



Physician

Specialties:
Radiation Oncology

Board Certifications:
Radiation Oncology

**Texas Oncology-South
Austin**

4101 James Casey St.,
Suite 100
Austin, TX 78745
T: 512-447-2202

Metro Area: Austin
Spoken Languages:
English, Spanish

Education

- **Chief Resident in Radiation Oncology**
Barnes-Jewish Hospital of Washington University, St. Louis, MO
- **Residency in Radiation Oncology**
Barnes-Jewish Hospital of Washington University, St. Louis, MO
- **Internship in Internal Medicine**
Barnes-Jewish Hospital of Washington University, St. Louis, MO
- **Medical Doctorate**
Washington University, St. Louis, MO
- **Bachelor of Arts in Economics, Chemistry, Spanish**
Indiana University, Bloomington, IN

Other Information

Dr. Tierney is originally from Indianapolis, though he has studied and lived in St. Louis, Mexico, Australia, and Japan. His interests include biking, watersports, motorsports, fishing, and spending time with his family.

Clinical Skills

Intensity Modulated Radiation Therapy (IMRT)

- Tomotherapy Hi-Art
- Pinnacle
- Eclipse
- CMS treatment planning systems

Image-Guided and Adaptive Radiation Therapy

- Varian Trilogy-based kilovoltage cone-beam CT
- Brain-Lab-based kilovoltage cone-beam CT
- Tomotherapy-based megavoltage CT
- Electronic portal imaging
- PET/MRI/CT to CT fusion

Partial Breast Irradiation

- External beam radiation therapy
- Brachytherapy via interstitial implantation
- SAVI
- MammoSite RTS

Gamma Knife and Linear-Accelerator-Based Radiosurgery

- Gamma Knife radiosurgery
- Elekta Gamma Knife C unit
- Leksell / GammaPlan 5.31 software
- BrainLab
- Trilogy
- Tomotherapy-based extracranial stereotactic radiosurgery
- Elekta Stereotactic Body Frame immobilization device
- BodyFIX immobilization device

Prostate Brachytherapy

- Ultrasound-guided I¹²⁵ permanent seed implants using rapid strand, pre-loaded catheters and MIC applicators
- Varian/VARISEED 7.1 MMS treatment planning software

Respiratory Gating and 4D CT

- Varian Real-Time Position Management (RPM) with both fractionated and radiosurgical techniques
- 4D CT simulation and its use in treatment planning

High Dose Rate (HDR) Brachytherapy

- Placement of intracavitary HDR implants
- Placement of interstitial HDR implants
- Placement of HDR catheters
- Associated 2D, 3D, PET/CT, and MRI-

Clinical Skills

- based treatment planning
- Nucletron treatment planning system
- VariSource treatment planning system

Unsealed Sources

- Bexxar
- Zevalin
- Oral I^{131}
- SR^{89}
- SIRSphere administration
- Sm^{153}

Accolades & Memberships

- Alpha Omega Alpha Medical Honors Society
- Distinguished Alumni Scholar
- Herman B. Wells Scholar
- Austin's Top Doctors, Radiation Oncology, *Austin Monthly* (2021)

Community Service

- Fellow, Barnes-Jewish Hospital Center for Diversity and Cultural Competence (2007-2009)
- Volunteer, La Clinica (2003-2004)
- Board of Directors, Saturday Neighborhood Health Clinic (2002-2003)
- Director, Reproductive Health Education Program (2001-2002)
- Volunteer, Students Teaching AIDS to Students (2001-2002)
- Director of Marketing, Indiana University Dance Marathon (1998-1999)