

**THE BRITISH ASSOCIATION OF  
UROLOGICAL SURGEONS  
Section of Female, Neurological & Urodynamic Urology**

**Analyses of procedures performed for Female Stress Urinary Incontinence between**

**January 1<sup>st</sup> 2016 and December 31<sup>st</sup> 2018**

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## AUDIT RESULTS SUMMARY – Stress Urinary Incontinence dataset

All the data presented here are a summary of the data extracted from the web-based database on 26<sup>th</sup> March 2019 and relate to operations performed between 1<sup>st</sup> January 2016 and 31<sup>st</sup> December 2018. Once extracted the data was transferred to an Access<sup>TM</sup> database for validation before being imported into Tableau<sup>TM</sup> for generation of the analyses. The validation mainly comprised checks for duplicate and / or empty entries and invalid / inappropriate dates.

The data collection period was from 1 January 2016 to 31 December 2018.

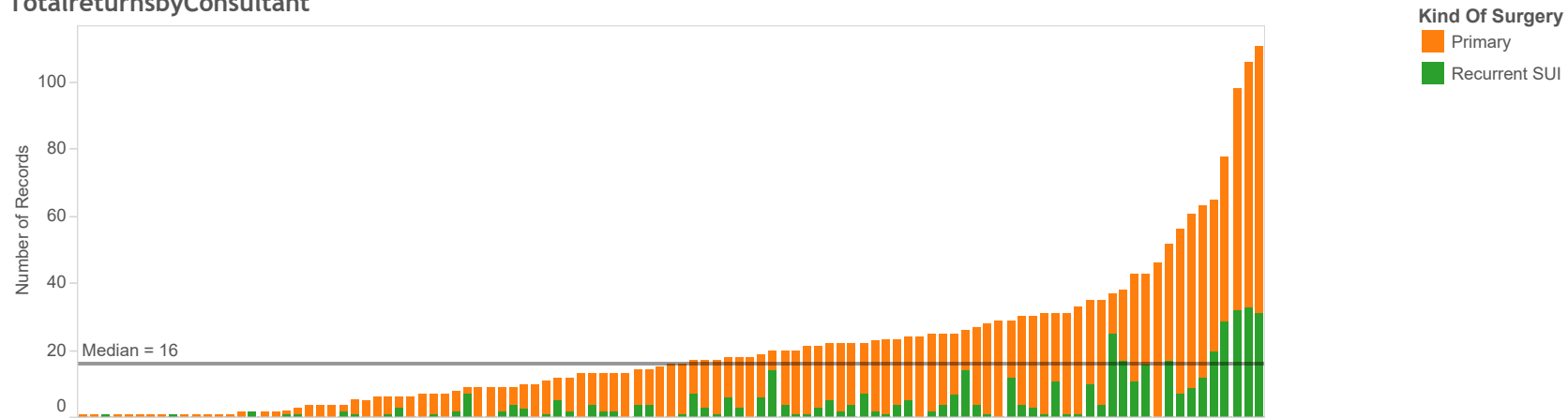
- 2133 SUI procedures were recorded from 103 Consultants at 88 centres in the United Kingdom (1989 procedures for England only), including 112 private patients from 41 Consultants.
- Median number of cases per consultant: 16 (range 1 - 111)
- Median number of cases per centre: 17.5 (range 1 - 100)
- 90% of the operations (1,906 of 2,133) proceeded with no reported complications. There were 72 cases (3%) in which a peri-operative complication was recorded.
- Of the 1,367 (64%) patients with follow-up recorded, 1,359 (99.5%) had a record of whether or not there was a post-operative complication. For 1249 (91%) patients, no post-operative complications occurred.
- There were no deaths during the study period.
- 78% (1659) of the procedures were performed for primary SUI and 22% (474) for recurrent SUI. All data were entered by hand, and there was no bulk uploading of data from other systems.

HES figures for 2016 to 2017 (inclusive) indicate that urologists undertook 3,587 stress urinary incontinence (SUI) procedures in England (1059 in 2016; 993 in 2017). We do not have the figures for 2018 but know that the number of procedures has markedly reduced due to the mesh review. We believe that the BAUS audit has continued to capture data on more than 70% of the total procedures performed during 2016, 2017 and 2018.

