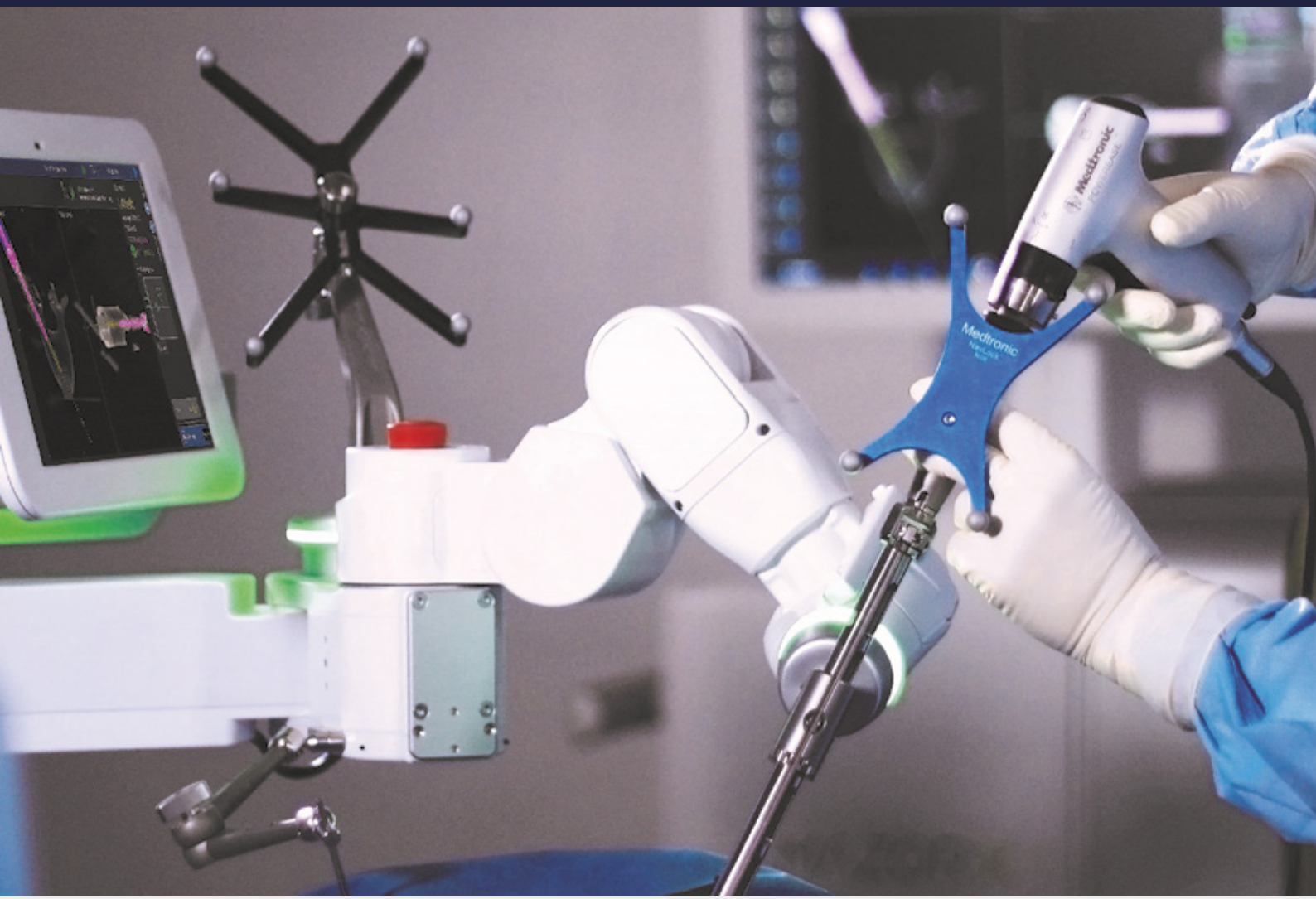
HELPING TO ADDRESS THE CHALLENGES OF SPINAL SURGERY

MAZOR X STEALTH™ EDITION



Value Summary

Medtronic
Further, Together

Key characteristics of innovative surgical robotic devices are the ability to: **perform tasks repeatedly without fatigue or loss of accuracy[1] and guide the surgeon to the target with high precision.[1]**

Mazor X Stealth™ Edition can be used for diverse challenging spine surgeries: **minimally-invasive degenerative repair, percutaneous fusions, single position lateral decubitus procedures with pedicle screw placement and revision cases.** The anatomical proximity to the central nervous system and main blood vessels means that the misplacement of pedicle screws may result in serious complications, severe morbidity, and the need for revision surgery.[2]

MAZOR CORE TECHNOLOGY BRINGS **BENEFITS** TO:

HOSPITALS

- Improved outcomes[9-11,13]
- Promote patient education
- Differentiate your hospital

SURGEONS

- Differentiate your practice
- Improve patient outcomes[9-11,13]
- Reduced fluoroscopy[3]
- Increased accuracy for peace of mind[4,5-8]

PATIENTS

- Promotes faster recovery[4,12]
- Reduced post-operative pain[13]
- Increased accuracy[4,5-8]
- Lowered complication rates[9,10]

ROBOTIC **WORKFLOW**

PLAN

Preoperative **blueprint** of the ideal surgery for each patient created in a virtual 3D environment based on CT SCAN imaging

