On September 18, 2020, the Centers for Medicare and Medicaid Services (CMS) released the radiation oncology alternative payment model final rule. The mandatory “RO Model” is set to start January 1, 2021 and cover 30% of eligible episodes in select geographic areas across the country for a five year period ending on December 31, 2025. CMS seeks to test whether making prospective episode payments to physician group practices (PGPs), freestanding centers and hospital based outpatient departments (HOPDs) for radiation therapy specific episodes of care preserves or enhances the quality of care furnished to Medicare beneficiaries, while reducing Medicare program spending through enhanced financial accountability for RO Model participants.

CMS’ goal is to achieve $230M in saving or 3% over the five-year duration of the RO Model. Below is a high-level summary of the key provisions of the RO Model. According to the final rule, the RO Model cuts Medicare FFS rates for PGPs by 6% and HOPDs by 4.7%, an increase over the cuts found in the proposed rule. ASTRO has expressed great concern regarding CMS’ decision to implement the model on January 1, 2021, and urged the Agency to delay the implementation date, as well as reduce the significant cuts associated with the RO Model.

**RO Model Medicare FFS Cuts**

- **PGP**: -5.9%
- **HOPD**: -4.7%

**Additional Key Provisions**

- Implementation Date Set for January 1, 2021
- Mandatory for 30% of Episodes (950 practices)
- Discount Factors set at 3.75% for PC and 4.75% for TC
- Medicare FFS payment cuts
  - 6% for PGPs
  - 4.7% for HOPDs
Who’s In and Who’s Out?
- Mandatory Participation: 30% of Eligible Episodes
- 950 practices total. 500 are PGPs and 450 are HOPDs. Of the 500 PGPs, 275 are freestanding centers.

Who are the RO Model Participants?
- Professional Participant – PGPs, identified by a single TIN, that deliver only the professional component of radiation therapy services at either a freestanding facility or HOPD
- Technical Participant – HOPDs or freestanding centers, identified by a CCN or TIN, which delivers only the technical component of radiation therapy services
- Dual Participant – A RO Participant, identified by a single TIN, that delivers both the professional and technical radiation therapy services through a freestanding radiation therapy center

Which Patients?
The Model is only applicable to Medicare FFS beneficiaries, it is not applicable to patients who receive health care coverage through Medicare Advantage or private plans. Medicare FFS beneficiaries must give consent to the RO participant to share their patient data with CMS. Medicare FFS beneficiaries are also responsible for 20% of episode costs.

What is included?
All radiation therapy services, including treatment planning, dose planning, radiation physics and dosimetry, treatment devices, image guidance, special services, treatment delivery and treatment management.

Which disease sites are included?
- Anal Cancer
- Bladder Cancer
- Bone Metastases
- Brain Metastases
- Breast Cancer
- Cervical Cancer
- CNS Tumors
- Colorectal Cancer
- Head and Neck Cancer
- Liver Cancer
- Lung Cancer
- Lymphoma
- Pancreatic Cancer
- Upper GI Cancer
- Uterine Cancer

What Modalities of Treatment?
- Brachytherapy
- 3-D Conformal
- IMRT
- SRS
- SBRT
- Proton Beam Therapy
- IGRT
What is included in an Episode of Care?
The episode of care is a 90-day period that begins with treatment planning and ends on the last day of treatment. An episode of care includes all radiation therapy services and two prospective payments. The first payment is made when the RO participant bills a treatment planning code in combination with a treatment delivery code within 28 days of one another. The second payment is made when the patient completes treatment or on the 90th day of the episode.

How does CMS determine the episode payment?
The RO Model establishes separate Professional Component (PC) and Technical Component (TC) payment for each episode disease site. The payment methodology involves eight distinct steps:

1. National Base Rates
2. Trend Factor
3. Geographic Adjustment
4. Case Mix Adjustment, Historical Experience Adjustment and Blend
5. Discount Factor
6. Withholds for Incorrect Payments and Quality Measures Performance
7. Co-Insurance
8. Sequestration

1. National Base Rates
National Base Rates for the PC and TC of each disease site are based on hospital outpatient prospective payment system (HOPPS) data from 2016-2018.

