Supplementary article data

Persistent pain is common 1–2 years after shoulder replacement
A nationwide registry-based questionnaire study of 538 patients

Karen T BJØRNHOLDT1, Birgitte BRANDSBORG2, Kjeld SØBALLE3 and Lone NIKOLAJSSEN2,4

1 Department of Orthopedic Surgery, Horsens Hospital; 2 Department of Anesthesiology and 3 Department of Orthopedic Surgery, Aarhus University Hospital; 4 Danish Pain Research Center, Aarhus University Hospital, Aarhus, Denmark.
Correspondence: karenbjo@rm.dk
Submitted 2014-08-06. Accepted 2014-10-17.
Questionnaire

It is very important that you answer all of the questions that are relevant to you as best you can. Use a blue or black pen. If you are unable to answer, please write the reason in the box with the question.
All questions are related to the shoulder where you have your prosthesis, unless otherwise noted. Check the box next to the most accurate answer, as shown in this example:

Did you experience pain after the surgery?
Yes ........................................... [X] (Do not worry about the numbers by the boxes; they will be used later when the data is registered)
No ...........................................
Don’t know ..............................

First, some questions about pain before and immediately after the surgery

1. Date of completing this form: _____ / _____ / 2013

2. Did you experience any pain in your shoulder before the shoulder replacement surgery?
   Yes, for more than 6 months ........... 1
   Yes, for 1-6 months ....................... 2
   Yes, for less than a month................ 3
   No, no pain before the surgery ........... 4 If your answer is no, please go to question 4

3. On average, how much pain did you experience in the week before the surgery?
   No pain .................................... 1
   Mild pain ................................. 2
   Moderate pain ............................ 3
   Severe pain ............................... 4

4. On average, how much pain did you experience in the first week after the surgery?
   No pain .................................... 1
   Mild pain ................................. 2
   Moderate pain ............................ 3
   Severe pain ............................... 4

5. For how long after the surgery did you experience pain?
   Less than 3 months ........... 1
   For 3-6 months ....................... 2
   More than 6 months ............... 3
   I still experience pain .......... 4
6. **After the surgery**, have you experienced problems with one or more of the following symptoms?

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healing of the wound</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Infection in the wound</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Broken arm/shoulder</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Phlebitis/embolism in the arm</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Frozen shoulder</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Other symptoms: ____________________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Have you had additional surgery in your shoulder **after** you got your shoulder prosthesis?

- Yes .................. [ ]
  - What kind of surgery? __________________________
  - Date: ___________________
- No .................. [ ]

All of the following questions concern how you feel **now**:

8. **During the last month**, have you experienced pain in the shoulder with the prosthesis?

- Yes, constantly ................................................ [ ]
- Yes, every day but not all the time .................. [ ]
- Yes, but not every day .................................... [ ]
- No, no pain during the last month ................. [ ] *If no, please go to question 15*

9. **On average**, how much pain have you experienced in your shoulder in the last month? *(mark your answer by checking one of the boxes below)*

- No pain
  - 0
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10

10. During the last month, how severe has the worst pain in your shoulder been? *(mark your answer by checking one of the boxes below)*

- No pain
  - 0
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10

11. Overall, how much does the pain bother you in your everyday life?

- Not at all ........ [ ]
- A little ........... [ ]
- Somewhat .......... [ ]
- Much .............. [ ]
- Very much ........ [ ]
12. Compared to before the operation, how is your shoulder now regarding pain?
   - Much better
   - Better
   - The same
   - Worse
   - A lot worse

13. Does the pain have one or more of the following characteristics?

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burning</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Painful cold</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Electric shocks</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

14. Is the pain associated with one or more of the following symptoms in the same area?

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tingling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pins and needles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Itching</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Have you experienced reduced sensation when you touch the area with something soft (e.g. a piece of cotton)?
   - Yes
   - No

16. Have you experienced reduced sensation when you touch the area with something sharp/pointy? (e.g. a toothpick)?
   - Yes
   - No

17. In the painful area, can the pain be caused or increased by brushing with something soft?
   - Yes
   - No

18. Do you experience pain other places in your body besides your shoulder?
   - No
   - Yes, mild pain
   - Yes, moderate pain
   - Yes, severe pain

If yes, where: ________________________________
19. Do you take any pain medication on a daily basis? (mark your answer by checking one of the boxes below)
   - No.................................................. 1
   - Yes, for pain in the shoulder........... 2
   - Yes, for pain elsewhere.................. 3
   - Yes, for pain in the shoulder as well as elsewhere 4
   Name(s) of daily medication:_________________

20. Do you take any pain medication, which you do not take on a daily basis? (mark your answer by checking one of the boxes below)
   - No 1
   - Yes, for pain in the shoulder........... 2
   - Yes, for pain elsewhere.................. 3
   - Yes, for pain in the shoulder as well as elsewhere 4
   Name(s) of medication:_________________

21. Do you use other forms of pain relieving treatments?
   - No 1
   - Acupuncture 2
   - Physiotherapy 3
   - Chiropractor 4
   - Hot water pool 5
   For pain in the shoulder?........... 1 2 3 4 5
   For pain elsewhere?........... 1 2 3 4 5
   For pain in both the shoulder and elsewhere?... 1 2 3 4 5
   Other pain relieving treatments:___________________________________________________

22. Please note your height and your weight
   - Height:______________ cm
   - Weight:______________ kg

23. Other comments?
   __________________________________________________________

24. May we contact you again by phone or e-mail if we need to follow up on your answers?
   - Yes.....[ ]
   - No.......[ ]
   Phone:________________________ E-mail:________________________________________

Thank you very much!