This Policy applies to all SECUR affiliates, associates, and subsidiaries.

Approved by Courtney Gonzales, Director of Health Services on behalf of the Utilization Management Committee.

PURPOSE

This coverage determination guideline serves to address radiation therapies including intensity modulated radiation therapy (IMRT), a form of three-dimensional radiation therapy that changes the intensity of radiation within different parts of single radiation beams while the treatment is delivered. This treatment can be utilized to simultaneously treat multiple areas within the target to different dose levels and is most commonly delivered utilizing 5, 7, or 9 treatment beams from different directions, with each field being from a stationary direction. This is especially useful in treatment of targets positioned near other normal tissue needing minimal exposure.

Image-guided radiation therapy (IGRT) uses imaging to maximize accuracy and precision throughout the process of full treatment deliver, not just during treatment planning and is applicable to highly conformal treatment modalities such as
IMRT. It is often used in conjunction with IMRT. Marked obesity with deep tumors in the abdomen, pelvis, or mediastinum may require IGRT. IGRT is typically used with tumors in areas that move such as the lungs, liver, pancreas, cervix, and prostate.

For SECUR Health Plan members, National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) will be applied to requests when applicable. SECUR Health Plan Coverage Determination Guidelines (CDG) will be utilized in the absence of an appropriate NCD and/or LCD.

DEFINITIONS

None

ASSOCIATED POLICIES/COVERAGE DETERMINATION GUIDELINES

Stereotactic Radiation Therapy (CDG-018)

POLICY

SECUR Health Plan recognizes that inverse treatment planning is used for IMRT and involves multiple steps.

1. Imaging: three-dimensional image acquisition of the target area by stimulation using computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET), or similar image fusion technology is done. Usually, CT images will serve as the baseline image for dose calculations. With IMRT when respiratory or organ motion is expected during radiation delivery, multi-phasic treatment planning imaging may also be required.
2. Contouring: completed in multiple steps to define the target and avoidance, the radiation oncologist reviews the three-dimensional images and outlines the treatment target on each image slice. The sum of these contours equals the gross tumor volume (GTV). A margin may also be drawn around the GTV to

also include areas at risk for microscopic disease. This is the clinical target volume (CTV). To account for daily patient set-up variation and motion issues, a final may be added to create a planning target volume (PTV). Any combination of these volumes may be contoured depending on the clinical scenario and treatment intent. Proximate normal structures that could be harmed (OARs) may also be contoured.

3. Prescription: the radiation oncologist prescribes specific radiation doses and the dose must be given to at least 90-95% of the PTV.
4. Dosimetric Planning, Calculations, and Verification: the physicist or supervised dosimetrist will calculate a multiple static beam and/or modulated arc treatment plan to deliver the prescribed radiation doses to the PTV and also meet OAR dose constraints. The distinguishing feature of IMRT plans is that they demonstrate how treatment with non-uniform beam intensities will be delivered.

SECUR Health Plan considers IMRT as medically necessary when highly conformal dose planning is required to spare normal surrounding tissue as a specific clinical benefit to that individual member. Disease sites that may support the use of IMRT include the following:

- Primary, metastatic, or benign tumors of the central nervous system (CNS) including the brain, brain stem, and spinal cord
- Primary or metastatic tumors of the spine where the spinal cord tolerance may be exceeded with conventional treatment or where the spinal cord has been previously irradiated
- Primary, metastatic, benign, or recurrent head and neck malignancies, with treatment directly impacting the orbits, paranasal sinuses, skull base, aero-digestive tract-nasopharynx, oropharynx, hypopharynx, and larynx/glottic areas, salivary glands, oral cavity, and/or nasal cavity
- Thoracic malignancies
- Abdominal malignancies when dose constraints to small bowel or other normal abdominal tissue are exceeded
- Pelvic malignancies including prostatic, gynecologic, and anal carcinomas
- Other pelvic or retroperitoneal malignancies
- Reirradiation that meets the requirements for medical necessity

Documentation of the medical necessity for each unique, individual member is crucial for allowing coverage and must include the following:

1. Specific diagnosis and target volume requiring IMRT; the total dose and dose per fraction
2. Type of treatment planning utilized must be specified
3. Specific prior history of an RT related to site and total dose
4. Narrative statement documenting the special need for IMRT rather than conventional or three-dimensional RT relating to the individual specific member

Medical necessity documentation should include one or more of the following:

- Immediately adjacent area has been previously irradiated and highly precise planning is needed for current therapy with abutting portals
- Dose escalation is planned to deliver radiation doses exceeding those commonly used for similar tumors with conventional treatment
- Target volume is concave or convex, and the critical normal tissues are within or around convexity or concavity
- Target volume is very close to critical structures that must be protected
- Volume of interest must be covered with narrow margins to adequately protect immediately adjacent structures

With claimed delivery of prescribed IMRT, an easily identified, authenticated dose prescription must be present along with clearly labeled, color comparative treatment plans which include the dose volume histograms.

Other malignancies, not identified above as potentially covered, may be considered for coverage with submission of documentation for medical necessity.

SECUR Health Plan considers IMRT as not medically necessary when at least one of the above criteria relating to medical necessity are not provided in supporting documentation. Additionally, the following would not typically support the use of IMRT:

1. Conventional or CRT techniques can deliver good clinical outcomes and low toxicity
2. Clinically urgent scenarios such as spinal cord compression, superior vena cava syndrome, or airway obstruction
3. Palliative treatment for metastatic disease where the prescribed dose does not approach normal tissue tolerances
4. Inability to allow for organ motion such as a mobile lung tumor
5. Member cannot cooperate and/or tolerate immobilization to achieve accurate and reproducible delivery of doses

IMRT used in conjunction with proton beam RT is not considered medically necessary as there is insufficient evidence to support efficacy.

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