Liver Tumor Clinic’s Mission
The UW Medicine-Seattle Cancer Care Alliance Liver Tumor Clinic is the largest specialty clinic in the region dedicated to the care of patients with benign or malignant liver tumors. It provides patients with a 'one-stop' evaluation from a panel of experts representing eight sub-specialties. The Clinic has been serving the WWAMI region since 1998, and we currently offer cutting-edge treatments to over 500 cases of liver tumors annually. A few examples of our latest offerings are described below.

Robotic Surgery
Surgeons at UW Medical Center are now performing robotic surgery for certain diseases of the liver, bile duct and pancreas. With robotic assistance, our surgeons are carrying out minimally invasive operations that result in shorter hospital stay, faster healing times, and less post-surgical pain for the patient. UWMC is one of the first hospitals in the nation to perform robotic HPB surgery.

Segmental Radioembolization
New catheter-based techniques to deliver potent radiation particles to liver cancers have been developed and refined by our Interventional Radiologists. This method aims to maximize the radiation dose to the intended targets while minimizing ‘off-target’ radiation to the non-tumor liver. Our early published results showed a greater than 90% disease control and acceptable toxicities.

Proton Therapy
Another form of radiotherapy utilizes protons as the source of energy to destroy cancers. Its application to liver cancer is a recent development and is unique to UWMC-SCCA in the Puget Sound area. Proton radiation provides an alternative method of controlling liver cancer while sparing adjacent non-cancer tissues.

Irreversible Electroporation (“NanoKnife”)
Irreversible Electroporation (IRE) is a new tumor ablation technique that uses electrical currents to perforate the cell membrane, effectively destroying the cancer cell without harming the surrounding tissue. This technique provides a new option to treat liver tumors that are close to vital structures that cannot otherwise be removed or thermally ablated.
The Liver Tumor Clinic treats:

**Primary Tumors and Cysts**
- Hepatocellular Carcinoma (HCC)
- Cholangiocarcinoma:
  - Intrahepatic/Hilar/Extrahepatic
- Mixed HCC-Cholangiocarcinoma
- Gallbladder Carcinoma
- Adenomas
  - Liver Cell Adenoma
  - Biliary Cystadenoma
- Focal Nodular Hyperplasia
- Hemangioma
- PEComa/Angiomyolipoma
- Cyst:
  - Simple, Complex, Polycystic
  - Echinococcal
  - Choledochal

**Secondary Tumors**
- Colorectal
- Breast
- Esophageal
- Neuroendocrine/Carcinoid
- Uterine/Ovarian/Cervical
- Gastrointestinal Stromal Tumor
- Pancreas
- Gastric
- Melanoma
- Lung
- Sarcoma

**One Stop, Eight Specialties**
Our patient-centered clinic is staffed by Surgical Oncologists, Medical Oncologists, Radiation Oncologists, Transplant Hepatologists and Surgeons, Diagnostic and Interventional Radiologists, and Pathologists specializing in liver tumors. We provide each patient with a comprehensive evaluation of their liver tumor, complete with a diagnostic work-up and personalized treatment plan in one half-day appointment.

**Comprehensive Treatment Options**
- Surgical resection: open, laparoscopic or robotic
- Thermal ablation (Radiofrequency and Microwave): percutaneous, laparoscopic, open or thoracoscopic
- NanoKnife (IRE) (percutaneous, laparoscopic or open)
- Chemoembolization (TACE)
- Radioembolization (TARE, Y-90)
- Liver Transplant (Cadaveric, Living-Related)
- Systemic Therapy
  - Targeted Therapy
  - Immunotherapy
- Radiation Therapy
- External Beam Radiation Therapy
- Stereotactic Body Radiation Therapy (SBRT)
- Proton Beam Therapy

**Clinical Trial Participation**
New drugs and emerging treatments, including immunotherapy, are continuously being introduced through the SCCA Clinical Trial Program to determine their effectiveness and toxicities.

**Clinical Research Program**
Our Center is committed to advancing our understanding and treatment of liver cancers by applying all available scientific data through several active research programs designed to improve patient outcomes.

**Learn More**
Providers of the Liver Tumor Clinic offer these and other treatments through the Center for Advanced Minimally Invasive Liver Oncologic Therapy (CAMILOT). www.uwmedicine.org/livertumor