

Low-Dose Radiotherapy for Non-Oncologic Indications

DESCRIPTION

Low-dose radiation therapy (LDRT) for non-oncologic indications is a non-invasive treatment modality that uses radiation at lower doses than traditional cancer radiotherapy. Targeted LDRT is proposed to modulate cellular processes in benign conditions by leveraging radiation's anti-inflammatory and anti-proliferative effects to inhibit abnormal tissue growth and remodeling after conventional therapies have failed.

POLICY

- Adjuvant low-dose radiotherapy is considered **medically necessary** if the medical appropriateness criteria are met. (See Medical Appropriateness below.)
- Low-dose radiotherapy for the treatment of other conditions/diseases, including, but not limited to, osteoarthritis and plantar fasciitis is considered **investigational**.

MEDICAL APPROPRIATENESS

- Adjuvant low-dose radiotherapy is considered **medically appropriate** if **ANY ONE** the following are met:
 - Prevention of heterotopic ossification if **ALL** of the following are met:
 - Low-dose radiotherapy will be performed following surgery
 - Individual is at high risk for the development of heterotopic ossification if **ANY ONE** of the following are met:
 - Age over 65 years
 - Arthroplasty of the hip, knee, elbow, and shoulder
 - Deep vein thrombosis
 - Diffuse idiopathic skeletal hyperostosis
 - Long bone fractures
 - Male gender
 - Paget's disease
 - Pre-existing rheumatologic conditions such as ankylosing spondylitis
 - Pressure ulcers
 - Prior episodes of heterotopic ossification
 - Prior injury to the same area
 - Severity of injury
 - Spasticity
 - Spinal canal stenosis
 - Traumatic brain injury
 - Treatment of keloids if **ALL** of the following are met:
 - Low-dose radiotherapy will be performed following surgical excision of keloids
 - Evidence of impaired function due to keloids as evidenced by **ANY ONE** of the following:
 - Keloids near eyes, mouth, or ears that impede vision, speech, facial expressions, communication, respiration, eating, or swallowing
 - Keloids on the trunk or extremities limiting range of motion or manual dexterity
 - Keloid formation that distorts nearby body parts
 - Keloids that cause physical, social, or psychological impairment
 - Keloids that cause chronic pain or intractable pruritus



Medical Policy Manual

Approved New: Do Not Implement Until 4/30/25

- Keloids that compromise skin integrity
- Keloids treated as part of a comprehensive reconstructive plan following cutaneous trauma
- Prevention of keloid recurrence if **ALL** of the following are met:
 - Treatment begins immediately post-surgery to 48 hours post-surgery
 - Total radiation dose ranges from 7 Gray (Gy) to 20 Gy
 - Radiation is delivered as **ANY ONE** of the following:
 - As a single dose
 - Up to 4 fractions daily
 - Up to 4 fractions weekly

IMPORTANT REMINDERS

- Any specific products referenced in this policy are just examples and are intended for illustrative purposes only. It is not intended to be a recommendation of one product over another and is not intended to represent a complete listing of all products available. These examples are contained in the parenthetical e.g., statement.
- We develop Medical Policies to provide guidance to Members and Providers. This Medical Policy relates only to the services or supplies described in it. The existence of a Medical Policy is not an authorization, certification, explanation of benefits or a contract for the service (or supply) that is referenced in the Medical Policy. For a determination of the benefits that a member is entitled to receive under his or her health plan, the Member's health plan must be reviewed. If there is a conflict between the medical policy and a health plan or government program (e.g., TennCare), the express terms of the health plan or government program will govern.

SOURCES

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EFFECTIVE DATE 4/30/2025

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