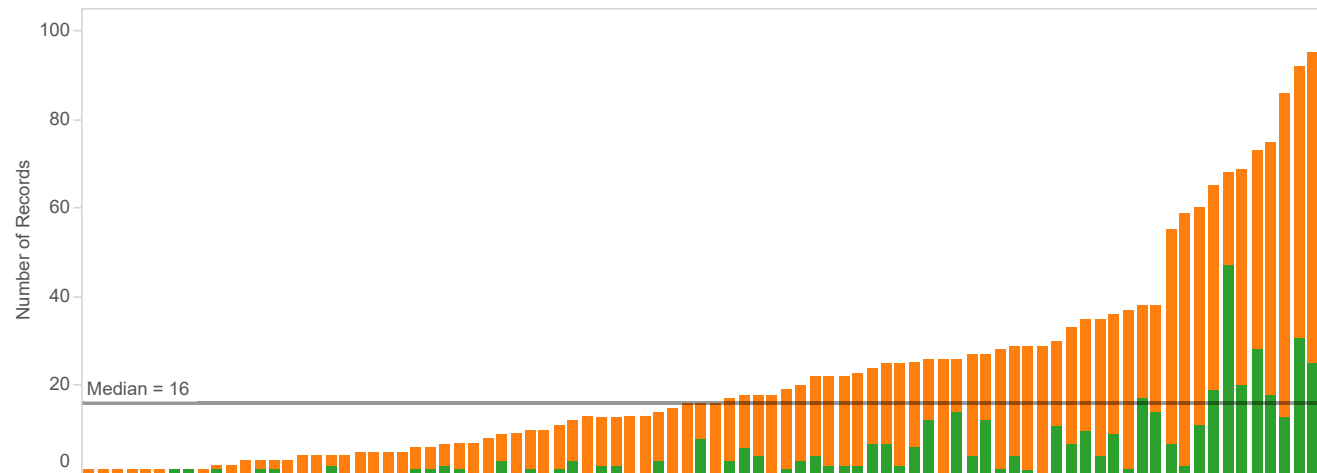
# Surgery for Female Stress Urinary Incontinence performed between 01/01/2016 and 31/12/2018

