

KINCISE™

Surgical Automated System



Surgical Automation Reduces Operating Time While Maintaining Accuracy For Direct Anterior Total Hip Arthroplasty¹

Bhimani et al have conducted a retrospective study comprising 111 consecutive THAs performed through a Direct Anterior approach¹. The KINCISE™ Surgical Automated System was used in 51 cases, while 60 were performed using a manual procedure. All the procedures were performed using an identical exposure technique and intra-operative fluoroscopy. The ACTIS® Total Hip System was used with the PINNACLE® Acetabular Cup System in all cases.

- Operating Room (OR) time was on average 8 minutes faster in the surgical automation group (88.5 min vs 96.6 min), (p=0.00087)
- Average femoral stem size increased by a full size with surgical automation (size 7.0 vs size 5.9), (p=0.0067)
- No difference was found in average leg length discrepancy (0.72 mm vs 0.67 mm), (p=0.88)

There was one nondisplaced calcar fracture found intraoperatively in the automated group in an elderly osteoporotic female, which was treated with a cerclage wire without any change in the postoperative weight bearing status.

Surgical care accounts for nearly one-third of all US health care spending, and the OR is the second most expensive part of surgical care.² In this study it was found that use of the KINCISE Surgical Automated System led to an average OR time saving of 8 minutes per case. Research has been conducted previously to examine the true cost of OR time, with estimates ranging from \$16.21 per minute to \$133.12 per minute.²⁻⁴ Shippert et al found the mean cost to be \$62 per minute, and concluded "To save more than \$100,000, the surgeon has to save only approximately 7 minutes per case on 250 cases."⁴

Key Takeaways:

1. **Surgical automation reduces OR time.**
2. **Surgical automation increases average femoral implant size.**
3. **Cup accuracy and leg length equalization are maintained when using surgical automation.**

The KINCISE Surgical Automated System saved **8 minutes** per case in this study which could lead to estimated savings of around **\$124,000** based on an average OR time cost of \$62/minute and surgeon volume of 250 cases

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