JSS JOURNAL OF SPINE SURGERY
A QUARTERLY PEER-REVIEWED PUBLICATION, DEDICATED TO THE FIELD OF SPINE SURGERY, SCIENCE AND CLINICAL OUTCOMES

Peer Review File
Article Information: https://dx.doi.org/10.21037/jss-22-47

Reviewer A

The authors present an interesting survey for the management of deep surgical spinal infections. The study is well-written. It is interesting that there is no consensus in the management of postoperative spinal infections.
I support the publication of this manuscript in JSS.

Perhaps the authors can discuss the influence of the length of the instrumentation in the decision making. Are spine surgeons more reserved when long-segmental spinal instrumentations are infected with replacement of the hardware?

- ***Reply: Thank you for this point, this has been included in the discussion***
- ***Changes in the text: Modified as recommended, line 249-250***

here is a reference: Implant-Associated Infection of Long-Segment Spinal Instrumentation: A Retrospective Analysis of 46 Consecutive Patients AsianSpineJ. Oikonomidis S et al.

- ***Reply: Thank you for the interesting reference***
- ***Changes in the text: This has been added in line 249-250***

Reviewer B

the authors do not provide enough justification for why the survey should consist only of Canadian surgeons. they could have a much bigger sample size if other localities were included.

- ***Reply: We appreciate this limitation and have commented on it in our discussion from lines 267-269. Limiting our study to Canadian centres allowed us to identify all potential respondents and limit heterogeneity of responses by virtue of all respondents practicing in the same public healthcare system. This does, however, come at the cost of sample size.***

Deep SSI can occur along a continuum of time. Please define acute deep ssi.

- ***Reply: Thank you for your comment. We define acute SSI subjectively from lines 107-109 to be 'during the immediate post-operative period' because one of the questions on the survey asks clinicians what they would define as***

an acute SSI. This can be seen in the first line of Table 2

- ***Changes in text: For clarity, we have added to line 109 "We allowed respondents to determine the time period that defined an infection as acute". In lines 141-142 we also detailed respondents' specific definitions of acute SSI stating "Most respondents (52%, 21/40) considered acute infections to be within a timeframe of 12 weeks, and 33% (13/40) defined their cutoff at 6 weeks.". The full details of responses are in Table 2***

Why was there no mention of late SSI?

- ***Reply: Thank you for your comment. We were concerned about the length of the survey and our ability to obtain a high completion rate, as such we did not create a distinct section for late SSI. Having to choose only two clinical entities, we hoped that acute and recurrent infection would yield the greatest difference in treatment approach, which was still not the case.***

This article does not advance our knowledge of the subject.

- ***Reply: Thank you for your time and review of our manuscript. We respectfully disagree with this sentiment and feel the lack of consensus on postoperative spine infection management among our survey cohort represents an important and sobering reality of current spine care.***

Reviewer C

Spinal SSI are relatively infrequent but can result in significant morbidity and cost to the patient and the healthcare system. Best practices for management are still unclear. This is a cross-sectional study of practice management of SSI among Canadian adult spinal surgeons. They had a response rate of 62%, 53 respondents of 86. There were more ortho than neurosurgeons with fairly even distribution in practice length. Most are academic. The authors found significant variation in management of SSI perioperatively and found no associations of practice management with surgeon demographics.

This is an important study that highlights the variation in management of SSI and a lack of best practice guidelines in Canada and need for further study. I have a few questions:

1) How were the survey respondents chosen? Would like to have more elaboration (spine surgeon society panlist, etc.)
    - ***Response: Thank you for this important feedback, this has been added to the***

manuscript

- ***Changes in text: Lines 100-102: "Surgeons were identified at every Canadian centre providing spine surgery through departmental pages, and individual contacts at each site were queried to ensure that other respondents, potentially situated at satellite campuses, were not missed."***

2) Does having 38% nonresponder rate potentially bias the results? Are there demographic differences between responders and nonresponders?

- ***Response: This is indeed a limitation of this survey as we were not able to obtain demographic information on nonresponders as a result of anonymizing the survey***
- ***Changes in text: Added comment on limitations from 283-284***