



Patient Centered Care/Precision Therapies

RSSearch® Patient Registry Newsletter

2020 RSSearch Registry Update

A review of the aggregate data was conducted on patients enrolled in <u>RSSearch Patient Registry</u> between 2005—December 30, 2020. The total number of enrolled cases in RSSearch was 29,363. In 2020, there were 918 new cases enrolled, a slight reduction in the annual number of stereotactic radiosurgery (SRS) and stereotactic body radiotherapy (SBRT) cases enrolled as compared to previous years, however, moving into 2021, the number of new participating centers and case entries continues to rise. COVID-19 certainly has had impact on RSSearch participating centers, with many centers experiencing decreased SRS/SBRT caseload, healthcare providers taking on new clinical roles and providing clinical care on the frontlines, a reduction in resources and data entry personnel, and Institutional Review Boards halting review of non-COVID-19 related protocols. The RSS continues to monitor COVID-19 and its impact on RSSearch participating centers.

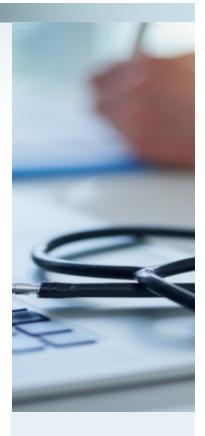
As of December 30, 2020, the most common treatment locations reported in RSSearch were lung/bronchus (28%), brain (21%),spinal cord/cranial nerves/other parts of the central nervous system (17%) and prostate (16%)(Figure 1). Bones and joints and liver ranked 5th and 6th for the most common treatment locations, respectively. Men continue to be enrolled at a slightly higher rate (56%) compared to women (44%).

30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%

Sport Louis Brain Rever Prostate Indirect Lines We interest a keep a section of the particles of the

Figure 1. Top 10 SRS/SBRT Treatment Locations

The most frequent referrals for SRS/SBRT treatments were from medical oncologists (37%) and neurosurgeons (16%), followed by urologists (13%), radiation oncologists (10%), and pulmonologists (8%) making up the top 5 referral sources. A complete analysis of the 15 year trends in SRS/SBRT treatments from RSSearch is currently being prepared for publication.



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Special Points of Interest

- RSSearch is the largest SRS/SBRT dedicated patient registry managed by a non-profit medical professional society.
- Nearly 30,000 cases currently enrolled
- Global participation.
- Accepting new participating centers.
- New Data Import Tool for automated data entry now available. Contact Registry@therss.org

Data Import Tool Now Available

Over the past year, the Radiosurgery Society® (RSS) has made efforts to ensure that centers can continue to participate in RSSearch, implemented new automated tools to minimize the resources needed to report data, maintain high quality data, and promote outcomes analysis to ultimately benefit patient care.

In 2021, we released the Data Import Tool to all our participating centers. The tool allows automated data upload feature with data transfer from an electronic medical record into RSSearch. This feature has been



tested and validated in several of our participating centers and is now available to all RSSearch participating centers.

Please contact registry@therss.org to learn more about the Data Import Tool.

New Research & Clinical Trial Designs



The RSS supports collaborative groups and individuals to develop and share clinical and research protocols for SRS/SBRT and emerging advanced therapies. The <u>Consensus Guidelines for Clinical Trial Design</u> is a new platform for expert groups to post consensus concepts on proposed clinical trial recommendations and solicit review and feedback from the medical, physics and science community through the RSS Public Comment Survey.

The RSS launched the first project in December 2020 focused on the design of clinical trials in Spatially Fractionated Radiation Therapy (SFRT) for head and neck cancer. SFRT using GRID and Lattice therapy, a form of radiation therapy that uses highly non-uniform doses for the treatment of tumors, has shown much promise in early clinical studies for improving tumor control and reducing side effects in bulky advanced cancers. However, prospective multi-institutional clinical trials to investigate this technique further are needed. Feedback from the RSS community during the Open Public Comment Period will be considered in the final clinical trial design.

A second clinical trial on SFRT for sarcoma was posted for open comment in February 2021, again resulting in constructive feedback from the RSS community. Additional Consensus Guidelines focused on other areas of clinical trial design for SFRT for lung and SFRT for gynecological tumors are expected to launch in the coming months with open comment periods to solicit input.