2133 SUI procedures returned from 103 Consultants at 88 centres including 112 private patients from 41 Consultants.

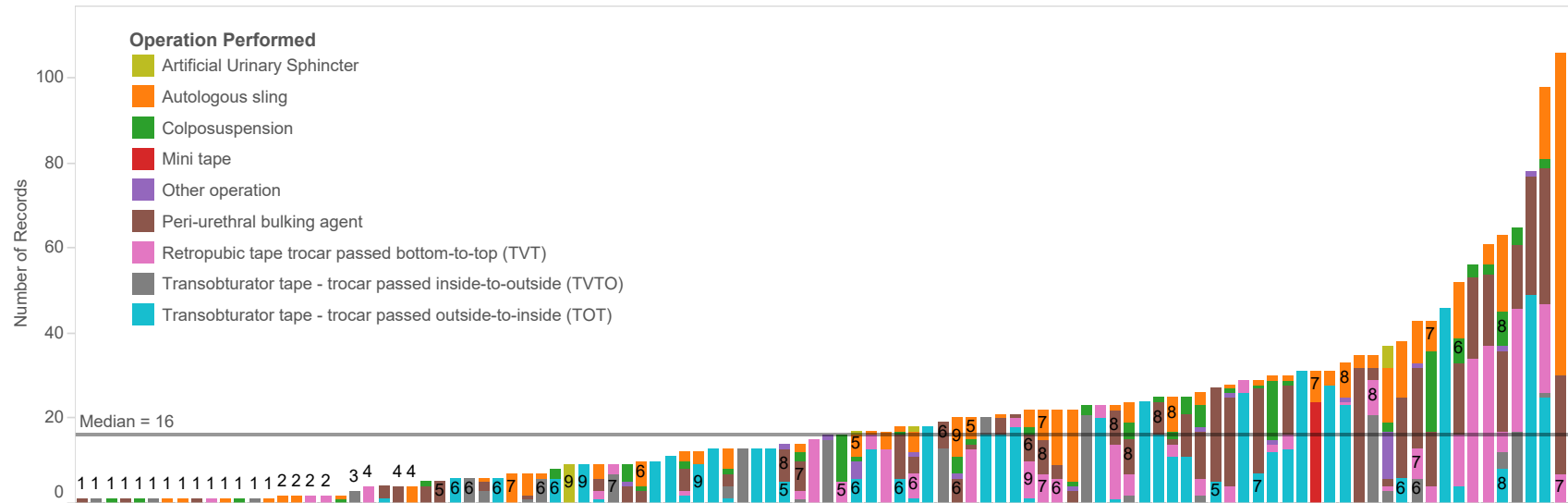
### Total returns by Consultant



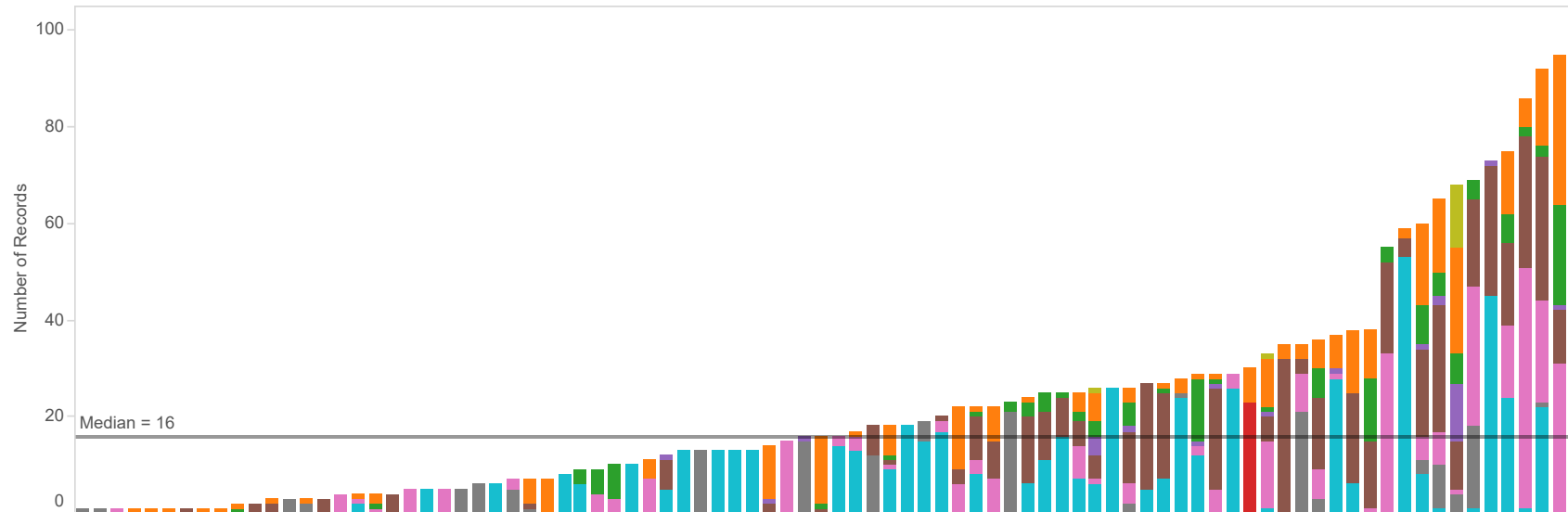
### Total returns per Centre



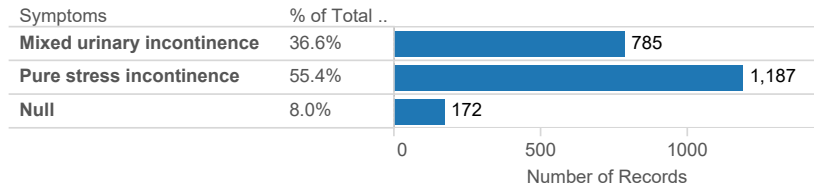
### Total returns by Consultant by Procedure



