



RO Model – Summary Snapshot

On November 2, 2021, 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, 2022 and cover 30 percent of eligible episodes in select geographic areas across the country for a five-year period ending on December 31, 2026. The Agency’s goal is to achieve \$160M in savings over the five-year duration of the RO Model. 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.

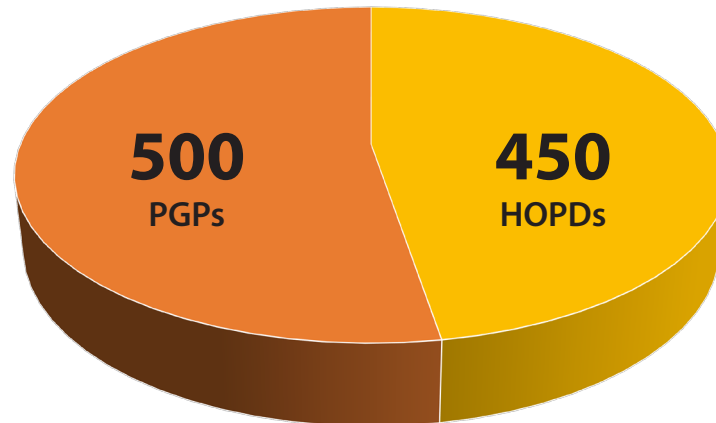
ASTRO remains very concerned that, despite modest changes most notably to the reporting requirements for the first performance year, CMS did not address the punitive nature of the model as the discount factor payment cuts and participation burden remain significant challenges to successful participation. Below is a high-level summary of the key provisions of the RO Model final rule. A more detailed summary can be found on ASTRO’s [website](#).

Extreme and Uncontrollable Circumstances (EUC) Policy related to the COVID-19 Public Health Emergency (PHE)

On October 15, 2021, Health and Human Services Secretary Xavier Bacerra extended the COVID-19 PHE for another 90-day term, which expires on January 16, 2022. Because the PHE overlaps with the January 1, 2022 RO Model implementation date, CMS is establishing an EUC policy related to the quality measures, Clinical Data Elements (CDE), AHRQ-listed Patient Safety Organization (PSO), and Peer Review Requirements. According to the EUC policy, CMS will suspend the 2% quality withhold as part of the RO Model payment methodology and allow RO Model participants the option to comply with the four specific requirements in PY1. The option to comply with the requirements will have no bearing on Advanced APM status determinations. As long as practices meet the remaining Advanced APM requirements, as stated below, they will be deemed Advanced APM participants and recognize the associated 5% bonus. If the HHS Secretary terminates the PHE prior to January 1, 2022, then this EUC policy will be rescinded and the existing requirements associated with quality measures, CDEs, AHRQ-listed PSOs, and Peer Review will be reinstated.

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.



- CMS issued a [ZIP code list](#) detailing the locations of the participating practices.
- Practices with fewer than 20 episodes of care in the previous year may opt-out of the RO Model. CMS will notify those practices that qualify for the opt-out 30-days prior to the model implementation date.

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 deliver 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 healthcare 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. Below is a list of the HCPCS codes that are included in RO Model episodes:

