

THE BRITISH ASSOCIATION OF

UROLOGICAL SURGEONS Section of Female, Neurological & Urodynamic Urology

Analyses of procedures performed for Female Stress Urinary Incontinence between

January 1st 2014 and December 31st 2016

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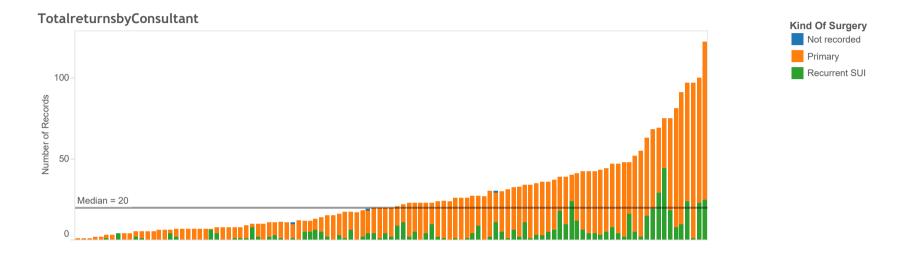
AUDIT RESULTS SUMMARY – Stress Urinary Incontinence dataset

All the data presented here are a summary of the data extracted from the web-based database on 29th March 2017 and relate to operations performed between 1st January 2014 and 31st December 2016. Once extracted the data was transferred to an Access[™] database for validation before being imported into Tableau[™] for generation of the analyses. The validation mainly comprised checks for duplicate and / or empty entries and invalid / inappropriate dates plus removal of a few procedures (eg bladder neck closure) not deemed appropriate for inclusion in these analyses.

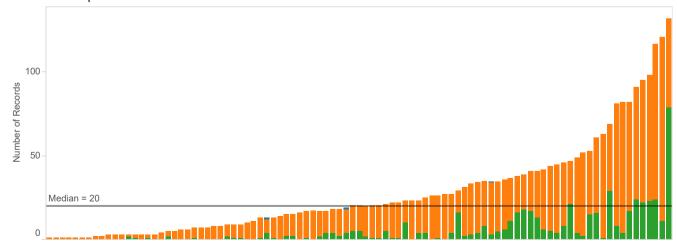
The data collection period was from 1 January 2014 to 31 December 2016.

- 2917 procedures were recorded from 109 consultants at 95 centres in the United Kingdom including 250 private patients from 41 consultants. Two of the consultants that returned data are not BAUS members.
- 91% of the operations (2,649) proceeded with no reported complications. There were 107 cases (4%) in which a peri-operative complication was recorded. There were no deaths.
- Of the 1,832 (63%) patients who have follow-up recorded, 1,756 (96%) had a record of whether or not there was a post operative complication. For 1,564 (89%) no post-operative complications occurred.
- Hospital Episode Statistics (HES) for 2014, 2015 and 2016 indicate that urologists undertook 3,587 stress urinary incontinence (SUI) procedures in England of which the BAUS audit has captured data on 72%. Gynaecologists performed 20,155 SUI procedures in England during the same period.
- Median number of cases per consultant: 20 (range 1 122)
- Median number of cases per centre: 20 (range 1 133)
- 81% (2366) of the procedures were performed for primary SUI and 18.8% (548) were for recurrent SUI. All data were entered by hand and there was no bulk uploading of data from other systems.

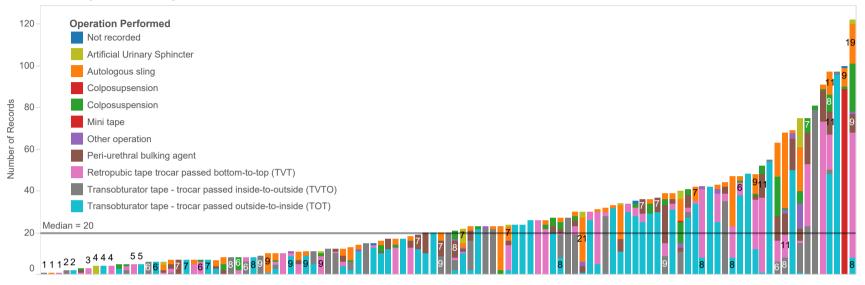
Surgery for Female Stress Urinary Incontinence performed between 01/01/2014 and 31/12/2016 2,917 procedures performed by 109 consultants at 95 sites including 250 private cases from 41 consultants