MOUNT

Rigid attachment to the patient assures maximum surgical **accuracy** throughout the procedure

REGISTRATION

3D-synchronization with two fluoroscopic images matched to their corresponding location on the preoperative CT scan

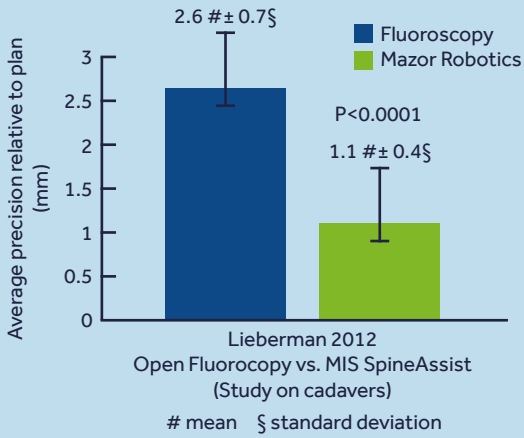
EXECUTE

Tools and implants guided to the planned location for construct execution with high **precision**

EXECUTING SPINAL INSTRUMENTATION WITH A **HIGH LEVEL OF PRECISION AND PREDICTABILITY*[3]**

Planning is the foundation of a robotic guidance solution. Evidence shows a **significant reduction in deviation from preoperative planning** with Mazor Core Technology compared to fluoroscopy.[3]

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



Lieberman 2012
Open Fluorocopy vs. MIS SpineAssist
(Study on cadavers)

mean § standard deviation

ACCURATE SCREW **PLACEMENT**[4,5-8]

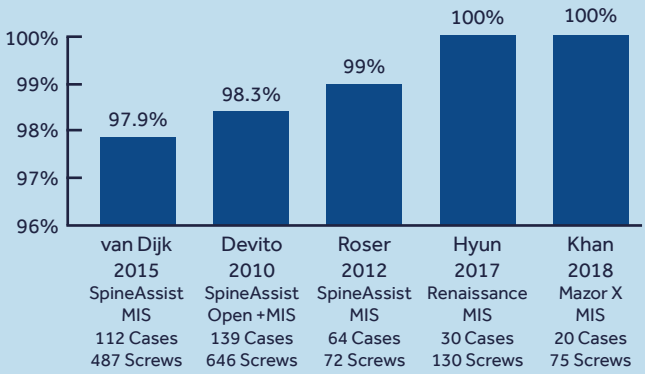
Up to **100%**
screw placement accuracy[4,5-8]

Up to **98%**
of patients **free from complications**[9]
at 90 days[10]

<1% of patients
required **revision surgery**[11]

SAFE EVEN IN THE EARLY **PHASE OF SURGEON LEARNING CURVE**[4-5,7]

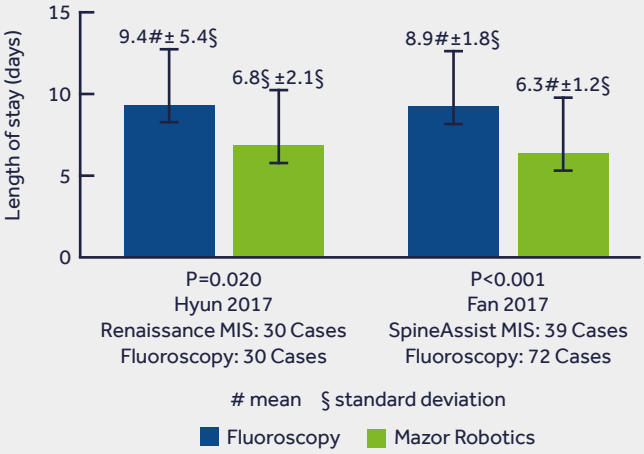
High level of screw placement accuracy achieved with Mazor Core Technology (Gertzbein-Robbins Grade A + B or Ravi Grade I + II)[4,5-8]



Reduced risk of surgical and medical complications with Mazor Core Technology[10]

	Fluroscopy	Mazor Core Technology
Event free at 90 days	79%	98%
Event free at 365 days	72%	95%

Shorter length of stay with Mazor Core Technology[4,12]



LENGTH OF **HOSPITAL STAY**

2.6 days less in hospital with MIS enabled by Mazor Core Technology compared to open freehand procedures enabled by fluoroscopy[4,12]

SURGEON AND STAFF **EXPOSURE TO RADIATION**

97.8%
Reduction in **fluoroscopy time**[3]

98.2%
Reduction in **radiation exposure**[3]

HIGHLIGHT PATIENT **REPORTED OUTCOMES**

- **Significant improvement in leg and back pain** at the final follow-up compared to baseline[13]
- **Significantly less disability after surgery** compared to before surgery[13]
- **78% of patients** reported that they were **able to work at the final follow-up**[13]

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*The plan provides the surgeon with the insight on what they would like to achieve, taking into consideration the needs of each patient. Planning provides the ability to make the procedure predictable.

DISCLAIMER: The evidences reported refer to various Mazor robot generations that share the Mazor Core Technology. Previous versions of the Mazor robot are not licensed in accordance with Canadian Law.

See the device manual for detailed information regarding the instructions for use, indications, contraindications, warnings, precautions and potential adverse events. For further information, contact your local Medtronic representative and/or consult the Medtronic website at www.medtronic.ca.

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