<table>
<thead>
<tr>
<th>CANCER TYPE</th>
<th>PC</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anal Cancer</td>
<td>$3,001</td>
<td>$16,544</td>
</tr>
<tr>
<td>Bladder Cancer</td>
<td>$2,688</td>
<td>$13,292</td>
</tr>
<tr>
<td>Bone Metastases</td>
<td>$1,398</td>
<td>$5,972</td>
</tr>
<tr>
<td>Brain Metastases</td>
<td>$1,602</td>
<td>$9,649</td>
</tr>
<tr>
<td>Breast Cancer</td>
<td>$2,081</td>
<td>$10,129</td>
</tr>
<tr>
<td>CNS Tumor</td>
<td>$2,511</td>
<td>$14,711</td>
</tr>
<tr>
<td>Cervical Cancer</td>
<td>$3,829</td>
<td>$17,581</td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td>$2,449</td>
<td>$12,040</td>
</tr>
<tr>
<td>Head and Neck Cancer</td>
<td>$3,019</td>
<td>$17,485</td>
</tr>
<tr>
<td>Liver Cancer</td>
<td>$2,082</td>
<td>$11,976</td>
</tr>
<tr>
<td>Lung Cancer</td>
<td>$2,181</td>
<td>$11,994</td>
</tr>
<tr>
<td>Lymphoma</td>
<td>$1,690</td>
<td>$7,855</td>
</tr>
<tr>
<td>Pancreatic Cancer</td>
<td>$2,394</td>
<td>$13,384</td>
</tr>
<tr>
<td>Prostate Cancer</td>
<td>$3,260</td>
<td>$20,249</td>
</tr>
<tr>
<td>Upper GI Cancer</td>
<td>$2,586</td>
<td>$13,530</td>
</tr>
<tr>
<td>Uterine Cancer</td>
<td>$2,436</td>
<td>$11,869</td>
</tr>
</tbody>
</table>
2. Trend Factor
CMS applies a Trend Factor to account for trends in payment rates and volumes for radiation therapy services outside of the RO Model. A separate trend factor is calculated for the PC and TC of each cancer type.

<table>
<thead>
<tr>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\text{2018 volume} \times \text{2021 rates})/(\text{2018 volume} \times \text{2018 rates})</td>
<td>(\text{2019 volume} \times \text{2022 rates})/(\text{2018 volume} \times \text{2018 rates})</td>
<td>(\text{2020 volume} \times \text{2023 rates})/(\text{2018 volume} \times \text{2018 rates})</td>
<td>(\text{2021 volume} \times \text{2024 rates})/(\text{2018 volume} \times \text{2018 rates})</td>
<td>(\text{2022 volume} \times \text{2025 rates})/(\text{2018 volume} \times \text{2018 rates})</td>
</tr>
</tbody>
</table>

3. Geographic Adjustment
A geographic adjustment is made to payments to account for local cost and wage indices based on where the radiation therapy services are delivered.

4. Case Mix Adjustment, Historical Experience Adjustment and Blend
The Case Mix Adjustment measures the occurrence of these five factors in a RO participant's beneficiary population. The Case Mix Adjustment is updated every year based on a three year look back. RO participants with fewer than 60 episodes within the three year look back period do not receive a Case Mix Adjustment.

The Historical Experience Adjustment is calculated for the PC and the TC based on attributed episodes between 2016-2018. CMS winsorizes episode data to the 99th and 1st percentile, which captures all but the most extreme outliers.
The Blend is the ratio of RO participant specific historical experience to the National Base Rate. If the RO participant’s Historical Experience Adjustment is less than zero, the RO participant is determined to be efficient. The Blend does not change for efficient practices throughout the five-year model demonstration period. However, if the RO participant’s Historical Experience Adjustment is greater than zero, they are deemed inefficient. The Blend changes incrementally each year for inefficient practices.