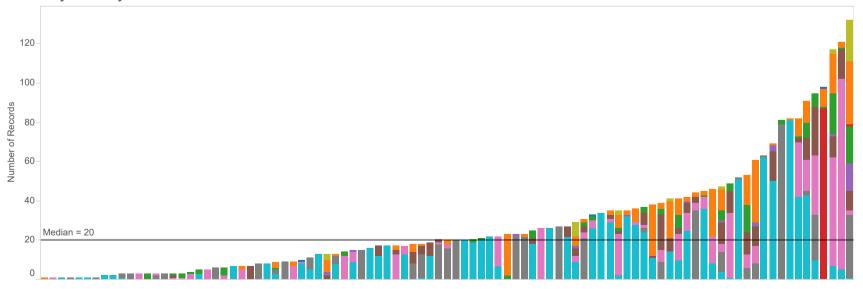
TotalreturnsperCentre



TotalreturnsbyConsultantbyProcedure



ReturnsbyCentrebyProcedure



Symptoms

Symptoms	% of Total				
Mixed urinary incontinence	25.7%			749	
Pure stress incontinence	31.7%			926	
Not recorded	42.6%				1,242
		0	500	1000	1500
			Number o	of Records	

Pre-operative Urodynamics Results

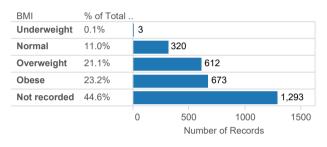
Results Of Pre Operative Urodynamics % of Total 1,796 Urodynamic stress urinary incontinence 70.4% 19.4% 494 Urodynamic mixed urinary incontinence Urodynamic detrusor over-activity / 19 0.7% incontinence 41 Normal 1.6% 68 Other 2.7% 5.2% 133 Not recorded 0 500 1000 1500 2000

Number of Records

Pre-operative Urodynamics

Pre Operative.. % of Total . Yes 87.5% 2,551 No 6.3% 184 182 Not recorded 6.2% 0 500 1000 1500 2000 2500 3000 Number of Records

BMI



Age at Operation

Kind Of Surgery	N	Median Age	Min. Age	Max. Age
Primary	2,353	52	6	92
Recurrent SUI	545	57	19	94
Grand Total	2,898	53	6	94

SurgeryType

		Dateofoperation							
	201	14	20	15	20	16	Grand	l Total	
Kind Of Surgery	Ν	% of Total	Ν	% of Total	Ν	% of Total	N	% of Total	
Primary	870	83.6%	872	80.2%	624	79.1%	2,366	81.1%	
Recurrent SUI	168	16.1%	215	19.8%	165	20.9%	548	18.8%	
Not recorded	3	0.3%					3	0.1%	
Grand Total	1,041	100.0%	1,087	100.0%	789	100.0%	2,917	100.0%	

PreviousSurgery

What Kind Of Operation Was Performed Previously	% of Total Number of				
Таре	46.9%				257
Autologous sling	3.5%	19			
Colposuspension	14.8%		81		
Other	13.9%		76		
Peri-urethral bulking agent	18.4%		101		
Not recorded	2.6%	14			
		0	100 Number of	200 Records	300

