Dear Colleagues,

We are pleased to provide you with this 2007 Annual Report of the Heart Transplant Program at Vanderbilt University Medical Center. Enclosed you will find our latest program volumes and outcomes. In 2007, we performed a total of 16 heart transplants comprised of eight adult transplants and eight pediatric transplants. Most importantly, as you can see from the enclosed data, transplant outcomes remain at or better than expected.

Highlights for 2007 include:

• Recruitment and appointment of Steven J. Hoff, M.D. as the new Surgical Director for the Heart Transplant Program. Formerly a member of the St. Thomas Heart Institute, Dr. Hoff brings his expertise and over twenty years experience in cardiovascular surgery including ventricular assist device as a bridge to heart transplantation to Vanderbilt Transplant Center.

• The Adult Heart Transplant Program has had a successful year in recruiting additional staff to strengthen our team to continue to ensure the highest quality patient care possible. Three experienced cardiac nurses joined our team in 2007 including Sherrie Adams, Dawn Eck and most recently, Robbie Brown. Additionally, Molly Peco joined our team in 2007 in a new role of medical assistant to assess patient needs in the quickest and most efficient way. Anne Schmitt, CMSW is the new transplant social worker for both Heart and Lung Transplant Programs. Nicole Brewer is our newest data management specialist. Together, Nicole and Dottie Dockins provide exceptional administrative support to the entire team.

• The Vanderbilt Heart & Vascular Institute witnessed further expansion in 2007 with a number of regionally recognized physician leaders joining forces to provide the most comprehensive services in cardiology, cardiac surgery and vascular services in the region. For medical patients with diseases that are primary indications of heart transplantation, the Heart Transplant Program is a necessary complement to their treatment.

• The use of a diagnostic screening tool for the non-invasive assessment of rejection and adoption of novel approaches in transplant immunology have lessened recovery time and enhanced the quality of life for our patients.

• Low rejection rates and high patient satisfaction in our pediatric population with the use of non-steroidal immunosuppression and non-invasive rejection monitoring whenever possible.

Thank you again for your continued support and many referrals to the Vanderbilt Heart Transplant Program. Our experienced team of surgeons, physicians, nurses, and administrative staff are dedicated to combining the latest medical and technical advances in transplantation with timely, compassionate, and personalized 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,

Steven J. Hoff, MD  
Surgical Director

Mark A. Wigger, MD  
Medical Director, Adult

Debra A. Dodd, MD  
Medical Director, Pediatric
Vanderbilt Adult Heart Transplantation

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

- Objective evidence of advanced physical incapacitation due to documented, isolated heart or heart-lung disease.
- Life expectancy estimated to be less than one year.
- Unanimous agreement that previous medical therapy has been optimal and that no surgical procedure other than transplantation, offers realistic expectation of functional improvement and extension of life
- Strong family support to aid the patient emotionally (and physically, if necessary) during the period prior to and after surgery

The following factors exert and adverse influence on the outcome of heart transplantation and therefore may be CONTRAINDICATIONS to surgery:

- Chronic obstructive pulmonary disease
- Active systemic infection
- Recent or unresolved pulmonary infarction; radiologic evidence of infection or abnormalities of unclear etiology
- Severe systemic hypertension inadequately controlled with medicines
- Severe cachexia
- Active peptic ulcer disease with recent GI bleeding
- Other systemic disease likely to limit or preclude survival and rehabilitation after transplantation
- Severe obesity (BMI >35)
- A history of behavioral pattern or psychiatric illness considered likely to interfere significantly with compliance (including substance abuse)

Relative Contraindications include:

- Age of more that 65 years
- Severe, irreversible pulmonary hypertension (greater than 5 Wood units) for heart transplantation, in which case combined heart/lung transplantation or single lung transplantation may be considered (if age <50)
- Renal of hepatic dysfunction not explained by the underlying heart failure and deemed irreversible
- Symptomatic peripheral or cerebrovascular disease
- Insulin-dependent diabetes mellitus with evidence of significant target organ disease (retinopathy, nephropathy or neuropathy)
- Asymptomatic but severe peripheral or cerebrovascular disease
- Current or recent history of diverticulitis
- Moderate obesity (BMI >25 but <35)

### Heart Transplant Volumes for Each Calendar Year

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>24</td>
</tr>
<tr>
<td>2005</td>
<td>23</td>
</tr>
<tr>
<td>2006</td>
<td>18</td>
</tr>
<tr>
<td>2007</td>
<td>16</td>
</tr>
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</table>

