

# Journal of Hospital Infection

## How do surgeons feel about the “Getting it Right First Time” national audit? Results from a qualitative assessment.

--Manuscript Draft--

<b>Manuscript Number:</b>	
<b>Full Title:</b>	How do surgeons feel about the “Getting it Right First Time” national audit? Results from a qualitative assessment.
<b>Corresponding Author:</b>	Gabriel Birgand, PharmD, MPH Bichat - Claude Bernard Paris, FRANCE
<b>Article Type:</b>	Short Report
<b>Suggested Reviewers:</b>	Albert Mifsud Barts Health NHS Trust Albert.Mifsud@whippsx.nhs.uk  Esther Mcarty Brighton and Sussex University Hospitals NHS Trust emclarty@nhs.net
<b>Additional Information:</b>	
<b>Question</b>	<b>Response</b>
<b>Publishing Open Access</b>  In addition to publishing subscription content, Journal of Hospital Infection also publishes Open Access Articles which are free to access and reuse by both subscribers and the general public.  Authors can choose to publish Open Access. In this case a fee is payable by the author or research funder to cover the costs associated with publication. For information about funding body policies or other mandates that may apply visit <a href="http://www.elsevier.com/fundingbodies">www.elsevier.com/fundingbodies</a>  <a href="#">Learn about publishing Open Access in this Journal</a> .  Please indicate below whether you intend to publish Open Access.	Yes, I intend to publish Open Access and am aware a publication fee is payable after acceptance

Editor-in-Chief  
*Journal of Hospital Infection*

London, September 26, 2019

Dear Editor,

We are submitting a manuscript entitled "**How do surgeons feel about the “Getting it Right First Time” national audit? Results from a qualitative assessment.**” with Gabriel Birgand, Rachael Troughton, Victor Mariano, Anne Campbell, Shehan Hettiaratchy, Susan Hopkins, Jonathan A. Otter, Alison Holmes as coauthors. All authors have contributed significantly to the work, have seen and approve the manuscript. Please find below the description of contributions for each author. We would like this manuscript to be considered as a **Rapid research communication**.

The aim of this study was to perform semi-structured interviews involving surgeons participating to the “Getting It Right First Time” GIRFT audit launched in spring 2017. Three themes were emphasised by the six participating surgeons: the time-consuming and unsustainable process, the rise in profile for SSI, and the requirement to make the audit more sustainable through clarifying roles and using routinely collected data. We hope these results will provide important information in view to improve the methodology of this national initiative.

As the principal investigator, I had full access to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. This manuscript has not been published and is not being submitted for publication elsewhere. The paper has been read and approved by the other coauthor. Potential conflicts of interest have been disclosed.

The research was funded by the National Institute for Health Research Health Protection Research Unit (NIHR HPRU) in Healthcare Associated Infection and Antimicrobial Resistance at Imperial College London in partnership with Public Health England (PHE). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR, the Department of Health or Public Health England. The support of ESRC as part of the Antimicrobial Cross Council initiative supported by the seven UK research councils, and also the support of the Global Challenges Research Fund, is gratefully acknowledged.

I hope our work will be considered favourably for publication. If so, I will deal with the prepublication matters and will be the corresponding author.

Sincerely,

Dr. Gabriel Birgand, PharmD PhD

**Corresponding author**

Dr Gabriel BIRGAND

Health Protection Research Unit in Healthcare Associated Infections and Antimicrobial Resistance,, Imperial College London, Hammersmith Campus, Du Cane Road, London W12

0NN, UK Imperial College Healthcare NHS Trust, Fulham Palace Road, London W6 8RF,  
UK

Tel.: +44 203 313 2732

E-mail: g.birgand@imperial.ac.uk

**Authors contribution to the manuscript:**

Gabriel Birgand : conception and design, acquisition of data, analysis and interpretation of data, drafting of the article, final approval of the version to be published

