

# Perioperative Work in Arthroscopic ACL Reconstruction is Undervalued by the RUC

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# Disclosures

- The authors Harrell, Hodges, Gordillo, Hargreaves, Rahaman, and Evely have no disclosures to report.
- Eugene Brabston is on the editorial board at EBSCO, is a paid consultant for LINK Orthopaedics, and is a paid consultant for Orthopaedic Design.
- Amit Momaya has a professional relationship with CONMED Corporation and is on the editorial board for Arthroscopy.
- Aaron Casp is a paid consultant for Stryker and is on the editorial board for the American Orthopaedics Society for Sports Medicine.

# Background

- The Relative Value Unit (RVU) is a fixed monetary value that is assigned by the Relative Value Update Committee (RUC) for a given procedure and is based on the time it takes to perform the procedure as well as the skill, effort, judgment, and stress placed on the physician.
- Prior studies have shown discrepancies in RUC estimated times and work relative value units (wRVUs) for procedures based on survey data as opposed to directly timing perioperative tasks.
- This study aims to assess the accuracy of the current timing and calculation methods used by the Center for Medicare and Medicaid Services and RUC for wRVUs in perioperative work related to anterior cruciate ligament reconstruction surgeries (ACLR).
- We anticipate that the RUC may underestimate the amount of time required to perform the perioperative work in ACLRs.

# Methods

- The RUC was contacted to obtain a list of perioperative tasks and times associated with arthroscopic ACLR.
- Perioperative tasks were divided into pre-service and post-service tasks.
- Thirty consecutive ACLRs were prospectively timed over 6 months.

Components of preservice and postservice tasks	
Preservice	
	Write pre-admission orders for pre-op medications
	Imaging and pre-procedure testing review
	Updating H&P
	Meet with patient to mark/review consent
	Positioning
	Pre-scrub, dress, and wait
Postservice	
	Application of dressing and knee brace
	Brace on in OR to PACU
	Consult with family and patient to discuss post-op regimen
	Communicate with other healthcare professionals
	Write prescriptions
	Dictate and write formal op-note
	Complete other medical records (discharge summary, insurance, etc.)

# Results

**Table I – Times denoted with seconds expressed as a decimal percent of a minute.**

Components of preservice and postservice tasks	
Task	Average ± SD
<b>Preservice</b>	76.2
Write pre-admission orders for pre-op medications	6.5 ± 1.4
Imaging and pre-procedure testing review	12.8 ± 1.8
Updating H&P	5.0 ± 0.8
Meet with patient to review plan and mark/review consent	15.5 ± 2.8
Positioning	19.2 ± 3.6
Pre-scrub, dress, and wait	17.2 ± 2.5
<b>Postservice</b>	65.2
Application of dressing and knee brace	12.9 ± 2.2
Brace on in OR to PACU	11.6 ± 2.5
Consult with family and patient to discuss post-op regimen	11.9 ± 2.7
Communicate with healthcare professionals	10.3 ± 1.8
Write prescriptions	4.4 ± 1.1
Dictate and write formal op-note	7.1 ± 1.5
Complete other medical records (discharge summary, insurance, etc.)	6.9 ± 1.0
<b>Total average perioperative time</b>	141.4
SD, standard deviation; EMR, electronic medical record; OR, operating room; PACU, post anesthesia care unit.	

**Table II – Times denoted with seconds expressed as a decimal percent of a minute.**

Comparison of wRVUs: RUC vs study data					
Task	Intensity Coefficient	RUC standard		Study Data	
		Minutes	wRVUs	Minutes	wRVUs
<b>Preservice</b>		75		76.2	
Pre-evaluation	0.0224	45	1.008	39.8	0.892
Prepositioning	0.0224	15	0.336	19.2	0.430
Pre-scrub, dress and wait time	0.0081	15	0.1215	17.2	0.139
<b>Postservice</b>	0.0224	25	0.560	65.2	1.460
<b>Total</b>		100	2.026	141.4	2.921
RUC, Relative Value Scale Update Committee; wRVUs, work relative value units.					

# Conclusion

- The RUC currently underestimates the perioperative work involved in ACLRs by 41.4 minutes, a 41.4% undervaluation.
- 40.2 minutes of the undervalued perioperative period were derived from the postservice category and represented 0.67 wRVUs.

The RUC should consider using prospective times collected by physicians to calculate a more accurate wRVU. In addition, the RUC should consider how modern patient care practices and requirements have increased the intensity of work for physicians.

# References

