

CAN A BALANCED KNEE SAVE MONEY POST-OPERATIVELY IN THE VALUE BASED CARE 90-DAY BUNDLE?

PURPOSE

Sensor technology has shown to help surgeons address soft tissue balance during TKA, leading to various clinical benefits such as fewer manipulations under anesthesia and improved patient reported outcomes. Given this, we aimed to analyze cost-effectiveness of sensor-assisted TKA—analyzing costs and outcomes in the 90-day post-operative window—to determine if the investment in technology cost resulted in significant returns for providers.

METHODS

3 SURGEON COLLABORATORS

- Control Arm: cases without VERASENSE technology (n=932)
- Experimental arm: cases using VERASENSE (n=709)

CONTROL GROUP: TRUVEN CLAIMS DATABASE

- Gold standard representation of US TKA market
- n=291,201

CONSIDERED PROVIDER COST-FACTORS IN THE 90-DAY BUNDLE

- National average - \$16,815
- Greatest variable costs are primary in post-discharge (complications, physiotherapy, physician visits, etc.), present best opportunity for cost-saving

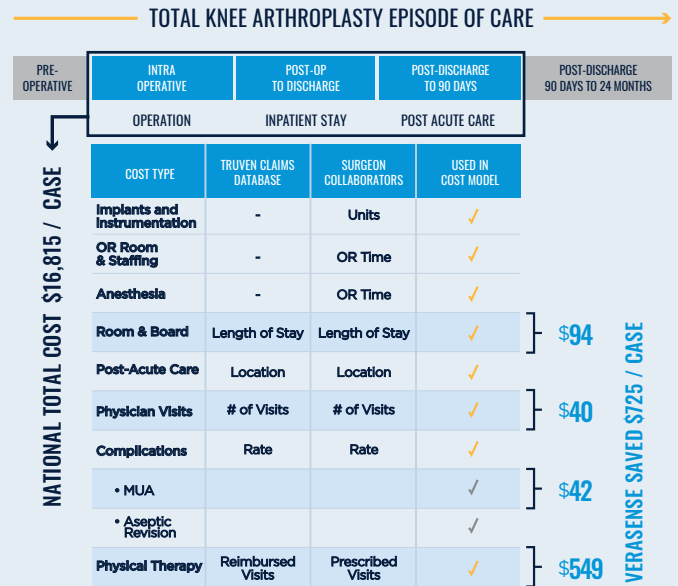
RESULTS

ADOPTION OF VERASENSE TECHNOLOGY LEADS TO COST SAVINGS:

- Dominated by post-discharge aspects
- Primarily physiotherapy visits
- Cost savings of \$443 relative to pre-adoption cases
- Cost savings of \$725 relative to national average (US)

CONCLUSION

Using VERASENSE saves money in the 90-day bundle (\$725) by lowering variable of post-operative and post-acute care.



PRIMARY AREAS IMPACTED BY VERASENSE ADOPTION

COST TYPE	TRUVEN CLAIMS DATABASE	SURGEON COLLABORATORS PRE-VERASENSE	SURGEON COLLABORATORS POST-VERASENSE	SAVINGS PER SURGEON (USD)	SERVINGS VERSUS TCD (USD)
NUMBER OF CASES (N)	291 201	932	709		
LENGTH OF STAY	3.0	3.0	2.6	\$102	\$94
PHYSICIAN VISITS	2.9	2.3	2.1	\$10	\$40
MUA	4.1%	2.3%	1.8%	\$12	\$42
PHYSICAL THERAPY	18.0*	14.9	10.6	\$319	\$549
				\$443	\$725

* Data not available in Truven Claims Database, data from Orthop Nurs. 2018 Nov/Dec ;35(6):382-390