



# Benefits of Standards in the National Decontamination Tracking System in use at St James's Hospital

## HMI Briefing

*Andrew Smith, HSSU Manager*

# In the news...

July  
2013

## Crumlin hospital apologises for contamination scare



Thursday 25 July 2013 22.21



**“Hospital has apologised to 18 families who were wrongly identified as being at the centre of a contamination scare over a medical scope”**

**Track  
and  
Trace?**



Our Lady's Children's Hospital, Crumlin has apologised to 18 families who were wrongly identified as being at the centre of a contamination scare over a medical scope.



# In the news...

July  
2013

## THE IRISH TIMES

Helpline for patients with CJD concerns  
attracts 1,300 calls

Fri, Jul 19, 2013, 15:39

Between 10 and 20 patients operated on with instruments used on patient with disease

**“The HSE will contact up to 20 patients who were operated on using instruments which had been used on a patient who has been diagnosed with CJD disease”**

**Track  
and  
Trace?**

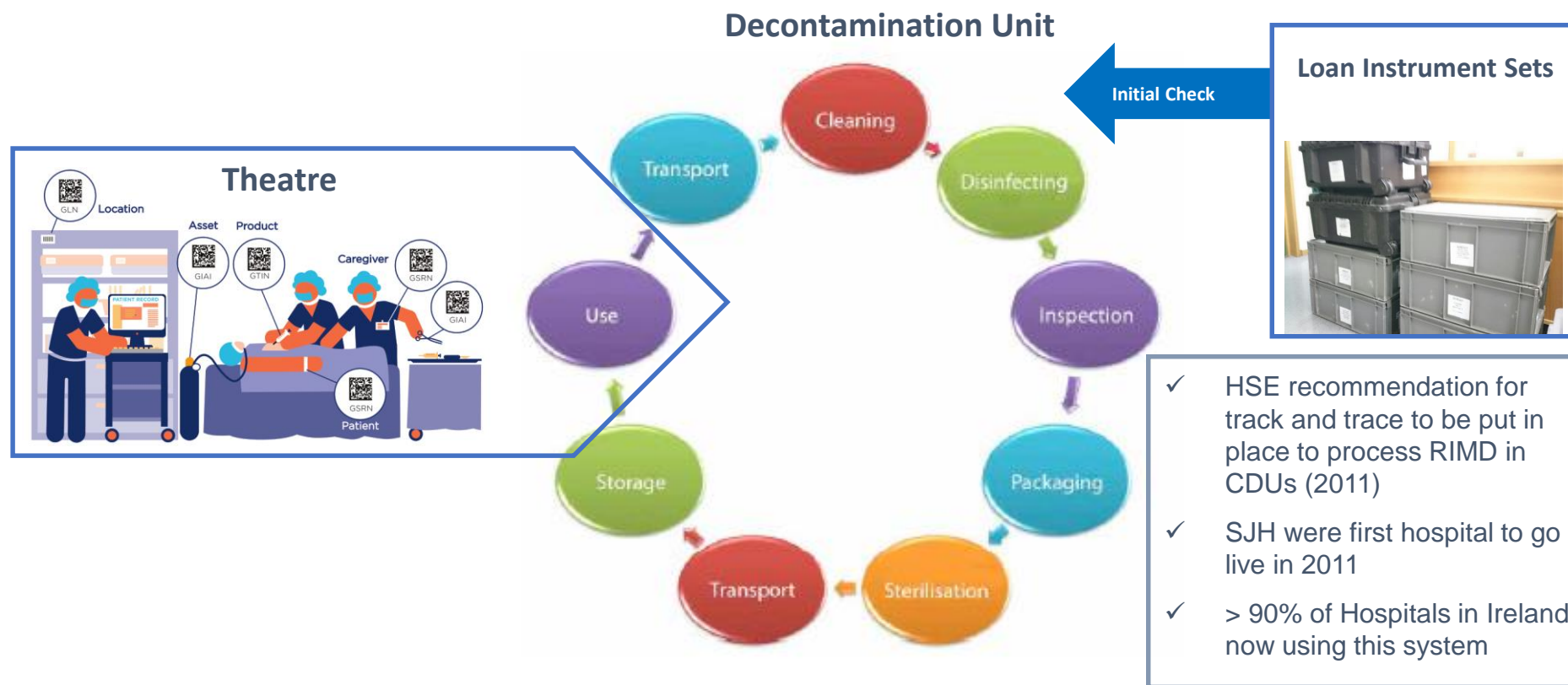


The HSE will contact up to 20 patients were operated on using instruments which had been used on a patient who has been diagnosed at Beaumont Hospital with Creutzfeldt-Jakob (CJD) disease Photograph: Dara Mac Dónaill/The Irish Times