Operation									Kii	nd Of Si		
	% of Total Number of									Recurre Primary		
Operation Performed	Records											
Transobturator tape -	15.1%		83									
trocar passed outside-to	41.7%											987
Retropubic tape trocar	9.1%		50									
passed bottom-to-top (T	21.0%						496	;				
Transobturator tape -	6.9%	3	8									
trocar passed inside-to	17.5%					41	15					
Autologous sling	6.3%			149								
	29.9%			164								
Peri-urethral bulking	6.0%			143								
agent	17.0%		93									
Colposuspension	3.6%		84									
	9.3%		51									
Mini tape	2.6%	14										
	3.2%		75									
Other operation	0.3%	7										
	4.2%	23										
Not recorded	0.1%	3										
Artificial Urinary	0.3%	7										
Sphincter	5.7%	31	I									
Colposupsension	0.2%	1										
		0	100	200	300	400	500	600	700	800	900	1000
						Ν	lumber o	of Record	ls			

OtherOperation

Other Operation	N	% of Total
Autologous transobturator sling	2	6.7%
Cystoscopy	1	3.3%
TVT excision	6	20.0%
Urethrolysis	1	3.3%
Not recorded / Other	20	66.7%
Grand Total	30	100.0%

Peri-operative complications by surgery

	Kind Of Surgery							
	Prin	nary	Recurr	ent SUI	Grand	Total		
Peri Operative Complications	Ν	% of Total	N	% of Total	N	% of Total		
None	2,174	91.9%	473	86.3%	2,647	90.8%		
Bladder perforation	20	0.8%	15	2.7%	35	1.2%		
Procedure abandoned	3	0.1%	2	0.4%	5	0.2%		
Urethral perforation	2	0.1%	3	0.5%	5	0.2%		
Other	45	1.9%	16	2.9%	61	2.1%		
Not recorded	121	5.1%	39	7.1%	160	5.5%		
Urethral perforation, Procedu	1	0.0%			1	0.0%		
Grand Total	2,366	100.0%	548	100.0%	2,914	100.0%		

Unintended CISC started

	Kind Of Surgery								
	Prir	nary	Recurr	ent SUI	Grand	Total			
Did The Patient Start Unintended Cisc	N	% of Total	Ν	% of Total	Ν	% of Total			
Yes	46	1.9%	17	3.1%	63	2.2%			
No	879	37.2%	207	37.8%	1,086	37.3%			
Not recorded	1,441	60.9%	324	59.1%	1,765	60.6%			
Grand Total	2,366	100.0%	548	100.0%	2,914	100.0%			

Length of Stay

Kind Of Surgery	Ν	Median LengthofStay	Min. LengthofStay	Max. LengthofStay
Primary	1,887	1	0	60
Recurrent SUI	436	1	0	42
Grand Total	2,323	1	0	60

Patients with Follow up

Fuid (group) 1	N	% of Total
Follow Up	1,832	62.8%
No Follow-Up	1,085	37.2%
Grand Total	2,917	100.0%

Clavien Dindo Grade of Complications

	Kind Of Surgery					
	Prin	nary	Recurr	ent SUI	Grand Total	
Clavien Dindo Grade Of Complication	Ν	% of Total	Ν	% of Total	N	% of Total
No complications	1,302	87.6%	260	75.8%	1,562	85.4%
Grade I	83	5.6%	43	12.5%	126	6.9%
Grade II	26	1.7%	18	5.2%	44	2.4%
Grade IIIa	4	0.3%	2	0.6%	6	0.3%
Grade IIIb	11	0.7%	4	1.2%	15	0.8%
Grade IVa			1	0.3%	1	0.1%
Not recorded	61	4.1%	15	4.4%	76	4.2%
Grand Total	1,487	100.0%	343	100.0%	1,830	100.0%

Patient reported Urinary tract infection

Patient Reported Complications	N	% of Total
Yes	130	7.1%
No	1,613	88.0%
Not recorded	89	4.9%
Grand Total	1,832	100.0%

Persistent Pain after Surgery Persistent Pain After Surgery % of Ν Total Yes 25 1.8% 64.2% No 895 Not recorded 34.0% 473 Grand Total 1,393 100.0%

