

Cement injection device for Vertebroplasty



Telerobotic system allowing precise control of both cement viscosity and injection duration for vertebroplasty surgical procedures

6 KEYWORDS

Robotic surgery Percutaneous vertebroplasty Minimally invasive surgery **Spinal treatment**

O PATENTS

EP15305974 EP15305975 (filed 24 June 2015)

6 LAB

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TECHNOLOGY

- Master-slave robotic system for cement injection
- Automatic viscosity control thoughout the procedure
- Fine adjustments of injection speed
- Haptic feedback
- Easy operation by physicians



Cement injection in vertebral body



APPLICATIONS

Percutaneous vertebroplasty surgical procedures

ADVANTAGES

- Radiologist precisely controls injection speed with a finger
- Lessens risk of cement leakage outside vertebral body by quickly reaching minimum viscosity
- Physician removed from radiation field
- Delays cement hardening for longer injection time

DEVELOPMENT STATUS

• Prototype available soon for demonstration on phantom vertebrae

Partnership: Seeking partners to licence the patent