Rachael Troughton: conception and design, acquisition of data, analysis and interpretation of data, drafting of the article, final approval of the version to be published

Victor Mariano: acquisition of data, analysis and interpretation of data, drafting of the article, final approval of the version to be published

Shehan Hettiaratchy: analysis and interpretation of data, revising of the manuscript, final approval of the version to be published

Susan Hopkins: analysis and interpretation of data, revising of the manuscript, final approval of the version to be published

Jonathan A. Otter: analysis and interpretation of data, revising of the manuscript, final approval of the version to be published

Alison Holmes: conception and design, acquisition of data, analysis and interpretation of data, drafting of the article, final approval of the version to be published

<b>Name</b>	<b>Signature</b>	<b>Date</b>
Gabriel Birgand		30/09/2019
Rachael Troughton		30/09/2019
Victor Mariano		1/10/2019
Shehan Hettiaratchy		30/9/19
Susan Hopkins		30/09/2019
Jonathan A. Otter		30/09/2019

Alison Holmes

A handwritten signature in blue ink that reads "Alison Holmes". The signature is written in a cursive style with a long horizontal stroke at the bottom.

1<sup>st</sup> October 2019

**Intended category:** Short report

---

**How do surgeons feel about the “Getting it Right First Time” national audit?**

**Results from a qualitative assessment.**

Gabriel Birgand <sup>a</sup>, Rachael Troughton <sup>a</sup>, Victor Mariano <sup>a</sup>, Shehan Hettiaratchy <sup>b</sup>, Susan Hopkins <sup>c</sup>, Jonathan A. Otter <sup>d</sup>, Alison Holmes <sup>a</sup>,

<sup>a</sup> National Institute for Health Research Health Protection Research Unit in Healthcare Associated Infection and Antimicrobial Resistance at Imperial College London, Hammersmith Campus, London, United Kingdom

<sup>b</sup> Major Trauma Centre, St. Mary's Hospital, Imperial College Healthcare NHS Trust, Praed Street, London, United Kingdom

<sup>c</sup> National Infection Service, Public Health England, London UK

<sup>d</sup> Infection control, Imperial College Healthcare NHS Trust, London UK

**Corresponding author:**

Gabriel Birgand

8th Floor Commonwealth Building

Imperial College London

Du Cane Road

London, W12 0NN

Tel: 020 3313 32732

Email: g.birgand@imperial.ac.uk

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

**Keywords.** Surgical site infection, audit, Infection control, Healthcare settings, behaviours, social determinants, qualitative

**Running Head:** Qualitative assessment on the “Getting it Right First Time” audit.

**Category intended:** Short report

1  
2 **SUMMARY**  
3

4 The implementation of the national “Getting It Right First Time” (GIRFT) was assessed by  
5 interviewing six surgeons involved at various levels in surgical site infection (SSI) audit. The  
6  
7 positive impacts were to create new professional collaboration, improve stakeholder  
8  
9 engagement, and increase the profile of SSIs. One particular knowledge gap highlighted was  
10  
11 that some participants had been unaware until that point of the criteria for diagnosing an SSI.  
12  
13 The quality of data collected was felt poor due to methodological flaws. The audit was  
14  
15 described as highly time-consuming and unsustainable if leaning on junior surgeons, without  
16  
17 protected time and designated responsibility.  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

