

Surgical Site Infections (SSI) Quality Monitoring - Inpatient & Outpatient Dashboard for 2023-2024



Royal Papworth Hospital
NHS Foundation Trust

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Area	Metric	19/20	20/21 *incomplete data - pandemic	21/22	22/23	Benchmark	Apr-23	May-23	Jun-23	Q1 Fig.	Jul-23	Aug-23	Sep-23	Q2 Fig.	Oct-23	
Identified SSI - Sternal wound post CABG +/- Valve	% (Number) of patients with Organ/Space SSI	0.9% (8)	0.8% (4)	0.4% (3)	1.8% (14)	Inpatients	0 (0%)	0 (0%)	0 (0%)	Overall Quarter 1 Total	1 (1.7%)	0 (0%)	0 (0%)	Overall Quarter 2 Total	0 (0%)	
	% (Number) of patients with Deep SSI	1.3% (12)	0.4% (2)	1.6% (14)	1.2% (9)	Inpatients	0 (0%)	0 (0%)	0 (0%)		2 (3.4%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)
						Outpatients	0 (0%)	0 (0%)	0 (0%)		0 (0%)	1 (1.4%)	0 (0%)		0 (0%)	0 (0%)
% (Number) of patients with Superficial SSI	2.3% (21)	0.8% (4)	3.2% (27)	4.4% (34)	Inpatients	3 (6.3%)	1 (1.3%)	0 (0%)	1 (1.7%)		1 (1.4%)	1 (1.2%)	1 (1.2%)		1 (1.2%)	
					Outpatients	1 (2%)	0 (0%)	0 (0%)	1 (1.7%)		1 (1.4%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)
Identified SSI - leg wound post CABG +/- Valve	% (Number) of patients with Deep SSI	0.1% (1)	0%	1.1% (9)	1% (8)	Inpatients	0 (0%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)
						Outpatients	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
	% (Number) of patients with Superficial SSI	0.4% (4)	0.4% (2)	1.9% (16)	2.4% (19)	Inpatients	2 (4.2%)	2 (2.6%)	4 (6.3%)	1 (1.7%)	4 (5.6%)	2 (2.4%)	2 (2.4%)			
	Outpatients	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (1.7%)	0 (0%)	0 (0%)	1 (1.2%)	1 (1.2%)			
% of inpatient admissions with SSI post CABG (including readmissions)- mandated reportable to UKHSA (relates to inpatient admissions only)						UKHSA Target 2.6%	10.4% (5/48)	3.9% (3/78)	6.3% (4/63)	6.3% (12/189)	8.5% (5/59)	7% (5/72)	3.6% (3/82)	6.1% (13/213)	3.6% (3/82)	
3 Month Rolling % of inpatient admissions with SSI post CABG (including readmissions)- mandated reportable to UKHSA (relates to inpatient admissions only)						UKHSA Target 2.6%	9.2% (16/174)	7.3% (14/193)	6.3% (12/189)	6.9% (13/189)	6.0% (12/200)	7.2% (14/194)	6.1% (13/213)	9.4% (20/213)	4.7% (11/236)	
% patients receiving outpatient/community care only - not reported to UKHSA but monitored at Trust level						No Target	2% (1/48)	0% (0/78)	0% (0/63)	0.5% (1/189)	3.4% (2/59)	2.8% (2/72)	3.6% (3/82)	3.3% (7/213)	1.2% (1/82)	
Overall % of Internal monitoring all SSIs post CABG (inpatient and outpatient)						No target	12.5% (6/48)	3.9% (3/78)	6.3% (4/63)	6.9% (13/189)	11.9% (7/59)	9.8% (7/72)	7.3% (6/82)	9.4% (20/213)	4.9% (4/82)	
Identified SSI - Sternal wound post valve surgery	% (Number) of patients with Organ/Space SSI	0.9% (6)	0.3% (1)	0.2% (1)	0.5% (3)	Inpatients	1 (3.4%)	0 (0%)	0 (0%)	Overall Quarter 1 Total	0 (0%)	0 (0%)	1 (2.2%)	Overall Quarter 2 Total	0 (0%)	
	% (Number) of patients with Deep SSI	0.4% (3)	0.6% (2)	1.3% (7)	0.4% (2)	Inpatients	1 (3.4%)	0 (0%)	0 (0%)		1 (1.9%)	1 (2.1%)	0 (0%)		1 (2%)	
						Outpatient	0 (0%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)	0 (0%)		0 (0%)	
% (Number) of patients with Superficial SSI	0.9% (6)	1.2% (4)	1.5% (8)	2.4% (13)	Inpatients	0 (0%)	0 (0%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)	0 (0%)		1 (2%)	
					Outpatients	0 (0%)	0 (0%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)
% of inpatient admissions with SSI post valve (including readmissions)- internal reporting						Internal Target 2%	6.8% (2/29)	0% (0/40)	0% (0/53)		1.6% (2/122)	1.9% (1/53)	2.1% (1/47)		6.5% (3/46)	3.4% (5/146)
3 Month Rolling % of inpatient admissions with SSI post valve (including readmissions)- internal reporting						Internal Target 2%	4.3% (5/116)	2.8% (3/109)	1.6% (2/122)	1.6% (2/122)	0.7% (1/146)	1.3% (2/153)	2% (3/146)	2.8% (4/143)		
% patients receiving outpatient/community care only - not reported to UKHSA but monitored at Trust level						No Target	0% (0/29)	0% (0/40)	0% (0/53)	0% (0/122)	0% (0/51)	0% (0/47)	0% (0/46)	0% (0/146)	0% (0/50)	
Overall % of all SSIs post Valve (inpatient and outpatient)						No Target	6.8% (2/29)	0% (0/40)	0% (0/53)	1.6% (2/122)	1.9% (1/51)	2.1% (1/47)	6.5% (3/46)	3.4% (5/146)	4% (2/50)	