# Process overview – CDU SJH



***Clinical imperative to have traceability for high risk procedures***

# Tracking Instruments

**Before**



- Manual Check

**After**

Washer Contents						
Barcode	User Code	Description	Quantity	Date In	Time In	Loaded By
▼ Washer : 1						
6000010	N/A	CONTAINERS		1 11/04/2012	14:00:57	AGNES
▼ Washer : 3						
100418500009	500	RHINO & SMR SET (PLASTICS)-02		1 11/04/2012	14:19:54	PAUL R
100377400043	59	CABG SET-05		1 11/04/2012	14:19:36	PAUL R
100293700031	3262	BARRE INSTRUMENTS SET		1 11/04/2012	14:17:01	PAUL R
100387500031	3322	BOOKWALTER RETRACTOR SET 2-02		1 11/04/2012	14:17:01	PAUL R
100302000011	3525	FINE STILLE OSTEOTOMES (TH 384)		1 11/04/2012	14:16:58	PAUL R
100368000029	3099	GINEAE ONCOLOGY SET-05		1 11/04/2012	14:16:52	PAUL R
100287700046	517	ABDOMINAL HYSTERECTOMY SET-01		1 11/04/2012	14:16:48	PAUL R
100322800049	3520	OPEN UROLOGY SET		1 11/04/2012	14:16:45	PAUL R

Information available:

- Electronically & Post-event
- Dataloggers linked to tracking system



# Instrument set lists

**Before:** Paper based



**After:** Scan of barcode and set list automatically printed



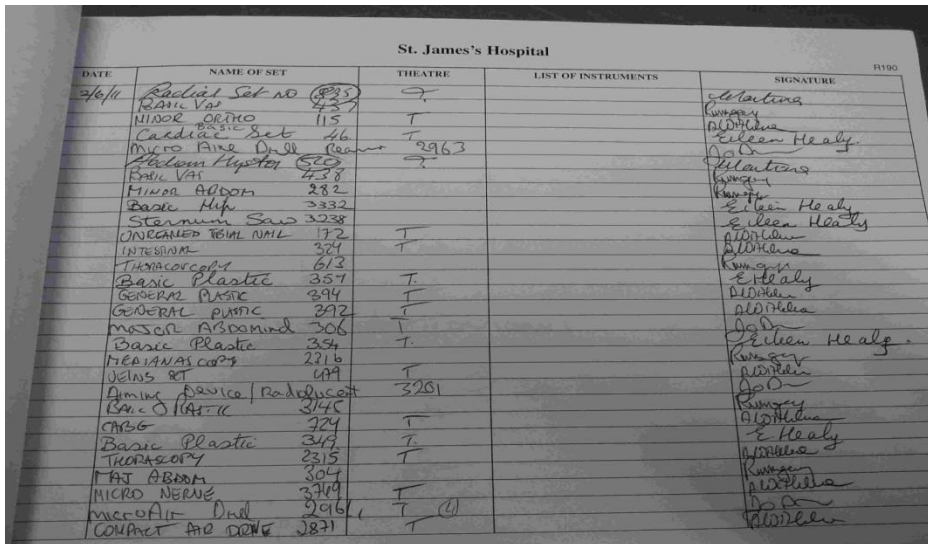
ST JAMES'S HOSPITAL DUBLIN	
THEATRE 1	
CHAUX RETRACTOR CARDIAC-01	
Qty	Check
2	2
1	1
1	1
2	2
1	1
2	2
1	1
2	2
9 Items in This Set.	
Clean Room (Check 1)	Theatre Number
Sign	Date Used
Wash Room (Check 5)	Hospital Reg. No.
Sign	
Scrub Nurse Sign	Check 2
Circ. Nurse Sign	Check 2