### 2007 Patient Survival Rate (Actuarial as of 1/2/2008)

<table>
<thead>
<tr>
<th></th>
<th>Pediatrics</th>
<th>Adults</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Month</td>
<td>100%</td>
<td>87.50%</td>
<td>93.70%</td>
</tr>
<tr>
<td>1 Year</td>
<td>100%</td>
<td>87.50%</td>
<td>93.70%</td>
</tr>
<tr>
<td>Txps#</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
</tbody>
</table>
The criteria for the selection of potential pediatric heart transplantation candidates include the following:

- Objective evidence of advanced physical incapacitation due to documented, isolated heart or heart-lung disease
- A limited life expectancy, estimated to be less than one year
- Unanimous agreement that previous medical therapy has been optimal and that no other surgical procedure other than transplantation offers realistic expectation of functional improvement and extension of life
- Birth weight greater than 1500 grams (adequate to give projected weight at transplant of greater than 2000 grams.)
- Stable metabolic and hemodynamic status
- No active viral or fungal infection
- Acceptable renal function
- No significant neurologic impairment
- Favorable psychosocial evaluation of patient and/or family
- Strong family support to aid the patient emotionally during the period prior to and after surgery

The following factors exert an adverse influence on the outcome of heart transplantation and therefore may be CONTRAINDICATION to surgery:

- Severe, irreversible pulmonary hypertension (greater than 5 Wood Units) for heart transplantation
- Renal or hepatic dysfunction not explained by the underlying heart failure and deemed irreversible
- Symptomatic peripheral or cerebrovascular disease
- Chronic obstructive pulmonary disease
- Active bacterial infection
- Recent or unresolved pulmonary infarction; pulmonary radiographic evidence of infection or abnormalities of unclear etiology
- Severe systemic hypertension inadequately controlled with medicines
- Active peptic ulcer disease with recent gastrointestinal bleeding
- Other systemic disease likely to limit or preclude survival and rehabilitation after transplantation
- A patient and/or family history of behavior pattern or psychiatric illness considered likely to interfere significantly with compliance

Relative Contraindications include:

- Birth weight of less than 1500 grams
- Insulin–dependent diabetes with evidence of significant target organ disease (retinopathy, nephropathy, neuropathy)
- Asymptomatic but severe peripheral or cerebrovascular disease
- Current or recent history of diverticulitis

### Heart Transplants from January 1, 2004 to December 31, 2006

<table>
<thead>
<tr>
<th></th>
<th>Patient Survival Rate</th>
<th>Graft Survival Rate</th>
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<tbody>
<tr>
<td></td>
<td>1 Month</td>
<td>1 Month</td>
</tr>
<tr>
<td></td>
<td>95.35%</td>
<td>93.80%</td>
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<tr>
<td>1 Year</td>
<td>90.58%</td>
<td>92.18%</td>
</tr>
<tr>
<td>Txps*</td>
<td>66</td>
<td>66</td>
</tr>
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</table>

Date Source: www.ustransplant.org
Heart Team Directors
Steven J. Hoff, MD  
Surgical Director
Mark A. Wigger, MD  
Adult Medical Director
Debra A. Dodd, MD  
Pediatric Medical Director

Transplant Surgeons
Rashid M. Ahmad, MD
Jorge M. Balaguer, MD
David Bichell, MD
John G. Byrne, MD
Karla G. Christian, MD
James P. Greelish, MD
Steven J. Hoff, MD

Transplant Cardiologists
Thomas G. DiSalvo, MD
Debra A. Dodd, MD
Rebecca R. Hung, MD
Henry L. Ooi, MD
Mark A. Wigger, MD

Transplant Coordinators
Sherrie Adams, RN
Robbie Brown, RN, MSN, CCTC, CPTC
Judy Burger, RN, BSN (Pediatric Coordinator)
Dawn Eck, APRN, BC
Patti Logan, MSN, APNP, BC (Device Coordinator)
Molly Peco, Medical Assistant

Transplant Social Workers
Patricia M. Coffey, LCSW (VA)
Anne Schmitt, CMSW

Transplant Financial Counselors
Lisa Conyer
Beth Goodrich
Linda Storey

Data Manager
Andre Howard

Transplant Administrative Staff
Nicole Brewer
Dottie Dockins

The Vanderbilt Transplant Center, Heart Transplant Team
Referrals/Appointments: (615) 936-3500

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