



BRITISH SOCIETY OF
UROGYNAECOLOGY (BSUG)

**COLPOCLEISIS SURGERY IN THE UK
2008-2021**

BSUG AUDIT AND DATABASE COMMITTEE 2023

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Abbreviations

- British Society of Urogynaecology (BSUG)
- Body mass index (BMI)
- General anaesthetic (GA)
- Hospital Episode Statistics (HES)
- Local anaesthetic (LA)
- Multi-disciplinary team (MDT)
- National Health Services England (NHSE)
- Pelvic floor exercises (PFE)
- Patient global impression of improvement (PGI-I)
- Royal College of Obstetricians and Gynaecologists (RCOG)

Preface

The British Society of Urogynaecology (BSUG) Audit Database has been available online since 2007. It enables BSUG members to record the details of surgical procedures for urinary incontinence and pelvic organ prolapse so that their outcomes can be evaluated. Although voluntary, use of the database is recommended by the National Institute for Health and Care Excellence (NICE) and is necessary for urogynaecology units to attain BSUG accreditation. Thanks to the commitment of BSUG members and the patients who kindly allowed their data to be recorded, the database has been very successful. Currently, more than 182000 surgical episodes have been recorded from a large number of consultants and centres. Information from the database has allowed numerous national audits on urogynaecological procedures to be produced by BSUG. It has also generated many publications which are listed on the BSUG website. At an individual level, consultants find the database useful for evaluating their own practice and for the purposes of annual appraisal and revalidation.

Improvements to the relevance and functionality of the database are continuously being made thanks to many consultants who have worked in their own time without payment. Despite its imperfections, the large number of cases 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 Colpocleisis Surgery from the BSUG Audit Database looking at data from 2008 to 2021.

BSUG Audit and Database Committee 2023

Summary of Report

For the years 2008 to 2021, 2107 colpocleisis procedures were recorded in the BSUG database by 98 different centres. Colpocleisis was a sole procedure or in combination with other procedures for pelvic organ prolapse.

The average age of patients 80 years and 35% of episodes were for recurrent pelvic organ prolapse. In those with an intact uterus, 86% of colpocleisis spared the uterus.

The cure rate for prolapse was high at 93%. The incidence of intraoperative and postoperative complications was low at less than 1% and 2% respectively.

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

During the years 2008 to 2021, 2107 colposcleisis procedures were added by 98 different centres and these included teaching hospitals, district general hospitals and private hospitals.

1.3 AUDIT TIMEFRAME AND OPERATIONS INCLUDED

This report has looked at colposcleisis procedures undertaken from the beginning of 2008 to the end of 2021. The data was extracted from the BSUG database on 6th March 2022.

1.4 PRE-PROCEDURE WORK-UP

The BSUG database records information on pre-surgical processes. It includes information on whether pre-operative pelvic floor exercises, MDT discussion and provision of procedure-specific information occurred. We have reported these outcomes as they are either high vigilance requirements or are accepted as components of best practice.

1.5 LENGTH OF STAY AND ANAESTHESIA USED

BSUG database records the length of stay after surgery (*Table 1*) and the anaesthesia used (*Table 2*).

Table 1: *Length of stay after surgery*

Outpatient
Day Case
<24 hour stay
1 day
2 days
3 days
4 days or more

Table 2: *Type of anaesthesia*

General anaesthetic (GA)
GA and regional anaesthetic
Spinal
Local anaesthetic (LA)
Sedation

1.6 OUTCOMES REPORTED

1.6.1 GLOBAL IMPRESSION OF IMPROVEMENT AFTER SURGERY

The outcome of colposcleisis surgery was assessed using the patient-reported global impression of improvement (PGI-I). The scale has 7 outcome categories (*Table 3*).

Table 3: *PGI-I after surgery*

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

1.6.2 SURGICAL COMPLICATIONS

The database records pre-specified surgical complications (*Table 4*).

