

**EFFECTIVE DATE:** 08|01|2008

**POLICY LAST UPDATED:** 04|02|2020

## OVERVIEW

Local hyperthermia for treatment of cancer consists of the use of heat to make tumors more susceptible to cancer therapy measures. Whole-body hyperthermia requires the patient to be placed under either general anesthesia or deep sedation.

## MEDICAL CRITERIA

Not applicable

## PRIOR AUTHORIZATION

Not applicable

## POLICY STATEMENT

### BlueCHiP for Medicare and Commercial Products

Local hyperthermia therapy may be considered medically necessary when used in combination with radiation therapy for the treatment of patients with primary or metastatic cutaneous or subcutaneous superficial tumors.

Local hyperthermia is not covered for BlueCHiP for Medicare and not medically necessary for Commercial products when used alone or in combination with chemotherapy.

Whole-body hyperthermia therapy is not covered for BlueCHiP for Medicare and not medically necessary for Commercial products as there is insufficient peer-reviewed literature that demonstrates that the procedure is effective.

## COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage or Subscriber Agreement for the applicable radiation therapy benefits/coverage.

## BACKGROUND

Hyperthermia is a type of cancer treatment in which body tissue is exposed to high temperatures (up to 113°F) to damage and kill cancer cells. Hyperthermia can be administered using local and whole-body techniques.

Local hyperthermia entails elevating the temperature of superficial or subcutaneous tumors while sparing surrounding normal tissue, using either external or interstitial modalities. Local hyperthermia therapy may be considered medically necessary when used in combination with radiation therapy for the treatment of patients with primary or metastatic cutaneous or subcutaneous superficial tumors. Local hyperthermia is considered not medically necessary when used alone or in combination with chemotherapy.

Whole-body hyperthermia requires the patient to be placed under either general anesthesia or deep sedation. The patient's body temperature is increased to 108°F by packing the patient in heated (hot water) blankets. The elevated body temperature is maintained for a period of 4 hours, while the essential body functions are closely monitored. Approximately 1 hour is required for a "cooling off" period, after which the patient is constantly observed for a minimum of 12 hours. This modality has been variously termed "systemic thermotherapy" or "whole-body hyperthermia." Whole-body hyperthermia therapy is considered not

medically necessary. There are inadequate data to permit scientific conclusions regarding the use of whole-body hyperthermia as an adjunct to either radiation or chemotherapy, and inadequate data regarding the use of local hyperthermia in conjunction with chemotherapy alone.

## **CODING**

### **BlueCHiP for Medicare and Commercial Products**

The following codes are covered for local hyperthermia if medically necessary:

**77600** Hyperthermia, externally generated; superficial (ie, heating to a depth of 4 cm or less)

**77610** Hyperthermia generated by interstitial probe(s); 5 or fewer interstitial applicators

**77615** Hyperthermia generated by interstitial probe(s); more than 5 interstitial applicators

The following codes are not covered for BlueCHiP for Medicare and not medically necessary for Commercial products as there are inadequate data to permit scientific conclusions regarding its efficacy:

**77605** Hyperthermia, externally generated; deep (ie, heating to depths greater than 4 cm)

**77620** Hyperthermia generated by intracavitary probe(s)

There is no specific CPT procedure code for whole-body hyperthermia. To report use an unlisted code.

## **RELATED POLICIES**

Not applicable

## **PUBLISHED**

Provider Update, June 2020

Provider Update, September 2019

Provider Update, November 2018

Provider Update, September 2017

Provider Update, December 2016

Provider Update, December 2015

Provider Update, January 2015

Provider Update, May 2013

## **REFERENCES**

1. Centers for Medicare and Medicaid Services. Medicare Coverage Database: *NCD for Hyperthermia for Treatment of Cancer (110.1)*.  
<https://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=66&ncdver=1&bc=AgAAgAAAAAAAAAA%3d%3d&>
2. American Cancer Society: Making Treatment Decisions; Hyperthermia.
3. Overgaard J, Gonzalez Gonzalez D, Hulshof MC et al. Randomised trial of hyperthermia as adjuvant to radiotherapy for recurrent or metastatic malignant melanoma. *European Society for Hyperthermic Oncology. Lancet* 1995;345(8949):540-3.
4. Perez CA, Pajak T, Emami B et al. Randomized phase III study comparing irradiation and hyperthermia with irradiation alone in superficial measurable tumors. Final report by the Radiation Therapy Oncology Group. *Am J Clin Oncol* 1991;14(2):133-41.
5. Vernon CC, Hand JW, Field SB et al. Radiotherapy with or without hyperthermia in the treatment of superficial localized breast cancer: results from five randomized controlled trials. *International Collaborative Hyperthermia Group. Int J Radiat Oncol Biol Phys* 1996;35(4):731-44.
6. Emami B, Scott C, Perez CA et al. Phase III study of interstitial thermoradiotherapy compared with interstitial radiotherapy alone in the treatment of recurrent or persistent human tumors. A prospectively controlled randomized study by the Radiation Therapy Group. *Int J Radiat Oncol Biol Phys* 1996;34(5):1097-04.
7. Emami B, Stauffer P, Dewhirst M et al. RTOG quality assurance guidelines for interstitial hyperthermia. *Int J Radiat Oncol Biol Phys* 1991;20(5):1117-24.
8. Sherar M, Liu FF, Pintilie M et al. Relationship between thermal dose and outcome in

thermoradiotherapy treatments for superficial recurrences of breast cancer: data from a phase III trial. *Int J Radiat Oncol Biol Phys* 1997;39(2):371-80.

9. Robins HI, Rushing D, Kutz M et al. Phase I clinical trial of melphalan and 41.8 degrees C whole-body hyperthermia in cancer patients. *J Clin Oncol* 1997;15(1):158-64.

10. Mittal BB, Zimmer MA, Sathiaseelan V et al. Phase I/II trial of combined 131I anti-CEA monoclonal antibody and hyperthermia in patients with advanced colorectal adenocarcinoma. *Cancer* 1996;78(9):1861-70.

11. Wiedemann GJ, Robins HI, Gutsche S et al. Ifosfamide, carboplatin and etoposide (ICE) combined with 41.8 degrees C whole body hyperthermia in patients with refractory sarcoma. *Eur J Cancer* 1996;32A(5):888-92.

**CLICK THE ENVELOPE ICON BELOW TO SUBMIT COMMENTS**

This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member's subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.

