Radiation Oncology Model Implementation Guide

November 2021

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Contents

1. Introduction

This Implementation Guide consolidates key information and strategies for RO participants as they onboard to the RO Model. It is designed to help RO participants successfully implement the RO Model. This guide covers milestones and related implementation steps for the RO Model, including:

- RO Model timelines
- Clinical data element (CDE) and quality measure data reporting under the RO Model
- RO Model pricing methodology
- Monitoring and compliance under the RO Model
- Background on the RO Model as an Alternative Payment Model (APM)

Help Desk

For questions about the RO Model beyond what is covered in this guide or for access to resources, RO participants are encouraged to contact the Help Desk at 1-844-711-2664 (Option 5) or at RadiationTherapy@cms.hhs.gov.

This guide also highlights resources available to support RO participants' implementation of the RO Model, and touches on RO Model coding and billing processes covered in more depth in the RO Model Billing Guide. Throughout this guide, hyperlinks are included either to relevant sections of this document or to external documents, as applicable.

2. Overview of the RO Model

In December 2015, Congress passed the Patient Access and Medicare Protection Act (P.L. 114-115), which required the secretary of the U.S. Department of Health and Human Services (HHS) to submit a report on "the development of an episodic alternative payment model" for radiotherapy (RT) services. The HHS report identified three key reasons why RT is ready for payment and service delivery reform: site neutrality; aligning payments with quality and value, rather than with volume; and addressing the Centers for Medicare & Medicaid Services' (CMS') coding and payment challenges.

Thus, the primary goal of the RO Model is to test whether prospective, site-neutral, episode-based payment for RT episodes of care reduces Medicare expenditures while preserving or enhancing quality of care for Medicare beneficiaries. Underlying that goal are a number of objectives for the RO Model, including:

- Supporting clinical practice transformation by encouraging physicians to furnish high-quality, evidence-based care to drive better patient outcomes, decrease Medicare costs, and improve the RO beneficiary experience
- Reducing administrative burden through a simplified and predictable payment system that moves Medicare toward site neutrality
- Improving the RO beneficiary experience by rewarding high-quality, patient-centered care and providing incentives for high-value RT that results in better quality of care and patient outcomes

2.1. RO Model Regulations and Notices

In September 2020, the Center for Medicare & Medicaid Innovation (the Innovation Center) published the Specialty Care Models to Improve Quality of Care and Reduce Expenditures Final Rule (CMS-5527-F),

hereinafter referred to as the "Specialty Care Models final rule", which established the RO Model with a start date of January 1, 2021. To give RO participants more time to prepare for the RO Model during the COVID-19 public health emergency (PHE), the RO Model start date was delayed until July 1, 2021, under an interim final rule with comment period in the Calendar Year (CY) 2021 Hospital Outpatient Prospective Payment (OPPS) and Ambulatory Surgical Center (ASC) Payment Systems and Quality Reporting Programs final rule with comment period (CMS-1736-FC), hereinafter referred to as the "CY 2021 OPPS/ASC final rule". The start date was delayed by at least another six months by Section 133 of the Consolidated Appropriations Act (CAA), 2021 (H.R. 133), enacted on December 27, 2020, which includes a provision prohibiting implementation of the RO Model before January 1, 2022.

On July 19, 2021, CMS released the CY 2022 Hospital OPPS and ASC Payment Systems and Quality Reporting Programs Notice of Proposed Rulemaking (CMS-1753-P), hereinafter referred to as the "CY 2022 OPPS/ASC proposed rule". This notice included proposals that address the legislatively mandated delay and additional modifications to the RO Model design. Finally, on November 2, 2021, CMS released the CY 2022 Hospital OPPS and ASC Payment Systems and Quality Reporting Programs final rule with comment period (CMS-1753-FC), hereinafter referred to as the "CY 2022 OPPS/ASC final rule", which finalized provisions related to the delay of the RO Model and modifications to certain policies proposed in the CY 2022 OPPS/ASC proposed rule.

2.2. RO Episode Components, RO Participants, and RO Beneficiaries

An RO episode consists of two components, the **professional component (PC)**, which covers RT services that may be furnished only by a physician, and the **technical component (TC)**, which covers RT services not furnished by a physician (such as the provision of equipment, supplies, and personnel, and any costs related to RT services).

Professional component (PC)

RT services that may be furnished only by a physician

Technical component (TC)

RT services not furnished by a physician (such as the provision of equipment, supplies, and personnel, and any costs related to RT services)

Please note that "RO episodes" are distinct from "episodes". "RO episode" refers to an episode that occurs during the model performance period. "Episode" refers to an episode that occurs prior to the start of the model performance period. For example, the 2017-2019 Baseline Episode File posted on the RO Model website contains only "episodes", because the episodes initiated between 2017 and 2019 are outside of the model performance period.

The RO Model includes three types of RT providers and RT suppliers:

- **Physician group practices (PGPs)** are identified by a single Tax ID Number (TIN) and furnish professional RT services. A PGP that does not own RT machines and only furnishes and bills for the PC would always be a Professional participant.
- **Freestanding radiation therapy centers**, a type of PGP with the machines to deliver RT, are also identified by a single TIN and can furnish both professional and technical RT services. These centers are Dual participants when they furnish and bill for both the PC and TC for an episode. In rare situations, a freestanding radiation therapy center may furnish and bill for only the TC of an RO episode, and in that case would be a Technical participant. Therefore, PGPs can potentially be

Note

A freestanding radiation therapy center that furnishes and bills for **only** the TC of an RO episode would be a Technical participant.

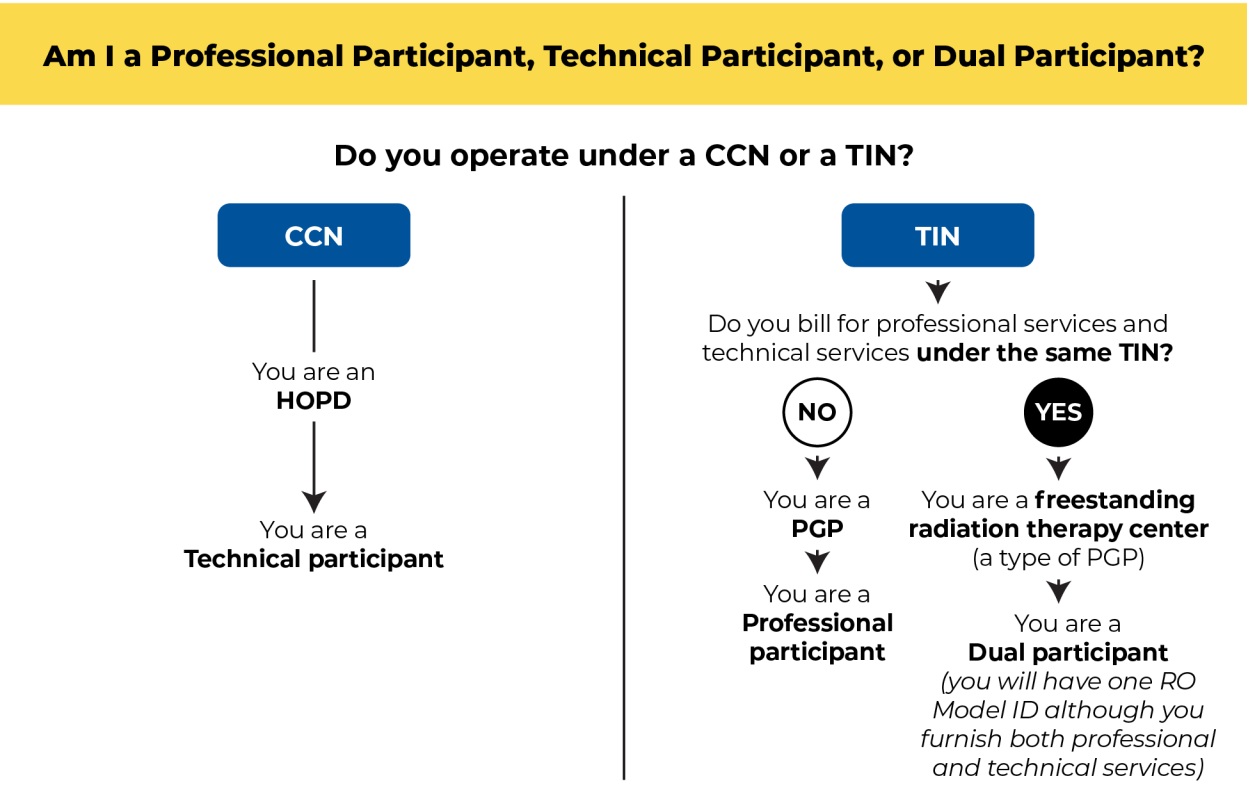
any of the three RO participant types depending on which component or components they are furnishing for a given episode.

- **Hospital outpatient departments (HOPDs)** are identified by a single CMS Certification Number (CCN) and furnish only technical RT services.

> **Note**
>
> **HOPDs with a CCN are always Technical participants**, never Dual or Professional participants.

CMS identifies RO participants by the TIN or CCN by which they are recognized by Medicare. Each RO participant will take part in the RO Model as a Professional participant, Technical participant, or Dual participant (Exhibit 1). This division reflects the fact that RT professional and technical services are sometimes furnished by separate providers and suppliers and are paid for through different payment systems.

Exhibit 1. Breakdown of RO participant types



2.2.1. RO Participant Eligibility

Participation in the RO Model is required for all RT providers and RT suppliers furnishing services in randomly selected Core-Based Statistical Areas (CBSAs). RO participants may opt out if they are eligible for the low volume opt-out and attest to opting out before the start of the applicable performance year (PY). RT providers and RT suppliers are linked to a CBSA using the five-digit ZIP Code of the location where the RT services are furnished. CMS uses RT providers' or RT suppliers' service location ZIP Code, which is found on claims submitted to CMS, to link them to CBSAs selected under the RO Model.

> **Participating ZIP Code List**
>
> A list of participating ZIP Codes is available on the RO Model website: https://innovation.cms.gov/media/document/ro-model-zip-codes-list-nov2021

If an RO participant has a service location in a participating ZIP Code and one in a non-participating ZIP Code that operates under the same TIN or CCN, only the location in the participating ZIP Code would be expected to follow RO Model requirements. However, data from all service locations that furnish and bill RT services under that TIN or that CCN (regardless of where those service locations are located) are used to determine the historical experience and case mix adjustments for that RO participant.

Please note that although CBSAs selected for participation in the RO Model do not change, the U.S. Department of Housing and Urban Development (HUD) United States Postal Service (USPS) ZIP Code Crosswalk Files that link ZIP Codes to those CBSAs are updated quarterly, and one of those quarterly HUD USPS ZIP Code Crosswalk files may identify additional ZIP Codes linked to those CBSAs. Although an infrequent occurrence, CMS will notify those RO participants that have been identified as furnishing included RT services within one or more of these new ZIP Codes that have been added to the list of participating ZIP Codes.

