

Neuro-Oncology

UVA stands at the forefront of care for brain and spinal cord cancers. For the past two decades, we have honed our neuro-oncology program into the strongest in Virginia. Here, we offer patients leading-edge neuro-oncology care, utilizing the latest medical therapies, surgical techniques and imaging technology, combined with a robust, multidisciplinary team approach. The result is unparalleled neuro-oncological care that is saving and extending lives and improving quality of life for brain and spinal cord cancer patients across Virginia.

Our translational research program is a cornerstone of neuro-oncology at UVA. Through our robust clinical trial program, our researchers and physicians are at the forefront of new and novel approaches to cancer treatment and therapy.

From the moment a patient enters our care, we consider all treatment and therapeutic options that may be brought to bear, including any new and novel therapies. This is a differentiator of our neuro-oncology program: we place all relevant options on the table from the very beginning. If a standard treatment is the most appropriate option, we will incorporate that therapy or intervention into the patient's individualized plan of care. If there is a new or novel therapy available that could better meet the patient's needs, we will include it as part of their care plan.

Our neuro-oncology care team includes medical and surgical neuro-oncologists, neuropathologists, neuroradiologists, neuropsychologists, nurses and social workers, all dedicated to neuro-oncology and focused on working together to deliver excellent care for our patients. Open communication is at the heart of this approach. Whether a patient is undergoing initial neuro-oncology treatment, an elective surgery or an urgent add-on surgery, the entire neuro-oncology team is aware of the patient's plan of care and considering all therapeutic options that could be appropriate. We hold regular neuro-oncology tumor boards to discuss patient cases as a team, where our medical and surgical neuro-oncologists collaborate with our neuropathologists, neuroradiologists and radiation oncologists to analyze tumor types and discuss all appropriate approaches to care.

When treating patients with primary and metastatic cancers of the brain and spinal cord, responsiveness is essential. We understand the importance of evaluating patients quickly and are typically able to see patients at our neuro-oncology clinic within one week of referral. We also understand the importance of keeping referring providers up-to-date on their patient's diagnosis and plan of care. We speak regularly with referring providers to keep them informed of their patient's care, and our integrated EpicCare Link system assists in this effort.

Conditions Treated

Our robust, experienced team treats all types of brain and spinal cord tumors, using the latest medications, therapies, techniques and technology.

Glioblastoma

Our neuro-oncologists are well-versed in the challenges of treating this glioma subtype. We consider all available avenues of treatment when assessing a patient diagnosed with a glioblastoma, including standard treatments, surgical resection, and new and novel therapeutics. In some cases, emerging therapies — such as immunotherapy — can increase the return on surgical intervention.

If surgical intervention is indicated, our specialized surgical neuro-oncologists utilize minimally invasive techniques whenever possible, including laser interstitial thermal therapy (LITT), which requires incisions as small as 1 centimeter and no shaving of hair.

In the OR, our neurosurgical oncologists utilize the latest imaging technology, including intraoperative MRI to validate and confirm the extent of resection while the patient is still in the surgical suite. We can couple this technology with the ability to provide awake surgery when prudent for glioblastomas in sensitive areas of the brain.

Brain and Spine Metastases

UVA is home to the Brain Metastases Clinic — the only clinic devoted to brain and spine metastases in the commonwealth of Virginia. This dedicated clinic allows our team to focus on the unique needs of patients with brain and spine metastases. Through this clinic, we are able to offer treatment plans for any type of metastatic issue of the central nervous system.

While traditional approaches to brain metastases centered on surgical intervention, our position at the forefront of new and emerging treatment options

allows us to consider systemic therapies, which can be effective in some cases. These approaches can include medical therapies, such as chemotherapy; radiosurgery through our well-established Gamma Knife Center; and the latest techniques for surgical intervention.

