

Are Weight Bearing CT Systems Cost Effective for Ortho Practices?

Cost Analysis and Utilization of Weight Bearing CT at a Tertiary Referral Foot and Ankle Practice

Alexander N, Sarfani S, Strickland C, Grear BJ, Richardson DR, Murphy GA, Bettin CC

Campbell Clinic Orthopaedics

The University of Tennessee Health Sciences Center



BACKGROUND:

- WBCT is imaging modality that is gaining popularity for a variety of foot and ankle pathologies
- Has demonstrated value in accurately evaluating 3D relationships of osseous structures under physiologic load
- Based on Cone-Beam CT protocol
- To date no US-based study has evaluated financial implications of acquiring such a device



RESULTS:

34.6
scans per month

\$8377
average gross income
based on payor mix

\$5657.10
average gross income based
on Medicare reimbursement

25 Months
to pay off device using payor
mix at study institution

37 Months
to pay off device using
Medicare-only reimbursement

| Patients | |
|----------|-----------|
| n | 1704 |
| Male | 784 |
| Female | 920 |
| Age | 44 (6-92) |

| Payor | Proportion | Est. Reimbursement |
|-----------------------|------------|--------------------|
| Medicare | 18.8% | \$163.50 |
| Medicaid | 14.2% | \$ 99.74 |
| Private | 61.7% | \$294.30 |
| WC | 5.1% | \$294.30 |
| Self Pay | 0.2% | \$294.30 |
| Average reimbursement | | \$242.11 |

- 5 Fellowship trained foot and ankle surgeons ordered 79.7% of WBCT
- Foot and ankle staff ordered 65.3% of bilateral WBCT
- Average of 26 scans per month
- Most imaged anatomic region – ankle; most common reason for imaging - traumatic injury



CONCLUSIONS:

- WBCT can be financially viable asset in large multidisciplinary group
- Payor mix and reimbursement agreement with private insurers affect cost effectiveness
- Future focuses of study include use of WBCT for templating, assessment of fusion/healing, development of standardized scheme for evaluating 3D relationships between osseous structures of foot and ankle with and without physiologic load.