Note

ZIP Codes can only be added to the participating ZIP Code list. A participating ZIP Code will not be removed from the list once it has been added.

2.2.2. RO Participant Exclusions

An entity could be excluded from the RO Model for a number of reasons. ASCs, Prospective Payment System (PPS)-exempt cancer hospitals (PCHs), and critical access hospitals (CAHs) are not included. Entities that furnish included RT services only in Vermont, Maryland, and the U.S. territories are also not included at this time. Finally, hospitals participating in the Community Transformation track of the Community Health Access and Rural Transformation (CHART) Model, or participating in the Pennsylvania Rural Health Model (PARHM) will be exempt from the RO Model. Hospitals that were in PARHM, but leave it, would join the RO Model during the next CY quarter in which they are eligible for the RO Model.

During the model performance period, an RO participant will be excluded if its status changes and it begins meeting one of the exclusion criteria listed above. Conversely, an excluded entity that is furnishing included RT services in one of the randomly selected CBSAs will be required to participate if the exclusion criteria no longer applies to that entity. These RO participants will immediately start billing for RO episodes per the RO Model billing requirements. Other RO Model requirements (including those listed at § 512.220), such as attestations, will be required upon the next relevant due date.

2.2.3. RO Beneficiary Eligibility

All Medicare beneficiaries who meet certain eligibility criteria and receive care from an RO participant will be included in the RO Model (these individuals are referred to as RO beneficiaries). To be eligible, Medicare beneficiaries must meet the following criteria:

- Receive included RT services from an RO participant for the PC or TC of an RO episode during the model performance period for an included cancer type (Exhibit 2)
- Meet the following conditions at the time that an RO participant furnishes the initial treatment planning service of an RO episode for them:
  - Eligible for Medicare Part A and enrolled in Medicare Part B
  - Traditional Medicare FFS as primary payer
  - Not in a Medicare hospice benefit period

- Not enrolled in a Medicare health plan or Program of All-Inclusive Care for the Elderly plan
- Not covered under the United Mine Workers
- Not deceased

Medicare beneficiaries enrolled in a clinical trial for included RT services for which Medicare pays routine costs would also be included in the RO Model as long as the above criteria apply with the exception of federally-funded, multi-institution, randomized control clinical trials for proton beam therapy. Included RT services in this case will be paid FFS when the GB modifier is applied to the claim lines. This exception is intended to foster further development of clinical evidence needed to assess proton beam therapy's health benefit comparable to other modalities. Please note that RO beneficiaries have the right to choose their RT provider or RT supplier, including those not participating in the RO Model.

Exhibit 2. Cancer types and modalities included in the RO Model

Included cancer types	Included modalities
1. Anal cancer	**1.** Three-dimensional conformal RT
2. Bladder cancer	**2.** Intensity-modulated RT
3. Bone metastases	**3.** Stereotactic radiosurgery
4. Brain metastases	**4.** Stereotactic body RT
5. Breast cancer	**5.** Proton beam therapy
6. Cervical cancer	**6.** Image-guided RT
7. Central nervous system tumors	
8. Colorectal cancer	
9. Head and neck cancer	
10. Lung cancer	
11. Lymphoma	
12. Pancreatic cancer	
13. Prostate cancer	
14. Upper gastrointestinal cancer	
15. Uterine cancer	

CMS removed brachytherapy from the list of included modalities in the CY 2022 OPPS/ASC final rule. CMS plans to monitor utilization of brachytherapy, both as a single modality and multi-modality among RO participants compared to non-participants, and potentially add brachytherapy to the RO Model in the future. CMS also notified RO participants that it was removing liver cancer from the list of included cancer types.

3. RO Participant Milestones and Implementation Steps

3.1. RO Model Timelines

Extreme and Uncontrollable Circumstance (EUC) Policy for PY1 (2022)

The Innovation Center declared its intent to invoke the EUC policy for PY1 (2022), assuming a public health emergency is present when the model performance period begins on January 1, 2022. **For information on the EUC policy and its impact on CDE and quality measure data reporting, patient safety organization (PSO) attestation, and peer review requirements in PY1, see the RO Model website:**

https://innovation.cms.gov/innovation-models/radiation-oncology-model

CMS defines an EUC as a situation that is beyond the control of one or more RO participants, adversely affects their ability to deliver care that meets the RO Model's requirements, and affects an entire region or locale. If CMS determines an EUC for the RO Model, CMS may:

1. Amend the model performance period
2. Eliminate or delay certain reporting requirements
3. Amend the RO Model's pricing methodology by adjusting the quality withhold or modifying the trend-factor calculation for the PC or TC of a cancer type

If RO participants believe they are experiencing an EUC during the model performance period, they should email the Help Desk at RadiationTherapy@cms.hhs.gov.

The RO Model will begin on January 1, 2022 and end on December 31, 2026. Each PY will run from January 1 to December 31, with five PYs in total. The last RO episode will occur October 3, 2026.

For each PY, there are several additional points in time RO participants should keep in mind:

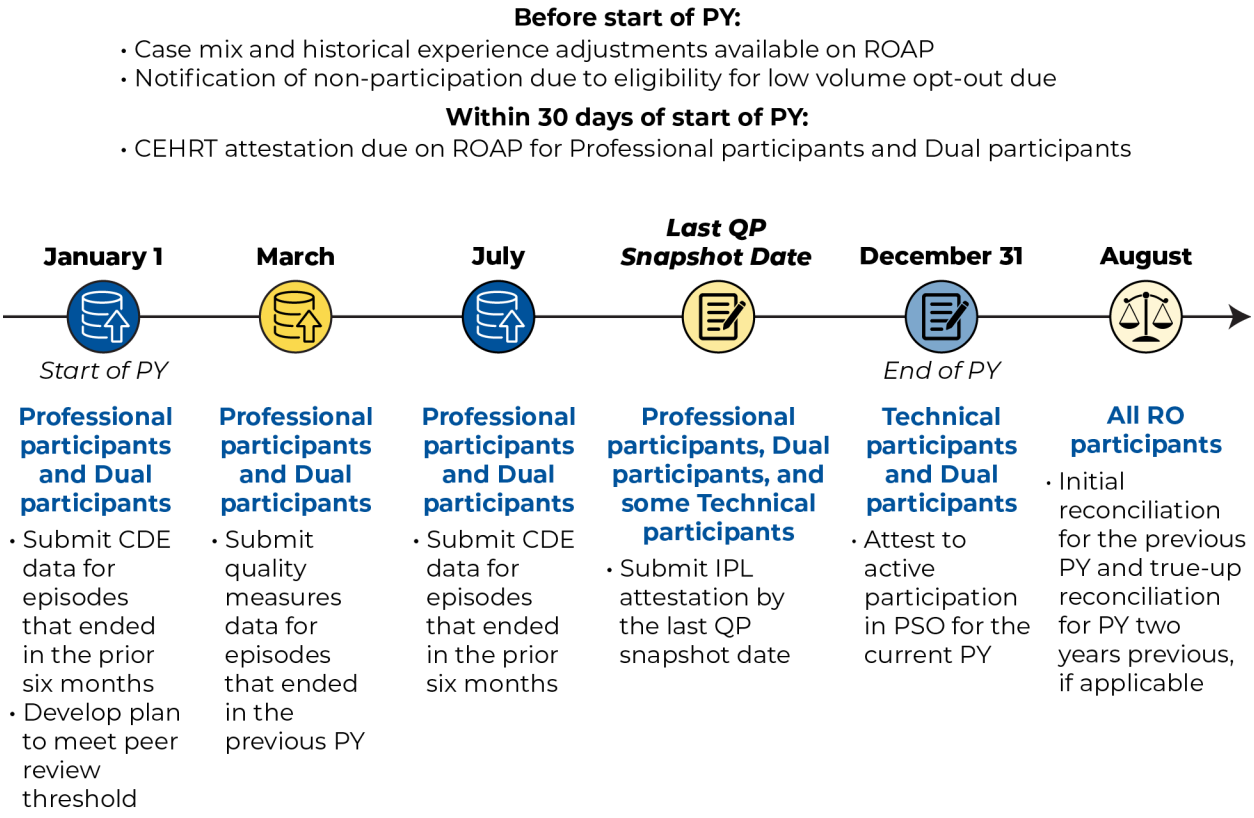
- **Before the start of a new PY:**
  - Case mix and historical experience adjustments become available on the RO Administrative Portal (ROAP) at least 30 days before the start of a new PY.
  - RO participants eligible for the low volume opt-out must notify CMS that they are choosing to opt out for the upcoming PY by December 31st of the prior year.
- **During the PY:**
  - **January**: Professional participants and Dual participants must attest to their use of Certified Electronic Health Record Technology (CEHRT) by January 31 of each PY.
  - **January**: Professional participants and Dual participants submit CDE data for the preceding six months of RO episodes (July to December of the previous PY).
  - **March**: Professional participants and Dual participants submit quality measure data for RO episodes that ended in the previous PY.
  - **July:** Professional participants and Dual participants submit CDE data for the preceding six months (January to June of that PY).
  - **August:** CMS conducts annual reconciliation for each RO participant for the previous PY to calculate payments due to the RO participant and payments owed to CMS under the withhold policies. The reconciliation process includes a review of incomplete episodes and duplicate RT services and any stop-loss reconciliation amount due as well as the amount of the quality and patient experience withholds RO participants earn back based on CDE data reporting, reporting and performance on quality measures, and the beneficiary-reported Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Cancer Care Radiation Therapy Survey.
    - The first initial reconciliation will be in PY2 (August 2023).
    - The first true-up will be in PY3 (August 2024).
    - Please remember that it is not until PY3 that the RO Model will include patient experience measures based on the CAHPS® Cancer Care Radiation Therapy Survey, and therefore, not

until August 2025 that the annual reconciliation process will include an accounting of the patient experience withhold.

- **Last Qualifying APM Participant (QP) Determination Snapshot Date:** CMS will create and post an Individual Practitioner List (IPL) for Professional participants and Dual participants, as well as freestanding radiation therapy centers that are Technical participants. RO participants must review, revise, certify, and return the IPL to CMS via ROAP by the last QP determination snapshot date, which typically occurs in early fall.
- **December:** Technical participants and Dual participants have until December 31 of each PY to make their PSO attestation for the current PY.

The timeline in Exhibit 3 shows a typical PY under the RO Model.

Exhibit 3. Standard timeline for RO Model PY



The RO Model ends on December 31, 2026, and no new RO episodes will begin after October 3, 2026. The final reconciliation, for PY5, will take place August 2027, and the final true-up, also for PY5, will happen in August 2028.

3.2. RO Model Requirements

3.2.1. Requirements for All RO Participants

- **Meet state and federal licensure and certification requirements.** RO participants must meet applicable state and federal licensure and certification requirements.

