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| <b>National Imaging Associates, Inc.</b>          |  |
| <b>Clinical guideline:<br/>METASTATIC DISEASE</b> | <b>Original Date: November 2013</b>      |
| <b>CPT Codes:<br/>All Treatment Modalities</b>    | <b>Last Revised Date: April 2019</b>     |
| <b>Guideline Number: NIA_CG_228</b>               | <b>Implementation Date: January 2020</b> |

#### INDICATIONS FOR THE TREATMENT OF METASTASIS:

**BRAIN:** For metastasis to the brain, regardless of primary site, refer to the NIA clinical guideline for Central Nervous System (CNS).

**BONE:** For metastasis to bone, refer to the NIA clinical guideline for bone metastases.

**ALL OTHER SITES:** For metastasis to any other site other than brain or bone:

- Conventional 2D and 3D-CRT treatment delivery is appropriate for all other secondary malignancies up to ten (10) fractions (NCCN, 2019).
  - Treatment beyond ten fractions for 2D-3D-CRT requires physician review and a clinical rationale for additional fractions.

#### TREATMENT OPTIONS REQUIRING PHYSICIAN REVIEW

- **IMRT** is not indicated for treatment of metastasis except for limited circumstances in which radiation therapy is indicated and 3D conformal radiation therapy (3D-CRT) techniques cannot adequately deliver the radiation prescription without exceeding normal tissue radiation tolerance, the delivery is anticipated to contribute to potential late toxicity or tumor volume dose heterogeneity is such that unacceptable hot or cold spots are created. If IMRT is utilized, techniques to account for respiratory motion should be performed when appropriate.
  - Clinical rationale and documentation for performing IMRT rather than 2D or 3D-CRT treatment planning and delivery will need to:
    - Demonstrate how 3D-CRT isodose planning cannot produce a satisfactory treatment plan (as stated above) via the use of patient specific dose volume histograms and isodose plans. 3D-CRT techniques such as step-and-shoot or field-in-field should be considered for the comparison.
    - Confirm the IMRT requested will be inversely planned (forward plans or 'field-in-field' plans are not considered IMRT).
- **Selective Internal Radiation Therapy (SIRT)**, also known as radioembolization with microsphere brachytherapy device (RMBD) and transarterial radioembolization uses microscopic radioactive spheres to deliver radiation to the tumor site. Treatment is delivered through catheter injection of radioactive Yttrium-90 (90Y) microspheres into the hepatic artery. Indications for SIRT include: (ACR, 2015; Wang, 2018)
  - Unresectable metastatic liver tumors

- Unresectable metastatic liver tumors from primary colorectal cancer
  - Unresectable primary hepatocellular carcinoma
  - Unresectable neuroendocrine tumors
- All other treatment approaches require physician review with presentation of clinical rationale and documentation for the proposed treatment modality and plan.

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**POLICY HISTORY:**

**Review Date:** February 2019

**Review Summary:** Added and updated references

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Reviewed / Approved by  Patrick Browning, VP, Medical Director

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