List of RO Model Bundled HCPCS

HCPCS	HCPCS Description	HCPCS	HCPCS Description
77014	CT guidance for placement	77412	Radiation treatment delivery complex
77021	MRI guidance for needle placement	77417	Radiology port images
77261	Radiation therapy planning	77427	Radiation treatment management
77262	Radiation therapy planning	77431	Radiation therapy management
77263	Radiation therapy planning	77432	SRS treatment management
77280	Set radiation therapy field	77435	SBRT treatment management
77285	Set radiation therapy field	77470	Special treatment procedure
77290	Set radiation therapy field	77499	Radiation treatment management
77293	Respiratory motion mgmt simulation	77520	Proton treatment simple w/o comp
77295	3-D radiotherapy plan	77522	Proton treatment simple w/ comp
77299	Radiation therapy planning	77523	Proton treatment intermediate
77300	Basic radiation dosimetry calc	77525	Proton treatment complex
77301	IMRT Radiotherapy dose plan	G0339	Robot lin-radsurg
77306	Teletherapy isodose plan simple	G0340	Robot lin-radsurg fractx 2-5
77307	Teletherapy isodose plan complex	G6001	Echo guidance radiotherapy
77321	Special teletherapy port plan	G6002	Stereoscopic X-ray guidance
77331	Special radiation dosimetry	G6003	Radiation treatment delivery
77332	Treatment device(s) simple	G6004	Radiation treatment delivery
77333	Treatment device(s) intermediate	G6005	Radiation treatment delivery
77334	Treatment device(s) complex	G6006	Radiation treatment delivery
77336	Radiation physics consult	G6007	Radiation treatment delivery
77338	Design MLC device IMRT	G6008	Radiation treatment delivery
77370	Special radiation physics consult	G6009	Radiation treatment delivery
77371	SRS multisource	G6010	Radiation treatment delivery
77372	SRS linear based	G6011	Radiation treatment delivery
77373	SBRT delivery	G6012	Radiation treatment delivery
77385	IMRT delivery simple	G6013	Radiation treatment delivery
77386	IMRT delivery complex	G6014	Radiation treatment delivery
77399	External radiation dosimetry	G6015	IMRT treatment delivery
77402	Radiation treatment delivery simple	G6016	Comp-based IMRT delivery
77407	Radiation treatment delivery intermediate	G6017	Intrafraction track motion

Which disease sites are included?

The RO Model includes 15 distinct disease sites that are recognized by specific ICD-10 codes in the following chart:

Cancer Types and Corresponding ICD-10 Codes	
Cancer Type	ICD-10 Codes
Anal Cancer	C21.xx
Bladder Cancer	C67.xx
Bone Metastases	C79.5x
Brain Metastases	C79.3
Breast Cancer	C50.x, D05.xx
CNS Tumor	C70.xx, C71.xx, C72.xx
Cervical Cancer	C53.xx

Colorectal Cancer	C18.xx, C19.xx, C20.xx
Head and Neck Cancer	C00.xx, C01.xx, C02.xx, C03.xx, C04.xx, C05.xx, C06.xx, C07.xx, C08.xx, C09.xx, C10.xx, C11.xx, C12.xx, C13.x, C14.xx, C30.xx, C31.xx, C32.xx, C76.0x
Lung Cancer	C33.xx, C34.xx, C39.xx, C45.xx
Lymphoma	C81.xx, C82.xx, C83.xx, C84.xx, C85.xx, C86.xx, C88.xx, C91.4xx
Pancreatic Cancer	C25.xx
Prostate Cancer	C61.xx
Upper GI Cancer	C15.xx, C16.xx, C17.xx
Uterine Cancer	C54.xx, C55.xx

What Modalities of Treatment?

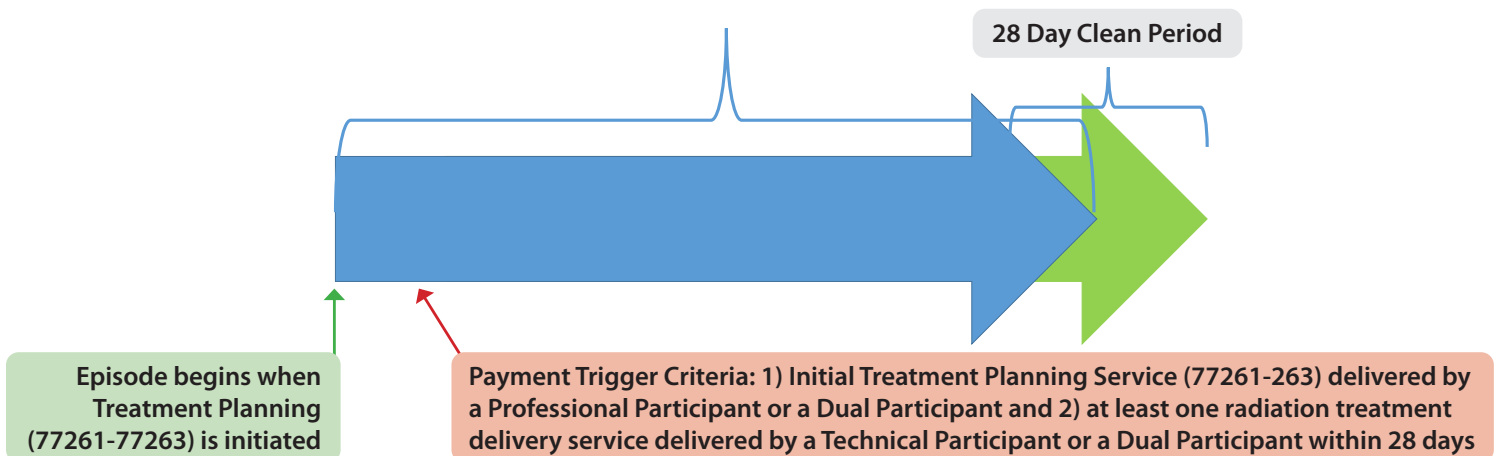
- 3-D Conformal
- IMRT
- SRS
- SBRT
- Proton Beam Therapy
- IGRT

