

Canine Cancer Reference Guide for Stereotactic Radiation*

Stereotactic radiation (SRS/SRT) is best considered in cases where there is a clear, anatomically defined treatment target. It often presents a viable option for local therapy when surgical resection is not practical, or when the owner has declined surgical resection. Because of the high dose per fraction delivered, SRS/SRT can also provide highly effective palliation. The recommendations in this reference guide are based on preliminary clinical evidence evaluated by the PetCure Radiation Oncology Specialists (PROS). While this document focuses on key cancers, it does not include all tumors.

Very Strong/Primary Indication

Brain

Excellent option for surgically inaccessible lesions, or cases where owner declines surgery. High efficacy anticipated based on studies in people as well as early PetCure Oncology data.

Osteosarcoma

Indicated as an alternative local therapy to surgical resection, including amputation. Expanding body of veterinary data suggests good efficacy. Systemic therapy needed to address metastasis.

Nasal Tumors

More technologically advanced form of already accepted optimal treatment (radiation therapy). Improved outcomes anticipated because of precisely targeted, high dose therapy.

Spinal/Vertebral Tumors

Excellent treatment option for surgically inaccessible lesions, or cases where owner declines surgery. Outcome will depend in part on expected systemic behavior, with chemotherapy indicated for some tumor types.

Prostatic Carcinoma/Transitional Cell Carcinoma

Local treatment option for disease when surgical resection is not practical. Systemic therapy required to address existing or suspected metastasis.

Neuroendocrine Tumors (Thyroid, Chemodectoma)

Indicated as an alternative local therapy to surgical resection. Expanding body of veterinary data suggests good efficacy. Systemic therapy may be indicated to address metastasis.

Good Indication

Mast Cell Tumor

Although other effective local treatments exist (surgery, conventional radiation), SRS/SRT provides an alternative option for local control. Systemic therapy also indicated for high grade lesions.

Soft Tissue Sarcoma (Excluding Hemangiosarcoma)

Although other effective local treatments exist (surgery, conventional radiation), SRS/SRT provides alternative option for local control. Systemic therapy also indicated for high grade lesions.

Bladder Transitional Cell Carcinoma

Local treatment option for disease when surgical resection is not practical. Target acquisition may be challenging due to bladder motion. Systemic therapy required to address existing or suspected metastasis.

Apocrine Gland Adenocarcinoma of the Anal Sac

Local treatment option for lesions that are difficult to resect, as well as locoregional lymph node metastases. Systemic therapy required to address existing or suspected metastases.

Oral Tumors

Local treatment option for lesions that are difficult to resect or local palliative therapy. Systemic therapy may be required to address existing or suspected metastasis (i.e. melanoma).

Limited/Specialized Indication

Lymphoma

Although individual exceptions occur, canine lymphoma is typically a systemic disease. Benefit from targeted local therapy such as SRS/SRT not expected.

Primary Lung Tumors

SRS/SRT is an emerging local therapy for lung tumors in people.

Although surgical resection is the current standard of care in dogs and cats, ongoing PetCure Oncology clinical trial is assessing efficacy of SRS/SRT for this indication. Early results are encouraging.

Microscopic Residual Disease (Post-Surgery)

Historically not considered due to lack of defined treatment target, but now feasible with use of injectable liquid fiducial marker.

Ongoing PetCure Oncology clinical trial is assessing efficacy of SRS/SRT for this indication, and early results are encouraging.



*The treatment recommendations included in this table are for general reference purposes only. Optimal therapy for an individual animal will vary significantly depending on definitive histopathologic diagnosis, tumor grade, tumor stage, the presence of paraneoplastic syndromes, and concurrent medical conditions, among other factors.

Feline Cancer Reference Guide for Stereotactic Radiation*

Stereotactic radiation (SRS/SRT) is best considered in cases where there is a clear, anatomically defined treatment target. It often presents a viable option for local therapy when surgical resection is not practical, or when the owner has declined surgical resection. Because of the high dose per fraction delivered, SRS/SRT can also provide highly effective palliation. The recommendations in this reference guide are based on preliminary clinical evidence evaluated by the PetCure Radiation Oncology Specialists (PROS). While this document focuses on key cancers, it does not include all tumors.

Very Strong/Primary Indication

Brain

Excellent option for surgically inaccessible lesions, or cases where owner declines surgery. High efficacy anticipated based on studies in people as well as early PetCure Oncology data.

Nasal Tumors

More technologically advanced form of already accepted optimal treatment (radiation therapy). Improved outcomes anticipated because of precisely targeted, high dose therapy. Lymphoma likely to be highly responsive.

Spinal/ Vertebral Tumors

Excellent treatment option for surgically inaccessible lesions, or cases where owner declines surgery. Outcome will depend in part on expected systemic behavior, with chemotherapy indicated for some tumor types. Lymphoma anticipated to be highly responsive.

Lymphoma

Excellent treatment option for anatomically confined disease. Careful evaluation of staging data and histopathology needed to determine indication for adjuvant systemic chemotherapy.

Good Indication

Cutaneous Mast Cell Tumor

Although other effective local treatments exist (surgery, conventional radiation), SRS/SRT provides alternative option for local control. Systemic therapy may be indicated for high grade lesions.

Soft Tissue Sarcoma

Although other effective local treatments exist (surgery, conventional radiation), SRS/SRT provides alternative option for local control. Systemic therapy also indicated for high grade lesions.

Injection Site Sarcoma

May be used as part of aggressive multimodal approach necessary to treat this tumor (local therapy plus adjuvant systemic chemotherapy) when primary lesion is not surgically resectable or owner has declined surgery.

Oral Squamous Cell Carcinoma

Local treatment option for disease when surgical resection is not practical. May also provide palliation. Nutritional support (feeding tube) often needed during period of tumor response.

Limited/Specialized Indication

Primary Lung Tumors

SRS/SRT is an emerging local therapy for lung tumors in people.

Although surgical resection is the current standard of care in dogs and cats, ongoing PetCure Oncology clinical trial is assessing efficacy of SRS/SRT for this indication. Early results are encouraging.

Microscopic Residual Disease (Post-Surgery)

Historically not considered due to lack of defined treatment target, but now feasible with use of injectable liquid fiducial marker.

Ongoing PetCure Oncology clinical trial is assessing efficacy of SRS/SRT for this indication, and early results are encouraging.



*The treatment recommendations included in this table are for general reference purposes only. Optimal therapy for an individual animal will vary significantly depending on definitive histopathologic diagnosis, tumor grade, tumor stage, the presence of paraneoplastic syndromes, and concurrent medical conditions, among other factors.