# **Abstract Back App**

### **Background:**

In a retrospective follow-up study, we followed 959 patients' trajectories, from patients who underwent spinal surgery for lower back pain for a median time of 15 years.

About 2% (20 patients) developed chronic pain and received a spinal cord stimulator, mostly after two spine surgeries, but some also after 3, 4 or even 5 surgeries. Amongst the spinal cord stimulation patients, we observed a trend, however not significant, for a decreased quality of life if more surgeries were performed before the spinal cord stimulator was implantated.

Today patients are being treated based on general guidelines from randomized studies with selected patient populations. However, the patient populations in daily clinics are much more diverse. We know patients can develop chronic pain for which SCS can be a solution.

## **Objective:**

This prospective study analyzes the long-term outcomes of patients with low back pain and those treated with spinal cord stimulation.

#### Methods:

The back app is a patient driven long-term follow-up application, that allows to follow the exact trajectory of patients with low back pain. Patients are able to indicate the localization of the pain and are asked to fill in questionnaires about the ability to work, pain perception, disability and quality of life.

#### **Results and discussion:**

We started collecting data about 14 ago, and currently 3025 patients are enrolled in this longterm follow-up study. In the first phase, patient profiles will be analyzed. It could be interesting to see how patients are being treated in current practice and which patient benefits the most from a specific treatment.

This big data collection will enable to investigate the proportion of patients evolving to chronic back pain and eventually spinal cord stimulation. This could clarify the role of spinal cord stimulation and the perfect timing in chronic back pain problems. One could hypothesize that unnecessary intervention may be avoided.

#### **Conclusion:**

The main goal of this long-term patient driven data collection is to determine which patient will benefit from which therapy at what timing in the treatment paradigm. In this way we can improve therapeutic strategies and decrease the personal and economic burden of low back pain.

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