2020 Statistics

29,363

Enrolled Cases

25

Participating Centers

56%

Of cases enrolled are men

28%

Of lesions are located in the lung/

21%

Of cases are located in the brain

16%

Of cases are located in the prostate

37%

Of cases were referred by medical oncologists

16%

Of cases were referred by neurosurgeons

RSSearch® Registry Top 10 Enrolling Centers

- 1. Sir Charles Gairdner Hospital
- 2. St. Anthony's Oklahoma City
- 3. NJ CyberKnife at Community Medical Center
- 4. St. Mary's Medical Center
- 5. Penrose Cancer Center
- 6. Franklin Square Hospital Center, the CyberKnife Center
- 7. St. Francis Hospital (Memphis, TN)
- 8. University of Pennsylvania Hospital
- 9. Riverview Medical
- 10. Southeast Georgia Health System



RSSearch® Research Collaboration

MRI-Linac Consortium to Use RSSearch Patient Registry to Collect and Track MRI-Guided Radiotherapy Treatment Delivery and Outcomes

In August, the RSS announced that the MRI-Guided Linac Consortium will use the RSSearch Patient Registry as a centralized database to collect and track treatment delivery and outcomes of patients treated with MRI-guided radiotherapy.

The MRI-Linac Consortium will be entering prospective and retrospective data on subjects treated with MRI-guided radiotherapy across multiple tumor sites. Combining data from multiple centers will allow the consortium members to analyze the collective data and publish their findings, which will include many of the first patients treated using this MRI-guided radiotherapy.

The Consortium's initial project will focus on gastrointestinal tumors, specifically pancreas and oligometastatic disease, to explore the clinical utility of MRI-guided radiotherapy on these traditionally difficult to treat indications. <u>Click here</u> to read the full press release.



"We are embarking on a unique collaboration with the Radiosurgery Society and ViewRay to advance the science and clinical practice of MRI-guided radiotherapy. The RSSearch Registry provides a comprehensive and flexible system where we can use existing data fields and also customize new ones specific to our study, which will facilitate the analysis of patients treated on MRIdian at various institutions across the globe."

— Michael Chuong, M.D., Director of the MRI-Guided Radiation Therapy Program at Miami Cancer Institute and member of the ViewRay Gastrointestinal Cancer Consortium.

List of RSSearch Registry Publications to Date

For a full list of RSSearch publications, go to www.therss.org/rssearch-patient-registry

- The RSSearch™ Registry: Patterns of Care and Outcomes Research on Patients Treated with Stereotactic Radiosurgery and Stereotactic Body Radiotherapy
- Best of the Radiosurgery Society Scientific Meeting 2014: Stereotactic Radiosurgery / Stereotactic Body Radiotherapy Treatment of Extracranial and Intracranial Lesions
- Stereotactic Body Radiotherapy for Early-stage Non-Small Cell Lung Cancer: Clinical Outcomes from a National Patient Registry
- Stereotactic Body Radiotherapy for Centrally Located Early-stage Non-Small Cell Lung Cancer or Lung Metastases from the RSSearch® Patient Registry
- Stereotactic Radiosurgery for Trigeminal Neuralgia: A Retrospective Multi-Institutional Examination of Treatment Outcomes
- Lung Metastases Treated with Stereotactic Body Radiotherapy: the RSSearch® Patient Registry's Experience
- Clinical Outcomes following Stereotactic Body Radiation Therapy (SBRT) for Non-Resectable Pancreatic Adenocarcinoma
- Participating in an International Stereotactic Radiotherapy Patient Registry: The Establishment of Data Collection Pathways
- Stereotactic Body Radiation Therapy for Stage I Non-Small Cell Lung Cancer: The Importance of Treatment Planning Algorithm and Evaluation of a Tumor Control Probability Model.
- Stereotactic Body Radiotherapy (SBRT) for Liver Metastasis Clinical Outcomes from the International Multi-Institutional RSSearch® Patient Registry
- Salvage Stereotactic Body Radiation Therapy (SBRT) for Locally-Recurrent Previously Irradiated Head and Neck Squamous Cell Carcinoma: What is the Appropriate Dose?
- Stereotactic Radiosurgery and Fractionated Stereotactic Radiosurgery for Vestibular Schwannomas: A Comparison of Clinical Outcomes from the RSSearch Patient Registry
- Clinical Outcomes Following Stereotactic Body Radiation Therapy (SBRT) for Stage I Medically-Inoperable Small-Cell Lung Carcinoma: A Multi-Institutional Analysis from the RSSearch Patient Registry
- Stereotactic Body Radiation Therapy (SBRT) for Metastatic Renal Cell Carcinoma: A Multi-Institutional Experience

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