**After**

- Electronic (list printed when barcode is scanned)
- No need to search in cabinet
- No confusion on document version

# Process log

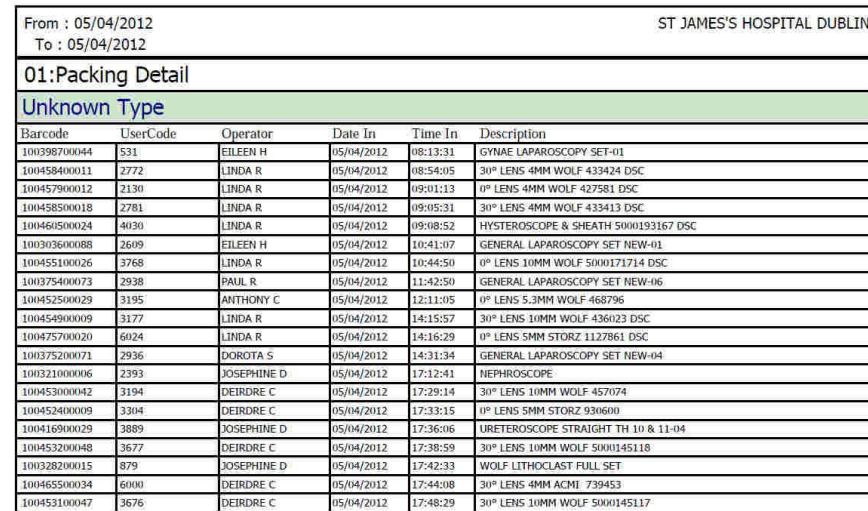
Before



DATE	NAME OF SET	THEATRE	LIST OF INSTRUMENTS	SIGNATURE
2/6/11	Paediatric Set no 123	T		Eileen Healy
	Basic Vag 115	T		Eileen Healy
	Cardiac Set 46	T		Eileen Healy
	Micro Air Dwell 2963	T		Eileen Healy
	Paediatric Set 520	T		Eileen Healy
	Basic Vag 438	T		Eileen Healy
	Mini Abdom 282	T		Eileen Healy
	Basic Hip 2332	T		Eileen Healy
	Stomach Saw 3238	T		Eileen Healy
	UNICAMER TBL NAL 172	T		Eileen Healy
	INTERAM 324	T		Eileen Healy
	THYROIDOSCOP 613	T		Eileen Healy
	Basic Plastic 357	T		Eileen Healy
	GENERAL PLASTIC 294	T		Eileen Healy
	GENERAL PLASTIC 292	T		Eileen Healy
	MASON ABDOMINAL 306	T		Eileen Healy
	Basic Plastic 354	T		Eileen Healy
	HEPATIC CO2 2716	T		Eileen Healy
	UENIS SET 444	T		Eileen Healy
	Amix Device / Radiocast 3201	T		Eileen Healy
	Basic Plastic 345	T		Eileen Healy
	CRAB 224	T		Eileen Healy
	Basic Plastic 345	T		Eileen Healy
	THYROIDOSCOP 2315	T		Eileen Healy
	THYROIDOSCOP 304	T		Eileen Healy
	MICRO NERVE 2319	T		Eileen Healy
	MICRO AIR Dwell 2916	T		Eileen Healy
	COMBINE AIR Dwell 2871	T		Eileen Healy