- **Submit claims.** RO participants must submit claims, following RO Model billing instructions, to receive prospective episode-based payments instead of traditional Medicare FFS payments.
  - In addition to submitting claims in accordance with RO Model guidance for the purpose of episode payment, RO participants will submit RO Model encounter-like (no-pay) claims for all included RT services furnished during the RO episode for the purpose of reconciliation, monitoring, and evaluation. For more information, see the Coding, Billing, and Pricing Methodology section of this guide, or the RO Model Billing Guide.

Note

Dual participants must meet the requirements of **both** Professional participants and Technical participants.

Accordingly, Dual participants should consult the sections for **both** Professional participants and Technical participants throughout this guide.

3.2.2. RO Model Requirements for Professional Participants and Dual Participants

In addition to the general RO Model requirements, Professional participants and Dual participants must fulfill seven requirements: RO beneficiary notification, treatment planning, care consistent with clinical treatment guidelines, RO beneficiary assessment, treatment summary, peer review, and CEHRT (Exhibit 4).

Exhibit 4. Professional participant and Dual participant requirements

- **RO beneficiary notification**
  Furnish written notice of their participation in the RO Model to each RO beneficiary during the treatment planning session using the RO Beneficiary Notification Letter
- **Treatment planning**
  Discuss goals of care with each RO beneficiary before initiating treatment and let the beneficiary know whether treatment intent is curative or palliative
- **Care consistent with clinical treatment guidelines**
  Furnish care consistent with nationally recognized clinical treatment guidelines or document in the medical record the rationale for the departure from these guidelines
- **RO beneficiary assessment**
  Assess and document (1) stage of RO beneficiary's tumor, node, or metastasis cancer and (2) RO beneficiary's performance status as a quantitative measure determined by the physician
- **Treatment summary**
  Send a treatment summary to each RO beneficiary's referrer within three months of treatment end
- **Peer review**
  Conduct peer review of treatment plans for 50 percent of all RT patients, increasing 5 percentage points each PY
- **CEHRT**
  Use CEHRT and attest annually to its use within 30 days of the start of each PY

RO Beneficiary Notification

As shown in Exhibit 4, Professional participants and Dual participants will furnish written notice of their participation in the RO Model to each RO beneficiary during the treatment planning session. This letter notifies RO beneficiaries about the RO Model, reviews RO beneficiary cost-sharing requirements, and allows RO beneficiaries to decline sharing their claims data with RO participants.

The RO Beneficiary Notification Letter is available on the RO Model website and on RO Connect. It is a fillable PDF that RO participants download, fill-in, and share with every eligible RO beneficiary during the treatment planning session.

First, RO participants should input their "Doing Business As" name, or whatever CMS-recognized name the RO beneficiary would associate with the RO participant's organization, in the first fillable line. This will autofill throughout the PDF. Second, RO participants should input the organization's phone number on the last page so RO beneficiaries can follow up if they have any questions after their appointment about the RO participant's engagement in the RO Model. Finally, RO participants may put their logo on the RO Beneficiary Notification Letter. RO participants may not make any other changes to the text of this letter.

RO Beneficiary Notification Letter

RO participants must use the RO Beneficiary Notification Letter available on the RO Model website (https://innovation.cms.gov/media/document/ro-bene-notif-letter) and on RO Connect (search term "Beneficiary Notification Letter").

If an RO beneficiary does notify an RO participant that they do not want to share their claims data, RO participants will need to notify CMS within 30 days. RO participants will submit the RO beneficiary's name, Medicare ID Number, and the date of the notification through ROAP.

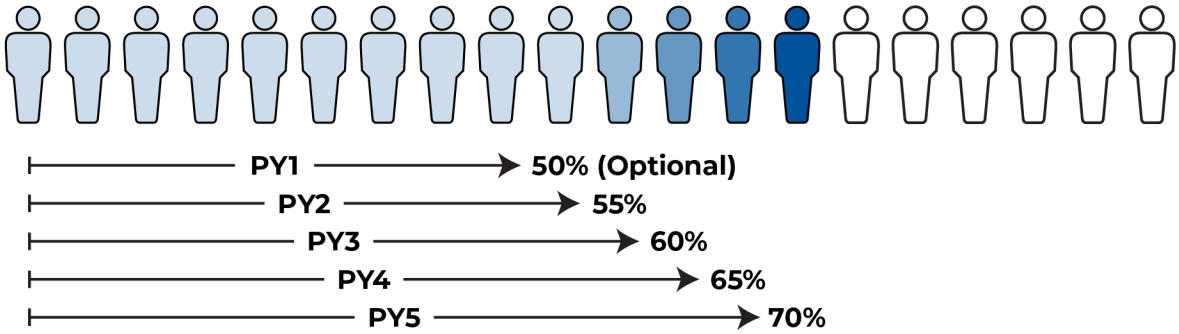
Peer Review

EUC Policy for PY1 (2022)

Due to the invocation of the EUC policy for PY1 (2022), the requirement that RO participants conduct peer review on treatment plans will be optional in PY1.

RO participants must perform and document peer review (conduct an audit of and offer feedback on treatment plans) for 50 percent of new patients in PY1, increasing five percentage points each PY (Exhibit 5).

Exhibit 5. Percentage of new patients requiring peer review, by PY

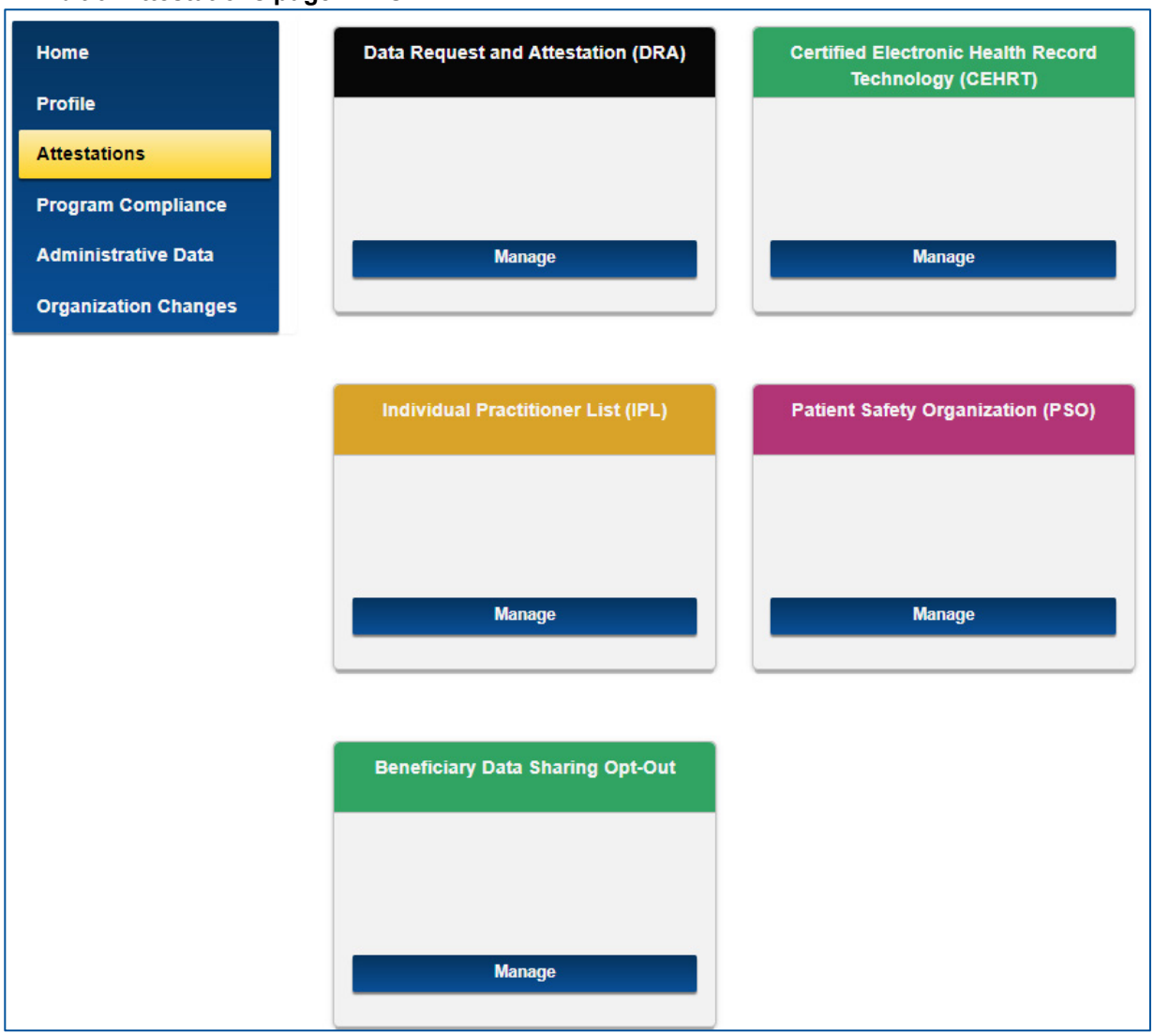


"New patients" refers to RO beneficiaries receiving RT services from an RO participant during the model performance period (proposed as January 1, 2022 - December 31, 2026). Peer review should occur preferably before starting treatment, but in all cases before 25 percent of the total prescribed dose has been delivered and within two weeks of the start of treatment.

Data Request and Attestation (DRA)

The DRA form is a document that is uploaded by the RO Model Team for RO participants to access on ROAP (Exhibit 6).

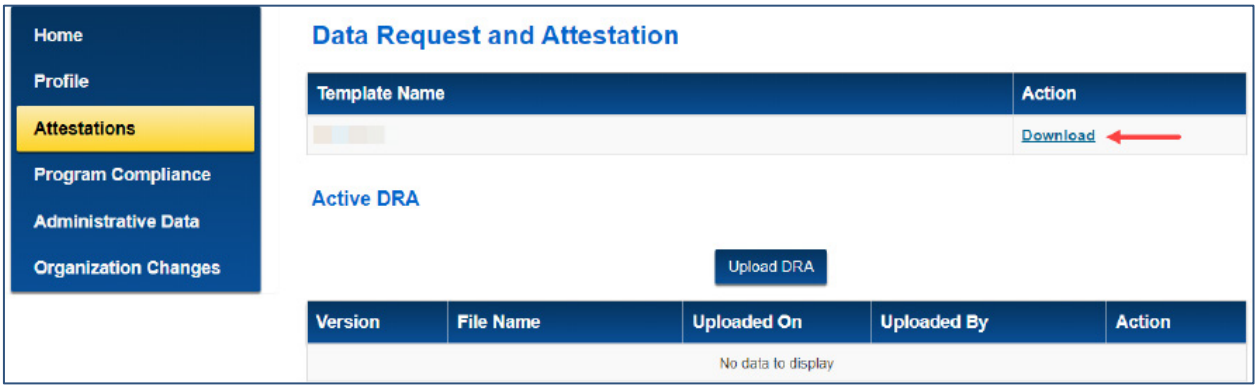
Exhibit 6. Attestations page in ROAP



The Legal contact should download the template from ROAP, complete the form, and upload the completed form via the same portal for the RO Model Team to review.