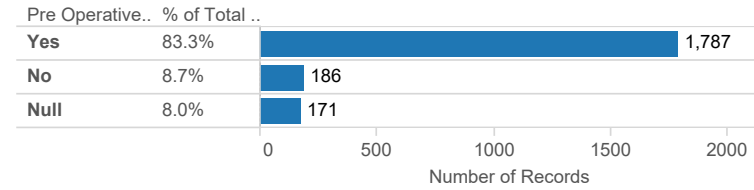
### Returns by Centre by Procedure



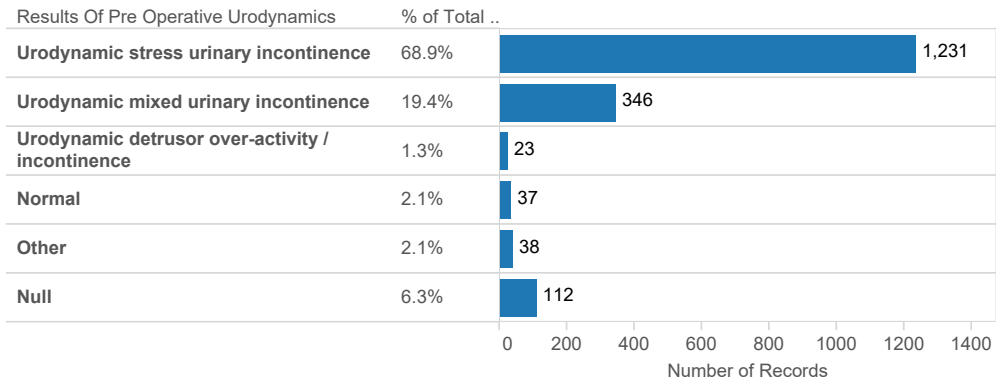
### Symptoms



### Pre-operative Urodynamics



### Pre-operative Urodynamics Results



### Age at Operation

Kind Of Surgery	N	Median	Min. Age	Max. Age
		Age		
Primary	1,664	51	14	94
Recurrent SUI	467	57	14	89
Grand Total	2,131	52	14	94

### NeuropathicBladder

Neuropathicbladder	N	% of Total
Neuropathic bladder	61	2.8%
No	2,083	97.2%
Grand Total	2,144	100.0%

## SurgeryType

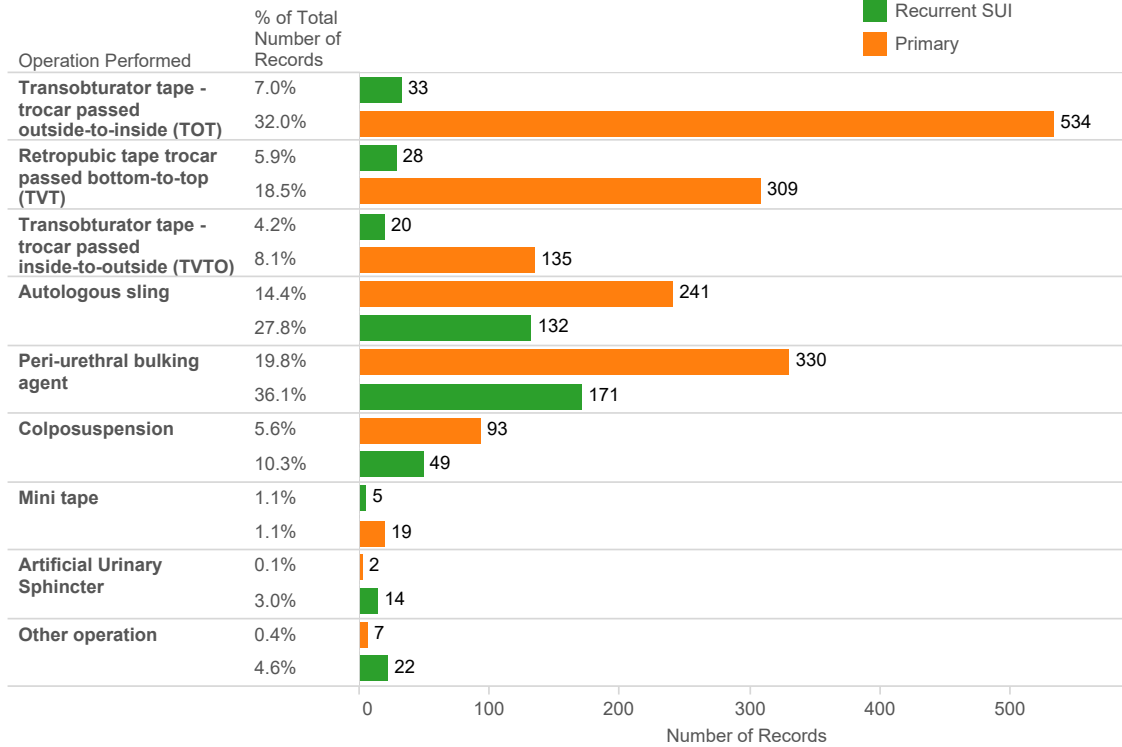
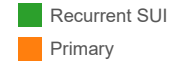
Kind Of Surgery	Dateofoperation						Grand Total	
	2016		2017		2018			
	N	% of Total	N	% of Total	N	% of Total	N	% of Total
Primary	690	78.9%	632	78.9%	348	74.4%	1,670	77.9%
Recurrent SUI	185	21.1%	169	21.1%	120	25.6%	474	22.1%
<b>Grand Total</b>	<b>875</b>	<b>100.0%</b>	<b>801</b>	<b>100.0%</b>	<b>468</b>	<b>100.0%</b>	<b>2,144</b>	<b>100.0%</b>