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.

Episode Length and Trigger

90-Day Episode of Care



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 8 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 2017-2019.

National Base Rates			
RO Model Specific Codes	Professional or Technical	Cancer Type	Base Rate
M1072	Professional	Anal Cancer	\$3,104.11
M1073	Technical	Anal Cancer	\$16,800.83
M1074	Professional	Bladder Cancer	\$2,787.24
M1075	Technical	Bladder Cancer	\$13,556.06
M1076	Professional	Bone Metastases	\$1,446.41
M1077	Technical	Bone Metastases	\$6,194.22
M1078	Professional	Brain Metastases	\$1,651.56
M1079	Technical	Brain Metastases	\$9,879.40
M1080	Professional	Breast Cancer	\$2,059.59
M1081	Technical	Breast Cancer	\$10,001.84
M1084	Professional	CNS Tumor	\$2,558.46
M1085	Technical	CNS Tumor	\$14,762.37
M1082	Professional	Cervical Cancer	\$3,037.12
M1083	Technical	Cervical Cancer	\$13,560.15
M1086	Professional	Colorectal Cancer	\$2,508.30
M1087	Technical	Colorectal Cancer	\$12,200.62
M1088	Professional	Head and Neck Cancer	\$3,107.95
M1089	Technical	Head and Neck Cancer	\$17,497.16
M1094	Professional	Lung Cancer	\$2,231.40
M1095	Technical	Lung Cancer	\$12,142.39
M1096	Professional	Lymphoma	\$1,724.07
M1097	Technical	Lymphoma	\$7,951.09
M1098	Professional	Pancreatic Cancer	\$2,480.83
M1099	Technical	Pancreatic Cancer	\$13,636.95
M1100	Professional	Prostate Cancer	\$3,378.09
M1101	Technical	Prostate Cancer	\$20,415.97
M1102	Professional	Upper GI Cancer	\$2,666.79
M1103	Technical	Upper GI Cancer	\$14,622.66
M1104	Professional	Uterine Cancer	\$2,737.11
M1105	Technical	Uterine Cancer	\$14,156.20

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.

PY1 (2022)	PY2 (2023)	PY3 (2024)	PY4 (2025)	PY5 (2026)
$\frac{(2019 \text{ volume} * 2022 \text{ rates}) / (2019 \text{ volume} * 2019 \text{ rates})}{(2019 \text{ volume} * 2019 \text{ rates})}$	$\frac{(2020 \text{ volume} * 2023 \text{ rates}) / (2019 \text{ volume} * 2019 \text{ rates})}{(2019 \text{ volume} * 2019 \text{ rates})}$	$\frac{(2021 \text{ volume} * 2024 \text{ rates}) / (2019 \text{ volume} * 2019 \text{ rates})}{(2019 \text{ volume} * 2019 \text{ rates})}$	$\frac{(2022 \text{ volume} * 2025 \text{ rates}) / (2019 \text{ volume} * 2019 \text{ rates})}{(2019 \text{ volume} * 2019 \text{ rates})}$	$\frac{(2023 \text{ volume} * 2026 \text{ rates}) / (2019 \text{ volume} * 2019 \text{ rates})}{(2019 \text{ volume} * 2019 \text{ rates})}$

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 participants 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 2017-2019. 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 0, 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 0, they are deemed inefficient. The blend changes incrementally each year for inefficient practices.

