**Innovations in pain management**

**A brief history of treating pain**

1. Earliest form of anesthesia - made possible by nerve injuries during surgery
2. First use of Aspirin - 1899
3. Narcotics such as opium soaked into a variety of herbs - Medieval Times
5. The Painful Truth Survey 2012. Sponsored by Boston Scientific and conducted by ICM research
9. 10–25 years SCS battery can last with chronic pain
10. 1–2 years: non-rechargeable system
11. 4½ years: rechargeable system
12. 50–100% of patients have a good experience with SCS
13. 2 in 3 chronic pain sufferers are in pain for 12 hours a day despite treatment
14. 1 in 5 people living with chronic pain have lost a job as a result of their pain
15. 1 in 5 adults in Europe due to chronic pain
16. €300 billion due to chronic pain annually compared with 6 more new patients per year
17. On average, over a 15 year period, a rechargeable system could allow treatment of 6 more new patients annually compared with a non-rechargeable system
18. 80.5% of patients experienced a 10–100% pain relief after 12 months
19. 74% of patients have a good experience with SCS
20. 95% of patients have been given SCS worldwide

**Europe is still suffering in the 21st Century**

- More than 4.5 million people living with chronic pain
- Chronic pain has been a problem for centuries
- €300 billion due to chronic pain annually
- 1 in 5 adults in Europe due to chronic pain
- 1 in 5 people living with chronic pain have lost a job as a result of their pain
- In 2010, 2 in 3 chronic pain sufferers are in pain for 12 hours a day despite treatment
- On average, a non-rechargeable system allows treatment of 4 patients per year
- A rechargeable system allows treatment of 6 more new patients annually

**Is pain management stuck in the dark ages?**

- Pain management is still in the dark ages
- Many patients are not experiencing the pain relief they desire
- Many patients have lost job opportunities due to their pain
- Many patients are not able to work due to their pain

**What is spinal cord stimulation?**

- SCS is the delivery of low-frequency electrical pulses directly to the spinal cord
- The pulses are delivered by a lead, which is connected to an implantable pulse generator
- The lead is placed under the skin and is connected to the pulse generator
- The pulse generator is implanted in the patient's abdomen

**Are all SCS devices the same?**

- Not all SCS devices are the same
- All SCS devices have different features and capabilities
- Some devices are designed for pain relief, while others are designed for other conditions
- Some devices are more advanced and offer more features

**Patient benefits**

- 350,000 patients have been given SCS
- 74% of patients have a good experience with SCS
- 80.5% of patients experienced a 10–100% pain relief after 12 months

**References**

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- 80.5% of patients experienced a 10–100% pain relief after 12 months
- 74% of patients have a good experience with SCS

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**Typical non-rechargeable IPG with a median battery longevity of three years based on published literature.**

**Typical rechargeable IPG with a median battery longevity of four to five years based on published literature.**

**Costs for a rechargeable system are offset 4.1 years after implant.**

**On average, over a 15 year period, a rechargeable system could allow treatment of 6 more new patients annually compared with a non-rechargeable system.**