## PreviousSurgery

What Kind Of Operation Was Performed Previously	% of Total Number of..	Number of Records
Tape	44.5%	211
Autologous sling	3.8%	18
Colposuspension	11.8%	56
Peri-urethral bulking agent	24.1%	114
Other	11.0%	52
Not recorded	4.9%	23

## Operation

### Kind Of Surgery



## OtherOperation

Other Operation	N	% of Total
Autologous transobturator sling	1	3.4%
TVT excision	1	3.4%
AUS	3	10.3%
Bladder neck AUS (whole device singl..	1	3.4%
Bladder neck AUS cuff	1	3.4%
Durasphere injection to Mitrofanoff	1	3.4%
Excision of eroded TVT (TVT performe..	1	3.4%
Excision TVT mesh, colposuspension ..	1	3.4%
Insertion bladder neck AUS cuff	1	3.4%
Insertion of AUS parts	1	3.4%
Replacement of AUS	1	3.4%
Not recorded / Other	16	55.2%
<b>Grand Total</b>	<b>29</b>	<b>100.0%</b>

## Peri-operative complications by surgery

Peri Operative Complications	Kind Of Surgery					
	Primary		Recurrent SUI		Grand Total	
	N	% of Total	N	% of Total	N	% of Total
None	1,507	90.2%	407	85.9%	1,914	89.3%
Bladder perforation	25	1.5%	12	2.5%	37	1.7%
Procedure abandoned			1	0.2%	1	0.0%
Urethral perforation	2	0.1%	3	0.6%	5	0.2%
Bladder perforation,Urethral ..	1	0.1%			1	0.0%
Urethral perforation,Procedu..	1	0.1%			1	0.0%
Other	23	1.4%	6	1.3%	29	1.4%
Not recorded	111	6.6%	45	9.5%	156	7.3%
<b>Grand Total</b>	<b>1,670</b>	<b>100.0%</b>	<b>474</b>	<b>100.0%</b>	<b>2,144</b>	<b>100.0%</b>

## Unintended CISC started

Did The Patient Start Unintended Cisc	Kind Of Surgery					
	Primary		Recurrent SUI		Grand Total	
	N	% of Total	N	% of Total	N	% of Total
Yes	15	0.9%	3	0.6%	18	0.8%
No	236	14.1%	74	15.6%	310	14.5%
Not recorded	1,419	85.0%	397	83.8%	1,816	84.7%
<b>Grand Total</b>	<b>1,670</b>	<b>100.0%</b>	<b>474</b>	<b>100.0%</b>	<b>2,144</b>	<b>100.0%</b>

## Length of Stay

Kind Of Surgery	N	Median LengthofStay	Min. LengthofStay	Max. LengthofStay
Primary	1,414	0	0	20
Recurrent SUI	374	1	0	63
<b>Grand Total</b>	<b>1,788</b>	<b>0</b>	<b>0</b>	<b>63</b>