5. Discount Factor

CMS applies a discount factor, or cut, of 3.5% off the PC rate and 4.5% off 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. As previously mentioned, the 2% quality withhold off the PC has been suspended for PY1 due to the EUC Policy.

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 removed the reduction associated with sequestration, due to recent Congressional action which has suspended the application of sequestration during the PHE. In the future, sequestration will be applied in accordance with applicable law.

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. As previously mentioned, the Agency is giving RO Model participants the option to report on quality measures and CDEs in the first year as part of the EUC policy.

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

CMS will collect CDEs for Prostate, Breast, Lung, Bone Mets, and Brain Mets cases two times per year. Once in July for the January through June timeframe and a second time in January following the end of the performance year for the July through December timeframe. More information about the Quality Measures and CDE Collection process can be found in the CMS Collection and Submission [Guide](#).

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.



RO Model as an Advanced APM and MIPS-APM

CMS has stated that the RO Model meets the requirements of an Advanced APM, as well as a MIPS-APM. The Agency has established a three-track system for categorizing the various types of APM participation under the RO Model.

Track One will be for RO participants who comply with all RO requirements as listed below, including use of 2015 edition Certified Electronic Health Records Technology (CEHRT).

- Discuss goals of care with each Medicare beneficiary before initiating treatment and communicate to the beneficiary whether the treatment intent is curative or palliative;
- Adhere to nationally recognized, evidence-based treatment guidelines when appropriate in treating Medicare beneficiaries or document in the medical record the rationale for the departure from these guidelines;
- Assess the Medicare beneficiaries' tumor, node, and metastasis (TNM) cancer stage for the CMS-specified cancer diagnosis;
- Assess the Medicare beneficiaries' performance status as a quantitative measure determined by the physician;
- Send a treatment summary to each Medicare beneficiary's referring physician within three months of the end of treatment to coordinate care;
- Discuss with each Medicare beneficiary prior to treatment delivery his or her inclusion in and cost-sharing responsibilities; and
- Perform and document Peer Review for 50 percent of new patients in performance year 1, 55 percent of new patients in performance year 2, 60 percent of new patients in performance year 3, 65 percent of patients in performance year 4, and 70 percent of patients in performance year 5, preferably before starting treatment, but in all cases before 25 percent of the total prescribed dose has been delivered and within two weeks of starting treatment.

Track One RO Participants will be considered Advanced APM participants based on the Qualified Advanced APM Participant (QP) Status determination. QP status is granted to those RO Model participants achieve 50% of Medicare Part B payments generated through participation in an Advanced APM or 35% of Medicare patients receive care through an Advanced APM. Those RO Model participants who do not meet the QP status thresholds will be deemed MIPS-APMs.

Track Two is designated for those RO participants who comply with all RO Model requirements described above except for CEHRT, therefore making these participants MIPS APMs. Track Two makes RO Model participants eligible for MIPS APM reporting and scoring pathways.

Track Three designation is for all other RO participants who will not be considered either an Advanced APM or MIPS APM, including all Technical participants.

Individual Practitioner List

At the start of each PY, CMS will develop and provide each RO participant that is a PGP or a freestanding radiation therapy center with an individual practitioner list identifying by NPI each individual practitioner associated with the RO participant. RO Participants must review and certify individual practitioner lists within 30 days of receipt of the list. RO participants have the ability to review their individual practitioner list and add or drop the necessary NPIs from the list up until the last QP determination snapshot date (August 31).

CMS will also provide Technical participants with an individual practitioner list. If individual practitioners who participate in the RO Model with Technical participants that are freestanding radiation therapy centers are not included on a verified list, they will not be eligible to receive Improvement Activity credit under MIPS. Additionally, in the case of a Dual, Professional, or Technical participant that is a freestanding radiation therapy center, which begins participation in the RO Model after the start of a given PY, but at least 30 days prior to the last QP determination snapshot date of that PY (August 31), CMS will provide the new participant with an individual practitioner list that they must certify by the last QP determination snapshot date. CMS believes this will give all RO participants, including those that begin participation in the RO Model after the start of the PY, more time to review and certify their individual practitioner lists.