How do we follow up our patients after injections? A survey of pain consultants

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Blockade and modulation of the nociceptive pathway by the route of interventional procedures provides varying degree of relief to chronic pain patients. Pain injections need to be reviewed, but currently, there is not much information on when and how they are reviewed. This is important to achieve a streamlined efficiency in providing our pain services. This survey of pain consultants aims to provide a snapshot of current practice in the United Kingdom.

Objectives

- To find out who is tasked with the follow-up of chronic pain patients after a pain intervention.
- To determine the timescale of patient follow-up.
- To determine the proportion of patients whose outcome is assessed by a health-care professional other than a pain physician (such as a nurse or physiotherapist).
- To find out the proportion of patients who are referred back to be reviewed by pain physician after assessment by another health professional.
- To determine the proportion of patients who are followed up by another health professional who then routinely discusses the management plan with a pain physician.
- To find out whether a standardised algorithm is used for patient follow-up after interventional therapy for chronic pain.

Methods

The Google group of pain consultants is an active discussion forum and comprises about 300 members. The members were requested to fill in an online questionnaire (SurveyMonkey – free version).
Many of these pain physicians are registered members of the British Pain Society.

The following four questions were asked:

1. Do you perform pain injections?
2. If yes to question 1 above, who performs the injection assessment?
3. When is the injection assessment performed?
4. What happens to patients after their injection outcome has been reviewed?

A total of 56 responses were collected during the 2 weeks that the survey was open online in April 2013.

Results

The results are presented in Figures 1–4.

Overall, 56 consultant interventional pain physicians completed the survey out

Figure 1. The number of physicians who performed interventions 56/56 (100%)

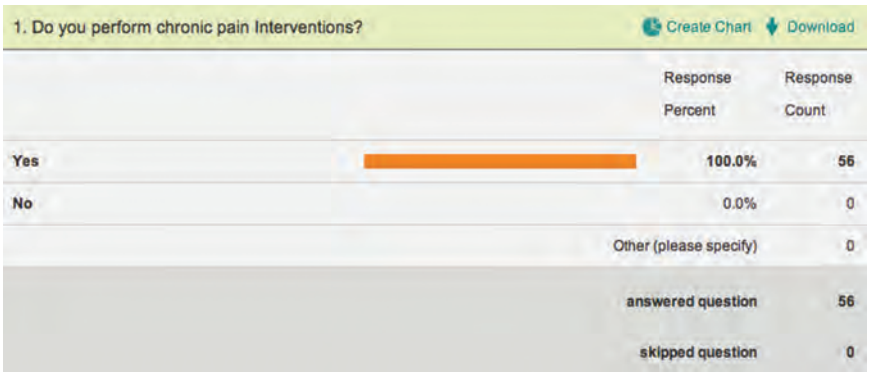
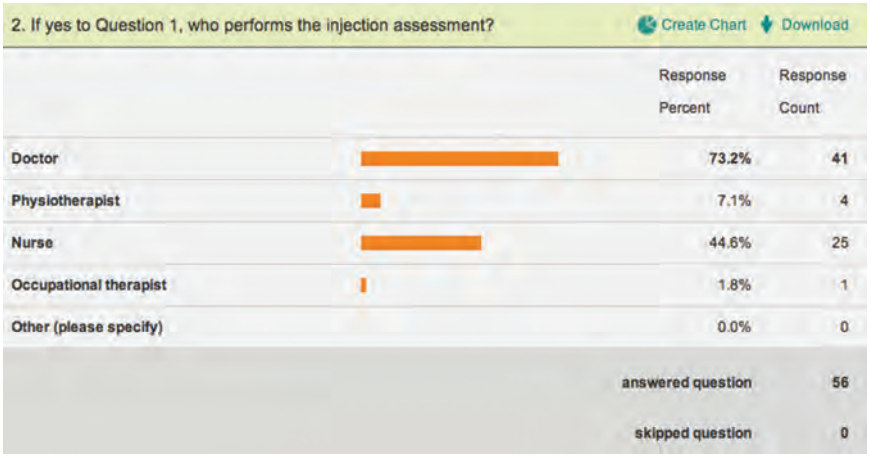