Table 4: *Surgical complications*

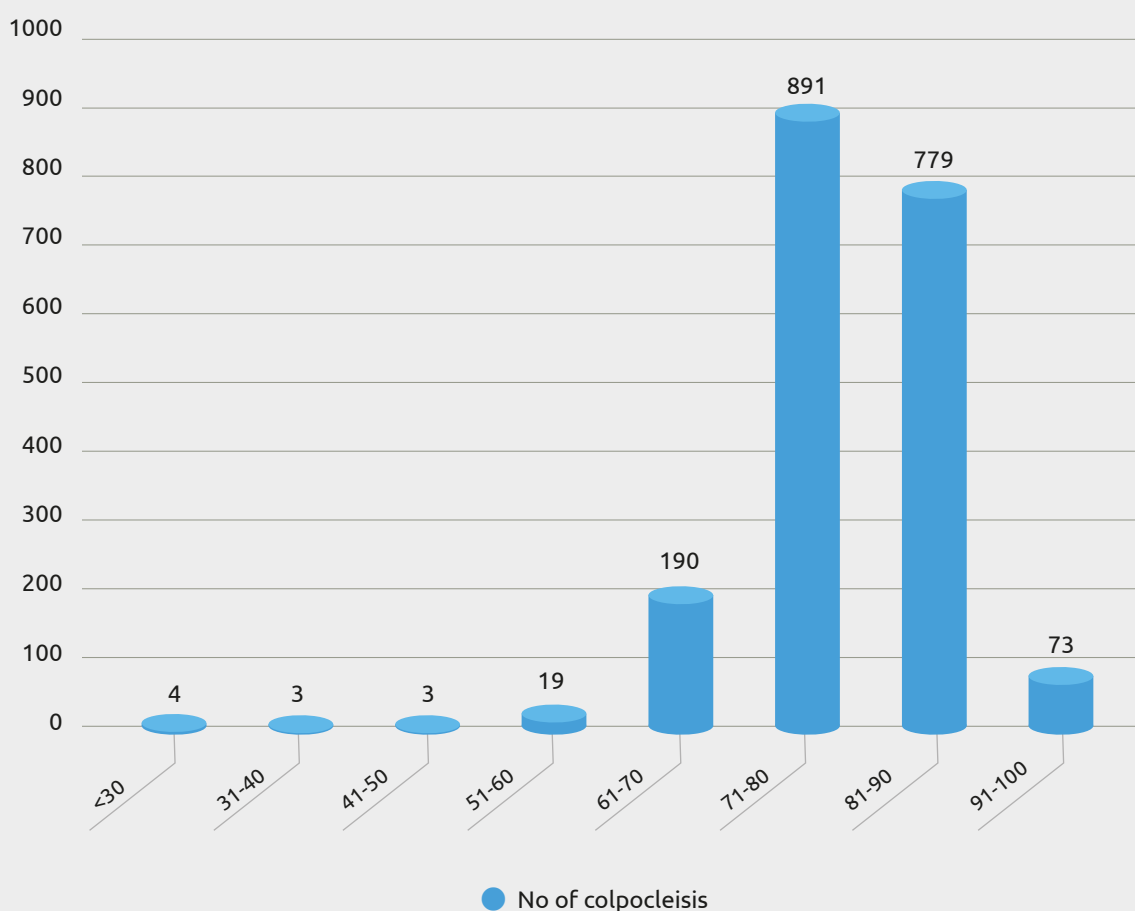
Intraoperative	Postoperative
Bladder injury	Perioperative blood transfusion
Ureteric injury	Venous thromboembolism
Urethral injury	Death
Vascular injury	Persistent postoperative pain
Neurologic injury	Return to theatre <72 hours of the procedure
Blood loss >500 ml	Catheterisation for >10 days
	Readmission <30 days of the procedure

