

## PET Scanner Helps Area Doctors Fight Cancer

Physicians at Blue Ridge Healthcare's Grace and Valdese hospitals are embracing a powerful new technology that helps identify cancers and other life-threatening diseases in patients. Positron Emission Tomography or PET scanning has been available at both hospitals since April – and local healthcare professionals are making the most of its capabilities. At present, Blue Ridge HealthCare is the only provider to offer this service in the Unifour area.

The radiology departments have been using state-of-the-art technology like multi-detector CT and high-field MRI scanners for some time. These devices offer advanced three dimensional and virtual “fly through” capabilities with highly detailed anatomical images of the body—but they don't precisely detect if a tumor is malignant or if there are active spots that have spread to other regions of the body. This is where PET technology is beneficial.

PET scanners monitor suspect anatomical activities at the most basic biochemical level. During this non-invasive test, glucose (sugar) is systematically traced to where it is consumed by an abnormal growth. Because, cancers metabolize glucose as a source of energy when growing, PET finds this abnormal uptake with sophisticated cameras and computers, allowing physicians to determine if cancer is present, and to what extent it has spread. PET images can also be “fused” or overlaid with CT and MRI data to yield extraordinary detail of a malignant tumor's location and metabolism.

“PET technology has proven to be an effective diagnostic tool,” said Ivan Vinueza, Director of Radiology at Blue Ridge HealthCare. “This technology gives better information to physicians and consequently allows patients to be treated earlier with the most appropriate therapies. It also can reduce



Ivan Vinueza explains how PET technology recently helped diagnose a brain tumor.

or eliminate the need for painful invasive tissue sampling, which often takes place when diagnosing cancer.”

PET scans can also be used during the treatment of cancer. Vinueza described how a patient could be undergoing chemotherapy for breast cancer, and after as little as one week of treatments have a PET scan to evaluate progress. The PET scan results would allow an oncologist to make fine-tuned adjustments in treatments to optimize their success.

“PET technology also allows us to closely monitor for the reoccurrence of cancer,” said Vinueza. “Some patients have been referred to us when blood tests reveal that tumor marker levels (possible cancer indicators) are elevated, or when patients want some assurance that cancer is in remission. Another advantage of PET is that it surveys the whole body for potential spread of the cancer; particularly useful when a patient has had an aggressive variety of the disease.”

Initially, it was unclear how much the PET technology would be used at Grace and Valdese Hospitals. Ordinary utilization of a service gradually builds over time. This was not the case for Blue Ridge HealthCare.

“This area has many well-informed and progressive physicians, oncologists, and general surgeons who are very much aware of the technology, its capabilities and ultimate benefits to the patients,” said Vinueza. “At the limited institutions where PET is available, radiologists tend to educate other doctors on its use and applications. But here the physicians requested that we add it to our services. Fortunately, we already had an affiliation with specially trained radiologists who are very competent in this particular area of radiology”



A computer screen shows an overlapping of traditional CT (top row) and PET scans (bottom right) to confirm a cancerous mass in a patient's upper chest (middle right images).

Carolyn I. Mook, MD, Medical Director of Oncology for Blue Ridge HealthCare is pleased with the information she is obtaining from the PET scans. "This is definitely proving to be a very positive development for my practice," she said. "It has greatly assisted me in diagnosing and treating many of my patients. Having this technology in the community has also increased my ability to save time and to do it for people who are reluctant to travel to other cities for the service."

Surgeon Alan E. Jacks, MD has used PET technology to assess patients for surgical procedures. "I recently encountered a lung cancer patient and I needed to determine whether the individual was a candidate for an operation," said Jacks. "Sometimes the disease has advanced in such a way as to eliminate a person from the possibility of an effective surgical solution. After undergoing a PET scan we learned that this patient was a good candidate for surgery. It would have been very difficult to assess the situation without the PET information. It's an important tool."

Blue Ridge HealthCare has contracted with Alliance Imaging, Inc to provide their mobile PET services with some of the latest equipment available. At present the service is available on a limited basis each month, but hospital officials are working to get additional on-site time at the Burke County hospitals.

PET scans are expensive– often costing more than \$2,000 per scan due to the cost of the equipment and

pharmaceuticals used in the process– but Vinueza said most insurance companies, as well as Medicare, are reimbursing its cost. The reimbursements are being approved because most healthcare professionals are finding that, in the long run, the use of PET saves money and lives.

"Pet scanning ultimately reduces medical costs because it can bypass other invasive tests," said Vinueza. "It's much less expensive to treat cancer when you have the best staging data early on in the process. It also saves on a patient's lost workdays that occur when biopsies are performed. It cuts back on hospitalization times, laboratory costs, and complications from other procedures – the list goes on."

For more information about PET Services, please call the Blue Ridge HealthCare Radiology Department at 580-6920 or 879-7611.

Blue Ridge HealthCare serves a four-county area and includes Grace and Valdese hospitals, Blue Ridge Home HealthCare, Grace Heights and College Pines Health & Rehabilitation Centers, Grace Ridge Retirement Community, Phifer Wellness Center and a number of physician practices. Committed to enhancing life and excelling in care for all of life's seasons, Blue Ridge HealthCare is currently developing a series of Hallmark Services to address the community's most pressing health and lifestyle issues. To learn more, please visit [www.BlueRidgeHealth.org](http://www.BlueRidgeHealth.org).