## INTRODUCTION

1  
2  
3  
4  
5 A national initiative named “Getting It Right First Time” (GIRFT), aims to improve  
6  
7 resource use and patient outcomes in the National Health Services (NHS) by reducing  
8  
9 unwarranted variation in procurement and care quality [1]. GIRFT workstreams are designed  
10  
11 with several stages: data collection, data analysis and benchmarking, working with hospitals  
12  
13 to understand variation, and then creating action plans with each hospital to change practice.  
14  
15 In 2015, reviews carried out by the GIRFT project within 120 NHS hospitals in England  
16  
17 highlighted variations in orthopaedic surgical site infections (SSI) rates; in many cases, the  
18  
19 rates for each specialty were not known to trusts and surgeons [2]. In spring 2017, a national  
20  
21 SSI audit was launched, based on a six-month retrospective audit using note reviews followed  
22  
23 by a six-month prospective audit. For each SSI case, 27 items had to be collected on surgery  
24  
25 details, post-operative care, management and consequences of SSI. The responsibility of data  
26  
27 collection and submission lay with nominated junior doctors. Hospitals were encouraged to  
28  
29 submit data on procedures from all surgical specialties performed within the hospital. No  
30  
31 extra resources were provided, but the GIRFT programme incentivised involvement of  
32  
33 clinicians by providing certification of involvement.  
34  
35  
36  
37  
38  
39  
40

41 The implementation of the GIRFT audit at a large university hospital, its impact on  
42  
43 practices and perception of improvements were qualitatively assessed by interviewing a panel  
44  
45 of surgeons.  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65



## METHODS

1  
2  
3  
4  
5 This study was conducted in three hospitals belonging to the Imperial College  
6  
7 Healthcare National Health Service Trust (ICHNT) hospital group across West London,  
8  
9 United Kingdom. We designed a qualitative study using semi-structured interviews with a  
10  
11 range of stakeholders involved in surgery [3]. Four questions on the GIRFT audit were  
12  
13 specifically asked to surgeons: how did you first hear about the GIRFT audit; how did you  
14  
15 find the implementation; what has been the impact of the audit on practice; how would you  
16  
17 improve the audit process.  
18  
19  
20

21  
22 Between May 2017 and July 2018, 23 surgeons were invited to participate in the  
23  
24 study. Fourteen participants were approached through established distribution lists followed  
25  
26 by purposive snowball sampling, and nine were contacted directly as they were leading the  
27  
28 GIRFT audit in their specialty. All participants who responded to this invitation were invited  
29  
30 to a face-to-face interview conducted by RT, a researcher, and VM, a former theatre nurse, on  
31  
32 hospital sites. All interviews were audio recorded and transcribed verbatim by a third party.  
33  
34  
35

36 The transcribed data were uploaded into NVivo®, QSR International Ltd., Version 11.  
37  
38 Data were analysed using a thematic analysis approach (1), drawing on the constant  
39  
40 comparative method (2). A selection of transcripts was first open coded inductively, with  
41  
42 codes created from the patterns and themes emerging from the data, and an initial coding  
43  
44 frame developed. This coding frame was then applied to subsequent transcripts and iteratively  
45  
46 refined as new codes were identified. The authors (R.T., G.B.) discussed the content of the  
47  
48 categories until no inconsistencies existed and a shared understanding was reached to reduce  
49  
50 researcher bias and strengthen the internal validity.  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

## RESULTS

Interviews were arranged with six surgeons (26%), among whom three registrars were directly involved in the GIRFT audit. All participants were interviewed face-to-face for a mean duration of 46 minutes each (range: 32 min - 56 min).

### **A time-consuming and unsustainable process.**

The implementation was not without problems. Several of the participants were involved in data collection for the audit and commented on the workload and long-term sustainability of surveillance in the style of the GIRFT audit (Table I, Q1 & Q2):

*“It’s challenging because it’s a time-consuming audit, it’s not a small number of [patients], we do [these procedures] every day at the hospital pretty much, whether elective or emergency...”* Interviewer: *“Do you think that something like that is sustainable long term?”*

Answer: *“No...Not within the existing workforce.”* Obstetrics & Gynecology surgeon

### **A rise in profile for SSI.**

At ICHNT, continuous SSI surveillance programs are only in place for hip and knee replacements and cardiac surgery. When asked about their knowledge of SSI rates in the hospital, participants outside of these specialties relied on their own ad-hoc experience treating patients with SSIs, or complications data discussed in morbidity and mortality meetings. Staff agree that data is vital for quality improvement, as it can highlight problem areas and allow the causes of high rates to be investigated. In one case, staff were aware that