### Patients with Follow up

Fuid (group) 2	N	% of Total
FU	1,370	63.9%
No FU	774	36.1%
<b>Grand Total</b>	<b>2,144</b>	<b>100.0%</b>

### Clavien Dindo Grade of Complications

Clavien Dindo Grade Of Complication	Kind Of Surgery					
	Primary		Recurrent SUI		Grand Total	
	N	% of Total	N	% of Total	N	% of Total
No complications	1,004	92.5%	248	87.0%	1,252	91.4%
Grade I	52	4.8%	21	7.4%	73	5.3%
Grade II	8	0.7%	7	2.5%	15	1.1%
Grade IIIa	2	0.2%			2	0.1%
Grade IIIb	12	1.1%	6	2.1%	18	1.3%
Grade IVa	2	0.2%			2	0.1%
Not recorded	5	0.5%	3	1.1%	8	0.6%
<b>Grand Total</b>	<b>1,085</b>	<b>100.0%</b>	<b>285</b>	<b>100.0%</b>	<b>1,370</b>	<b>100.0%</b>

### Patient reported Urinary tract infection

Patient Report..	N	% of Total
Yes	34	7.4%
No	416	90.2%
Not recorded	11	2.4%
<b>Grand Total</b>	<b>461</b>	<b>100.0%</b>

### Persistent Pain after Surgery

Persistent P..	N	% of Total
Yes	7	2.1%
No	321	96.7%
Not recorded	4	1.2%
<b>Grand Total</b>	<b>332</b>	<b>100.0%</b>

### Patient catheter dependent since surgery

Is The Patient Catheter Dependent	Kind Of Surgery					
	Primary		Recurrent SUI		Grand Total	
	N	% of Total	N	% of Total	N	% of Total
Yes	21	5.9%	10	9.6%	31	6.7%
No	328	91.9%	91	87.5%	419	90.9%
Not recorded	8	2.2%	3	2.9%	11	2.4%
<b>Grand Total</b>	<b>357</b>	<b>100.0%</b>	<b>104</b>	<b>100.0%</b>	<b>461</b>	<b>100.0%</b>

### Bladder Urgency -new symptoms

Over Active Bladder Symptoms New..	N	% of Total
Yes	57	12.4%
No	392	85.0%
Not recorded	12	2.6%
<b>Grand Total</b>	<b>461</b>	<b>100.0%</b>

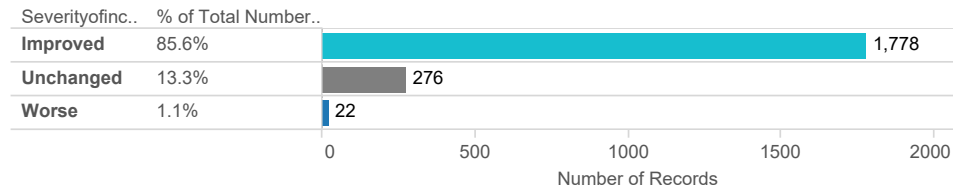
### Bladder Urgency - existing symptoms

Over Active Bladder Symptoms P..	N	% of Total
Better	96	20.8%
No change	190	41.2%
Worse	8	1.7%
Not recorded	167	36.2%
<b>Grand Total</b>	<b>461</b>	<b>100.0%</b>

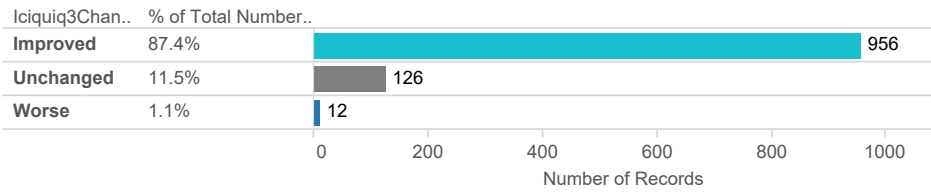
### Tape extrusion

Tape Extrusi..	Location Of ..	N	% of Total
Yes	Vaginal	1	0.3%
	<b>Total</b>	<b>1</b>	<b>0.3%</b>
No	Not applicable	326	99.7%
	<b>Total</b>	<b>326</b>	<b>99.7%</b>
<b>Grand Total</b>		<b>327</b>	<b>100.0%</b>

