'Very much better' (VMB) or 'Much better' (MB) GII were considered 'cured'. All the procedures had high cure rates. (*Table 10*).

**Table 10:** Global impression of improvement after Manchester repair alone or in combination with pelvic floor repair and sacrospinous fixation procedures

	Cured n (%)
MR only (n=184)	181 (98.4)
MR + PFR (n=156)	143 (91.7)
MR + SSF (n=20)	20 (100)

## CHAPTER 5: Complications

### 5.1 INTRAOPERATIVE COMPLICATIONS

The most common intraoperative complications associated with Manchester repair procedure, either alone or on combination with pelvic floor repair or sacrospinous fixation, were estimated blood loss > 500ml (0.9%) and bladder injury (0.5%) (*Table 11*).

The overall intraoperative cumulative risk for all procedures combined was 1.6%.

**Table 11:** Manchester repair intraoperative complications

	Incidence %	Risk	No	Yes	Unanswered	Total
Ureteric injury	0	Very rare	647	0	5	652
Bladder injury	0.5	Uncommon	644	3	5	652
Urethral injury	0	Very rare	550	0	102	652
Bowel injury	0.2	Uncommon	646	1	5	652
Vascular injury	0	Very rare	647	0	5	652
Nerve injury	0	Very rare	647	0	5	652
Blood loss >500ml	0.9	Uncommon	641	6	5	652

### 5.2 POSTOPERATIVE COMPLICATIONS

The most common postoperative complications for Manchester repair were the need for a catheter for more than 10 days (2.3%) and readmission to hospital within 30 days of surgery (2.6%) (*Table 12*).

**Table 12:** Manchester repair postoperative complications

	Incidence %	Risk	No	Yes	Unanswered	Total
Perioperative blood transfusion	0	Very rare	647	0	5	652
Perioperative VTE	0	Very rare	623	0	29	652
Death	0	Very rare	623	0	29	652
Return to theatre <72 hrs	1.8	Common	382	7	263	652
Catheterisation >10 days	2.3	Common	382	9	261	652
Readmission <30 days	2.6	Common	370	10	272	652
Persistent postop pain	1.6	Common	62	1	589	652

## CHAPTER 6: Limitations of the audit

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### 6.1 LIMITATION OF THE AUDIT

Not every operation performed in 2007 and 2022 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

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