Figure 2. Majority of injection assessments were performed by doctors



2. If yes to Question 1, who performs the injection assessment?

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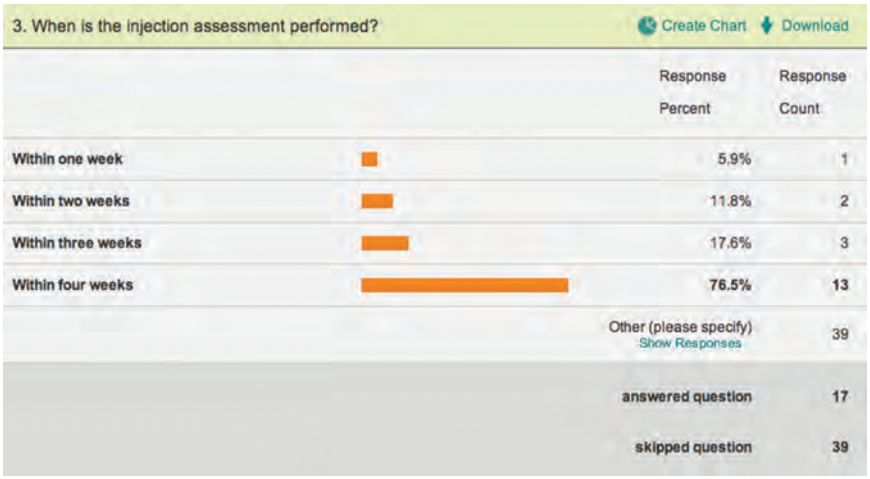
	Response Percent	Response Count
Doctor	73.2%	41
Physiotherapist	7.1%	4
Nurse	44.6%	25
Occupational therapist	1.8%	1
Other (please specify)	0.0%	0
answered question		56
skipped question		0

Figure 3. There is a wide variation in the time when injections are assessed



3. When is the injection assessment performed?

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	Response Percent	Response Count
Within one week	5.9%	1
Within two weeks	11.8%	2
Within three weeks	17.6%	3
Within four weeks	76.5%	13
Other (please specify) Show Responses		39
answered question		17
skipped question		39

of a total of estimated 300 UK Google pain consultants group. All consultants who responded did perform interventional procedures.

In 73.2% of injections, a pain physician carried out the injection review or follow-up, with a lower proportion carried out by other health professionals: nurses (45%), physiotherapist (7%) and occupational therapist (2%) were involved in performing injection reviews in the remaining patients.

Only 23.2% of injections were reviewed within 4 weeks. The remaining, which is 76.8% of injections, were reviewed at times ranging from 4 weeks to 6 months, with the majority reviewing their injections within 4 months. There was one response that stated the time before post-injection review to be 12 months. There were two responses that stated that they do not review injections at all.

In all, 18 of the 56 respondents answered the last question on what happens after the injection review; 9 respondents skipped the question and 29 respondents provided an answer that was different from the choices provided. Of those who answered, in 34% of cases, the injection assessor referred back the patient to the pain physician for further review. In 40.4% of cases, it was the non-medical assessor who decided on further management. In 38.3% of cases, the assessor contacted the pain physician for further management. In all, 31.9% respondents stated that they followed a standardised algorithm for common procedures.