When a DRA form is available in ROAP, Legal contacts can select the "Download" link within the template table on the Data Request and Attestation page (Exhibit 7). After editing the downloaded document, the Legal contact can select "Upload DRA" to upload it to ROAP.

Exhibit 7. Data Request and Attestation page in ROAP



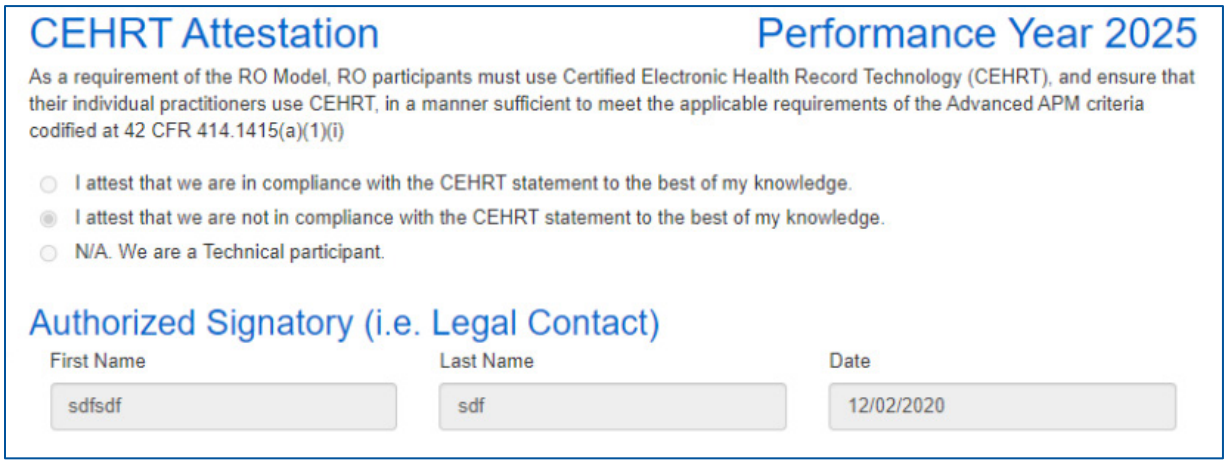
The Data Dictionary for Participant-Specific Data - Data Request and Attestation (DRA) is now available on the RO Model website. This data dictionary describes columns present in the claims, episode, participant, and summary data files that RO participants participating in the RO Model may request from CMS.

CEHRT

Using ROAP, Professional participants and Dual participants must attest to using CEHRT by January 31 of every PY (refer to Exhibit 6: Attestations page in ROAP). Only Legal contacts in ROAP can complete attestations. As shown in Exhibit 8, the attestation on ROAP contains the following statement: "As a requirement of the RO Model, Professional participants and Dual participants must use Certified Electronic Health Record Technology (CEHRT), and ensure that their individual practitioners use CEHRT, in a manner sufficient to meet the applicable requirements of the Advanced APM criteria codified at 42 CFR § 414.1415(a)(1)(i)".

- Professional participants and Dual participants that are using CEHRT for the current PY should check the box, "I attest that we are in compliance with the CEHRT statement to the best of my knowledge".
- Professional participants and Dual participants that do not have CEHRT for the current PY should check the box, "I attest that we are not in compliance with the CEHRT statement to the best of my knowledge".
- Technical participants should check "N/A. We are a Technical participant".

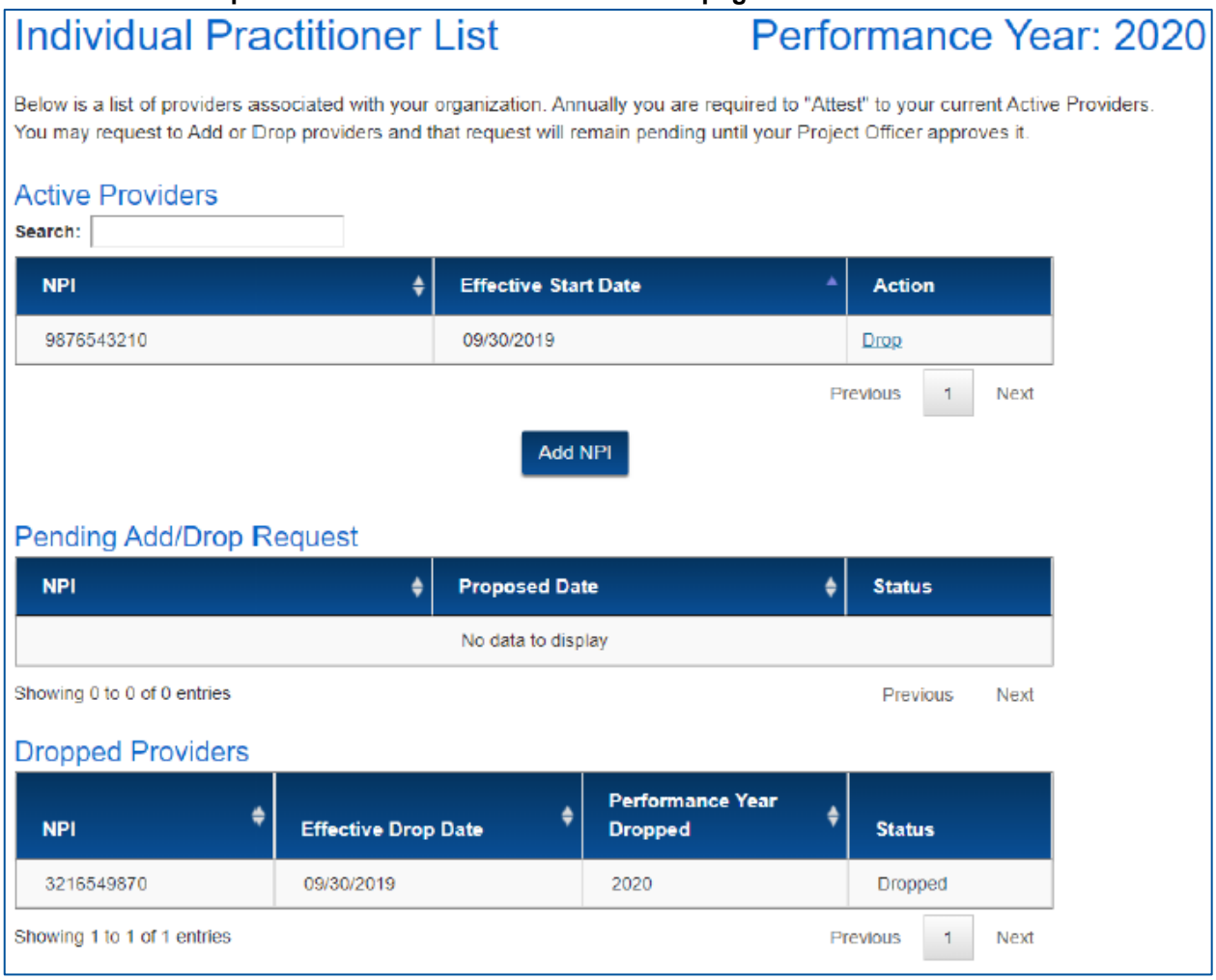
Exhibit 8. CEHRT Attestation page in ROAP



IPL

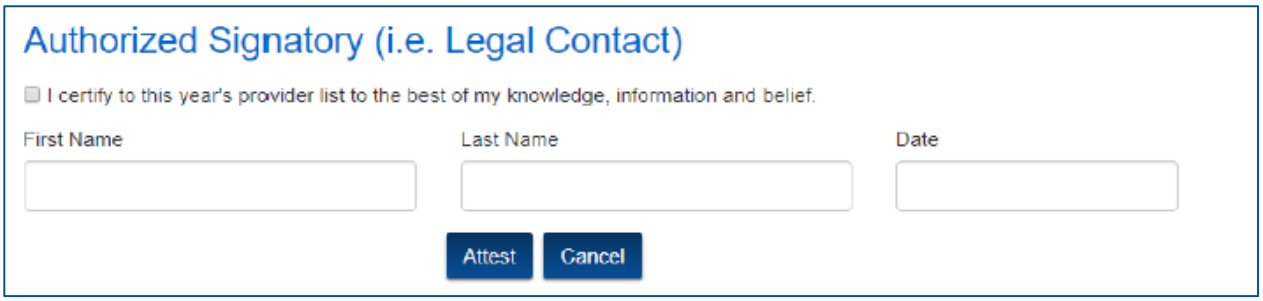
Using ROAP, CMS will create and post an IPL for Professional participants and Dual participants (refer to Exhibit 6: Attestations page in ROAP). Primary Contacts and Legal Contacts will have the ability to add and remove National Provider Identifiers (NPIs) as needed during the specified period, using the "Add" button and "Drop" link (Exhibit 9).

Exhibit 9. Add/Drop Period in Individual Practitioner List page in ROAP



During the attestation period, the "Add NPI" button and "Drop" link will not be available and only the Legal Contact will be able to attest to the active providers (Exhibit 10).

Exhibit 10. Authorized Signatory section of Individual Practitioner List page in ROAP



RO participants must notify CMS by the last QP determination snapshot date, typically in early fall, if they are adding or removing a practitioner who will be or ceases to be a Medicare-enrolled supplier billing for RT services under the RO participant's TIN and attest to their IPL. Freestanding radiation therapy centers that are Technical participants will also need to update the IPL.

3.2.3. RO Model Requirements for Technical Participants and Dual participants

PSO

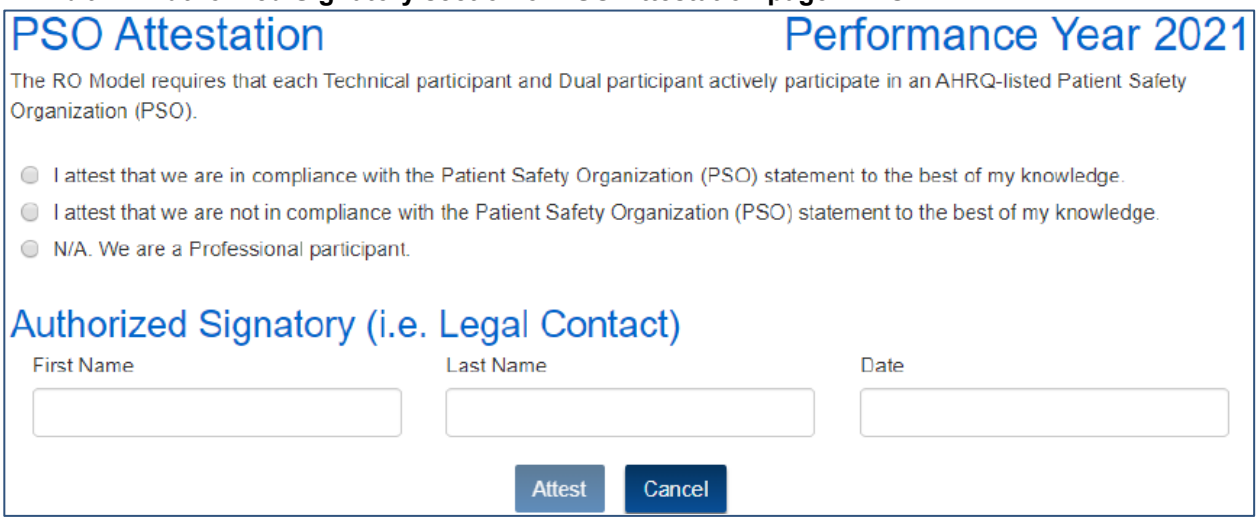
> **EUC Policy for PY1 (2022)**
>
> Due to the invocation of the EUC policy for PY1 (2022), the requirement that RO participants actively engage with an AHRQ-listed PSO will be optional in PY1.