CHAPTER 2: Demographics and annual trends

2.1 MANCHESTER REPAIR PROCEDURES 2007-2022

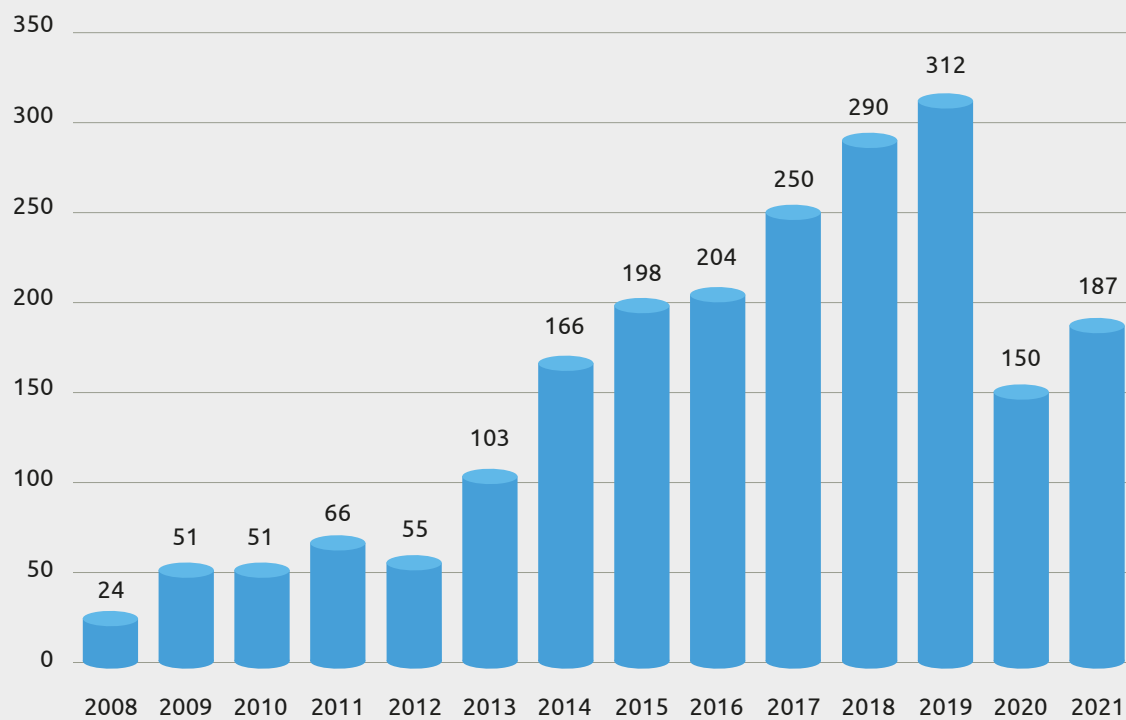
The demographics of the patients undergoing colpocleisis between 2008 and 2021 were analysed to gain background information on the patient cohort. Age at the time of surgery was correctly recorded in 1962 patients. The mean age of patients undergoing a colpocleisis was 79.8 years, with a range of 19 to 100 years (*Figure 1*).

Figure 1: Age distribution of patients undergoing colpocleisis (n=1962)



The number of colpocleisis recorded continued to increase each year with a maximum of 312 in 2019 (*Figure 2*). The number of cases fell to 150 in 2020, due to the COVID pandemic affecting elective surgery.

Figure 2: Yearly trend of the number of colpocleisis (n=2107)



CHAPTER 3: Primary and repeat procedures

3.1 PRIMARY AND REPEAT PROCEDURES

The number of procedures for primary and recurrent incontinence can be seen in the *table 5*. In 35% of cases this was surgery for recurrent prolapse.

Table 5: *Number of primary and repeat procedures (n=1785)*

	n (%)
Primary procedure	1161 (65)
Redo procedure- site not specified	268 (15)
Redo – new site	88 (5)
Redo – same site	268 (15)

CHAPTER 4: Pre-procedure work-up

4.1 PRE-PROCEDURE WORK-UP

The pre-procedure work up prior to undertaking surgery is shown in *Table 6*.

Table 6: *Pre-operative preparation – offer of pelvic floor exercises, provision of procedure-specific information & MDT discussion*

	n (%)
PFE offered and accepted (n=1283)	385 (30)
Procedure specific information given (n=1353)	1243 (92)
Preop MDT 2019-2021 undertaken (n=474)	332 (70)
Preop MDT 2008-2018 undertaken (n=324)	140 (43)

CHAPTER 5: Surgical procedures

5.1 SURGICAL PROCEDURES

Colpocleisis procedures were categorised into:

1. Colpocleisis alone
2. Colpocleisis + pelvic floor repair (excluding hysterectomy and apical suspension)
3. Colpocleisis + apical suspension (excluding hysterectomy)
4. Colpocleisis + hysterectomy

Table 7 shows procedures carried out at the time of colpocleisis. 80% of procedures consisted of colpocleisis alone.

