Mazor™ Core Technology

for Robotic-Guided Spine Surgery

Medtronic

Further, Together

Pedicle screw placement is a common spinal surgical procedure but it remains **technically demanding**. The anatomical proximity to the central nervous system and main blood vessel structures means that inaccuracy of pedicle screws may result in **serious morbidity, complications, and revision surgery**.[1] Mazor X Stealth Edition™ delivers predictability of planning, precision of robotics-guidance, and the visibility of navigation in open, minimally invasive, or percutaneous procedures. Mazor Core Technology delivers high rates of pedicle screw accuracy and enables a minimally invasive approach to spine surgery, which has well-established benefits including less tissue trauma, blood loss, postoperative pain, and convalescence.[2,4-6]

MIS and Mazor Core Technology Benefits

SURGEON

- Improved Patient Outcomes†[2,10]
- Optimized Screw Placement Accuracy‡[2,7-9]
- Predictability and Consistency of Spinal Surgery Through Planning ‡[3]

HOSPITALS

- Improved Outcomes,†‡ Including Length of Stay,[2,10] and a Lower Rate of Infection†[6]
- Patients Report High Levels of Satisfaction with the Procedure†[11]

PATIENTS

- Promotes Faster Recovery†[2,10]
- Reduces Postoperative Pain†[11]
- Significant Improvement from Preoperative Status †‡[4,5,11]

† Demonstrated benefit of MIS ‡ Demonstrated benefit of Mazor Core Technology

ROBOTIC WORKFLOW

PLAN — EXECUTE

PREDICTABILITY OF PLANNING	PRECISION OF ROBOTIC TECHNOLOGY	VISIBILITY OF NAVIGATION

Achieving Accurate Screw Placement

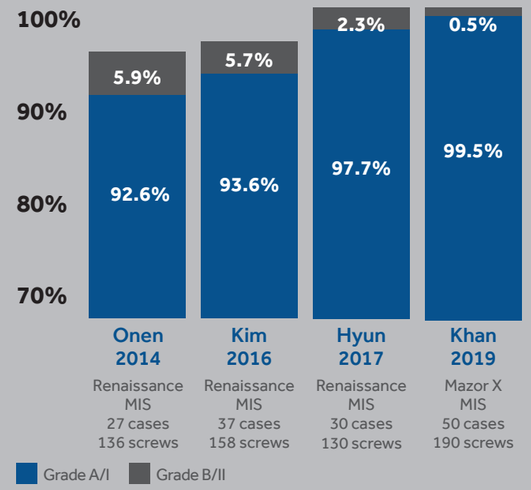
Up to **100%**

screw placement accuracy.[2,7-9]

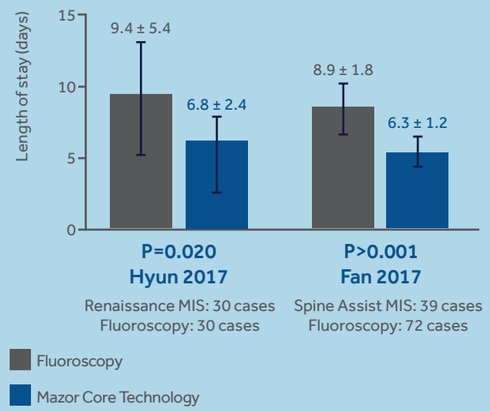
LESS FACET JOINT VIOLATION[7]

0/74 screws violated the proximal facet joint in PLIF with Renaissance™ Guidance System vs. 13/82 in open PLIF.[7]

High level of screw placement accuracy achieved with Mazor Core Technology using Gertzbein-Robbins Grade A + B or Ravi Grade I + II classifications.[2,7-9]



Shorter length of stay with Mazor Core Technology[2,10]



Length of Stay

Shorter length of stay for MIS enabled by Mazor Core Technology

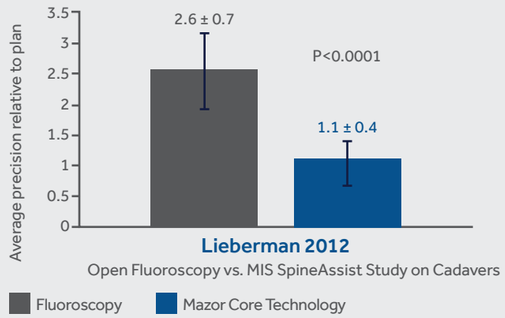
2.6 days less

than open freehand procedures enabled by fluoroscopy.[2,10]

ROBOTIC-GUIDED SPINAL INSTRUMENTATION HAS A HIGH LEVEL OF ACCURACY WITH ENHANCED REPRODUCIBILITY AND PREDICTABILITY.

A significant **reduction in deviation from preoperative planning** was seen with Mazor Core Technology as compared to fluoroscopy.[3]

Better spinal instrumentation accuracy and consistency with Mazor Core Technology.[3]



SIGNIFICANT REDUCTION IN TIME SPENT PLACING PEDICLE SCREWS[8]

Time to place screws was significantly reduced from a mean of 6.7 ± 0.9 minutes in navigated procedures to 3.7 ± 1.8 minutes with Mazor X System.™[8]

MINIMALLY INVASIVE PLIF PATIENT-REPORTED OUTCOMES WITH MAZOR CORE TECHNOLOGY

- Significant improvement of leg and back pain at the final follow-up[11]
- Mean ODI improved from severe to minimal disability after surgery[11]
- 89.1% of patients would choose to undergo the same treatment again[11]
- 78.2% of patients reported the ability to work at the final follow-up[11]

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The evidence reported here refers to various Mazor robot generations that share Mazor Core Technology.

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