Summary of Surgical Site (SSI) Monitoring Dashboard – 23/24 (data correct as of 16.11.2023)

Sternal and Leg Wounds Post CABG surgery:

Quarter 2: The confirmed inpatient/readmission rate for Q2 2023 is 6.1% (13/213). This data will be submitted to UKHSA in December 2023. Overall inpatient/outpatient for Q2 is 9.4% (20/213).

This compares to an inpatient/readmission rate of 6.3% (12/189) in Quarter 1 2023 which has been submitted to UKHSA.

Quarter 3: So far for Q3, October 2023 has seen 4 superficial infections in CABG surgery (1 sternal wound and 3 leg wounds). Three of these infections are inpatient/readmissions so the reportable rate for October is 3.6% (3/82). The total rate of CABG infection for October is 4.9% (4/82) for all inpatients/outpatients. Figures are subject to change as more patients may present.

Sternal Wounds Post Valve Surgery:

Internal Monitoring (2% target) - not reported to UKHSA: Quarter 2: The overall confirmed rate for Q2 is 3.4% (5/146).

This compares to 1.6% (2/122) in Quarter 1 2023.

Quarter 3: October 2023 has shown two infections in valve patients - one deep and one superficial, giving an infection rate of 4% (2/50).

Additional Surveillance:

Quarter 3 2023 has seen the commencement of surveillance on additional cardiothoracic surgeries. This includes PTE, transplant, and other cardiac surgery (non-CABG and non-valve). So far for October 2023 there have been no SSIs in these categories.

SSI Scrutiny panel:

RCA's continue to be completed on all deep and organ space SSI patients. Two thoracic patients RCA's will be discussed at this month's Surgical M&M. These patients do not form part of our surveillance for external reporting. In addition, there are 6 cardiac surgery RCA's that have been discussed at panel and are due to be presented at the surgical M&M meetings.

Surgical Site Infections (SSI) Quality Monitoring - Environmental Dashboard for 2022-2023



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Report Author: Louise Palmer - Assistant Director of Quality and Risk Kathy Randall – Lead Infection Prevention & Control Nurse

SSI Environmental Monitoring Dashboard for 2023/2024 -(Data correct as of 17/11/2023

Area	Metric	19/20	20/21	21/22	22/23	Target	Apr-23	May-23	Jun-23	Q1	Jul-22	Aug-23	Sep-23	Q2	Oct-23
Surgical instruments	Number of non-conformance incident reports - related to cleanliness of instruments	Not reported	Not reported	Not reported	16	0	1	1	2	Overall Q1 Total	2	2	3	Overall Q2 Total	4
	Number of non-conformance reports related to incorrect/missing/damaged instruments	Not reported	Not reported	Not reported	73	No Target	15	10	9		7	5	9		8
	Total non-conformance reports on datix system	Not reported	Not reported	Not reported	89	No Target	16	11	11		38	9	7		12

Area	Audits	19/20	20/21	21/22	22/23	Target	Apr-23	May-23	Jun-23	Q1	Jul-23	Aug-23	Sep-23	Q2	Oct-23
IPC audits	Hand hygiene - Theatres	94%	95%	99.6%	93.8%	>94%	100%	100%	100%		100%	100%	100%		93%
	Hand hygiene - CCA	91%	86%	87%	87%	>94%	97%	100%	84%		100%	96%	95%		92%
	Hand hygiene - Level 5	100%	100%	99.5%	99.3%	>94%	100%	100%	99%		87%	79%	92%		93%
	ANTT - Theatres	Not audited	Not audited	Not audited	83%	>94%	77%	87%	95%		100%	100%	100%		92%
	ANTT - CCA	Not audited	88%	92%	88%	>94%	100%	100%	100%		92%	100%	94%		94%
KEY for ALL IPC Audits:	ANTT - Level 5	Not audited	Not audited	Not audited	93.50%	>94%	97%	100%	98%		83%	94%	75%		75%
>94%	Cleaning & Decontamination - Theatres	99%	88%	86%	97%	>94%	85%	65%	98%		100%	100%	100%		91%
70-94%	Cleaning & Decontamination - CCA	87%	82%	82.5%	73.4%	>94%	45%	75%	77%		74%	67%	62%		47%
<70%	Cleaning & Decontamination - Level 5	99.5%	99%	100%	99%	>94%	100%	100%	90%		87%	90%	92%		86%