Primary CNS Lymphoma

We bring leading-edge technology to bear in our initial assessment of patients with suspected primary CNS lymphoma, utilizing stereotactic needle biopsies, performed through small incisions, to assist in diagnosis. If a patient's growth is found to be lymphoma, rather than glioblastoma, our team of neuro-oncologists create a coordinated plan of care based upon immunochemotherapy, taking into consideration all appropriate medical therapies.

Meningiomas/Schwannomas

We are a tertiary referral center for skull base and complex tumors (meningiomas, schwannomas) involving the venous sinuses and cranial nerves. In addition to surgical expertise, it is crucial that patients diagnosed with meningiomas are also evaluated from a pathology perspective to consider clinical trial options that may be open to them. Our access to the latest meningioma clinical trials allows us to offer these emerging investigational therapies to our patients. Our team considers numerous angles (surgery, radiosurgery, radiation, emerging clinical trials) for each skull base tumor patient we evaluate and tailors the approach based on our team's extensive experience. In addition, we utilize intraoperative MRI, advanced neuronavigation and electrophysiologic monitoring to ensure the best outcomes. Furthermore, we assess all patients with these conditions for genetic syndromes that may directly affect treatment options and require family counseling.

Spinal Cord Tumors

Our team has extensive experience in the treatment of these rare tumors, which require a careful and thoughtful approach. Our skilled neurosurgeons play an integral role in the management of these tumors and

utilize a variety of surgical adjuncts to guide resection, including intraoperative fluorescein angiography and neurophysiologic monitoring.

Genetic Syndromes

The ideal care for patients with complex genetic syndromes requires advanced diagnostics, comprehensive specialty care and personalized support services tailored to the unique needs of the individual patient. UVA has the teams and procedures in place to help ensure these conditions are diagnosed appropriately and managed at the highest standard.

One of these rare conditions is Von Hippel-Lindau (VHL), a rare genetic disorder that causes the development of benign and malignant vascular tumors as well as cysts in up to 10 different organ systems. The variety of symptoms, complexity of imaging, interpretation of genetic testing and variability in how the condition progresses in different individuals makes diagnosis, proper surveillance and timely intervention critical.

UVA was recently designated a VHL Alliance Comprehensive Clinical Care Center, making UVA one of just 12 centers nationwide deemed capable of providing the complete spectrum of care that VHL patients — children as well as adults — require. It also means that UVA has made a substantial commitment to be a leader in VHL treatment.

Another rare and complex genetic condition, neurofibromatosis (NF), actually consists of three distinct genetic syndromes that all cause the formation of benign tumors of the nerves. These conditions — NF type 1, NF type 2 and schwannomatosis — also cause tumors that can affect the eye, skin and other areas of the nervous system. Like VHL, these conditions can be highly complex and require a multidisciplinary approach to care that is tailored to the individual.

Because these conditions are so rare, UVA has established an NF clinic consisting of a dedicated group of specialists who understand the nuances in diagnosis and treatment of tumors and other problems patients with NF face. Virtually all existing treatment options, ranging from traditional surgery to radiation therapy, radiosurgery and chemotherapy, are available to patients. UVA clinicians remain dedicated to supporting cutting-edge clinical trials designed to improve outcomes and develop new treatment options for patients in the future.

Additional Conditions

- Astrocytomas
- Ependymomas
- Hemangioblastomas
- Neurologic complications of cancer therapy
- Oligodendrogliomas
- Optic nerve gliomas
- Paraneoplastic disorders
- Vestibular schwannomas (acoustic neuromas)

Neuro-Oncology Center UVA Cancer Center

Emily Couric Clinical Cancer Center
1240 Lee St.
Charlottesville, VA 22903

Refer a patient: **800.552.3723**

Transfer a patient:
844.XFERUVA (933.7882)

Learn more about the UVA Neurosciences
and Behavioral Health Center:

neurosciences.uvahealth.com

Our Team

Our team comprises physicians, researchers and support staff who are solely dedicated to providing the best possible neuro-oncology care for the patients of today and advancing the neuro-oncology field to provide better therapies for the patients of tomorrow.

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