
CARING EMPOWERS / GENEROSITY HEALS

CANCER CARE

“Our patients deserve the very best in technology – more cures, less toxicity, better quality of life.”

How we can care together, today

Elekta Infinity™ Linear Accelerator \$2,530,000

Toshiba Aquilion Large Bore CT Scanner \$820,000

Breast Center Equipment and Technology \$1,350,000

Construction Costs (for new technology) \$2,000,000

Project Refresh \$3,300,000

TOTAL: \$10,000,000

PLEASE CONSIDER ...

- It is highly likely that you, a family member or someone you know has been or will be faced with a cancer diagnosis – if it happens, you want the **best treatment options available, right here, right now.**

- Cancer is the leading cause of death for Napa County residents*, higher than the age-adjusted cancer death rate for California as a whole. However, **survival rates continue to increase due to the advances and availability of treatment options at Queen of the Valley Medical Center.**

*California Department of Public Health's County Health Status Profiles 2015

- **QVMC Cancer Program**

Studies have proven that collaborative diagnosis and treatment of cancer—close to home—leads to more effective outcomes. The Cancer Center team at QVMC—made up of board-certified oncology physicians, certified oncology nurses, social workers, pharmacists, physical and radiation therapists, dietitians and chaplains—offers expert, integrated care from diagnosis and treatment through recovery. They take a **proactive, comprehensive, and individualized approach, resulting in successful outcomes** that are equal to

or surpass national standards, and are far beyond what is considered typical for a community hospital.

Although the current CT simulator and linear accelerator in the Queen's Regional Cancer Center continue to serve the community well, major advances in radiation therapy have produced imaging and treatment systems with far more capabilities. The new **Elekta Infinity™ Linear Accelerator**, partnered with a **Toshiba Aquilion Large Bore 4-D CT Scanner**, will allow for **expanded treatment options** with far less maintenance downtime.

- **Treatment Planning**

Radiotherapy treatment for cancer begins with extensive planning by a team of radiation oncologists, radiation therapists, medical physicists and medical dosimetrists. This team will use images from the new **Toshiba Aquilion 4-D CT Simulator** (specifically designed for cancer patients) to:

- **Determine the precise location**, position, shape and size of the tumor and how much radiation is needed to treat it.

- **Measure patient motion**, such as breathing or movement during rest. This is especially useful for lung, breast and some gastrointestinal cancers,



where doctors can time the radiation delivered by the linear accelerator (LINAC), to a specific point in the breathing cycle to make the treatment more precise.

~ **Electronically send all vital information gathered to the LINAC**, which mirrors the exact location and size of the tumor, its movement and the movement of the body's organs, pinpointing exactly where to aim the treatment beams.

~ **Immobilize patients in the same position** each time they are treated by the LINAC, ensuring that the radiotherapy treatments are as accurate as possible.

~ **Reduce radiation exposure to the patient** by as much as 30 to 50 percent.

• Treatment

The **Elekta Infinity™ Linear Accelerator**:

~ Offers cutting-edge 2D, 3D and 4D X-ray volume-imaging tools, making it **one of the world's most advanced radiation therapy systems** for cancer treatments.

~ **Delivers a uniform dose** of high-energy X-ray that can kill the targeted cancer cells or reduce the size of the tumor.

~ **Provides high-precision localization of radiation at ultra-low doses**, enabling the physician to image daily without unnecessary risk to the patient.

~ Improves the ability to **focus radiation on the tumor** and minimize exposure to surrounding healthy tissue.

~ **Provides real-time assurance** that the intended radiation dose is delivered as planned.

~ **Offers shorter treatment times** (five minutes or less), improved patient comfort and reduced inaccuracies resulting from patient movement during treatment delivery.

~ Provides **better outcomes with fewer side effects**.

THE VALUE

Two-thirds of all cancer patients will receive radiation therapy at some time during their illness, oftentimes making less-radical surgery more feasible and effective, or eliminating the need for surgery altogether. The all-digital Elekta Infinity™ will provide remarkable new and advanced radiation treatment options at the QVMC Cancer Center that can be used to **cure cancer, stop or slow its growth and control pain and other tumor symptoms, enhancing the quality of life.**

The new LINAC:

~ Equips the QVMC Cancer Center with the ability to offer **the latest in radiation therapy treatment**, such as **IGRT** (image-guided radiation therapy), **IMRT** (intensity-modified radiation therapy) and **SBRT** (stereotactic body radiation therapy).

~ Provides **intelligent and resource-efficient technologies that improve, prolong and save patient lives.**

~ Focuses on optimizing every step of the care process so that the treatment team can focus on what matters most – patient care.