LIVER TRANSPLANT

ANNUAL REPORT • 2008

20th 1989–2009 VANDERBILT TRANSPLANT CENTER
Celebrating 20 Years of Excellence

Dear Colleagues:

We are pleased to provide you with this 2008 Annual Report of the Liver Transplant Program at Vanderbilt University Medical Center. Enclosed you will find our latest program volumes and outcomes. In 2008, we performed a total of 82 adult and 4 pediatric liver transplant operations. Most importantly, as you can see from the enclosed data, transplant outcomes remain excellent when compared to risk adjusted survival estimates.

Highlights for 2008 include:

- New leadership and management changes in the Division of Hepatobiliary Surgery and Liver Transplantation. Dr. J. Kelly Wright, Jr., has been newly designated the Chief of the Division while continuing to serve as Surgical Director of the Liver Transplant Program. Greater efforts are being made as part of a community outreach program to extend our services and facilitate communication with our referring physicians. We are interested in helping physicians learn how to navigate our system efficiently to minimize their time and effort in getting sick patients into our clinic schedules and on to transplantation when appropriate.

- The first successful pediatric liver transplants were performed at the Monroe Carell Jr. Children's Hospital at Vanderbilt University in 2008. The recipients ranged in age from 2 months to 13 years. The youngest of these patients was suffering from a rare inherited metabolic disorder capable of rendering a majority of afflicted children with severe neurological injury or death. Fortunately, timely intervention with liver transplant surgery cured the child of this disorder, with the expectations of full recovery. All other school age recipients have enjoyed success as well after liver transplantation and have returned to their respective school programs.

- Current clinical research activities include participation in a multicenter, open-label, randomized, phase 1B study evaluating the safety and tolerability of intravenous recombinant human mannose-binding lectin (rhMBL) in liver transplant recipients; a multicenter, randomized controlled study to evaluate the efficacy and safety of concentration-controlled everolimus to eliminate or reduce tacrolimus in de novo liver transplant recipients; a randomized, open-label study to compare the development of liver fibrosis at 12 months after transplantation for hepatitis C cirrhosis; a phase I/II, open-label study to evaluate the safety and anti-tumor effects of NV1020, administered via hepatic artery infusion in patients with colorectal adenocarcinoma metastatic to the liver and studies into long-term cognitive impairment after liver transplantation.

Our experienced team of surgeons, physicians, nurses, and administrative staff are dedicated to utilizing the latest medical and technical advances in transplantation with timely, compassionate, and personalized approach to patient care. As always, we welcome any suggestions or comments you may have so that we may continue to provide the best possible service to you and your patients.

Sincerely,

J. Kelly Wright, Jr., MD
Surgical Director–Adult

Michael K. Porayko, MD
Medical Director–Adult

Beau S. Kelly, MD
Surgical Director–Pediatrics

Lynette A. Gillis, MD
Medical Director–Pediatrics

Vanderbilt Transplant Center

Vanderbilt Adult & Pediatric Liver Transplantation

The criteria for the selection of potential liver transplantation candidates include the following:

- Presence of end-stage liver disease with objective evidence of advanced physical incapacitation causing deterioration of the quality of life to an unacceptable level due to documented, isolated liver disease
- A limited life expectancy due to liver dysfunction
- Previous medical therapy has been optimized and no other therapy other than transplantation offers realistic expectation of functional improvement and extension of life
- Expected compliance with medical regimens
- Adequate psychosocial support system to aid the patient prior to and during the surgery and to promote adherence to required post-transplant treatment regimens
- Acceptable surgical risks

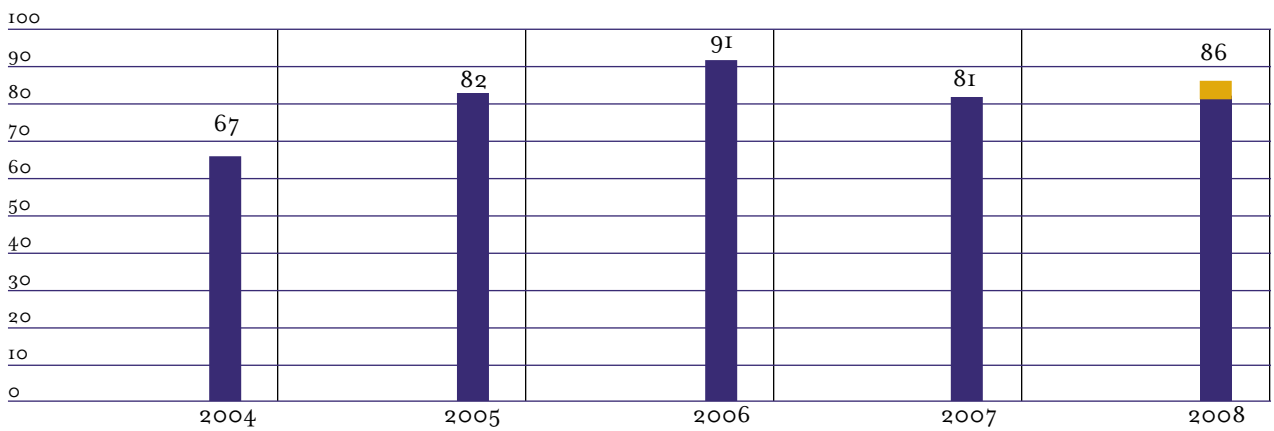
Specific manifestations include:

- Malnutrition with progressive protein-calorie deficiency; wasting and fatigue (albumin <3.1)
- Uncorrectable coagulopathy (INR>1.5), fibrinogen <150 mg/dl)
- Recurrent or uncontrollable hepatic encephalopathy
- Refractory ascites
- Spontaneous bacterial peritonitis
- Development of hepatorenal syndrome
- Development of fulminant hepatic failure
- Refractory, life-threatening varicel hemorrhage
- Severe progressive metabolic bone disease, especially with spontaneous fractures
- Recurrent episodes of biliary sepsis
- <5 cm but unresectable primary hepatic tumors confined to the liver

The following factors exert an adverse influence on the outcome of liver transplantation and therefore constitute CONTRAINDICATIONS to surgery;

- Extrahepatic malignancy
- Uncontrollable sepsis
- Active alcoholism or drug abuse; previous alcohol or drug abuse with less than 6 months of abstinence
- Morbid obesity (BMI >35 kg/m2)

1 Liver Transplant Volumes by Calendar Year 2004-2008



- Irreversible advanced cardiac, pulmonary or other organ disease
- Symptomatic coronary, peripheral, or cerebral vascular disease
- Irreversible terminal state
- Severe pulmonary hypertension (mean arterial pressure >35 mmHg)
- Uncontrolled/untreated acquired immunodeficiency syndrome (HIV/AIDS infection)

Relative contraindications include:

- Advanced age (>65 years)
- History of behavior pattern psychiatric illness considered likely to interfere significantly with compliance
- Inadequate social support system
- Stage IV coma
- Active peptic ulcer disease
- Severe renal dysfunction not explained by underlying hepatic failure
- Persistent use of tobacco products
- Resistant, insulin-requiring diabetes mellitus with evidence of target organ disease (retinopathy, nephropathy, or neuropathy)
- Asymptomatic, but severe peripheral or cerebral vascular disease
- Current or recent history of diverculitis
- Previous malignancy with potential for recurrence (there must be a disease-free interval of five (5) years)
- Prior extensive right upper quadrant abdominal surgery
- Severe portal venous thrombosis
- Systemic amyloidosis
- Morbid obesity

Patient selection in the presence of alcoholism or drug abuse:
Vanderbilt Liver Transplant Program's policy states that in the case of patients in whom the etiology of the liver disease is related to alcohol or drug abuse, the following criteria of substance abuse rehabilitation must be met. The patient needs to have been abstinent for at least six months. The patient is required to have been through a rehabilitation program and to be participating in an ongoing support program. An adequate social support system must be present in the patient's life. Ideally, we prefer that the patient has a vocational activity to return to with plans to return to that activity within six months of transplantation. All patients with a history of alcohol and drug abuse are carefully evaluated by a psychiatric consultation, the liver transplant social worker, and the transplant coordinator.

2 Liver Transplants from January 1, 2002 to December 31, 2008

Patient Survival Rate

1 Month	97%
1 Year	86%
Txps#	536

Graft Survival Rate

1 Month	93%
1 Year	83%
Txps#	536

3 Vanderbilt Liver Transplant Status

	Txp Volume	1 Year Patient Survival (Kaplan-Meier)	1 Year Graft Survival (Kaplan-Meier)
1/07 – 12/07	81	91.36%	85.19%
1/08 – 12/08	86	91.86%	86.05%

Adult Referrals/Appointments: (615) 936-5321
Adult Toll Free: (866) 748-1495

Pediatric Referrals/Appointments: (615) 343-BILI (2454)
Pediatric Toll Free: (866) 659-5930

Liver Transplant Team Directors
J. Kelly Wright, Jr., MD
Adult Surgical Director

Michael K. Porayko, MD
Adult Medical Director

Burnett "Beau" S. Kelly, MD
Pediatric Surgical Director

Lynette A. Gillis, MD
Pediatric Medical Director

Transplant Surgeons
Sunil K. Geevarghese, MD, MSCI
D. Lee Gorden, MD
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Derek E. Moore, MD, MPH
C. Wright Pinson, MD, MBA
J. Kelly Wright, Jr., MD

Transplant Hepatologists
Joseph A. Awad, MD
Raymond F. Burk, MD
Lynette A. Gillis, MD
Roman E. Perri, MD
Michael K. Porayko, MD
David S. Raiford, MD

Transplant Infectious Disease
Stephen Dummer, MD
Geraldine Miller, MD
Lora Thomas, MD

Transplant Coordinators
Carly Bhave, MS, CPNP, CCTC (Pediatric)
Matt Bumbalough, FNP-BC
April DeMers, ACNP-BC
Brenna Evans, RN, BSN, CCTC
(Triage Nurse)
Pamela Hale, RN, (VA)
Janice Meyers, ACNP-BC
Julie Sumner, ACNP-BC

Transplant Pharmacist
Christie B. Truscott, PharmD

Transplant Social Workers
Patricia M. Coffey, LCSW (VA)
Erik Lillie, LCSW
Ann-Haley Poag, LMSW (Pediatric)

Child Life Specialist
Stacey Chambers, BS, CCLS

Clinical Research Coordinators
Stephanie Logan, RN, BSN, CCRP
Carla Thomas, RN, BSN

Transplant Psychiatry
Karen Starr, MSN, RN, PMHNP, BC

Transplant Psychologist
Saundra Saporiti, PsyD (VA)

Transplant Return-To-Work
Joanne C. Ball, MST, CVE, ABVE

Transplant Outcomes Research & Quality of Life
Irene Feurer, PhD
Panarut Wisawatapnimit, MSN
Hua Ye

Transplant Financial Counselors
Lisa Conyer
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Transplant Data Manager
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Rosalyn Johnson
Jewel Lucien
Angie Parman
Lisa Samuel
Dixie Williamson (Pediatric)

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