1  
2 there may be a problem with high rates of SSIs but did not have any solid data until the  
3 GIRFT audit.  
4  
5  
6

7 *“Suddenly the problem is made visible because it was before but no one notices or people*  
8 *pretended not to notice this, it will make them to change the practice...”* Vascular surgeon  
9  
10  
11

12  
13  
14 When data on outcomes were available there were not only improved buy-in from staff for the  
15 formal action plan, but staff in general became more sensitised to the risk of SSI and as a  
16 result every aspect of care was improved. (Table I, Q3)  
17  
18  
19  
20  
21  
22  
23

24 The GIRFT audit had a direct and indirect impact on the attitude towards SSIs in the  
25 hospital by highlighting specific problems, making new links and increasing the profile of  
26 SSIs. This was partly due to the GIRFT audit being a national audit commissioned by an  
27 external body. However, staff felt that the audit itself was not well planned and therefore the  
28 data quality was poor. (Table I, Q4)  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38

39 One particular knowledge gap highlighted by the participants involved in the GIRFT audit  
40 was that they had been unaware until that point of the criteria for diagnosing an SSI.  
41 Participants who had undergone specific internal training in the diagnosis criteria for SSIs  
42 provided by the GIRFT, felt that most other staff were not aware of the definition, and  
43 therefore not recording SSIs correctly in the notes. (Table I, Q5)  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

**Sustainability through clarifying roles and using routinely collected data.**

Participants had several suggestions on how to make surveillance more sustainable. This mainly involved creating a specific role, adding the duty to somebody’s job description, providing more funding, and utilising electronic records for easier data capture. (Table I, Q6 & Q7)

**DISCUSSION**

Surveillance has a pivotal role in determining SSI rates and measuring the impact of interventions [4]. The need for more extensive data on SSI rates in non-mandatory surgical categories was one of the drivers behind a national audit on SSI rates conducted as part of the GIRFT audit [5]. All participants interviewed felt that although the data quality was not as high as it could have been, the audit had a useful disruptive influence, raising the profile of SSIs significantly and increasing stakeholder’s engagement. The audit also generated some much-needed data and highlighted previously undetected high rates in some specialties. Involving junior surgeons in the process is a way to sensitise them on the problem and improve their knowledge in the field, notably on the physiopathology and diagnostic criteria of SSI.

Several points of the GIRFT audit methodology were subject to discussion among involved surgeons. The junior surgeons undertaking the audit found the data collection extremely time consuming and unstructured. All had to come up with their own ways of identifying patients, putting notes up in doctor’s rooms, asking colleagues to report any SSIs to them, or regularly approaching colleagues to ask for any SSIs. Staff involved in the

1 implementation of the audit felt that not enough time to recruit junior surgeons before the start  
2 date. These points were considered in the 2019 version of the GIRFT audit by enlarging the  
3 leadership to other categories than junior doctors (i.e. nurses) and by aligning SSI definitions  
4 with those of the Public Health England SSI surveillance system <sup>6</sup>. The absence of any patient  
5 identifiable data on the collection form did not allow staff to check *a posteriori* for missed  
6 cases, duplicates, and review medical records of disputed SSIs for validation. Finally, data  
7 was only collected for patients diagnosed with SSIs rendered any other analyses, such as case-  
8 control or retrospective cohort studies impossible.  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21

22 Participants felt an SSI surveillance system using the same methodology as the audit  
23 would not be sustainable as a long-term solution without protected time and extra resources.  
24 A process in two steps including the identification of SSI suspect cases by an electronic  
25 system followed by the validation of the SSI diagnosis by surgeons would ease the  
26 surveillance. In this way, the time spent for data collection is saved by using existing  
27 routinely collected data in hospitals electronic health. Algorithms have already shown  
28 capability to identify suspected SSI cases <sup>7</sup>. By validating SSI cases, surgeons stay engaged in  
29 the surveillance process. Surgeon's involvement (including junior doctors) in the validation of  
30 SSI cases, the interpretation of surveillance results, the feedback to frontline staff and the  
31 design of action plans are keys for effective prevention efforts.  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50