- Paper based

After



Barcode	UserCode	Operator	Date In	Time In	Description
100398700044	531	EILEEN H	05/04/2012	08:13:31	GYNAE LAPAROSCOPY SET-01
100458400011	2772	LINDA R	05/04/2012	08:54:05	30° LENS 4MM WOLF 433424 DSC
100457900012	2130	LINDA R	05/04/2012	09:01:13	0° LENS 4MM WOLF 427581 DSC
100458500018	2781	LINDA R	05/04/2012	09:05:31	30° LENS 4MM WOLF 433413 DSC
100460500024	4030	LINDA R	05/04/2012	09:08:52	HYSTEROSCOPE & SHEATH 5000193167 DSC
100303600088	2609	EILEEN H	05/04/2012	10:41:07	GENERAL LAPAROSCOPY SET NEW-01
100455100026	3768	LINDA R	05/04/2012	10:44:50	0° LENS 10MM WOLF 5000171714 DSC
100375400073	2938	PAUL R	05/04/2012	11:42:50	GENERAL LAPAROSCOPY SET NEW-06
100452500029	3195	ANTHONY C	05/04/2012	12:11:05	0° LENS 5.3MM WOLF 468796
100454900009	3177	LINDA R	05/04/2012	14:15:57	30° LENS 10MM WOLF 436023 DSC
100475700020	6024	LINDA R	05/04/2012	14:16:29	0° LENS 5MM STORZ 1127861 DSC
100375200071	2936	DOROTA S	05/04/2012	14:31:34	GENERAL LAPAROSCOPY SET NEW-04
100321000006	2393	JOSEPHINE D	05/04/2012	17:12:41	NEPHROSCOPE
100453000042	3194	DEIRDRE C	05/04/2012	17:29:14	30° LENS 10MM WOLF 457074
100452400009	3304	DEIRDRE C	05/04/2012	17:33:15	0° LENS 5MM STORZ 930600
100416900029	3889	JOSEPHINE D	05/04/2012	17:36:06	URETEROSCOPE STRAIGHT TH 10 & 11-04
100453200048	3677	DEIRDRE C	05/04/2012	17:38:59	30° LENS 10MM WOLF 5000145118
100328200015	879	JOSEPHINE D	05/04/2012	17:42:33	WOLF LITHOCLAST FULL SET
100465500034	6000	DEIRDRE C	05/04/2012	17:44:08	30° LENS 4MM ACMI 739453
100453100047	3676	DEIRDRE C	05/04/2012	17:48:29	30° LENS 10MM WOLF 5000145117

Number Of Items : 20

- Electronic
- Post-event can be retrieved at the touch of a button





# Tracking in Theatres - After

## Document List Report

Document Number: T200242		Patient ID: 1087474	Theatre: THEATRE 2
Document Created By: %JESSIE S	Date & Time Created: 02/02/2012 14:14:23	Amendments	
Code: 1003567 Lot No: 00035 Quantity: 1 Operator: %JESSIE S	Type: TRACKER Item: BASIC CARDIAC SET-04 Supplier: STERILE SERVICES Remarks:		
Code: 1003774 Lot No: 00033 Quantity: 1 Operator: %JESSIE S	Type: TRACKER Item: CABG SET-05 Supplier: STERILE SERVICES Remarks:		
Code: 1004160 Lot No: 00027 Quantity: 1 Operator: %JESSIE S	Type: TRACKER Item: CARDIAC MAMMARY RETRACTOR-03 Supplier: STERILE SERVICES Remarks:		
Code: 1003741 Lot No: 00049 Quantity: 1 Operator: %JESSIE S	Type: TRACKER Item: STERNAL SAW BATTERY POWERED-01 Supplier: STERILE SERVICES Remarks:		
Number Of Items:			4

