New Technology Reimbursement

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Learning Objectives

• Understand the process for CPT applications
• Introduction to how new codes are valued
• Supervision requirements for RO procedures.


Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group, at http://www.cms.hhs.gov/NationalHealthExpendData/ (see Historical; NHE summary including share of GDP, CY 1960-2006; file nhegdp06.zip).

Reasons for Rising Healthcare Costs

- **Demographics**
  - Aging population, rising obesity
- **Increased use of Investigations and Imaging**
  - PET scans, MRI scans, Molecular testing
- **Expensive Drugs**
- **New Technological Capabilities**
  - SBRT, IGRT
- **Increased utilization of expensive procedures**
  - eg IMRT

### The Medical Technology Market

<table>
<thead>
<tr>
<th>2006 HCPCS</th>
<th>OPPS+PartBTotal includes beneficiary payments</th>
<th>2003 OPPS+PartBTotal includes beneficiary payments</th>
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<tbody>
<tr>
<td>77418</td>
<td>~$820 million</td>
<td>1</td>
</tr>
<tr>
<td>77413</td>
<td>~$760 million</td>
<td>2</td>
</tr>
<tr>
<td>77427</td>
<td>~$225 million</td>
<td>3</td>
</tr>
<tr>
<td>77414</td>
<td>~$210 million</td>
<td>4</td>
</tr>
<tr>
<td>77334</td>
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<td>77295</td>
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</tbody>
</table>

**Total Market**: Over $200 Billion annually
- Diagnostic Radiology: 25 Billion
- Cardiovascular: 17 Billion
- Orthopedics: 16 Billion
- Radiotherapy and Radiosurgery: 2.5 Billion
**New Technology Reimbursement**

- Most new devices launched without dedicated codes, coverage, or payment
- Most new devices launched with little or no published data
- It takes time, data, and a significant effort to garner new codes, influence coverage policies/technology assessments, and drive appropriate payment

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**Pathways For New Technology Codes**

- **Physicians**
- **Vendors**
- **Hospitals**
- Specialty Organization ASTRO
- **Payers**

  - Research Department
  - NIH, NCI
  - Emerging Technology Committee
  - Paul Walker, DO & Andre Koroki, MD
  - Health Policy Committee

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**ASTRO Priorities: Health Policy Committee**

- CPT Panel Process
  - Category I and III codes
- RVS Update Committee (RUC)
  - Recommendations for Physician Work and PE
- CMS
  - National Payment Rates
  - Local Coverage Determinations
  - HCPCS
Coding

- Medicare Fee Schedule
  - CPT Codes – owned, updated, maintained by the AMA
- Hospital Outpatient Prospective System:
  - G Codes – CMS controlled - for procedures - applicable to physician and hospital payment systems
  - C Codes – CMS controlled - for pass through drugs and devices - applicable to OPPS only

The MFS Reimbursement Process

- Current Procedural Terminology codes (CPT) eg 77427
- Codes are valued on a scale relative to each other
- Payments are determined by resource costs needed to provide them

New Technology In Medicare Physician Fee Schedule

The Process For New Codes:

- Typical patient vignettes
- Complete description of the procedure,
- Supporting US peer-reviewed literature
THE RUC PROCESS

CPT PANEL APPROVES CAT I CODES
ASTRO REVIEWS NEW CODES

SURVEY PHYSICIANS
Physician Work

PRACTICE EXPENSE
Direct Inputs

Components of RBRVS

• Physician Work (does not include support staff) 53%
  - Time
  - Intensity
    • Technical skill and physical effort
    • Mental effort and judgment
    • Stress associated with patient risk

• Direct Practice Expense 44%
  • Non Physician Clinical Labor
  • Equipment
  • Supplies

• Professional Liability Insurance 3%

Components of RBRVS

• RO reimbursement is heavily weighted in technical reimbursement.

• Pre IMRT: 50 - 60% technical charge

• Post IMRT: 60 -80% technical charge

Practice Expense
Clinical Labor, Supplies and Equipment (CLSE)
Clinical Labor Staff 2008

- 44 Staff Types
- Price per minute ranges from 0.23 to 1.523

Clinical Labor Staff 2008

"Top 4"

<table>
<thead>
<tr>
<th>Staff Code</th>
<th>Description</th>
<th>Rate</th>
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<tbody>
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<td>L152A</td>
<td>Medical Physicist</td>
<td>1.523</td>
</tr>
<tr>
<td>L157A</td>
<td>Medical Dosimetrist/Medical Physicist</td>
<td>1.075</td>
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<tr>
<td>L107A</td>
<td>RN/ICN</td>
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<td>L063A</td>
<td>Medical Dosimetrist</td>
<td>0.63</td>
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Radiation Oncology Codes:

- **Physics Time**

  - 77301  Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications
  - 77418  Intensity modulated treatment delivery, single or multiple fields/arc, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session
Radiation Oncology Codes: Physics Time