Technical participants must attest annually, using ROAP, to active participation in an Agency for Healthcare Research and Quality (AHRQ)-listed PSO (refer to Exhibit 6: Attestations page in ROAP). Active participation could include, for example, maintaining a contractual or similar relationship with a PSO for the receipt and review of a patient safety work product. The PSO does not need to be a radiation oncology-specific PSO. Attestation is required to verify compliance with the RO Model requirements. RO participants that are not in a PSO will have until the attestation period closes at the end of each PY to initiate participation with a PSO.

The PSO attestation is only available on ROAP during a specified timeframe created by CMS. Only Legal contacts in ROAP can complete attestations. As shown in Exhibit 11, the attestation on ROAP contains the following statement: "The RO Model requires that each Technical participant and Dual participant actively participate in an AHRQ-listed Patient Safety Organization (PSO)".

- Technical participants and Dual participants that are actively participating with an AHRQ-listed PSO for the current PY should check the box, "I attest that we are in compliance with the Patient Safety Organization (PSO) statement to the best of my knowledge".
- Technical participants and Dual participants that are not actively participating with an AHRQ-listed PSO for the current PY should check the box, "I attest that we are not in compliance with the Patient Safety Organization (PSO) statement to the best of my knowledge".
- Professional participants should check "N/A. We are a Professional participant".

Exhibit 11. Authorized Signatory section of PSO Attestation page in ROAP



3.2.4. Summary of Attestation Requirements to CMS

RO participants are required to formally attest to the following requirements: CEHRT, PSO participation, and the IPL. All other RO Model requirements, such as peer review, will be monitored over the life of the RO Model through site visits, auditing, and claims monitoring (Exhibit 12). RO participants must document these other RO Model requirements and ensure that they can demonstrate compliance if CMS requests a site visit or audits an RO participant for compliance.

Exhibit 12. RO Model Requirements

Requires attestation on ROAP	Monitored only (documentation required, no attestation required)
CEHRT use Active PSO participation IPL confirmation	RO beneficiary notification and cost-sharing discussion Discussion of goals of care with RO beneficiaries Care consistent with clinical treatment guidelines RO beneficiary assessment Treatment summary Peer review

3.2.5. Low Volume Opt-Out Policy

Entities that would otherwise be required to participate in the RO Model may opt out of a given PY if they have fewer than 20 episodes or RO episodes two years before the applicable PY across all CBSAs selected for participation.

Note
RO participants **cannot** opt out of a PY once that PY is underway.

To clarify and as noted above:

Episodes are episodes of care that occur before the start of the model performance period.

RO episodes are episodes of care that occur during the model performance period.

CMS uses episodes to determine historical experience adjustments and, depending on the PY, could use episodes or RO episodes to determine case mix adjustments and eligibility for the low volume opt-out.

- **PYs 1 and 2:**
  - Only episodes (not RO episodes) will be used to determine eligibility for a low volume opt-out, given the years used to determine eligibility, that is 2020 for PY1 and 2021 for PY2. Both of those years occur before the start of the model performance period.
- **PYs 3, 4, and 5:**
  - RO episodes will be used to determine eligibility for a low volume opt-out, given the years used to determine eligibility, that is 2022 for PY3, 2023 for PY4, and 2024 for PY5, all occur during the model performance period.

Note
A new TIN or CCN that results from a merger, acquisition, or other business relationship is **not** eligible for the low volume opt-out if the entities involved have furnished 20 or more episodes or RO episodes as a combined total across all CBSAs selected for participation in the applicable year being used to assess eligibility.

In ROAP, CMS makes case mix and historical experience adjustment values available to RO participants as well as the low volume opt-out option for those eligible.

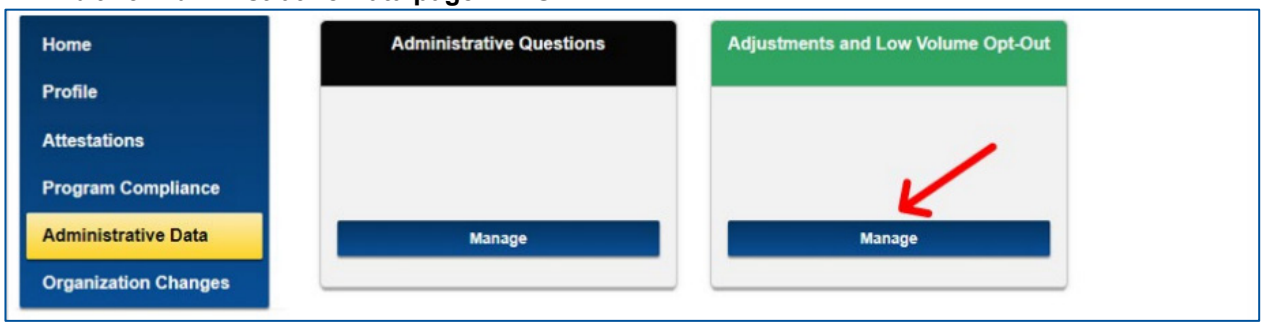
To help eligible RO participants make an informed decision about whether to opt out, CMS encourages them to review their case mix and historical experience adjustments when they are available in ROAP before opting out. RO participants must notify CMS via ROAP that they are selecting the low volume opt-out for the upcoming PY before the start of that PY. RO participants can do this by selecting "Administrative Data" in the left hand navigation menu, going to "Adjustments and Low Volume Opt-Out" and selecting "Manage" to open the "Case Mix and Historical Adjustments" page (Exhibit 13).

Note

RO participants that bill under the Physician Fee Schedule (PFS) that opt out of a given PY **will have to include a billing modifier** on all claims that would have otherwise been subject to RO Model billing rules and edits.

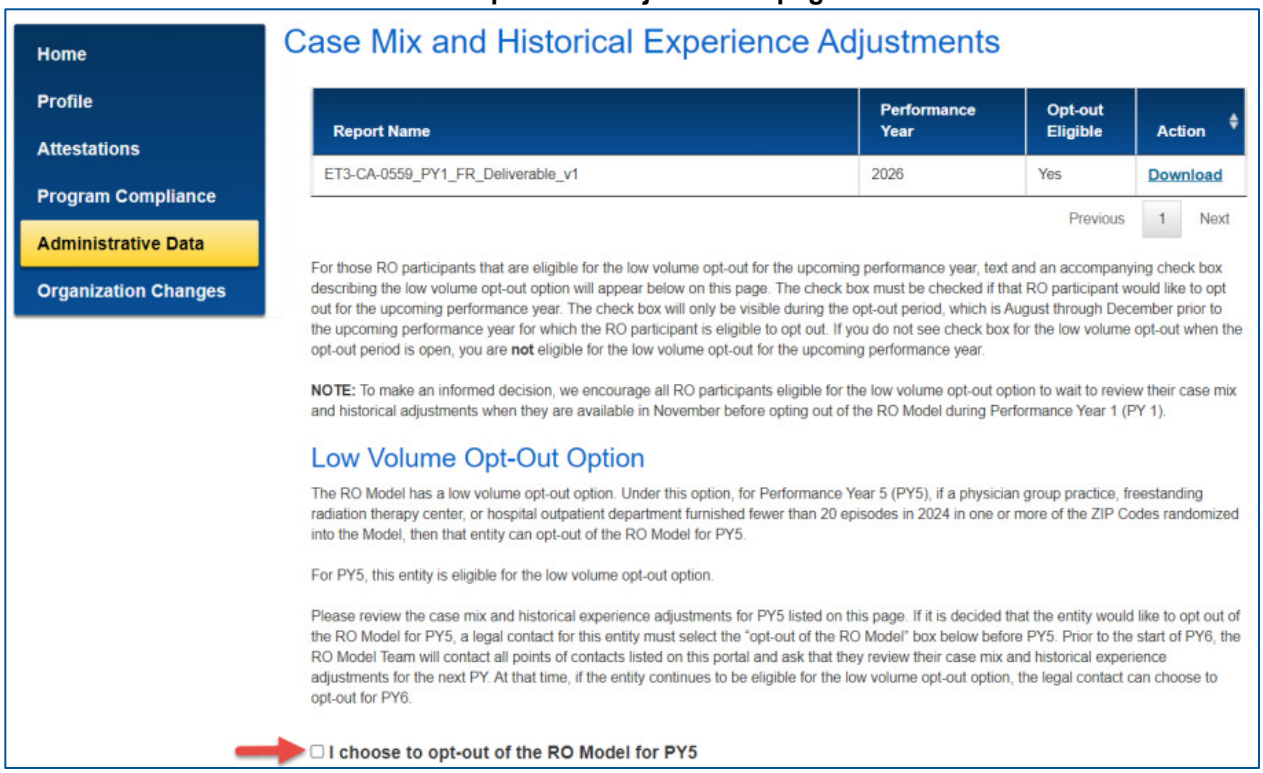
HOPDs that opt out and bill under OPPS, do not need to use a billing modifier or condition code as CMS has the ability to load their CCN into that claims system.

Exhibit 13. Administrative Data page in ROAP



On this page, the Legal contact(s) for RO participants that are eligible to opt out of the RO Model will see a "Low Volume Opt-Out Option" section with the checkbox "I choose to opt-out of the RO Model for PY[*X*]". (Exhibit 14).

Exhibit 14. Case Mix and Historical Experience Adjustments page in ROAP



If the RO participant chooses to opt out, the Legal contact should click the checkbox, and choose "Yes" in the subsequent confirmation message, to indicate that they are choosing to opt out. For more information on this process, RO participants should refer to the RO Model Portal Overview.

3.3. Clinical Data Element and Quality Measure Data Reporting

3.3.1. Professional Participants and Dual Participants

EUC Policy for PY1 (2022)

Due to the invocation of the EUC policy for PY1 (2022), the requirement that RO participants collect and submit quality measures and clinical data elements will be optional in PY1. Because this requirement will be optional, the two percent quality withhold will not be applied to RO Model professional episode payments in PY1.