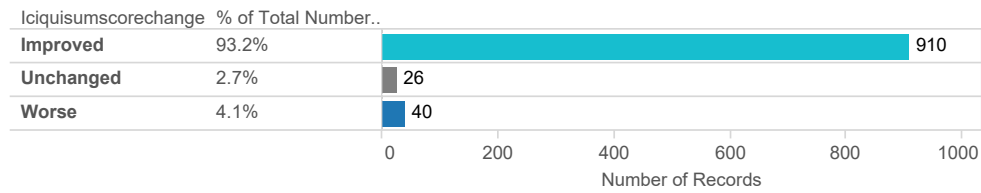
### Severity of Incontinence change



### ICIQ-UIQ3 change



### ICIQ-UI Sum score change



## Participating Hospital Centres 2016, 2017 and 2018

We are grateful to consultants from the following Centres / trusts who returned data for these analyses:

Addenbrooke's Hospital, Cambridge  
Airedale Hospital  
Alexandra Hospital, Redditch  
Barking, Havering & Redbridge University Hospital  
Basildon University Hospital, Essex  
Bedford Hospital  
BMI Goring Hall Hospital  
Bradford Royal Infirmary  
Burnley General Hospital  
Castle Hill Hospital, Hull  
Charing Cross Hospital, London  
Chase Farm Hospital  
City Hospital Birmingham  
Darlington Memorial Hospital  
Doncaster Royal Infirmary  
Eastbourne District General Hospital  
Epsom General Hospital, Surrey  
Forth Valley Royal Hospital, Larbert  
Freeman Hospital, Newcastle  
Frimley Park Hospital  
Gartnavel General Hospital, Glasgow  
George Eliot Hospital, Nuneaton  
Guy's & Thomas's Hospital  
Harrogate District Hospital  
Huddersfield Royal Infirmary

Ipswich Hospital, Suffolk  
James Cook University Hospital, Middlesbrough  
James Paget University Hospital, Great Yarmouth  
King's Mill Hospital, Nottinghamshire  
Kingston Hospital, London  
Leicester General Hospital  
Leighton Hospital, Cheshire  
Lister Hospital, Stevenage  
Luton & Dunstable University Hospital  
Manchester Royal Infirmary  
Medway Maritime Hospital, Gillingham  
Musgrove Park Hospital, Taunton  
Norfolk & Norwich University Hospital  
North Manchester General Hospital  
Northern General Hospital, Sheffield  
Northwick Park Hospital  
Nottingham City Hospital  
Peterborough City Hospital  
Pilgrim Hospital, Boston  
Pinderfields General Hospital, Wakefield  
Queen Alexandra Hospital, Portsmouth  
Queen Elizabeth Hospital, Birmingham  
Queen Elizabeth University Hospital  
Queen's Hospital, Burton-on-Trent  
Raigmore Hospital, Inverness

Rotherham Hospital  
Royal Blackburn Hospital  
Royal Albert Edward Infirmary, Wigan  
Royal Bolton Hospital  
Royal Derby Hospital  
Royal Free Hospital, London  
Royal Hallamshire Hospital, Sheffield  
Royal National Orthopaedic Hospital, Stanmore  
Royal Sussex County Hospital, Brighton  
Salford Royal Hospital  
Salisbury District Hospital  
Southend Hospital  
Southmead Hospital, Bristol  
Southport & Ormskirk Hospitals  
St George's Hospital, London  
St James's University Hospital, Leeds  
St Richard's Hospital, Chichester  
Stepping Hill Hospital, Stockport  
Sunderland Royal Hospital  
The Queen Elizabeth Hospital, King's Lynn  
The Royal Oldham Hospital  
University College Hospital, London  
University Hospital of Wales, Cardiff  
University Hospital, Ayr  
Walsgrave Hospital, Coventry  
Watford General Hospital  
Western General Hospital, Edinburgh  
Wexham Park Hospital, Slough  
Whipps Cross University Hospital, London

Worthing Hospital  
Wrexham Maelor Hospital  
Wycombe Hospital, High Wycombe  
York Hospital