**77301** Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications
- Medical Dosimetrist/Medical Physicist = 45 Minutes
- Medical Physicist = 280 Minutes

**77418** Intensity modulated treatment delivery, single or multiple fields/arc(s), via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session
- Medical Physics Time = 0 Minutes

Radiation Oncology Codes: Physics Time

**77371** Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; multi-source Cobalt 60 based
- Medical Physics Time = 115 minutes

**77372** Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; linear accelerator based
- Medical Physics Time = 60 minutes

**77373** Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions
- Medical Physics Time = 75 minutes

**Physics work for CPT 77373**

**SBRT Delivery:**
- Setup DRR reference positions (20 min)
- Establish Respiratory Cycle (RC) for patient (5 min)
- Correlate RC with Target (Fiducial) position (5 min)
- Compare with ref DRR's and consult with physician (5 min)
- Treatment (30 min)
- Re-establish RC/Target position if correlation lost (5 min)
- Compare with DRR's, consult with physician (5 min)
THE RUC PROCESS

- CPT PANEL APPROVES CAT I CODES
- SURVEY PHYSICIANS
  - Physician Work
- RECOMMEND WORK VALUES (RVW)
- RUC MEETING
- CMS
- ASTRO REVIEWS NEW CODES
- PRACTICE EXPENSE
  - Direct Inputs
- MEDICARE PAYMENT SCHEDULE

The RBRVS equation

$$\text{ $$$ = } [\text{RVU (Work)} \times \text{GPCI (Work)}] + \text{RVU (PE)} \times \text{GPCI (PE)} + \text{RVU (PLJ)} \times \text{GPCI (PLJ)} \times CF$$

New CPT Code

- CPT code assigned
- Work RVUs recommended by AMA/RUC
- Practice expense RVUs recommended by PEAC/RUC
- New code and payment published in November Federal Register
- Implemented following January
- Total process takes two years

Hospital Outpatient Prospective Payment System (HOPPS)
OPPS: Unit of Payment

• A separate payment is made for each Ambulatory Payment Classification (APC)

NEW TECHNOLOGY PAYMENTS

○ Vendors
○ Specialty Organizations

CMS

NEW TECHNOLOGY APC

- G Codes: G 0339, G 0340
- C Codes: Code for Electronic Brachytherapy

No Professional Component reimbursement
Can be used in a Hospital based setting only

Examples in Radiation Oncology:

CODES FOR IGRT in 2004

- Ultrasound: CPT 76950
- Stereoscopic X-ray
- Computerized Tomography
- Stereotactic Body Radiotherapy:
- Other Modalities
  - Respiratory Gating, 4D RT
  - Tracking Systems (electromagnetic, optical)
  - Fiducial Markers
CODES FOR IGRT in 2008

- Ultrasound: CPT 76950
- Stereoscopic X-ray: CPT 77421
- Computerized Tomography: CPT 77014
- Stereotactic Body Radiotherapy: 77435
- Other Modalities
  • Respiratory Gating, 4D RT
  • Tracking Systems
  • Fiducial Markers: 55876 for prostate

Medicare Supervision Rules

CMS Supervision Rules

• **General Supervision** - means the procedure is furnished under the physician’s overall direction and control, but the physician’s presence is not required during the performance of the procedure. Under general supervision, the training of the nonphysician personnel who actually performs the diagnostic procedure and the maintenance of the necessary equipment and supplies are the continuing responsibility of the physician.

• **Direct Supervision** - in the office setting means the physician must be present in the office suite and immediately available to furnish assistance and direction throughout the performance of the procedure. It does not mean that the physician must be present in the room when the procedure is performed. (Most Radiation Oncology Procedures)

• **Personal Supervision** - means a physician must be in attendance in the room during the performance of the procedure. (CPT 77421)

Image Guided Radiation Therapy (IGRT)

- All the IGRT codes are considered diagnostic tests subject to the physician supervision requirements in the Code of Federal Regulations at 42CFR §410.32(b)(3).

- 77% increase in Medicare Procedures for RO IGRT Codes (76370, 76950 and 77421) from 2003 to 2006
Increased Scrutiny on New Technology Codes

- Code will be reviewed in 2 years
- Monitor Utilization Rates
- Does this improve outcome?
- Impact on work

What’s on the Horizon?

- Cost effectiveness/ Comparative effectiveness
- Long Term outcomes
- Quality

What’s on the Horizon?

- Big changes for Practice Expense
- Increased scrutiny on High Volume codes
- Equipment Utilization Rates
- Case Rates & Bundling/Pairing of Services
- An aggressive 5 YEAR Review

Summary

- Appropriate Payment for New Technology
  - Supporting clinical data
  - Adequate Codes
  - Appropriate Valuation
  - Appropriate Coverage
- New Technology will need to show Comparative efficiency to alternatives
- Increased Scrutiny of high utilization RO Codes
MOVING FORWARD:

All codes (current and future) are vulnerable even with the smallest change