

Welch Cancer Center: 'State-of-the-art' facility and new options for patients

By Frances K. Foster
Staff reporter

"State-of-the-art" equipment and expert personnel at Sheridan Memorial Hospital's Welch Cancer Center provide cancer patients with the same quality of care that can be expected at "any top-rated hospital in the country," said Dr. John Stamato, Welch's board-certified radiation oncologist.

It was this same combination that the Mayo Clinic based its decision on to accredit Welch about six months ago as an "approved radiation treatment facility" eligible to participate in nationwide clinical trials for new oncology treatments, Stamato said.

(The Mayo Clinic is the largest nonprofit hospital in the country with its three sites in Rochester, Minn., Jacksonville, Fla., and Phoenix, according to its Web site. It offers health information and medical services in addition to research and education.)

The Mayo Clinic is "very strict" about each participating hospital's type of equipment and physics, Stamato said, adding that all cancer patients in any one clinical trial "have to be treated in exactly the same way" to assure valid results.

Neither the staff nor the Welch Center receives any money for participating in the trials, but the trials will "enhance patient care" because Welch will have immediate access to information on the newest, most successful cancer treatments, Stamato said.

If Mayo is conducting a clinical

trial on a type of cancer a Welch patient is suffering from, then he has the option to enter the trial after receiving all the information about it, Stamato said.

Luckily for the state's cancer patients, the Wyoming Legislature in February passed a law (SF0024) that requires health insurance companies to cover the cost of patients participating in clinical trials starting July 1, Stamato said.

New patients at Welch have already been diagnosed with cancer at Sheridan Memorial or another hospital, so their first step at the center is to undergo a CT (computerized tomography) scan that will precisely identify the location and dimensions of the tumor.

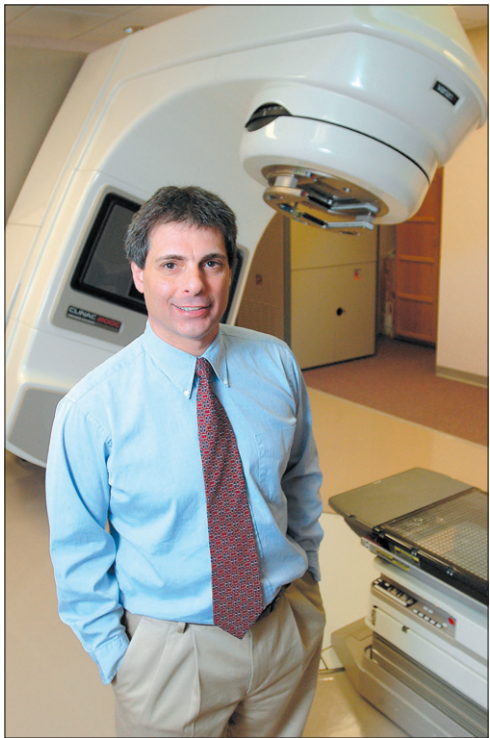
The scanner can record an image for every 1-millimeter slice through the tumor and use computer "contour tools" to target the cancer for radiation therapy, Stamato said.

This information is used to plan each patient's therapy so that healthy tissue around the tumor will receive the lowest possible doses of radiation, he said.

In the physics room, two radiation therapists — Lynn Green and Greg Shiek — "scroll through" the CT images and plan the number, angle, and intensity of radiation beams to treat the tumor, Stamato said.

The beams show up as green lines leading to the tumor on the computer screen and are used by the therapists during the radiation therapy.

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The Sheridan Press/Michael Sullivan

Board-certified radiation oncologist Dr. John Stamato stands in front of a linear accelerator used to treat cancer with radiation at the Welch Cancer Center in Sheridan on Tuesday.

Cancer center

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“Everything talks to everything else” on the center’s computer system, which functions as “checks and balances” to ensure that each patient’s treatment plan is accurately prescribed and that the treatment precisely follows the plan, he said.

When the plan is finished, most patients come to the center five days a week, Monday through Friday, for approximately six to seven weeks — depending on the type and size of the cancer. Because the radiation beam is so accurate, patients undergo the actual radiation treatment for no more than four minutes during any one session, Stamato said.

The Welch Center is one of the few facilities in the country not in a large city to have a Varian’s linear accelerator that delivers IMRT — intensity modulated radiation therapy — he said.

The accelerator is housed in a “vault” with minimum 4-foot-thick concrete walls that increase to 7 feet in the ceiling directly above the accelerator, he said.

The accelerator resembles a giant (9-foot-tall, 15-

foot-long) curved electric shaver with a “shaving head” where the radiation beam is emitted. The inside of the head has “leaves” similar to a camera aperture, which are adjusted to create the correct diameter for the radiation beam.

The patient is completely immobilized on a table that can be maneuvered horizontally, vertically, and even a little diagonally so the accelerator can be precisely positioned to deliver the radiation beam.

The accelerator itself can be rotated 360 degrees to follow the individual treatment plan, Stamato said.

The IMRT “‘paints’ radiation around the tumor,” he said.

At least two therapists monitor the entire radiation session on computers at a console located outside the vault as the patient undergoes treatment, he said.

Because of funding from the Welch Foundation, Griffith Foundation, and many area individuals, Sheridan Memorial Hospital’s Welch Cancer Center can offer area cancer patients the most contemporary treatments possible, Stamato said.