## 51 **Declarations**

52  
53 Ethics approval and consent to participate: Ethical approval was granted by Health Research  
54 Authority under approval reference 16/HRA/5160 for IRAS project ID 193411.  
55

56  
57  
58 Consent for publication: Not applicable.  
59  
60  
61  
62  
63  
64  
65

1  
2 Availability of data and material: The datasets generated and analysed during the current  
3  
4 study are not publicly available due to confidentiality clauses but anonymised versions are  
5  
6 available from the corresponding author on reasonable request.  
7  
8  
9

10  
11 Funding: The research was funded by the National Institute for Health Research Health  
12  
13 Protection Research Unit (NIHR HPRU) in Healthcare Associated Infection and  
14  
15 Antimicrobial Resistance at Imperial College London in partnership with Public Health  
16  
17 England (PHE). The views expressed are those of the author(s) and not necessarily those of  
18  
19 the NHS, the NIHR, the Department of Health or Public Health England.  
20  
21

22  
23 The support of ESRC as part of the Antimicrobial Cross Council initiative supported by the  
24  
25 seven UK research councils, and also the support of the Global Challenges Research Fund, is  
26  
27 gratefully acknowledged.  
28  
29  
30

31  
32 Authors' contributions: RT conducted the interviews, analysis and writing of the full  
33  
34 manuscript. VM conducted the interviews and participated in analysis. GB, AC and SH  
35  
36 participated in the analysis and writing of the manuscript.  
37  
38  
39  
40  
41

42  
43 Acknowledgements: The authors would like to thank the interviewees for their participation  
44  
45 and the Infection Prevention and Control team, Surgical Infection Group, and Surgical  
46  
47 Outcomes Group at ICHNT for their support and guidance. We would like to thank Anne  
48  
49 Campbell for her help in the design and analysis.  
50  
51

52  
53 Competing Interests: The authors declare that they have no competing interests.  
54  
55  
56  
57

58 **Disclosure:** The authors declare no conflict of interest.  
59  
60

1  
2 **REFERENCES**  
3  
4  
5  
6

- 7 [1] SSI audit – Getting it Right First Time – GIRFT 2017. Available at:  
8  
9 <https://gettingitrightfirsttime.co.uk/>, Accessed the 30/09/2019  
10  
11  
12 [2] Briggs T. Getting it Right First Time: a national review of adult elective orthopaedic  
13  
14 services in England 2015. Available at: [https://gettingitrightfirsttime.co.uk/wp-](https://gettingitrightfirsttime.co.uk/wp-content/uploads/2018/07/GIRFT-National-Report-Mar15-Web.pdf)  
15  
16 [content/uploads/2018/07/GIRFT-National-Report-Mar15-Web.pdf](https://gettingitrightfirsttime.co.uk/wp-content/uploads/2018/07/GIRFT-National-Report-Mar15-Web.pdf), Accessed the  
17  
18 30/09/2019  
19  
20  
21 [3] Rachael Troughton, Victor Mariano, Anne Campbell, Shehan Hettiaratchy, Alison  
22  
23 Holmes, Gabriel Birgand. Understanding determinants of infection control practices in  
24  
25 surgery: the role of shared ownership and team hierarchy. Antimicrob Resist Infect  
26  
27 Control 2019.  
28  
29  
30  
31 [4] Abbas M, de Kraker MEA, Aghayev E, Astagneau P, Aupee M, Behnke M, et al. Impact  
32  
33 of participation in a surgical site infection surveillance network: results from a large  
34  
35 international cohort study. J Hosp Infect 2019;102:267–76.  
36  
37 doi:10.1016/j.jhin.2018.12.003.  
38  
39  
40  
41 [5] Troughton R, Birgand G, Johnson AP, Naylor N, Gharbi M, Aylin P, et al. Mapping  
42  
43 national surveillance of surgical site infections in England: needs and priorities. J Hosp  
44  
45 Infect 2018;100:378–85. doi:10.1016/j.jhin.2018.06.006.  
46  
47  
48  
49 [6] Public Health England. Surgical site infection surveillance service (SSISS) 2014.  
50  
51 Available at: [https://www.gov.uk/guidance/surgical-site-infection-surveillance-service-](https://www.gov.uk/guidance/surgical-site-infection-surveillance-service-ssiss)  
52  
53 [ssiss](https://www.gov.uk/guidance/surgical-site-infection-surveillance-service-ssiss), Accessed the 30/09/2019  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