Clinical Data Elements

All Professional participants and Dual participants must submit CDE data biannually for RO beneficiaries who were treated for included cancer types and completed their RO episode in the preceding six months. CDE data are reported in July for episodes completed between January 1 and June 30, and in January for episodes completed between July 1 and December 31.

Quality Measures

Professional participants and Dual participants will submit annual, aggregate quality measure data by March 31 for the preceding CY.

Calculation of Aggregate Quality Scores (AQS)

The AQS is a numeric score calculated for each RO participant. It is based on each RO participant's (1) performance on the selected RO Model quality measures, (2) reporting of data for any measures designated as pay-for-reporting (those without established performance benchmarks), and (3) reporting of CDE data on applicable RO beneficiaries. Please note that while the AQS will initially apply for Professional participants and Dual participants, starting in PY3, results from selected patient experience measures, based on the CAHPS® Cancer Care Radiation Therapy Survey, will be incorporated into the AQS for Technical participants as well.

RO Model Quality Measure and Clinical Data Element Collection and Submission Guide and CDE Reporting Templates

For more information on this topic, see the RO Model Quality Measure and Clinical Data Element Collection and Submission Guide and CDE reporting templates: https://innovation.cms.gov/innovation-models/radiation-oncology-model

Advanced APM or Merit-Based Incentive Payment System (MIPS) APM Qualification

To qualify as an Advanced APM or MIPS APM participant and/or earn back any portion of their quality withhold, Professional participants and Dual participants must submit data on four quality measures:

1. Oncology: Medical and Radiation—Plan of Care for Pain (NQF #0383, CMS #144)
2. Preventive Care and Screening: Screening for Depression and Follow-Up Plan (NQF #0418, CMS #134)

3. Advance Care Plan (NQF #0326, CMS #047)
4. Treatment Summary Communication—Radiation Oncology

Starting in PY3, results from selected patient experience measures based on the CAHPS® Cancer Care Radiation Therapy Survey will be incorporated into the AQS for all RO participants.

CMS will administer the CAHPS® Cancer Care Radiation Therapy Survey, RO participants do not need to contract with a separate entity to administer the survey. CMS will administer the survey to all RO beneficiaries.

3.3.2. Technical Participants

Technical participants are not required to report CDE data or quality measure data included in the RO Model. Starting in PY3, results from selected patient experience measures, based on the CAHPS® Cancer Care Radiation Therapy Survey, will be incorporated into the AQS for Technical participants and applied to the patient experience withhold.

3.4. Coding, Billing, and Pricing Methodology

In the RO Model, RO participants will bill 90-day RO episodes, using RO Model-specific Healthcare Common Procedure Coding System (HCPCS) codes. RO participants will also submit encounter-like (no-pay) claims for included RT services furnished during the 90-day episode. For more information on this topic, see the RO Model Billing Guide.

RO Model Billing Guide

The RO Model Billing Guide contains more in-depth information on billing under the RO Model.

After each PY, the Innovation Center will conduct annual reconciliation for each RO participant for the previous PY to calculate payments due to the RO participant and payments owed to CMS under the withhold policies.

Before the RO Model starts on January 1, 2022, RO participants may want to take two key steps to prepare for implementation:

- **Identify the RO Model-specific HCPCS codes and adjust billing systems.** For each of the 15 included cancer types in the RO Model, CMS developed a new RO Model-specific HCPCS code for both the PC and TC, for a total of 30 new RO Model-specific HCPCS codes. RO participants must include the appropriate code on claims submitted under the RO Model, and they might need to adjust their billing systems accordingly. A list of these codes can be found in Appendix B.

Note

For each of the 15 included cancer types in the RO Model, CMS developed a new HCPCS code for both the PC and TC, for a total of 30 new **RO Model-specific HCPCS codes**.

See Appendix B for a full list.

- **Calculate estimated payments.** The RO Model Payment Calculator Workbook is now available on the RO Model website. To help RO participants understand the RO Model's pricing methodology, this workbook furnishes RO participant-specific payment rate estimates based on cancer type, geographic location, and case mix and historical experience adjustments (which can be found on ROAP). The payment rates in this workbook are only estimates and might not match the actual Medicare payments an RO participant will receive for RO Model episodes.

3.4.1. Billing for RO Model Episodes

CMS will pay RO participants for the RO participant-specific professional component (PC) and technical component (TC) of the episode in two installments. The two payments for the PC or TC will cover all professional services or technical services allowed under the episode, respectively. Services that are not included in the RO Model will continue to be paid FFS.

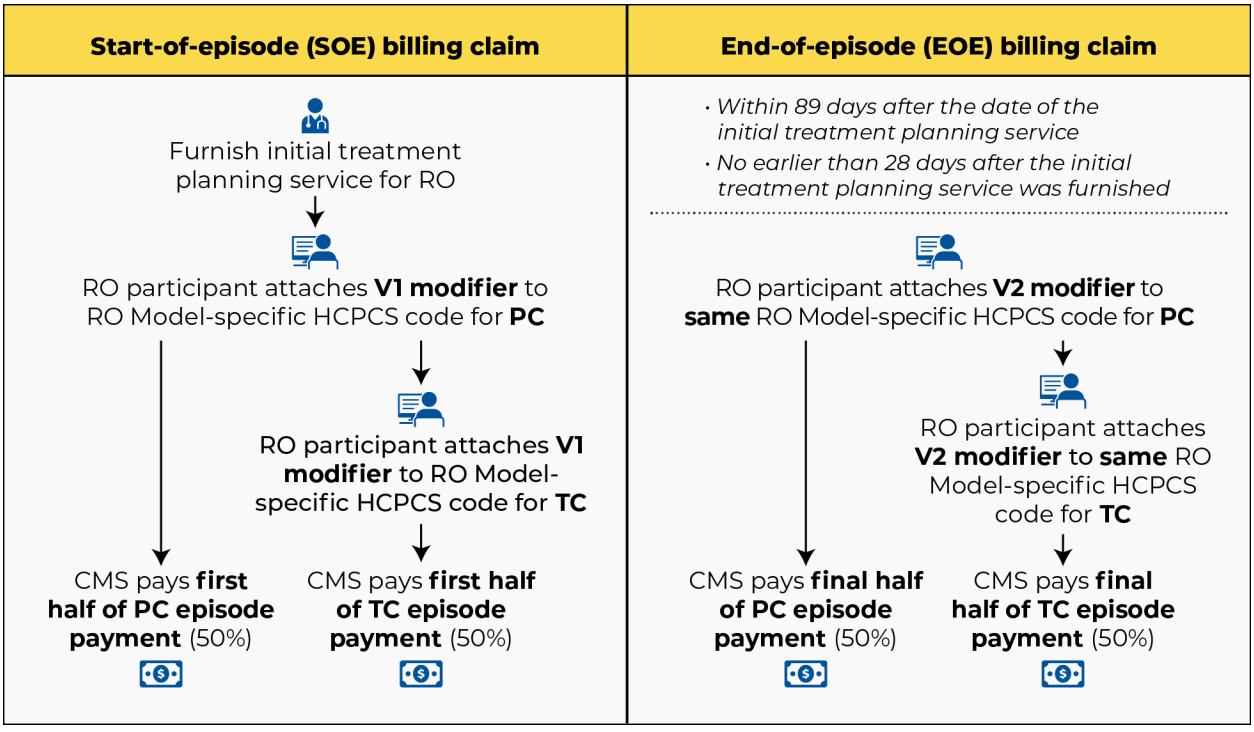
The RO Model is not a "total cost of care" model. Rather, it is specific to included RT services only, and does not hold RO participants accountable for total Medicare spending.

Exhibit 15 summarizes the RO Model billing process. RO episodes begin on the date of service when the initial treatment planning service is furnished. A Professional participant or Dual participant then bills a professional RO Model-specific HCPCS code with a start-of-episode (SOE) modifier and a date of service. Next, a Technical participant or Dual participant bills a technical RO Model-specific HCPCS code with a SOE modifier and a date of service within 28 days of the date of service for the RO Model-specific HCPCS code with an SOE modifier.

Note

The standard CMS claims processing for geographic location, sequestration, and cost-sharing will be applied to episode payments.

Exhibit 15. RO Model episode billing process



Upon submission of a claim with an RO Model-specific HCPCS code and SOE modifier, CMS will make a prospective payment equaling one half of the episode payment for the PC to the Professional participant or Dual participant. CMS will use the existing claims processing systems. For the purpose of the RO Model, CMS will pay for the PC of all included RT services furnished to an RO beneficiary during a 90-day RO episode based on the applicable RO Model-specific HCPCS code labeled "Professional" and the associated trended national base rate. CMS will pay for the TC of all included RT services furnished to an

RO beneficiary during a 90-day RO episode based on the applicable RO Model-specific HCPCS code labeled "Technical" and the associated trended national base rate.

Upon submission of a claim with the same RO Model-specific HCPCS code and the end-of-episode (EOE) modifier (the EOE claim), CMS will pay the second half of the payment. The EOE claim can be submitted as early as Day 28 of the episode as long as the RO participant is certain to the best of their ability that no further included RT services will be required within this 90-day episode. These payments will cover all included RT services needed in the 90-day period.

Note

For both the PC and TC EOE claims, RO participants must use the **same RO Model-specific HCPCS code**—with the V2 modifier—as was used to indicate the SOE.

3.4.2. Professional Participants and Dual Participants

Professional participants and Dual participants must bill an RO Model-specific HCPCS code (Appendix B) with the V1 modifier, indicating the SOE for the PC. As a part of this process, Professional participants and Dual participants include a date of service, which must be the same as (1) the date of the initial treatment planning service and (2) when the RO beneficiary, in consultation with their radiation oncologist, decides to undergo RT for 1 of the 15 included cancer types (see the ICD-10 codes in Appendix D).

CMS will pay the second half of the payment for the PC of the episode at the EOE, when the same RO Model-specific HCPCS code is billed with the V2 modifier, indicating that the episode has ended. Payment for the PC will be made through the Medicare Physician Fee Schedule (MPFS).

3.4.3. Technical Participants and Dual Participants

Note

Dual participants can include the PC and TC RO Model-specific HCPCS codes with the relevant date of service on the same claim.

Technical participants and Dual participants must bill an RO Model-specific HCPCS code with the V1 modifier for the TC, with a date of service that is the same as when the first treatment delivery service was furnished. CMS will pay the second half of the payment for the TC at the end of the episode, when the same RO Model-specific HCPCS code is billed with the V2 modifier, indicating the end of the TC portion of the episode. Payment for the TC will be made through the MPFS or OPPS, depending on whether the RO participant furnishing the TC is a freestanding radiation therapy center or a HOPD.