Area	Audits	19/20	20/21	21/22	22/23	Target	Apr-23	May-23	Jun-23	Q1	Jul-23	Aug-23	Sep-23	Q2	Oct-23
Environmental cleanliness	Cleaning QC - Theatres	Not reported	99%	99%	99%	>98%	100%	99%	100%		100%	100%	99%		100%
	Cleaning QC - CCA	Not reported	100%	99%	99%	>98%	98%	99%	99%		98%	99%	99%		99%
	Cleaning QC - Level 5	Not reported	99%	98%	98%	>95%	98%	97%	98%		98%	98%	98.0%		98%

Area	Audits	19/20	20/21	21/22	22/23	Target	Apr-23	May-23	Jun-23	Q1	Jul-23	Aug-23	Sep-23	Q2	Oct-23
Deep Cleans - Theatres	Deep Clean - Theatres	Not reported	Not reported	Not reported			Theatre 4	Theatre 6	Theatre 1		Recovery Area	Theatre 4 & perfusion room	Changing rooms		Theatre 3

Area	Audits	19/20	20/21	21/22	22/23	Target	Apr-23	May-23	Jun-23	Q1	Jul-23	Aug-23	Sep-23	Q2	Oct-23
Compliance with surgical prophylaxis antibiotic administration	Overall compliance (To be audited every 6 months)	79.20%	81.10%	71.20%	85.00%	>90%	83.20%	No Audit this month	No Audit this month		Audit due Oct	Audit due Oct	Audit due Oct		75%
Compliance with MRSA nasal decolonisation treatment	Overall compliance	Not reported	Not reported	Not reported	New audit	>90%	50%	40%	70%		73%	60%	77%		71%

Surgical Instruments: In **October 23 (Q3)** total non-conformances has remained high at **12**, of which 4 relate to cleanliness of instruments or a foreign object has been identified in the sterile pack. This is monitored through the Decontamination subgroup and regular discussions with Nuffield have been held. To provide further assurance bioburden testing has been implemented to selected instruments that are difficult to clean but look clean to the naked eye, to make sure they are sterile. The first set has come back as negative, and we await the second set results. Refurbishment program has been implemented for all instrument sets to improve the standards of the instruments and removed any rust from instruments.

Infection Prevention and Control (IPC) Audits: In **October 23 (Q3)** we now have a fully established peer review programme for all the IPC audits, this had noticeable picked up lower compliance with all IPC audits. **Hand Hygiene Audits**, all HH audit are below average compliance. Non-compliance was challenged at the time and a full review has been taken. IPC to support the wards with understanding the importance of the 5 moments of HH. **ANTT Audits**, all areas are below average compliance. Multiple elements were identified and actioned at the time of audit. IPC to support ANTT compliance. **Cleaning and decontamination Audits**, Theatres and Level 5 was below average with CCA scoring very low at 47%. Immediate action has been highlighted to CCA and a focus has been implemented.

Environmental Cleanliness: October 23 (Q3) All areas are at expected standards. IPC environmental rounds continue with engagement from all stakeholders.

Deep Cleans : Theatre schedule, in October was the Theatre 3 which was completed with a slight delay to planned schedule.

Compliance with Antibiotic Policy for Surgical Prophylaxis: This is now to be completed every 6 months. Compliance has dropped to 75% from 83.20% in April. Improvement plan currently being discussed by the Anaesthetic Dept.

Compliance with MRSA nasal decolonisation treatment: In **October** compliance was **71%** compared to **77%** in October. Implementation to follow NICE guidance in September has been slow to embed. This remains a focus with best practice. Documentation of treatment involving the Pharmacy group and clinical teams has been reviewed and a prescription and handover process has been implemented. Results will be seen in next month's audit.

Priorities for November 2023 (monitored via SSI Stakeholder Group):

- Implement air monitoring study in a working theatre to understand the ventilation.
- Education and awareness of pre-op decolonisation - now prescription and handover process in all departments.
- IPC audits review with Matrons to improve IPC practices.
- Deep dive into sterile instruments related to SSI.