Table 7: Surgical procedures (n=2107)

	n (%)	
Colpocleisis alone	1682 (80)	
Colpocleisis + PFR	297 (14)	
Colpocleisis + apical suspension	22 (1)	21 sacrospinous fixation 1 laparoscopic sacrohysteropexy
Colpocleisis + hysterectomy	106 (5)	104 vaginal hysterectomy 2 laparoscopic hysterectomy

Table 8 shows the hysterectomy status of patients prior to colpocleisis. 762 (45%) patients had an intact uterus prior to surgery.

Table 8: Hysterectomy status prior to colpocleisis (n=1700)

	n (%)
Previous hysterectomy	938 (55)
Uterus intact	762 (45)

Table 9 shows the surgical procedures for the 762 patients with intact uteri. Of those who had an intact uterus, 14% had a hysterectomy at the time of colpocleisis. 86% had uterine preservation.

Table 9: Breakdown of procedures for patients who had an intact uterus (n=762)

	n (%)	
Colpocleisis alone	554 (73)	
Colpocleisis + PFR	95 (12)	
Colpocleisis + apical suspension	7 (1)	6 sacrospinous fixation 1 laparoscopic sacrohysteropexy
Colpocleisis + hysterectomy	106 (14)	104 vaginal hysterectomy 2 laparoscopic hysterectomy

CHAPTER 6: Length of stay and anaesthesia type

6.1 LENGTH OF STAY AND ANAESTHESIA TYPE

The length of stay post-operatively is shown in *Table 10* and the type of anaesthesia used in *Table 11*.

Table 10: *Length of stay for colpocleisis (n=1581)*

	n (%)
Day case	191 (12)
<24 hrs	48 (3)
1 day	662 (42)
2 days	485 (31)
3 days	126 (8)
4 or more days	69 (4)

Table 11: *Anaesthesia used (n=1872)*

	n (%)
GA	1275 (66)
GA and regional	82 (4)
Spinal	476 (24)
LA + Sedation	39 (2)

CHAPTER 7: Outcomes

7.1 FOLLOW-UP INTERVAL AFTER SURGERY

The raw data for this report was extracted from the database on 06/03/2022. 1203 (57%) episodes had follow-up at varying intervals (*Table 12*). 92% of cases had follow-up at 6 months or less.

Table 12: Follow-up interval after surgery (n=1203)

	n (%)
6 Weeks	142 (12)
3 Months	638 (53)
6 Months	329 (27)
12 Months	94 (8)

7.2 PATIENT GLOBAL IMPRESSION OF IMPROVEMENT AFTER SURGERY

The PGI-I after colpocleisis is shown in *Table 13*. Cure was defined as a Very Much Better (VMB) or Much Better (MB) outcome. Based on this, cure rate after colpocleisis was 93%.

Table 13: PGI-I for prolapse after surgery (n=1167)

	n (%)
Very much better	913 (78)
Much Better	179 (15)
Little Better	29 (2)
No Change	36 (3)
Little Worse	0
Much Worse	2 (0.2)
Very Much Worse	8 (0.7)
VMB + MB (Cured)	1092 (93)

CHAPTER 8: Complications

8.1 COMPLICATIONS

There was a low incidence of complications. Apart from catheterisation for >10 days (1.5%) and readmission within 30 days of the procedure (1.8%), the incidence of all other complications was less than 1% (*Table 14*). The incidence of persistent postoperative pain was low at 0.8%.

Table 14: Peri-operative and post-operative complications

	Incidence n (%)	n
Ureteric injury	0	2062
Bladder injury	2 (0.1)	2060
Urethral injury	0	1909
Bowel injury	2 (0.1)	2060
Vascular injury	1 (0.05)	2061
Neurologic injury	0	2062
Estimated blood loss >500 ml	14 (0.7)	2049
Perioperative blood transfusion	7 (0.3)	2056
Venous thromboembolism	1 (0.05)	2037
Death	1 (0.05)	2037
Persistent postoperative pain	2 (0.8)	250
Return to theatre <72 hours of procedure	8 (0.6)	1360
Catheterisation >10 days	20 (1.5)	1332
Readmission <30 days of procedure	23 (1.8) [1 planned, 8 emergency, 14 unspecified]	1289

CHAPTER 9: Limitations of the audit

9.1 LIMITATION OF THE AUDIT

Not every colpocleisis operation performed in 2008 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 data 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.