3.4.4. Encounter-Like (No-Pay) Claims

As part of monitoring and evaluation, RO participants will submit encounter-like (no-pay) claims for all included RT services furnished during each RO episode. Encounter-like (no-pay) claims include all RT services on the list of RO Model Bundled/Packaged HCPCS (Appendix C), as those services are generally furnished and would otherwise be billed under the Medicare FFS systems. CMS will use these data for RO Model evaluation, monitoring, and reconciliation. Encounter-like (no-pay) claims will not be paid because the bundled payments cover included RT services provided during the episode. RO participants can choose to submit encounter-like (no-pay) claims as they go, or they may submit all services on one claim at the end of the episode.

3.4.5. Billing FFS with Modifier

In certain scenarios, an RO participant will bill FFS with a modifier when furnishing included RT services. In these cases, the eligible RT provider or RT supplier will bill FFS using the appropriate code:

- **B1 condition code or GB modifier** for institutional (HOPD) claims for included TC services
- **GB modifier** for professional (Carrier/Supplier) claims for included PC and TC services

The RO participant will be paid FFS for these services as long as the appropriate modifier or condition code is used. The RO Model Billing Guide provides examples of when to bill FFS without initiating an RO episode and more details on billing FFS for each situation when an RO episode has been initiated.

3.4.6. Clean Period

For 28 days following the 90-day episode period, RO participants are eligible to bill RT services as FFS for a given RO beneficiary, before a new episode can be triggered. This is known as the "clean period". Following the 28-day clean period, RO participants are eligible to initiate another episode for the same RO beneficiary if clinically appropriate. CMS will monitor use of services outside of the 90-day episode. Billing FFS for encounter-like (no-pay) claims for included RT services during the clean period does not require the use of any billing modifiers.

3.4.7. Duplicate Services, Incomplete Episodes, and Reconciliation

In calculating the episode payment, CMS includes a one percent incorrect payment withhold, which reserves money for the purpose of reconciling any duplicate RT services and incomplete episodes during reconciliation. Duplicate RT services and incomplete episodes can result in an RO participant earning back only a part of their incorrect payment withhold, or an RO participant may owe CMS.

Duplicate Services

Duplicate services can be (1) any included RT service furnished to a single RO beneficiary by an RO Model eligible RT provider or RT supplier (or both) that did not initiate the PC or TC for that RO beneficiary during the episode, or (2) an RT service furnished to an RO beneficiary by a provider or supplier that does not operate in an included CBSA but otherwise is not excluded from the RO Model.

Incomplete Episodes

Incomplete episodes can occur in four scenarios:

1. The TC is not initiated within 28 days following the Professional participant or Dual participant furnishing an initial treatment planning service to a given RO beneficiary.
2. The RO beneficiary stops meeting any of the eligibility criteria or triggers any of the exclusion criteria before the TC of an episode initiates.
3. Traditional Medicare stops being an RO beneficiary's primary payer before all included RT services in the RO episode have been furnished.
4. The RO beneficiary switches their RT provider or RT supplier before all included RT services in the RO episode have been furnished.

Annual Reconciliation

Reconciliation is the process of calculating reconciliation payments or repayment amounts for incomplete episodes and duplicate RT services, as well as quality reconciliation amounts and stop-loss reconciliation amounts. CMS conducts annual reconciliation for each RO participant for the previous PY to calculate payments due to the RO participant and payments owed to CMS under the withhold policies. The reconciliation process includes a review of incomplete episodes and duplicate RT services and any stop-loss reconciliation amount due, as well as the amount of the quality and patient experience withholds RO participants earn back based on CDE data reporting, reporting and performance on quality measures, and the beneficiary-reported CAHPS® Cancer Care Radiation Therapy Survey.

During annual reconciliation, CMS will review all claims for RT services for each RO beneficiary with dates of service during the 90-day episode to determine if a given episode qualifies as incomplete or if duplicate RT services occurred, as stipulated in the final regulations.

Each RO participant will receive a reconciliation report that provides details underlying whether repayment is due to CMS or a payment is due to the RO participant. RO participants will have 45 days to submit a timely error notice to CMS if they believe there is an error in the reconciliation.

True-Up Reconciliation

True-up reconciliation is the process of calculating additional reconciliation payments or repayment amounts for incomplete episodes and duplicate RT services identified after the initial reconciliation and after a 12-month claims run-out for all RO episodes initiated in the applicable PY. CMS conducts a true-up reconciliation for each PY (Exhibit 16).

Exhibit 16. True-up reconciliation timing

Model PY	Initial reconciliation	Reconciliation true-up
1/1/2022–12/31/2022 (PY1)	August 2023	August 2024
1/1/2023–12/31/2023 (PY2)	August 2024	August 2025
1/1/2024–12/31/2024 (PY3)	August 2025	August 2026
1/1/2025–12/31/2025 (PY4)	August 2026	August 2027
1/1/2026–12/31/2026 (PY5)	August 2027	August 2028

True-up timing addresses the issue of delayed claims for included RT services for RO beneficiaries who are in the middle of a radiation episode. The true-up does not include the quality reconciliation payment amount or the patient experience reconciliation amount.

3.5. Monitoring and Compliance

3.5.1. General Monitoring and Compliance

CMS will monitor RO participants to verify their compliance with RO Model requirements, using audits of claims and services, monitoring by Quality Improvement Organizations (QIOs), and on-site visits and virtual chart reviews. QIO monitoring will assess for quality issues and investigate allegations of patient harm. Monitoring will help CMS understand how RO participants manage services and deliver evidence-based, patient-centered care.

3.5.2. Performance Feedback Data

Starting in PY1, RO participants will receive individual performance feedback data with detailed and actionable information on their performance related to the RO Model. The first performance feedback data RO participants receive will be based on claims data from the baseline period. Subsequent performance feedback data will be based on claims data from the PY, allowing them to compare their performance against their baseline period, and against the performance of other RO participants. As the data become available, the performance feedback data will draw on the CDE data collected through the RO Model Secure Data Portal, quality measure results reported by RO participants, and compliance and monitoring data to furnish information to RO participants on their adherence to evidence-based practice guidelines, quality and patient experience measures, and other quality initiatives. The performance feedback data can drive important conversations and support quality improvement.

3.5.3. RO Model Evaluation

RO participants must cooperate with efforts to conduct an independent evaluation of the RO Model. This could include surveys, interviews, site visits, and other activities needed to conduct a comprehensive evaluation. An annual Evaluation Report will be publicly released for each year of the RO Model. This report will describe the RO Model's impact on quality, expenditures, utilization, RO beneficiary and RO participant experiences with RT services and quality of care, and costs to RO beneficiaries and to Medicare.

3.6. RO Model as an Advanced APM and MIPS APM

3.6.1. Advanced APM

We anticipate that Track One of the RO Model will qualify as an Advanced APM because of the following:

1. Use of CEHRT

Professional participants and Dual participants must use CEHRT and annually certify their use of CEHRT during the model performance period (within 30 days of the start of each PY). This attestation will be completed on ROAP.

2. Payment based on quality measures

Payment under the RO Model is based on MIPS-comparable quality measures. Specifically, RO participants will have their payment amount adjusted by the two percent quality withhold, with the chance of earning back some or all of that amount based on their AQS.

3. Financial risk

RO Model payments are subject to the application of the discount factor and the quality withhold. RO participants are also responsible for 100 percent of all expenditures in excess of the expected amount of expenditures beyond those covered by the RO participant-specific professional or technical episode payment, with the exception of RO participants that qualify for the stop-loss policy.

3.6.2. MIPS APM

We anticipate that Tracks One and Two of the RO Model also will qualify as a MIPS APM because (1) it meets the quality measure and cost and utilization requirement, via application of the quality withhold, and (2) it uses the AQS and applies it to the quality withhold.

3.6.3. Track One, Track Two, and Track Three

CMS will use the IPL that RO participants attest to by the last QP determination snapshot date in each PY to make QP determinations, and to identify MIPS-eligible practitioners who may be scored as APM participants for MIPS.

As noted in the CY 2022 OPPS/ASC final rule, CMS has included three tracks of RO participants as it relates to QPP: "Track One", "Track Two", and "Track Three".

- **Track One**: Advanced APM and MIPS APM track which includes Professional participants and Dual participants that meet all the RO Model requirements, including use of CEHRT.
  - Track One participants are eligible for a QP determination based on their inclusion on the RO Model Participation List for Track One as provided in § 414.1425. If eligible clinicians who are in Track One do not meet the thresholds to become QPs, they can report to MIPS using reporting options applicable to MIPS APM participants as specified at § 414.1367.
- **Track Two**: MIPS APM track which includes Professional participants and Dual participants who meet the RO Model requirements, excluding use of CEHRT.
  - Track Two includes RO participants that do not meet the RO Model requirement regarding the use of CEHRT, and therefore we will not make QP determinations for these eligible clinicians on the RO Model Participation List for Track Two.
- **Track Three**: APM track which includes Professional participants and Dual participants who fail to meet one or more of the RO Model requirements, and all Technical participants.
  - Track Three includes RO participants that do not meet RO Model requirements and therefore we will not make QP determinations for these eligible clinicians on the RO Model Participation List for Track Three.

Note

The QP threshold is a payment amount or patient count that determines QP status.

Further information on QP thresholds can be found on CMS' Advanced APMs website: **https://qpp.cms.gov/apms/advanced-apms**

If RO participants in Track Two meet the CEHRT use requirements by the last QP determination snapshot date, they will be moved to Track One and considered to be participating in an Advanced APM, provided they meet all other RO Model requirements.

4. Resources to Support Implementation of the RO Model

4.1. RO Model ID

The first step RO participants should take is to call or email the RO Model Help Desk to receive their RO Model ID.

> **Help Desk**
>
> RO participants are encouraged to contact the Help Desk to receive RO Model ID(s) at 1-844-711-2664 (Option 5) or at RadiationTherapy@cms.hhs.gov.

RO participants must provide their 9-digit TIN if they are a PGP or freestanding radiation therapy center, or their six-digit CCN if they are an HOPD to be able to retrieve their RO Model ID from the Help Desk. It must be the TIN that the entity bills Medicare under. Please note that RO participants may provide their CCN by email, but RO participants must not communicate TINs via email as this is considered PII.

RO participants will also need to supply the first name, last name, and email address of a Primary Point of Contact (PPOC). For security purposes, CMS needs to preload this PPOC information for every RO participant into each RO Model-specific data portal. To register for any of these portals, RO participants will need to use this same information along with their RO Model ID and CCN or TIN.

The RO Model ID is critical; it is what will give RO participants the ability to log into the three RO Model portals: ROAP, RO Secure Data Portal and RO Connect. See more detail on these portals below. If an RO participant does not ascertain their RO Model ID, by default they will not be able to meet certain RO Model requirements or submit quality measure and CDE data, which determines the portion of the quality and patient experience withholds that they may earn back.

4.2. RO Model Portals

There are three portals that every RO participant will use: ROAP, the RO Model Secure Data Portal, and RO Connect.