Document Number: T200243		Patient ID: 1087474	Theatre: THEATRE 2
Document Created By: %JENNIFER I	Date & Time Created: 02/02/2012 15:29:26	Amendments	
Code: 1002962 Lot No: 00001 Quantity: 1 Operator: %JENNIFER I	Type: TRACKER Item: CHAUX RETRACTOR CARDIAC-01 Supplier: STERILE SERVICES Remarks:		
Number Of Items:			1
Total Items:			5

## Electronic

- Post-event – Can be retrieved at the touch of a button
- Linked to instrument tracking system





# Loan Sets

## Major challenge for traceability



### The Big Challenge !!

- Shared among hospitals (contents always changing)
- Traceability is very challenging
- Can come from a commercial loan set provider or another hospital (often not barcoded)



# Loan set Checklists

**Before**

## H.S.S.U. INSTRUMENT CHECKLIST - OPERATING THEATRE

SET NAME: <b>Pinnacle Set (Tray 1)</b>							Set No.
Check 1	# of Items	NAME OF ITEM	Check				
			2	3	4	5	
		<b>Trial Cup Instruments</b>					
1	1	Pinnacle acetabular cup trial 48mm	221701048				Packing & Control
1	1	Pinnacle acetabular cup trial 50mm	221701050				
1	1	Pinnacle acetabular cup trial 62mm	221701052				Check 1
1	1	Pinnacle acetabular cup trial 64mm	221701054				Sign:
1	1	Pinnacle acetabular cup trial 66mm	221701056				Date:
1	1	Pinnacle acetabular cup trial 68mm	221701058				
1	1	Pinnacle acetabular cup trial 62mm	221701062				Decontamination
1	1	Pinnacle acetabular cup trial 64mm	221701064				
1	1	Pinnacle acetabular cup trial 66mm	221701066				Check 5



- Paper based (hand written)
- No certainty that list matches tray contents

1	1	Universal cup trial 48mm	221701048				Check 1
1	1	Universal cup trial 53mm	221701050				Check 2
1	1	Universal cup trial 62mm	221701052				Check 3
1	1	Universal cup trial 64mm	221701054				Circ. Nurse Sign:
1	1	Universal cup trial 66mm	221701056				Check 1
1	1	Universal cup trial 68mm	221701058				Check 2
1	1	Universal cup trial 70mm	221701060				Check 3
1	1	Universal cup trial 72mm	221701062				
1	1	Universal cup trial 74mm	221701064				
1	1	Universal cup trial 76mm	221701066				
1	1	Universal cup trial 78mm	221701068				
1	1	Universal cup trial 80mm	221701070				
1	1	Universal cup trial 82mm	221701072				
1	1	Universal cup trial 84mm	221701074				
1	1	Universal cup trial 86mm	221701076				
1	1	Universal cup trial 88mm	221701078				
1	1	Universal cup trial 90mm	221701080				
1	1	Universal cup trial 92mm	221701082				
1	1	Universal cup trial 94mm	221701084				
1	1	Universal cup trial 96mm	221701086				
1	1	Universal cup trial 98mm	221701088				
1	1	Universal cup trial 100mm	221701090				

**Hours**

**After**

ST JAMES'S HOSPITAL DUBLIN									
ANAESTHETICS									
AO COMPACT HAND SET, TH9									
QTY	DESCRIPTION	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY
0	STANDARD INSTRUMENTS:	0							
1	HANDLE MEDIUM WITH QUICK COUPLING	1							
1	DEPT GAUGE	1							
1	DEPT GAUGE	1							
2	PLIERS FLAT NOSED	2							
1	SCREW HOLDING FORCEPS	1							
1	BENDING CUTTING PLIERS	1							
0	ADDITIONAL INSTRUMENTS:	0							
1	SHARP HOOK	1							
1	REDUCTION FORCEPS WITH POINTS	1							
1	HOLDING FORCEPS WITH SWIVEL FOOT	1							



