Medicare Reimbursement Trends for Common Foot and Ankle Surgeries: An Analysis from 2006 to 2024 and Projections Through 2029

Jad Jack Lawand, Amir Human Hoveidaei, Ahmad A. Alnasser, Afshin Anoushiravani, James R Ficke

INTRODUCTION: Medicare, as the largest single-payer health insurance system, plays a pivotal role in providing financial access to healthcare services to patients. Given the escalating costs associated with healthcare spending and rising inflation, this study aims to evaluate the trends in the seven most common procedures in foot and ankle orthopedic surgery. Our analysis seeks to provide insights into how these trends and their implications for patient care.

METHODS:

This study utilized data from the Center for Medicare & Medicaid Services (CMS) Physician Fee Schedule to examine payment trends from 2006 to 2024 for the five most common and two emerging procedures in Foot and Ankle Orthopaedic Surgery as depicted in Table 1. Using publicly available data from the CMS and PearlDiver Technologies' M161Ortho dataset, which includes approximately 100 million anonymized records, we analyzed Medicare reimbursement patterns based on Current Procedural Terminology (CPT) codes and adjusted for inflation using the Consumer price index (CPI). Statistical analyses were conducted using SPSS to evaluate changes in reimbursement rates over the study period, providing 5-year projections for future trends.

RESULTS:

From 2006 to 2024, nominal work reimbursement rates for selected foot and ankle procedure CPT codes increased. Specifically, rates for CPT-28285 rose from $325.92 to $504.85, CPT-28296 from $598.40 to $926.92, CPT-28820 from $333.50 to $516.59, CPT-27814 from $799.26 to $1238.05, CPT-27792 from $604.47 to $936.32, CPT-27870 from $1015.65 to $1573.25, and CPT-27702 from $1004.66 to $1556.22. Despite these nominal increases, adjusted reimbursements in 2024 show a net decline of approximately 49% compared to adjusted rates in 2024, with further decreases anticipated across all projection scenarios detailed in Table 2. The facility reimbursement analysis also indicates nominal increases but adjusted declines, with CPT-28285 increasing to $504.85 and CPT-27870 to $1573.25, yet adjusting for factors like inflation, CPT-28285 saw a 22.66% decrease and CPT-28820 a 65.85% decrease. Projections for 2029 reflect significant variability; for example, CPT-28285 is projected to range from $240.01 to $360.89 under different scenarios, as outlined in Table 3.

DISCUSSION AND CONCLUSION:

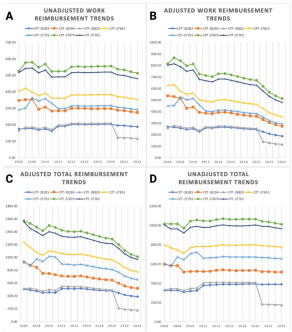
Although nominal Medicare reimbursements have risen in tandem with overall healthcare spending, their true value has diminished when adjusted for the CPI. This trend underscores a significant challenge for patients safety, as healthcare providers may increase their patient volumes to offset the decreasing value of reimbursements.

Table 1: Top Common Foot and Ankle Orthopaedic Surgery Procedures CPT codes

CPT Code	Description
CPT-28285	Correction, hammertoe (eg, interphalangeal fusion, partial or total phalangectomy)
CPT-28296	Correction, hallux valgus (bunion), with or without sesamoidectomy; with metatarsal osteotomy (eg, Mitchell, Chevron, or scarf type procedure)
CPT-28820	Amputation, toe; metatarsophalangeal joint
CPT-27814	Open treatment of bimalleolar ankle fracture, with or without internal or external fixation
CPT-27792	Open treatment of distal fibular fracture (lateral malleolus), with or without internal or external fixation
CPT-27870	Arthrodesis, ankle, open;
CPT-27702	Arthroplasty, ankle, with implant (total ankle)

Table 2: Adjusted and unadjusted Work reimbursement rates in 2006 and 2024, percent changes, and projections in 2029 for all selected CPT codes. (Five-year projections in 2024 $ are based on the 2019-2024 values)

CPT CODE	REIMBURSEMENT RATE IN 2006 (IN 2006 $)	REIMBURSEMENT RATE IN 2024 (IN 2024 $)	REIMBURSEMENT RATE IN 2024 (IN 2024 $)	UNADJUSTED % CHANGE 2006-2024	ADJUSTED % CHANGE 2006-2024	2029 PESSIMISTIC PROJECTION	2029 REALISTIC PROJECTION	2029 OPTIMISTIC PROJECTION
CPT-28285	173.57	268.86	187.08	7.78%	**-30.42%**	92.19	126.65	161.18
CPT-28296	347.32	538.31	374.62	-20.98%	**-45.98%**	135.34	185.92	236.49
CPT-28820	166.75	258.29	116.84	-29.95%	**-54.77%**	-259.14	-22.63	213.87
CPT-27814	485.99	625.78	355.51	-12.49%	**-43.81%**	174.22	238.32	304.43
CPT-27792	289.82	449.08	291.27	0.47%	**-35.14%**	143.54	197.38	250.82
CPT-27870	526.40	815.39	512.96	-2.55%	**-37.09%**	252.88	347.27	441.74
CPT-27702 AVERAGE	517.30	881.30	480.01	-7.21% -9.27%	**-40.10% -41.43%**	236.56	324.86	413.36

Table 3. Adjusted and unadjusted Facility reimbursement rates in 2006 and 2024, percent changes, and projections in 2029 for all selected CPT codes. (Five-year projections in 2024 $ are based on the 2019-2024 values)

CPT CODE	REIMBURSEMENT RATE IN 2006 (IN 2006 $)	REIMBURSEMENT RATE IN 2006 (IN 2024 $)	REIMBURSEMENT RATE IN 2024 (IN 2024 $)	UNADJUSTED % CHANGE	ADJUSTED % CHANGE	2029 PESSIMISTIC PROJECTION	2029 REALISTIC PROJECTION	2029 OPTIMISTIC PROJECTION
CPT-28285	325.92	504.85	390.46	19.80%	-22.66%	240.01	300.45	360.89
CPT-28296	598.40	928.92	516.95	-13.61%	-44.23%	293.78	381.24	468.70
CPT-28820	333.50	518.59	176.42	-47.10%	-65.85%	-748.52	-146.12	456.27
CPT-27814	799.26	1238.05	771.94	-3.42%	-37.65%	454.74	568.39	682.04
CPT-27792	604.47	936.32	653.10	8.05%	-30.25%	369.17	483.10	577.03
CPT-27870	1015.65	1573.25	1012.04	-0.27%	-35.61%	562.63	724.06	885.49
CPT-27702 AVERAGE	1004.66	1556.22	390.46	-3.78% -5.76%	-37.88% **-38.16%**	554.75	713.00	871.25