### Blend Table

<table>
<thead>
<tr>
<th>Year</th>
<th>Blend Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PY1</td>
<td>10%/90%</td>
</tr>
<tr>
<td>PY2</td>
<td>15%/85%</td>
</tr>
<tr>
<td>PY3</td>
<td>20%/80%</td>
</tr>
<tr>
<td>PY4</td>
<td>25%/75%</td>
</tr>
<tr>
<td>PY5</td>
<td>30%/70%</td>
</tr>
</tbody>
</table>

**CMS is shifting the blend over the five-year model demonstration period to bring "inefficient" practice rates in line with the National Base Rates.**

### 5. Discount Factor
CMS applies a discount factor, or cut, of 3.75% on the PC rate and 4.75% on the TC rate. The discount factor is significantly higher than the 3% nominal risk amount described in MACRA.

### 6. Withholds
CMS applies withholds to account for Incorrect Payments and Quality Measures Performance. The Incorrect Payment Withhold is 1% of the PC rate and 1% of the TC rate. This withhold accounts for duplicate radiation therapy services that may have been delivered during the performance period or incomplete episodes in which the radiation therapy services were not delivered within the 28 day window from the date of the treatment planning service.

The Quality Measures Performance withholds differ between the PC and the TC. The PC withhold is 2% for quality measures and clinical data elements reporting and the TC withhold is 1% starting in 2023 to account for patient experience of care.

### 7. Beneficiary Coinsurance
Medicare FFS beneficiaries are required to pay 20% of the episode of care. RO Model participants are encouraged, but not required, to implement payment plans.

### 8. Sequestration
CMS deducts 2% from each episode payment for sequestration.
Quality Measures

CMS establishes quality measures reporting requirements over the duration of the model. An Aggregate Quality Score (AQS) attributes 50% of the score to Quality Measures Performance and 50% to Clinical Data Elements (CDE) reporting.

CMS will collect CDEs for Prostate, Breast, Lung, Bone Mets and Brain Mets cases. The Agency is seeking input on the CDEs that can be readily reported by RO participants. The deadline to respond is October 19, 2020.

Reconciliation and True Up Process

Quality Measures Performance data is due to the Agency on March 31 after the end of the performance period. Reconciliation begins in August after the end of the performance period once the claims data has run out. Then a final true-up process does not take place until a year later.

<table>
<thead>
<tr>
<th>RO Participant Data Submission Requirements</th>
<th>Level of Reporting</th>
<th>Pay-for-Reporting</th>
<th>Pay-for-Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncology: Medical and Radiation - Plan of Care for Pain - NQF #0383; CMS Quality ID #144</td>
<td>Aggregate</td>
<td>N/A</td>
<td>PYs 1-5</td>
</tr>
<tr>
<td>Preventative Care and Screening: Screening for Depression and Follow Up Plan - NQF #0418; CMS Quality ID #134</td>
<td>Aggregate</td>
<td>N/A</td>
<td>PYs 1-5</td>
</tr>
<tr>
<td>Advance Care Plan - NQF #0326; CMS Quality ID #047</td>
<td>Aggregate</td>
<td>N/A</td>
<td>PYs 1-5</td>
</tr>
<tr>
<td>Treatment Summary Communication - Radiation Oncology</td>
<td>Aggregate</td>
<td>PYs 1-2</td>
<td>PYs 3-5</td>
</tr>
<tr>
<td>CAHPS Cancer Care Survey</td>
<td>N/A: Patient Reported</td>
<td>N/A</td>
<td>PYs 3-5</td>
</tr>
<tr>
<td>Clinical Data Elements</td>
<td>Beneficiary-Level</td>
<td>PYs 1-5</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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Reconciliation and True Up Process

Quality Measures Reported 3/31/2022

Reconciliation Begins 8/1/2022

True-Up August 2023