

Cost Mitigation During Revision TKA

COST SAVINGS WHEN PLANNED TOTAL REVISION CHANGED TO PARTIAL REVISION TREATING THE ‘LOOKS GOOD, FEELS BAD’ KNEE BY DIAGNOSING SOFT TISSUE IMBALANCE

PURPOSE

Despite long-term success rates associated with total knee arthroplasty (TKA), a large proportion of patients continue to report dissatisfaction with their surgical outcomes. Complications such as pain, stiffness, or instability can reduce a patient’s quality of life and may be attributed to soft-tissue imbalance. The cause of imbalance related complications is often difficult to diagnose, but if unresolved may lead to early total revision surgery. However, these procedures are associated with a higher risk of post-operative complications, elicit longer rehabilitation regimes, and can become a financial burden to the patient and healthcare provider. Therefore, the purpose of this study was to determine if the use of intraoperative sensors during revision TKA led to a decreased need for all-component revision.

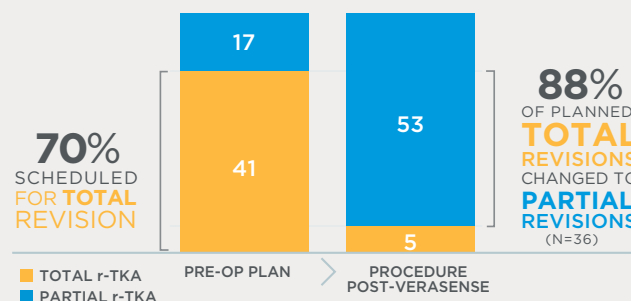
METHODS

58 REVISION TKA PROCEDURES

- 7 sites, 7 surgeons
- Patients reported with idiopathic pain, instability and/or stiffness.
- Radiographs showed acceptable component alignment with symmetrical joint gaps.
- Patients reporting pain had culture-negative aspiration findings.

RESULTS

REVISION TKAS USING VERASENSE



AVERAGE REVISION TKA IMPLANT COST

TOTAL REVISION	TIBIA COMPONENT	POLYETHYLENE
\$6,770*	\$2,880	\$980

*REPRESENTS 2/3 OF MEDICARE DRG

CHANGES TO PARTIAL REVISION (N=36)

- 10 tibia-only, 26 polyethylene exchange

ESTIMATED COST SAVINGS: \$4,990 PER CASE

- In 36 of 58 cases, expected total revisions changed to partial revisions, which equates to a theoretical implant cost savings of \$179,640.

CONCLUSIONS

VERASENSE CAN FACILITATE IMPLANT COST MITIGATION DURING TKA REVISION¹

POTENTIAL COST SAVINGS OF PARTIAL REVISIONS

- Shorter OR time, length of stay
- Less instrumentation, OR supplies
- Lower risk of complications (e.g., infection, fracture)
- Shorter, easier post-op rehabilitation regime
- Less bone stock loss, internal constraint for patient

Leone W, et al. Using Sensors to Evaluate Revision TKA; Treating the “Looks Good; Feels Bad” Knee. *EC Orthopaedics* 3,5 (2016): 381-385