

The UCSF Liver Transplant Service Synopsis

Program Overview (<http://www.ucsfhealth.org/livertransplant/>)

The UCSF Liver Transplant Service is a multidisciplinary, co-operative clinical service organized and staffed by members of the Departments of Medicine, Pediatrics and Surgery. The Service performs between 130-160 adult and pediatric liver transplants per year. The Service has a well-established, successful program for adult living donor liver transplantation.

The Service comprises an inpatient ward service and outpatient activities, including outreach clinics. The Service receives referrals of patients for evaluation as candidates for liver transplantation and for consultation and management of complex problems in acute or chronic liver disease. The Service is currently run and supported by a total of eight surgeons and eight hepatologists, all of whom have full-time faculty appointments in the UCSF School of Medicine. The administration and leadership of the Liver Transplant Service is the joint responsibility of the Surgical (John P Roberts, M.D.) and Medical (Nathan M. Bass, M.D., Ph.D.) Directors who work co-operatively in common and separate areas of responsibility to plan and co-ordinate, among other things, the clinical service aspects of the program, policy development and implementation, teaching activities, community outreach, staff education and evaluation, and quality improvement.

The inpatient service is located on the 9-Moffitt Hospital Nursing unit, housed together with the Kidney Transplant Service. The inpatient medical team consists of both a hepatologist and surgical attending who round together daily with a housestaff team consisting of interns from the Departments of Medicine and Surgery, as well as fellows from the Divisions of Gastroenterology and Transplantation (Surgery). The medical and surgical attending staff rotate on the inpatient attending service in 1-2 week blocks. During the service rotation, the surgical attending is responsible for all surgical management issues and transplants. While attending, the hepatologist is responsible for all admissions and management of patients with acute or endstage liver disease referred for evaluation and management. Allied hospital services and specialties that work closely with the Liver Transplant Service include Radiology, Interventional Radiology, the Gastroenterology Hepatobiliary Service, Intensive Care, Anesthesia, and Pathology. In addition, the inpatient hepatologist provides inpatient consultation services that complement the Gastroenterology Inpatient Consult Service in the area of complex liver diseases.

The outpatient activities of the transplant service are organized mainly around two half-day clinics per week at UCSF Medical Center attended by hepatologists, surgeons and support staff and 5 monthly outreach clinics staffed mainly by the hepatology staff. New referrals and follow up cases are evaluated. New patient referrals are presented and discussed at a dedicated weekly selection conference. The Service evaluates between 450 and 500 new patient referrals per year. Separate weekly or bi-weekly meetings are held with staff to address policy, planning and quality improvement.

The clinical activities and interests of both the hepatology and surgical staff of the Liver Transplant Service extends beyond transplantation in almost all cases, thus providing the community with a considerable resource of expertise that embraces the broader field of liver disease and hepatobiliary surgery. Thus most hepatologists are also involved in outpatient clinics and research protocols that provided consultation for the broad spectrum of liver problems including evaluation of abnormal liver function tests, diagnosis and management of viral hepatitis, immunological and metabolic liver diseases. The surgical staff also operate in the Kidney Transplant Service and provide consultation and surgical management of diverse, non-transplant hepatobiliary diseases including laparoscopic and open ablation or resection of liver tumors. The Liver Transplant Service thus provides a comprehensive Liver/Hepatobiliary Service that works closely with a number of allied groups and specialties including Radiology, Oncology, General Surgery and Gastroenterology to attract and channel a large number of patient referrals from local, regional, national and international sources. In addition, the service has recently initiated a small bowel rehabilitation and transplant program under the respective medical and surgical directorship of Drs. Uri Ladabaum and Sang-mo Kang.

A large number of research activities are conducted within the Liver Transplant Program. Both NIH and industry funded projects investigating a broad scope of questions related to the pathogenesis of liver disease, immunology of rejection and new therapeutic approaches to viral hepatitis and immunosuppression are a key aspect of the Program's research activities and agenda. The volume and breadth of patient referral to the Service are such as to provide a considerable resource for the purposes of research programs in liver disease, surgery, and liver transplant management. In addition, with its extraordinary base of referrals, and critical mass of medical and surgical faculty who represent a diverse scope of clinical expertise and research interests, the Liver Transplant Service is recognized as a premier program for the training of housestaff and fellows in critical care medicine, hepatology, transplant medicine and surgery, incorporating unique opportunities in clinical training and research.

Transplant Medical Staff

**** Transplant Hepatologists**

- Kiran Bambha, MD, MPH
- Nathan Bass, MD, PhD
- Scott Biggins, MD, MPH
- Dwight Montgomery Bissell, MD
- Timothy Davern Jr., MD
- Marion Peters, MD
- Norah Terrault, MD, MPH
- Francis Yao, MD

**** Transplant Surgeons**

- Nancy Ascher, MD, PhD

- Sandy Feng, MD, PhD
- Christopher Freise, MD
- Ryutaro Hirose, MD
- Sang-Mo Kang, MD, PhD
- Andrew Posselt, MD
- John Roberts, MD
- Peter Stock, MD

Program Statistics and Areas of Innovation:

Outcomes

As of 5-15-2007, 1805 adults and 244 children have undergone liver transplantation at UCSF. 169 of these transplants have been done using live donors.

As an indication of the program's clinical success, survival rates well surpass the national average.

** Overall patient survival at one year is 92.5% and 85.3% at three years, compared to 86.4 % at one year and 77.7% at three years nationally.

** Patient survival at one year for cadaveric transplants is 90.7% and at three years is 85.6% compared to 86.2 % at one year and 77.9 % at three years nationally.

** Patient survival at one year for living donor transplant is 97.8% and 75% at three years compared to 88.2% at one year and 73.7% at three years nationally.

** Only 7.6 % of patients at UCSF require retransplantation. This is one of the lowest rates in the country.

** The UCSF liver transplant program is known for outstanding success rates in transplanting patients with fulminant liver failure with a one year patient survival of 85.7%.

** The one year survival rate for patients who receive a combined liver and kidney transplant is 85 %.

** The median length of stay for patients transplanted at UCSF is 10.4 days. This length of stay is significantly lower than the national average.

Innovation and Research

** UCSF Medical Center is one of the first centers in the country to test new immunosuppressive drugs used to control organ rejection.

** UCSF Medical Center is one of the three national centers contributing to the National Institutes of Health (NIH) Liver Transplant Database through NIH sponsored data collection and clinical trials

** UCSF is one of nine centers participating in a NIH sponsored study of adult to adult living donor transplantation.

** UCSF Medical Center has established successful transplant protocols for patients with Hepatitis B and liver cancer.

** UCSF is a leading program nationally in the use of liver transplantation for the treatment of primary liver cancer.