Patient catheter dependent since surgery

	Kind Of Surgery								
	Prima	ary	Recurre	nt SUI	Grand Total				
Is The Patient Catheter Dependent	Ν	% of Total	Ν	% of Total	N	% of Total			
Yes	44	3.0%	27	7.9%	71	3.9%			
No	659	44.3%	148	43.1%	807	44.1%			
Not recorded	784	52.7%	168	49.0%	952	52.0%			
Grand Total	1,487	100.0%	343	100.0%	1,830	100.0%			

Bladder Urgency -new symptoms

Over Active Bladder Symptoms New De Novo Urgency	N	% of Total
Yes	263	14.4%
No	1,464	79.9%
Not recorded	105	5.7%
Grand Total	1,832	100.0%

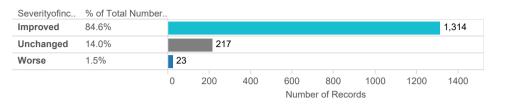
Bladder Urgency - existing sysmptoms

Over Active Bladder Symptoms Pre Existing Urgency Change	N	% of Total
Better	307	16.8%
No change	662	36.1%
Worse	100	5.5%
Not recorded	763	41.6%
Grand Total	1,832	100.0%

Tape extrusion

Tape Extrusion	Location Of Extrusion	N	% of Total
Yes	Vaginal	12	0.9%
	Not recorded/applicable	1	0.1%
	Total	13	1.0%
No	Not recorded/applicable	1,318	99.0%
	Total	1,318	99.0%
Grand Total		1,331	100.0%

Severity of Incontinence change



Improved Unchanged Worse

ICIQ-UIQ3 change

lciquiq3Chan	% of Total Number							
Improved	87.3%							1,169
Unchanged	11.4%		152					
Worse	1.3%	18						
		0	200	400	600	800	1000	1200
			Number of Records					

ICIQ-UI Sum score change

lciquisumscorecha	nge % of Total Nur	nber						
Improved	93.2%						1	1,062
Unchanged	3.7%	42						
Worse	3.1%	35						
		0	200	400	600	800	1000	1200
			Number of Records					

Participating Hospital Centres 2014, 2015 and 2016

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 And Redbridge University Hospital **Bedford Hospital Belfast City Hospital Blackpool Victoria Hospital** Borders General Hospital, Melrose **Bradford Royal Infirmary Burnley General Hospital** Castle Hill Hospital, Hull Charing Cross Hospital, London **Chase Farm Hospital** Chorley and South Ribble Hospital **City Hospital Birmingham** Diana, Princess of Wales Hospital, Grimsby **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

Goole & District Hospital Guy's & Thomas's Hospital Harrogate District Hospital Huddersfield Royal Infirmary Ipswich Hospital, Suffolk James Paget University Hospital, Great Yarmouth King's Mill Hospital, Nottinghamshire Kingston Hospital, London Leicester General Hospital Leighton Hospital, Cheshire Lister Hospital, Stevenage Manchester Royal Infirmary Medway Maritime Hospital, Gillingham Musgrove Park Hospital, Taunton Norfolk And 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 Princess Alexandra Hospital, Harlow Princess of Wales Hospital, Bridgend

Queen Alexandra Hospital, Portsmouth Queen Elizabeth Hospital, Birmingham Queen Elizabeth University Hospital Queen's Hospital, Burton-on-Trent **Rotherham Hospital Royal Blackburn Hospital** Royal Albert Edward Infirmary, Wigan Royal Berkshire Hospital, Reading **Royal Bolton Hospital** Royal Devon and Exeter 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 Sandwell District General Hospital, West Bromwich Scunthorpe General Hospital Southend Hospital Southmead Hospital, Bristol Southport And Ormskirk Hospitals St James's University Hospital, Leeds St Richard's Hospital, Chichester Stepping Hill Hospital, Stockport Sunderland Royal Hospital The James Cook University Hospital, Middlesbrough 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 Weston General Hospital, Weston-super-Mare Wexham Park Hospital, Weston-super-Mare Whipps Cross University Hospital, London Whiston Hospital, Prescot Withington Community Hospital, Manchester Worthing Hospital Wrexham Maelor Hospital York Hospital