> **RO Model Portal Overview**
>
> See the RO Model Portal Overview for more information on the three portals: https://innovation.cms.gov/media/document/ro-model-portal-overview-2021.

1. ROAP

RO participants will use ROAP to update their profile, download and submit DRA forms, submit attestations (for CEHRT and PSOs), access reports (such as compliance, performance, and reconciliation reports), and more. RO participant legal contacts may download and submit a DRA form via ROAP to receive different types of files from CMS, including certain RO beneficiary line-level claims data, episode-level data, and RO participant-level data so long as the RO participant uses such data for care coordination and quality improvement purposes.

2. RO Model Secure Data Portal

RO participants will use the RO Model Secure Data Portal to securely submit their CDE and quality measure data and receive requested CMS claims data. The RO Model Secure Data Portal differs from ROAP in that it gives the Innovation Center a secure way to share sensitive data with RO participants and enables RO participants a secure way to submit CDE data linked to RO beneficiaries identified by their Medicare Beneficiary Identifier.

3. RO Connect

Finally, RO participants will use RO Connect to collaborate with other RO participants, access educational materials, and view a calendar of upcoming activities. In time, all RO Model resources will be housed in the RO Connect Resource Library. Please note, if you would like an answer from the RO Model Team as opposed to your peers, you should submit your question to the RO Model Help Desk.

4.3. RO Model Learning System

The RO Model learning system is designed to help RO participants implement and optimize the RO Model by:

- Helping RO participants furnish high-quality care for RO beneficiaries
- Identifying the requirements for successful RO Model execution
- Gathering and spreading innovative practices that reduce costs and improve quality

The RO Model learning system team holds learning events, including webinars and office hours; produces written products such as this guide; and provides implementation support through RO Connect.

The RO Model learning system team shares information about upcoming events and written resources through email blasts (eblasts), RO Connect posts, and the bimonthly RO Model Newsletter. The Index of Resources lists all past events and resources, including webinar slides and transcripts, and can be found on RO Connect via the search term "Index of Resources".

Index of Resources

RO participants can find all past RO Model events and resources using the Index of Resources. Access the Index on RO Connect by searching for "Index of Resources".

5. Further Information

As described previously, this Implementation Guide consolidates key information and strategies for RO participants, with the goal of helping them successfully implement the RO Model. For questions about the RO Model beyond what is covered in this guide or for access to resources, RO participants may contact the Help Desk at 1-844-711-2664 (Option 5) or at RadiationTherapy@cms.hhs.gov. The Help Desk is open Monday through Friday, 8:30 a.m. to 7:30 p.m. ET, except on federal holidays.

Appendix A: Acronyms

Acronym	Definition
AHRQ	Agency for Healthcare Research and Quality
APM	Alternative Payment Model
AQS	aggregate quality score
ASC	ambulatory surgical centers
CAH	critical access hospital
CAHPS®	Consumer Assessment of Healthcare Providers and Systems
CBSA	Core-Based Statistical Area
CCN	CMS Certification Number
CDE	Clinical Data Element
CEHRT	certified electronic health record technology
CHART	Community Health Access and Rural Transformation
CMMI	Center for Medicare & Medicaid Innovation (the Innovation Center)
CMS	Centers for Medicare & Medicaid Services
CNS	central nervous system
CY	Calendar Year
DRA	Data Request and Attestation
HER	electronic health record
EOE	end-of-episode
EUC	extreme and uncontrollable circumstance
FFS	fee-for-service
HCPCS	Healthcare Common Procedure Coding System
HHS	U.S. Department of Health and Human Services
HOPD	hospital outpatient department
HUD	U.S. Department of Housing and Urban Development
ICD-10	International Statistical Classification of Diseases and Related Health Problems, 10th Revision
IPL	Individual Practitioner List
MACRA	Medicare Access and CHIP Reauthorization Act
MBI	Medicare Beneficiary Identifier
MIPS	Merit-Based Incentive Payment System
MPFS	Medicare Physician Fee Schedule
NPI	National Provider Identifier
OPPS	Outpatient Prospective Payment System
PARHM	Pennsylvania Rural Health Model
PC	professional component
PCH	PPS-exempt cancer hospital
PFS	physician fee schedule
PGP	physician group practice
PHE	public health emergency

Acronym	Definition
PPS	Prospective Payment System
PSO	patient safety organization
PY	performance year
QP	Qualifying APM Participant
QPP	Quality Payment Program
RO	radiation oncology
RO Model	Radiation Oncology Model
ROAP	Radiation Oncology Administrative Portal
RT	radiotherapy
SOE	start-of-episode
TC	technical component
TIN	taxpayer identification number
USPS	United States Postal Service

Appendix B: RO Model-Specific HCPCS Codes

Assigned HCPCS G-Code	Professional or Technical	Short Descriptor
M1072	Professional	ROM Rad Therapy Anal, PC
M1073	Technical	ROM Rad Therapy Anal, TC
M1074	Professional	ROM Rad Therapy Bladder, PC
M1075	Technical	ROM Rad Therapy Bladder, TC
M1076	Professional	ROM Rad Ther Bone Mets, PC
M1077	Technical	ROM Rad Ther Bone Mets, TC
M1078	Professional	ROM Rad Ther Brain Mets, PC
M1079	Technical	ROM Rad Ther Brain Mets, TC
M1080	Professional	ROM Rad Therapy Breast, PC
M1081	Technical	ROM Rad Therapy Breast, TC
M1082	Professional	ROM Rad Therapy Cervical, PC
M1083	Technical	ROM Rad Therapy Cervical, TC
M1084	Professional	ROM Rad Therapy CNS, PC
M1085	Technical	ROM Rad Therapy CNS, TC
M1086	Professional	ROM Rad Ther Colorectal, PC
M1087	Technical	ROM Rad Ther Colorectal, TC
M1088	Professional	ROM Rad Ther Head/Neck, PC
M1089	Technical	ROM Rad Ther Head/Neck, TC
M1094	Professional	ROM Rad Therapy Lung, PC
M1095	Technical	ROM Rad Therapy Lung, TC
M1096	Professional	ROM Rad Therapy Lymphoma, PC
M1097	Technical	ROM Rad Therapy Lymphoma, TC
M1098	Professional	ROM Rad Therapy Pancreas, PC
M1099	Technical	ROM Rad Therapy Pancreas, TC
M1100	Professional	ROM Rad Therapy Prostate, PC
M1101	Technical	ROM Rad Therapy Prostate, TC
M1102	Professional	ROM Rad Therapy GI, PC
M1103	Technical	ROM Rad Therapy GI, TC
M1104	Professional	ROM Rad Therapy Uterus, PC
M1105	Technical	ROM Rad Therapy Uterus, TC

Appendix C: List of RO Model Bundled/Packaged HCPCS

HCPCS	HCPCS Description	Category
77014	Computed tomography guidance for placement of	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77021	Magnetic resonance guidance for needle placement	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77261	Radiation therapy planning	Treatment Planning
77262	Radiation therapy planning	Treatment Planning
77263	Radiation therapy planning	Treatment Planning
77280	Set radiation therapy field	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77285	Set radiation therapy field	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77290	Set radiation therapy field	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77293	Respirator motion mgmt simul	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77295	3-d radiotherapy plan	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77299	Radiation therapy planning	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77300	Radiation therapy dose plan	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77301	Radiotherapy dose plan imrt	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77306	Telethx isodose plan simple	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77307	Telethx isodose plan cplx	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77321	Special teletx port plan	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77331	Special radiation dosimetry	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77332	Radiation treatment aid(s)	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77333	Radiation treatment aid(s)	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77334	Radiation treatment aid(s)	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77336	Radiation physics consult	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77338	Design mlc device for imrt	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77370	Radiation physics consult	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77371	Srs multisource	Radiation Treatment Delivery

HCPCS	HCPCS Description	Category
77372	Srs linear based	Radiation Treatment Delivery
77373	Sbrt delivery	Radiation Treatment Delivery
77385	Ntsty modul rad tx dlvr smpl	Radiation Treatment Delivery
77386	Ntsty modul rad tx dlvr cplx	Radiation Treatment Delivery
77399	External radiation dosimetry	Medical Radiation Physics, Dosimetry, Treatment Devices, Special Services
77402	Radiation treatment delivery	Radiation Treatment Delivery
77407	Radiation treatment delivery	Radiation Treatment Delivery
77412	Radiation treatment delivery	Radiation Treatment Delivery
77417	Radiology port images(s)	Radiation Treatment Delivery (Guidance)
77427	Radiation tx management x5	Treatment Management
77431	Radiation therapy management	Treatment Management
77432	Stereotactic radiation trmt	Treatment Management
77435	Sbrt management	Treatment Management
77470	Special radiation treatment	Treatment Management
77499	Radiation therapy management	Treatment Management
77520	Proton trmt simple w/o comp	Radiation Treatment Delivery
77522	Proton trmt simple w/comp	Radiation Treatment Delivery
77523	Proton trmt intermediate	Radiation Treatment Delivery
77525	Proton treatment complex	Radiation Treatment Delivery
G0339	Robot lin-radsurg com, first	Radiation Treatment Delivery
G0340	Robt lin-radsurg fractx 2-5	Radiation Treatment Delivery
G6001	Echo guidance radiotherapy	Radiation Treatment Delivery (Guidance)
G6002	Stereoscopic x-ray guidance	Radiation Treatment Delivery (Guidance)
G6003	Radiation treatment delivery	Radiation Treatment Delivery
G6004	Radiation treatment delivery	Radiation Treatment Delivery
G6005	Radiation treatment delivery	Radiation Treatment Delivery
G6006	Radiation treatment delivery	Radiation Treatment Delivery
G6007	Radiation treatment delivery	Radiation Treatment Delivery
G6008	Radiation treatment delivery	Radiation Treatment Delivery
G6009	Radiation treatment delivery	Radiation Treatment Delivery
G6010	Radiation treatment delivery	Radiation Treatment Delivery
G6011	Radiation treatment delivery	Radiation Treatment Delivery
G6012	Radiation treatment delivery	Radiation Treatment Delivery
G6013	Radiation treatment delivery	Radiation Treatment Delivery
G6014	Radiation treatment delivery	Radiation Treatment Delivery
G6015	Radiation tx delivery imrt	Radiation Treatment Delivery
G6016	Delivery comp imrt	Radiation Treatment Delivery
G6017	Intrafraction track motion	Radiation Treatment Delivery (Guidance)

Appendix D: Included 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	C79.3x
Breast Cancer	C50.xx, D05.xx
Cervical Cancer	C53.xx
CNS Tumors	C70.xx, C71.xx, C72.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.xx, 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, C91.4x
Pancreatic Cancer	C25.xx
Prostate Cancer	C61.xx
Upper GI Cancer	C15.xx, C16.xx, C17.xx
Uterine Cancer	C54.xx, C55.xx