- Electronic, fully legible
- Up to date
- List can be pulled from MS1 Cloud by scanning the tray/set barcode

1	DRILL BIT LONG 1.5MM	1							
1	DRILL BIT 2.0MM	1							
1	SCREWDRIVER SHAFT STARDRIVE SHORT	1							
0	BOTTOM TRAY:	0							
1	UNIVERSAL DRILL GUIDE	1							
1	SCREWDRIVER SHAFT STARDRIVE & HOLDING SLEEVE	1							
1	LCP DRILL SLEEVE	1							
1	LCP BENDING PIN	1							

**Seconds**

**ST. JAMES'S HOSPITAL**








# Loan set – Best Practice Example (PEI)

PEI Loan sets with GS1  
barcodes






# DETAILED RETURNS REPORT

ST JAMES'S HOSPITAL DUBLIN

Date From: 22/03/2016

Date To: 22/03/2016



22-March-2016


Time	Barcode	User Code	Description	Qty	Operator
13:01:54	100563000001	ASREXP07IN	ASREXP07IN SET 7, TRAY 4 OF 4	1	CAROLINE F
13:01:54	100553300003	MORUNC02IN	MORUNC02IN MORELAND UNCEM SET 2, TRAY 1 INSTRUMENTS	1	CAROLINE F
13:01:54	100564200000	SROM01IN	SET 1, TRAY 5 OF 7, IMPACTOR/EXTRACTOR INSTS	1	CAROLINE F
13:01:54	100564900000	MOREXT01IN	MORELAND EXTRACTION SET 1, TRAY 1 INSTRUMENTS.	1	CAROLINE F
13:01:54	100564800000	SOLUTN01IN	SOLUTION THINSHAFT REAMERS, TRAY 6 OF 6	1	CAROLINE F
13:01:54	100564700000	SOLUTN01IN	SOLUTION INSTRUMENTS TRAY 5 OF 6	1	CAROLINE F
13:01:54	100564500000	SOLUTN01IN	SOLUTION TRIAL RIGHT. TRAY 3 OF 6	1	CAROLINE F
13:01:54	100562800001	ASREXP07IN	ASREXP07IN SET 7. TRAY 3 OF 4	1	CAROLINE F
13:01:54	100564300000	SOLUTN01IN	SOLUTION FEMORAL REAMERS TRAY 1 OF 6	1	CAROLINE F
13:01:54	100564600000	SOLUTN01IN	SOLUTION TRIAL STANDARD. TRAY 4 OF 6	1	CAROLINE F
13:01:54	100562700001	ASREXP07IN	ASREXP07IN SET 7, TRAY 1 OF 4	1	CAROLINE F
13:01:54	100562900001	ASREXP07IN	ASREXP07IN SET 7, TRAY 2 OF 4	1	CAROLINE F
13:01:54	100564400000	SOLUTN01IN	SOLUTION TRIAL LEFT. TRAY 2 OF 6	1	CAROLINE F
SubTotal				13	
Total				13	

Loan sets from PEI scanned into Wash Room

- No need to re-key information (huge time saving)
- Full audit trail

# Barcode (keydot) being added to supplementary instruments

Morris Multi-Purpose Cross Clamp, 20cm (GU3630)



Item Type: SINGLE Group ID: DEFAULT GROUP Product: 00000 GIAI / Key Dot Code: 800453970219970000938

User Code: SIN00160 Transfer Point: THEATRE 1 MORRIS MULTI PURPOSE CROSS CL

Sterile Method: STEAM Temp: 134 Category: 0 Weight(kg): 0 Quality Control No.: Item Size:

Wash Method: IGNORE INSTRUCT Tray SMV: 0.000 Tray Cost: £0.000 Stock SMV: 0.000 Stock Cost: €0.00 Skill: 0 Rating: Normal Use

☒ Track (Unique) ☐ Skip Washer ☐ Skip Autoclave ☐ Print CE Mark ☒ Auto Despatch ☐ Record Patient ☒ Set As Master Record

