



National Imaging Associates, Inc.	
Clinical guidelines PANCREATIC CANCER	Original Date: June 2013
Radiation Oncology	Last Revised Date: April 2019
Guideline Number: NIA_CG_134	Implementation Date: January 2020

INDICATIONS FOR RADIATION THERAPY:

2D and 3D conformal radiation therapy techniques are considered medically necessary for treatment of pancreatic cancer.

Neoadjuvant (Pre- Operative) or Resectable or Borderline Resectable without evidence of metastatic (NCCN, 2019)

- No standard treatment regimen currently exists for this subset of patients. If neoadjuvant radiation therapy is delivered, a dose of 45-54 Gy in 1.8-2.5 Gy fractions or 36 Gy in 2.4 fractions are viable options.

Adjuvant (Post-Operative) Resectable Without Evidence of Metastatic Disease (NCCN, 2019)

- For resected cases (45-46 Gy in 1.8-2 Gy fractions) to the clinical target volume, followed by boost (5-9Gy). Up to 31 fractions.

Unresectable/Locally Advanced Without Evidence of Metastatic Disease (NCCN, 2019)

- Radiation delivered in 45-54 Gy (1.8-2.5 Gy fractions or 36 Gy in 2.4 fractions). Up to 30 fractions.

Palliative (NCCN, 2019)

- Radiation delivered in 25-36 Gy in 2.4-5.0 Gy fractions is usual for patients with metastatic disease who require palliation for obstruction or pain. Up to 15 fractions.

Local Recurrence after Resection without Evidence of Systemic Metastatic Disease

- Adjuvant chemotherapy or chemoradiation if no previous radiation given. Up to 30 fractions. (NCCN, 2019)

TREATMENT OPTIONS REQUIRING PHYSICIAN REVIEW:

Intensity Modulated Radiation Therapy (IMRT)

IMRT is not indicated as a standard treatment option and should not be used routinely for the delivery of radiation therapy for pancreatic cancer. IMRT is strictly defined by the utilization of inverse planning modulation techniques. IMRT may be appropriate 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.

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.
- Provide tissue constraints for both the target and affected critical structures.

Stereotactic Body Radiation Therapy (SBRT) (NCCN, 2019)

Stereotactic Body Radiation Therapy (SBRT) is not currently an approved treatment option for the treatment of pancreatic cancer. Recent studies comparing SBRT conventional radiation therapy are limited. If requested, this would require peer to peer review to determine medical necessity.

Proton Beam Radiation Therapy

Proton beam is not an approved treatment option for pancreatic cancer. Proton beam has not been proven superior treatment to conventional radiation therapy.

Intra Operative Radiation Therapy (IORT)

The role of interoperative radiation therapy for pancreatic cancer is controversial, but may be reasonable for patients undergoing resection that may result in closer involved margins. IORT may be considered on a case by case basis.

BACKGROUND:

Pancreatic cancer typically occurs later in life. Risk factors include smoking, alcohol use, obesity, diabetes, and certain chemical exposures. Pancreatitis has also been shown to have an increased risk of developing pancreatic cancer. Surgical resection is potentially the only curative approach, but most patients present with more advanced stage disease. Overall, the actuarial five-year survival rate is approximately 20%.

The goal of these guidelines is to delineate appropriate indications of the employment of radiation therapy in the treatment of pancreatic cancer and to define suitable methods of delivery of radiation therapy for these indications.

POLICY HISTORY:

Review Date: February 2019

Review Summary: Added and updated references

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