

International Society for Heart & Lung Transplantation
4th Fall Education Meeting
Toward Optimizing Donor Heart Quality
Stephen Large, FRCS, Program Chair
September 15-17, 2002
St. John's College, Cambridge, England

MEETING OVERVIEW

So why do we need a measure of donor heart quality? Currently, there is a severe shortage of donor hearts available for transplantation, a substantial waiting period for a heart transplant, and a high mortality rate for those on the waiting list. Improved utilization of donor hearts is one target area that has been identified for addressing these problems. It has been reported that donor yield in some regions is as low as 19%. Aggressive donor management combined with carefully expanded criteria for donor heart suitability are critical issues that need to be addressed. A great deal of work has been going on in order to better understand the human donor heart. As a result it is clear that what we have assumed to be a "normal" or "low risk" donor heart is far from "normal". The time is well overdue for us to focus on this pool of knowledge and the seek answers from it to the following five questions:

1. Are we being too conservative in our guidelines for use of the human heart for transplantation?
2. Can we propose a minimum standard or "quality" below which hearts should not be used?
3. With such a standard can we move to objective descriptors of the donor hearts and so towards the confident use of distant teams to procure hearts for cardiac transplantation in our own hospitals?
4. Can we optimize a "sub-optimal heart" through resuscitation and avoid the disposal of an increasingly vital resource?
5. Can we look forward to an era when we can make certain and sensible use of donor hearts that we are currently rejecting?

This Fall Meeting of the ISHLT offers a wonderful opportunity for us to wrestle with these five challenging questions. It is hoped that following this meeting, we will be able to produce a paper describing how close we are to finding answers and as a result directing future work. In this way we may be more likely to ensure that heart transplantation does not become a rarity, failing to provide relief to those patients who have in all other ways reached the end of the road with heart failure.

CONTINUING MEDICAL EDUCATION INFORMATION

This activity has been planned and implemented in accordance with the Essentials and Standards of the Accreditation Council for Continuing Medical Education. The International Society for Heart and Lung Transplantation is accredited by the ACCME to provide continuing medical education for physicians. ISHLT designates this activity for a maximum of 9.75 hours in Category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Learning Objectives

- To establish a working definition of donor heart quality
- To work towards (an) objective measure(s) of donor heart quality

Goals

To achieve an objective definition of donor heart quality in order to:

- Manage problems of the donor heart from an evidence base
- Increase donor heart usage
- Improve transplant outcomes through better understanding of inputs which include the team, the recipient and the donor heart

Target Audience

The audience for this program includes physicians, surgeons, scientists, nurses, and transplant coordinators engaged in the practice of heart and lung transplantation, the management and treatment of heart and lung transplant recipients, the management and treatment of patients with end-stage heart or lung disease, basic science or clinical research related to these fields, or specialties which cause them to become involved in the treatment of transplant recipients or patients with end stage heart or lung disease.

GENERAL INFORMATION

Meeting Venue and Facility

Cambridge is considered one of the most beautiful cities in Britain, particularly in the fall. You can walk along the Backs, the famous grass-covered banks of the River Cam, enjoy the architectural glories of the riverside colleges, and browse among the multitude of bookshops. Cambridge has a wealth of museums and is famous for its bookshops.

Peterhouse, the first college in Cambridge, was founded in 1284. There are now 31 colleges which contain Cambridge's great architectural treasures that reflect perfectly 700 years of British architectural heritage. We are pleased to be able to conduct this meeting in the College of St. John the Evangelist, on the banks of the river Cam in one of the most beautiful sites in the city. The College was founded in 1511 by Lady Margaret Beaufort, mother of Henry VII, on the original medieval site of the hospital of St. John. The meeting will take place in the Palmerston Room of St. John's College.

Accommodations

Sleeping rooms for the delegates attending the meeting have been arranged at St. John's College, one of the largest of Cambridge University's residential colleges. Residing in the college is an opportunity not available to the general public and one that is sure to make this meeting both memorable and unique among ISHLT meetings. The College offers a choice of single or twin-bedded rooms each with central heating, wash basin, tea and coffee making facilities, shaving point, towels, and toiletries. Beds are made and rooms are serviced daily. Most of the rooms have private facilities; others share bathrooms, WCs, and shower rooms between two or three delegates.

Registration

Because of space limitations, attendance will be limited to the first 300 registrants.

Getting to Cambridge

There are several means of getting to Cambridge from London's Heathrow or Gatwick airports.

