

Treatments for Spinal Stenosis Decision Quality Instrument User Guide

I. Purpose:

To measure the extent to which patients are informed, involved in the decision making process and receive treatments that match their goals and preferences.

II. Versions:

- Spinal Stenosis Decision Quality Instrument v1.0, ©2010.
- Decision Quality Worksheet: Treatments for Spinal Stenosis v1.0, ©2010.

III. Timing

The decision quality instrument version is designed to be administered after a decision has been made. Modifications are required (e.g. to instructions and tenses of items) if it is to be used before a decision has been made.

The shorter worksheet version is worded to be used during the decision making process. The knowledge items and goals can be administered at any time, e.g. before or after a visit, before or after a decision aid. The decision process items need to be administered after a provider consult.

IV. Scoring:

The survey contains three sets of items and results in three scores, a total knowledge score, a concordance score and a decision process score.

1. Knowledge Score: The items are located in "Section 2: Facts About Spinal Stenosis." For each fact, a correct response receives one point (see Table 1). Questions with multiple parts (e.g. items 3, 8 and 12 in Table 1) are scaled to total 1 point per item. Missing responses receive 0 points. A total score is calculated for all patients who complete at least half of the items. Total scores are scaled from 0-100%.

Table 1: Facts (# indicates items in the worksheet version)

Question	Correct response
1. For most people with spinal stenosis, how likely is it that doing normal activities will make their spinal stenosis worse?	Not very likely
#2. Over time, <u>without</u> back surgery, what usually happens to back and leg pain caused by spinal stenosis?	Stays about the same
3a. Can exercise or staying active help some people relieve the symptoms caused by spinal stenosis?	Yes
3b. Can physical therapy (supervised exercise) help some people relieve the symptoms caused by spinal stenosis?	Yes
3c. Can lots of bed rest help some people relieve the symptoms caused by spinal stenosis?	No

Question	Correct response
3d. Can over-the-counter pain medicine help some people relieve the symptoms caused by spinal stenosis?	Yes
3e. Can shots of pain medicine into the back help some people relieve the symptoms caused by spinal stenosis?	Yes
#4. Which treatment is most likely to provide <u>faster</u> relief from symptoms caused by spinal stenosis?	Surgery
5. Without surgery, about how many people with spinal stenosis develop permanent weakness or numbness in their legs?	Almost None
6. For most people, is there a best time to have surgery for spinal stenosis?	There is no best time to have surgery
#7. If 100 people have surgery for spinal stenosis, about how many will have <u>less</u> back or leg pain 1 year after the surgery?	65
8a. Is post-operative infection a possible complication of surgery for spinal stenosis?	Yes
8b. Is nerve damage a possible complication of surgery for spinal stenosis?	Yes
8c. Is increased blood pressure a possible complication of surgery for spinal stenosis?	No
8d. Is a blood clot in the lung a possible complication of surgery for spinal stenosis?	Yes
#9. Serious complications can happen after surgery for spinal stenosis including life-threatening blood clots, infections, heart attacks, and even death. If 100 people have surgery for spinal stenosis, about how many will have a serious complication within <u>1 month</u> after surgery?	5
10. After spinal stenosis surgery, about how many months does it take most people to get back to doing their usual activities?	2 to 6 months
#11. After several years, which treatment is better at relieving pain caused by spinal stenosis?	Both are about the same
12. For each of the following, mark whether or not it is a possible complication of long term use of prescription pain medicine.	
1.12a. Is constipation a common side effect of narcotic pain medicine?	Yes
1.12b. Is addiction or dependence a common side effect of narcotic pain medicine?	No
1.12c. Is foggy thinking or confusion a common side effect of narcotic pain medicine?	Yes
1.12d. Is chest pain a common side effect of narcotic pain medicine?	No

2. Concordance score: In "Section 1: What Matters Most To You," patients rate their goals and concerns on an 11-point importance scale from 0 (not important at all) to 10 (extremely important). These questions and one question about patient's treatment preference can be

used to calculate a concordance score. There are multiple approaches to calculate a concordance score, we describe two below. Note: for those who use the worksheet version, there must be some way to track the treatment that patients received to complete this calculation.

The first is a simple match, and in this direct approach, we use patients' preferred treatment (assessed with a single item, "Which treatment do you want to do to treat your spinal stenosis?") and then compare with treatment received to determine whether they match. Patients who are unsure are not considered to have treatment that matches. A summary score (0-100%) indicating the percentage of patients who received treatment that matched their stated preference can be generated.

The second approach uses patients' ratings of the importance of salient goals and concerns on a 0 to 10 scale in a multiple logistic regression model to generate a predicted probability of surgery. The dependent variable is binary: Surgery versus No Surgery and the independent variables are the individual goals. Patients with a predicted probability >0.5 and who had surgery for spinal stenosis or those with a predicted probability ≤ 0.5 and who did not have surgery, were classified as having treatments matching their goals. A summary score (0-100%) can be generated to reflect the percentage of patients in the sample who received treatments that matched their goals.

3. Decision Process Score: These questions are located in the Decision Quality Instrument in "Section 3: Talking with your Health Care Providers" and in the Decision Quality Worksheet in "Section 3: Making Choices." Patients are asked about whether they were offered a choice, how much the pros and cons were discussed, and whether the health care provider asked for their preferences. Participants receive 1 point for a response of "yes" or "a lot/some." The total points are summed and then divided by the total number of items to result in scores from 0-100%, with higher scores indicated a more shared decision making process.

V. Development Process:

This has been described in detail in Sepucha et al (2008), briefly to generate the survey we:

- Conducted a review of the clinical evidence & of focus groups and interviews with patients to generate a candidate set of facts and goals salient to the decision
- Surveyed a convenience sample of patients (n=39) and a multidisciplinary group of clinical experts (n=22) to rate the facts and goals for importance, completeness, and accuracy.
- Drafted the instrument and then conducted cognitive interviews with patients who had spinal stenosis (n=5) to evaluate items for acceptability and comprehension

VI. Psychometric Properties:

To date there have been no formal studies that have used this instrument to evaluate the psychometric properties. Other instruments that have followed the same development process have been shown to be acceptable and feasible, with good reliability and validity.

VII. Appropriate Use

The DQIs are protected by copyright. They are available to use at no cost, provided that you:

- Cite the reference in any questionnaires or publications
- Do not charge for or profit from them
- Do not alter them except for customization for a specific condition and reformatting

Suggested Citations for the DQIs:

Sepucha KR. Spinal Stenosis Decision Quality Instrument v.1.0. ©Massachusetts General Hospital, 2010.

Sepucha KR. Decision Quality Worksheet: Treatments for Spinal Stenosis. v.1.0.

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http://www.massgeneral.org/decisionosciences/research/DO_Instrument_List.aspx.

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VIII. Selected References

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IX. Questions or comments? Please contact us at decisions@partners.org or visit our website at <http://www.massgeneral.org/decisionosciences/research/>.