

# SURGICAL EFFICIENCY STUDY

## CLINICAL TRIAL DEMONSTRATES FLOWERCUBE® COST SAVINGS PI: J. LEVIN, DPM

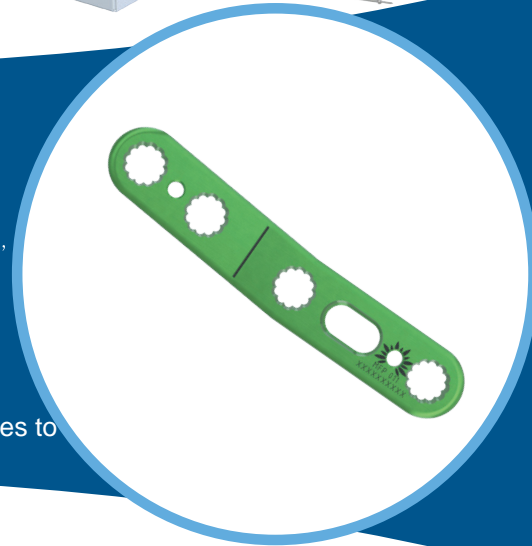
A clinical trial was conducted to analyze the clinical outcomes and economic impact of conducting first metatarsal phalangeal joint (MTP) arthrodesis procedures using the FlowerCube I by Flower Orthopedics in hospital and ambulatory surgery center (ASC) settings. The FlowerCube I is a unique, single-use, sterile, disposable implant and instrument system. Its use in this trial resulted in significant cost and time savings while delivering a fusion rate consistent with published literature.



## BACKGROUND

Between February 2017 and April 2018, data was gathered from 71 consecutive patients undergoing MTP fusion to immobilize the first metatarsal phalangeal joint. Patients were followed for 12 weeks post-surgery and assessed with an x-ray to confirm successful fusion at eight and 12 weeks. Investigators evaluated complications, infection, union rates, indications for surgery, and secondary outcomes including cost data.

This is the first-known study to compare cost effectiveness and clinical outcomes of a single-use sterile system with a traditional orthopedic implant system. Implant costs are rarely covered by third-party payers in the ASC setting, but demonstrated cost savings associated with the FlowerCube I could lead Medicare and other insurance companies to reconsider reimbursement.



## CLINICAL RESULTS

Consistent with outcomes reported in prior literature, 84.51% of study patients experienced union of the joints by eight weeks post-surgery and 98.59% by 12 weeks post-surgery. No non-unions were recorded; however, one patient had a broken plate related to non-compliance and another developed an infection that resulted in hardware removal but went on to heal successfully. Full study data is on file with Conventus Flower Orthopedics.

## SUMMARY

Using the FlowerCube I results in significantly faster surgical cases, significantly lower third-party costs, and equivalent clinical outcomes.

## ECONOMIC IMPACT AND COST ANALYSIS

Cost modeling suggests substantial savings in these areas:

- \$1,300 savings in third-party reimbursement costs for procedures performed at an ASC compared to those done in an outpatient hospital setting.
- 33% time savings representing nearly 20 minutes per case with the FlowerCube I compared to procedures using traditional implants. FlowerCube I cases were compared with CMS reported inprocedure time for CPT 28750.
- Surgical setting did not affect the procedure time.
- Sterilization, reprocessing, and packaging of surgical trays would add \$45 per instrument tray.

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