☐ Prevent Item From Entering An Autoclave ☐ PH Neutral Only

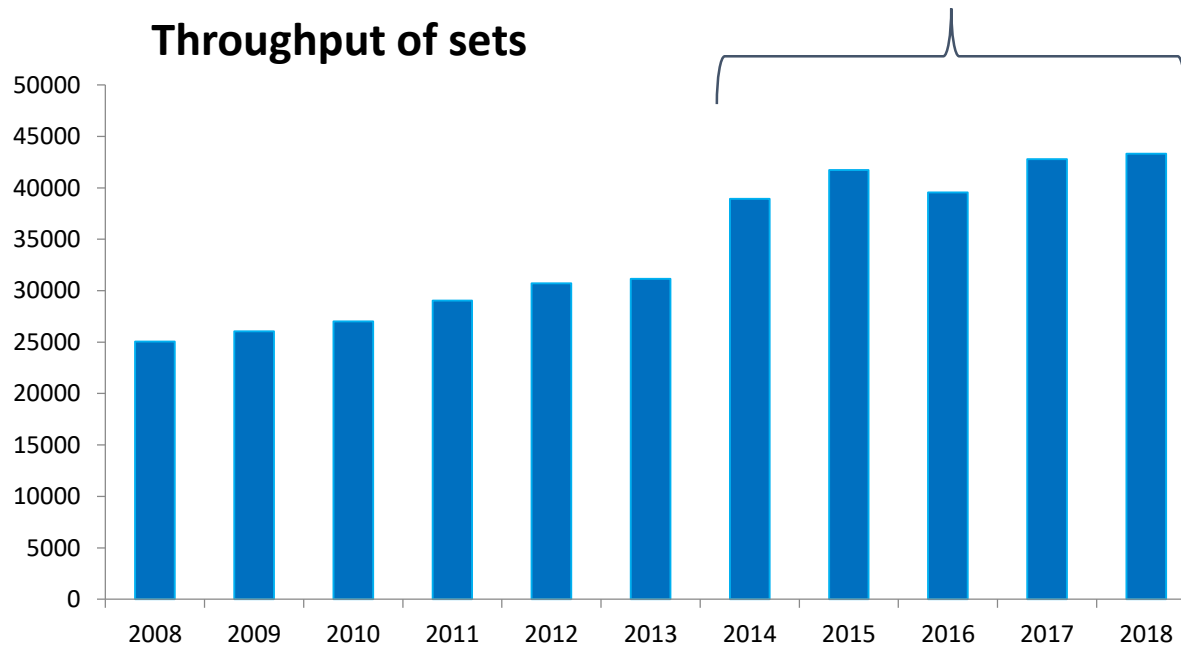
☐ Pre Wash ☐ Hand Wash ☐ Ultrasonic ☐ Dental Wash ☐ Phaco Wash

Properties Required Fields Save Record Cancel



# Overview of the number of procedures year on year in SJH HSSU

\* Between 2014 to 2018 increase in workload with less staff



**Anecdotal evidence:**  
*Moved from 5,000  
Transcriptions per day  
in one hospital*

# Key Benefits

## National traceability solution for Instrument trays and endoscopes

- Automatic Tracking of Instrument Sets
- Much easier to share Loan Sets
- Tray Checklists printed when scanned
- All records stored digitally (huge paper saving)
- Link between tracking system and theatre to patient (EHR)
- Improved Workflow (time savings)
- Reporting and management of set inventory





# Next Steps

- Adding Keydot barcode to all supplementary instruments
- Adding additional areas such as the Cath Lab & OPD which use sterile surgical sets
- Requesting all loan set providers to be compliant

# Contact



**Andrew Smith**

HSSU, St James's Hospital

James's Street, Dublin, Ireland

**Tel** + 353 1 416 2557

**eMail** [ASmith@stjames.ie](mailto:ASmith@stjames.ie)