[7] van Mourik MSM, Perencevich EN, Gastmeier P, Bonten MJM. Designing Surveillance of Healthcare-Associated Infections in the Era of Automation and Reporting Mandates. Clin Infect Dis Off Publ Infect Dis Soc Am 2018;66:970–6. doi:10.1093/cid/cix835.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65



Table I. Themes and illustrative data.

Themes	Illustrative quotations
A time-consuming and unsustainable process.	Q 1: <i>“Tough. Was difficult. Collecting the data was difficult, because there was a retrospective proportion to it... And then prospectively going forward... I’ll only see my few patients on the wards, and that’s fine, I can collect data for them. But then there’s also patients... looked after by other doctors who need to collect their data. And then there’s all the acute emergency stuff which I might not be involved in, and their data. So It’s actually, it was quite difficult to collect data.”</i> - Gastro-intestinal surgeon
	Q 2: <i>“...no one collected this data and doing this audit is quite time consuming to be fair in terms of the, you have to have the spreadsheet, pick up on the patients, it takes Saturday, Sunday and days out of hours working and going through everything, so it’s quite challenging in terms of the time.”</i> - Vascular surgeon
A rise in profile for SSI.	Q 3: <i>“This happens in a cyclical manner in every hospital I’ve ever worked in, but there will always be a period of time where there’s lots of wound infections... And everyone will come up with a series of steps to try and reduce that, and what will happen is, the infection will go away and everyone will say it’s because of all we’ve put in place... And actually I think it’s because everyone’s more aware of what’s going on, and when you’re more aware of what’s going on, every step is better...”</i> - Gastro-intestinal surgeon
	Q 4: <i>“it was a really poorly designed exercise, which I think has not really delivered what it did do. What it did do usefully for us was maybe to shine a light a little bit on weaknesses of our SSI surveillance, and how patchy it was across the surgical specialties, and made us think about, well actually what should we be doing because elements of the surgical practice do this really well and submits really good data, and that’s important. But other elements of it don’t.”</i> - Plastic surgeon
	Q 5: <i>“We could definitely do with more education around SSIs, what SSIs are, where you can encounter SSIs, why, and how they can be prevented. I think this is where, as a trust, I think more globally, like, we’re just lacking knowledge on.”</i> - Gastro-intestinal surgeon
Sustainability through clarifying roles and using routinely collected data.	Q 6: <i>“I think having an electronic system’s really helpful, and it’s one we have to exploit. If there was, for a patient, [something] where you can tick... say for example you just had a simple, a very simple tick checklist, at least then when you go onto the patients, it’s flagged as they’ve had an SSI.”</i> - Gastro-intestinal surgeon
	Q 7: <i>“So I think if you want to commit to it and if the trust wants to commit to it, then yes, but then you probably need to make it part of somebody’s job description... and they had a set time allocated to it every week, then yes it would be sustainable... you’d then establish processes and ways to capture the data and you’d probably speak to the people at Cerner so that you could actually capture that data a lot more readily just by doing a quick search on the online records... but in the way that we did it, I don’t think it would just be sustainable if there weren’t any changes, sadly.”</i> - Obstetrics & Gynecology surgeon