National Imaging Associates, Inc.*	
Clinical guideline: **INTRAOPERATIVE RADIATION THERAPY (IORT)**	**Original Date: November 2013**
CPT Codes: 77424, 77425	**Last Revised Date: January 2022**
Guideline Number: NIA_CG_226	**Implementation Date: January 2023**

INDICATIONS FOR IORT

Most requests for radiation therapy are addressed by NIA treatment site clinical guidelines. However, there may be requests that are not. For such requests, determinations will be made on a case-by-case basis utilizing the following guidelines (when applicable) but not limited to: National Comprehensive Cancer Network (NCCN), American Society for Radiation Oncology ASTRO (i.e., Model Policies; Evidence-Based Consensus Statement), ACR Appropriateness Criteria, American Society of Clinical Oncology (ASCO) and/or peer reviewed literature.

Breast Cancer: Refer to NIA's clinical guideline on Breast Cancer.

- Single Fraction Electron-beam IORT is considered medically necessary in accordance with ASTRO guidelines[1] if the following criteria are met:
  - Individual is 50 years of age or older with invasive cancer
  - T Stage: Tis or T1
  - Clinically node negative
  - Negative surgical margins

- The use of electronic brachytherapy for IORT (such as Intrabeam, Xoft and Papillon systems) is considered experimental, investigational, and/or unproven.

Cervical Cancer: Refer to NIA's clinical guideline on Cervical Cancer. IORT is indicated for local or regional recurrence of cervical cancer for centralized disease when previous radiation therapy has occurred.[2]

Colon Cancer: Refer to NIA's clinical guideline on Colorectal Cancer. IORT can be used as a boost for recurrent cancer of T4 tumors with penetration/perforation and intermediate/positive margins. IORT can also be used as a boost for recurrent cancer.[3]

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Pancreatic Cancer: Refer to NIA's clinical guideline on Pancreatic Cancer. IORT for pancreatic cancer requires review by a physician and may be reasonable for patients undergoing resection that may result in a closer involved margin.[4]

Rectal Cancer: Refer to NIA's clinical guideline on Colorectal Cancer. IORT is indicated for rectal cancer with positive or close margins for T4 lesions or recurrent disease.[5]

Soft Tissue Sarcoma: IORT (with photons or electrons is considered medically necessary as boost treatment at time of surgery for cervical cancer, colorectal cancer, pancreatic cancer, and soft tissue sarcomas if either of the following criteria is met[6]:

- Tumor has a high risk of recurring; **OR**
- Tumor cannot be completely removed (positive margins)

FREQUENCY OF PROCEDURE:

- A single fraction is allowed during surgery for the above situations.

CONTRAINDICATIONS FOR IORT

IORT is not indicated for any other cancer sites or scenarios other than those listed above, or when the above indications are not met. All other scenarios are considered investigational and not medically necessary.

BACKGROUND

Intraoperative Radiation Therapy (IORT) is a radiation treatment that is administered during surgery. It allows delivery of radiation directly to the target area for cancers that are difficult to remove during surgery or in situations in which there may be microscopic amounts of cancer remaining after removal. IORT delivers higher doses of radiation than can be used in conventional radiation therapy because the doctor can temporarily move nearby organs or shield them from radiation exposure.

IORT is often combined with conventional radiation therapy which is typically given prior to or during surgery.

POLICY HISTORY

Date	Summary
January 2022	No changes
February 2021	No changes
February 2020	Updated References
February 2019	Added and updated references

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ADDITIONAL RESOURCES

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Reviewed / Approved by NIA Clinical Guideline Committee

GENERAL INFORMATION

It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.