

*Treatment Options for Low Back Disorders*

*Economic Subcommittee Call Summary  
December 13, 2010*

***Present:***

**ICER:** Steve Pearson, Marc Silverstein, Dan Ollendorf, Analisa Andry, Sarah Emond, Aurelie Cordier

**Clinical Subcommittee:** Dan Cherkin, Roger Chou, Gil Fanciullo, Ted Ganiats, Jason Kemner, Sohail Mirza, Glenn Pransky, Chris Stanley

***Absent:*** Steve Atlas, Chris Bono, Lisa Prosser

**Meeting Summary**

- ***Approach***
  - While the age for the model base case (45 years) was considered to be appropriate for the non-specific and herniation model pathways, a 60 or 65 year-old patient age was recommended for the typical patient with spinal stenosis.
  - Caution was urged in using a definition of “successful outcome” based on multiple sources of data. For example, defining success based on a minimum threshold of improvement in pain OR function may be problematic, as these measures are often not well-correlated.
  - The issue of converting group mean “change scores” for pain and function into measures of meaningful improvement was raised, as group-level measures will mask what occurred with each individual. Caution was urged in using distributional assumptions to capture the likely proportion of patients experiencing meaningful improvement, given differences in patient populations, baseline levels of pain and function, and thresholds for seeking different types of treatment across studies. It was suggested that

ICER first examine the presence of high-quality RCTs with a patient- or clinician-reported “successful outcome” measure to see how prevalent these measures are across intervention types. *ICER will examine the RCTs in more detail for these measures, and will also develop an initial approach for how treatment success will be defined in the model. This draft approach will be shared with the ERG.*

- The use of QALYs as one of the potential outcome measures was suggested, as such a measure would include the effect of treatment harms. It was also recommended that measures of interest in prior NICE evaluations of this topic be examined to serve as a guide for model development.

- ***Model Assumptions***

- Certain interventions were thought not to be appropriate for selected patient types, as below:
  - Lumbar disc herniation: It was suggested that IDET and RF denervation be removed and nucleoplasty and automated percutaneous lumbar discectomy (APLD) be considered. *ICER will remove IDET and RF denervation from the pathway and will make a recommendation regarding the additional treatment options mentioned.*
  - Lumbar spinal stenosis w/ or w/o spondylolisthesis: There was debate about whether RF denervation should be included as an option. In addition, it was suggested that lumbar spinal stenosis alone be considered a separate pathway from spondylolisthesis, as some interventions will be appropriate for one condition but not the other. *ICER will create two separate pathways as described above, and reconsider the inclusion of RF denervation in the pathway.*
  - Nonspecific low back pain: It was suggested that interspinous spacers be removed from consideration, as well as laminectomy (fusion should remain as an option). Artificial disc replacement was suggested as an additional option, but ICER had already made the decision not to include this procedure in its review given Medicare’s coverage decision and the plethora of recent assessments of

this topic. *Spacers and laminectomy will be removed from the pathway.*

- Questions were raised regarding the interval between treatment decisions. For example, most surgical interventions are not attempted until other options have been attempted for at least 6 months, yet the current model suggests that early surgical intervention could occur immediately after initial conservative care (4 weeks). Others suggested that practice varies widely, and some interventions may occur this early. *ICER, in consultation with the ERG, will develop revised intervals to perform and assess outcome of each intervention.*
- It is known that some approaches to the same intervention (e.g., instrumented vs. non-instrumented fusion) do not materially differ in effectiveness, yet may differ substantially in cost. It was recommended that base case treatment cost reflect the most commonly-used approach, even if that is the most expensive, to accurately reflect health-system resource use.
- It was recommended that, given the high level of uncertainty around measures of treatment success, costs, and other factors, that a rigorous set of sensitivity analyses be performed to test key model assumptions.