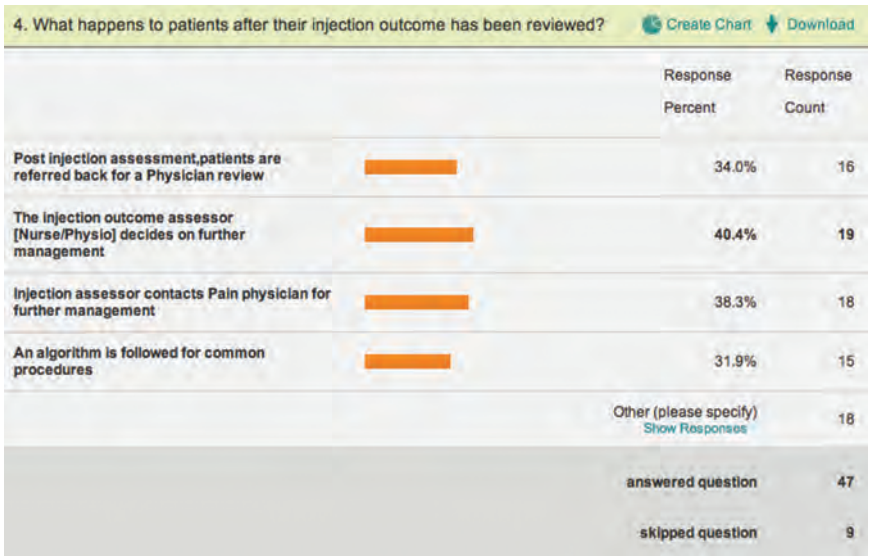
Discussion

This survey provides a snapshot of the follow-up practices of interventional pain physicians in the United Kingdom. There are standardised guidelines for the performance of interventional procedures such as epidural steroid injection (BPS; Australian and New Zealand College of Anaesthetists (ANZCA)), spinal cord stimulation (BPS), medial branch blocks (ANZCA) and intrathecal therapy (BPS). However, these publications offer very little guidance on the nature of patient follow-up in the weeks (and months) post procedure. This is guided more by availability of local manpower resources, workload and local adaptation.

The results of this survey indicate that the majority of patients are followed up by a pain physician who is arguably best placed to assess the success of the intervention, but potentially may lack a certain degree of objectivity. International Spine Intervention Society (ISIS) guidelines place an emphasis on objectivity of assessor, and an operator performing the outcome assessment may have an element of bias.

Interestingly, a considerable minority of patients are typically followed up by another health-care professional such as a nurse, physiotherapist or occupational therapist. This may be a reflection of the pragmatic use of limited resources.

Figure 4. Post assessment, there is wide variability in patient management



4. What happens to patients after their injection outcome has been reviewed? Create Chart Download

	Response Percent	Response Count
Post injection assessment,patients are referred back for a Physician review	34.0%	16
The injection outcome assessor [Nurse/Physio] decides on further management	40.4%	19
Injection assessor contacts Pain physician for further management	38.3%	18
An algorithm is followed for common procedures	31.9%	15
Other (please specify) Show Responses		18
answered question		47
skipped question		9

While another health-care professional may possess a high degree of objectivity, they may lack the in-depth knowledge of the interventional pain physician. This is important because as well as assessing the success or otherwise of the intervention, it is essential to observe for complications that may need focused questioning or examination to elicit or exclude their presence. If we look outside our speciality, surgeons and other interventionalists like cardiologists and radiologists frequently perform outcome assessments of their procedures.

Another noteworthy finding of the questionnaire was that a specific algorithm was implemented routinely for common procedures. As the speciality of pain medicine matures, it is perhaps time for pain specialists to formulate and agree upon standardised algorithms for post-procedure follow-up. These may incorporate established multidimensional tools pre- and post-procedure, such as the McGill and the SF-15 questionnaires (Melzack,[1] SF-15[2]) as well as straightforward assessments such as the visual analogue scale or the verbal rating score.

Perhaps the most contentious issue is the time frame in which pain injections should be reviewed. This survey shows that injection reviews are performed at varying periods of time from the day of procedure to 6 months in majority of the cases. Diagnostic injections may best be evaluated soon after the injection to eliminate recall bias. For therapeutic injections, because of the variability of benefit, it is hard to set a time frame. At our centre, we review our steroid injections at 4 months and radiofrequency interventions at 6 months with a proviso for the patient to contact our service in case of inadequate/no pain relief. This is not perfect but works given our limited staff capacity. Perhaps the best method would be to audit the mean duration of benefit of various pain injections locally and then formulate local review protocols.

Limitations

Only 56 interventional pain physicians completed the survey, so the results are not a complete representation of all clinicians; however, it is a very useful snapshot. In order to maximise the response rate of clinicians, the survey was deliberately concise. This meant that a more in-depth analysis of the potential variability of follow-up of specific procedures was not possible. In addition, the nature of any algorithm used by clinicians was not explored in detail. Finally, the opinions of pain physicians to whether or not they desired a more standardised follow-up process based on national guidelines was not sought. However, the aim of this survey itself was to promote debate regarding this issue.

Conclusion

This survey highlights the differences in the follow-up practices of pain physicians after therapeutic interventions across the United Kingdom. It is the first survey of its kind and sheds light on potential national discrepancies in approach. Of note, a significant minority of patients are followed up without the direct input of the pain physician who performed the intervention. In addition, the questionnaire seeks to stimulate discussion regarding the potential creation of a standardised national approach to patient follow-up.

Acknowledgements

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