1. AirportLynx offers door to door taxi service from the airports to St. John's College. Travel time is approximately 2 hours. Cost is approximately \$100-\$125 total for up to 3 passengers. \$160-\$185 total for up to 7 passengers. If you are interested in this option and want to try to find another delegate with whom you can share a ride, please call AirportLynx and request that they try to arrange for a shared ride with another delegate arriving at a similar time. For additional information and to book a ride, see their web site at <http://www.airportlynx.co.uk/>
2. Jetlink Coaches depart from Heathrow and Gatwick airports and arrive in Drummer Street, Cambridge every hour from 09.40 through until 03.20. Travel time is approximately 3.5 - 4 hours. Cost is approximately \$50. To get to the College, take a taxi from the Drummer Street station to Cripps Porter's Lodge off North Hanson Street. Jetlink Coaches from Cambridge to Luton-Stansted-Heathrow-Gatwick- Brighton leave from the Bus Station in Drummer Street, Cambridge (coach stops 12 to 15) every hour throughout the day, starting at 01.55 and last bus at 19.45. Whenever possible passengers should purchase a reserved ticket before travelling. Travel time is approximately 3.5 - 4 hours. For additional information and schedules, see their website at <http://www.gobycoach.com/>
3. From Heathrow Airport, take the subway to Kings Cross, from there take the train to Cambridge, and from the station in Cambridge take a taxi to Cripps Porter's Lodge off North Hanson Street. Total travel time is approximately 1.5 hours. Cost is approximately \$50. Trains depart London for Cambridge every 20- 30 minutes. Trains depart Cambridge to London every 10-15 minutes. For additional information and schedules, see their web site at <http://www.cam.ac.uk/cambarea/trains/>

Corporate Support

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FACULTY

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SCIENTIFIC PROGRAM

Sunday, September 15, 2002

3:00 pm - 7:00 pm
Registration

5:00 pm
Chauffeured bicycle ride to Granchester
Chauffeured punts tour of Cambridge

7:30 pm
Dinner at St. John's

Monday, September 16, 2002

Session I

Moderator: Stephen Large, FRCS

9:00 am
Welcome and Introductory Remarks, Stephen Large, FRCS

9:02 am
Setting the Scene, Nicholas R. Banner, MRCP

9:10 am
Donor Organ Quality Measures, Professor Andrew Bradley

9:20 am
Donor Heart Availability, James K. Kirklin, MD

9:45 am
The Domino Heart, Asghar Khagani, MD

10:10 am
Competing Outcomes Early After Heart Transplantation, David C. Naftel, PhD

Session II

Moderator: Edward D. Verrier, MD

10:30 am
A Step by Step Guide to Events During Brain Death, Dr. Martin Smith

10:50 am
Round Table Discussion

11:10 am
COFFEE

11:30 am
Early Studies of Cardiac Injury, Dimitri Novitsky, MD

11:50 am
The Catecholamine Tide, Paul Herijgers, MD

12:10 pm
Physiological Changes, Gabor Szabo, MD, PhD

12:30 pm
Early Physiological Measurement in the Human Donor Heart, Derek Wheeldon, PhD

12:50 pm
Echocardiography and Donor Hearts, Jonathan Zaroff, MD

12:40 pm
Further Studies in the Human, Dargoi Satchithananda, MRCP

1:10 pm - 2:10 pm
LUNCH

Session III

Moderator: James K. Kirklin, MD

2:10 pm
Novartis Debate: The Cardiac Changes Associated with Brain Death are Reversible.

2:10 pm
For the motion: TBD

2:20 pm

Seconded by Bruce Rosengard, MD
2:25 pm
Opposing the motion: Hartmuth Bittner, MD
2:35 pm
Seconded by Marlene Rose, PhD
2:40 pm
Group Discussion

Session IV

Moderator: Steven Tsui, MD, FRCS

2:50 pm
Discussion: Is the path of donor heart damage neuronal or humoral?
2:50 pm
Professor Manuel Galinanes
3:00 pm
Gabor Szabo, MD, PhD
3:10 pm
Group discussion

3:20 pm
What is the state of B receptors?
Emma Birks, MRCP

3:30 pm
Is further damage induced by exogenous catecholamines?
Professor John Dark

3:50 pm
TEA

Session V

Moderator: Bruce Rosengard, MD

4:30 pm
Myocyte energy production and storage, Ryszard T. Smolenski, MD, PhD

4:45 pm
ATP/ADP in the human donor myocyte, Serban Stoica, FRCS

5:00 pm
Transplant coronary artery disease, Roland Hetzer, MD, PhD

5:15 pm
Discussion & the day's closing remarks, Bruce Rosengard, MD

7:00 pm
Dinner at St. John's College

Tuesday, September 17, 2002

Session VI

Moderator: Professor Manuel Galinanes

8:00 am
Yesterday's conclusions , Stephen Large, FRCS

8:10 am

Inflammation and brain death, Martin Goddard, FRCS, MRCPATH

8:30 am

Endothelial activation through brain death? Paul Herijgers, MD

8:45 am

Do human donor hearts exhibit endothelial activation? Serban Stoica, FRCS

9:00 am

Coronary flow reserve, Peter Schofield, MRCP

9:15 am

Donor endothelial activation's long term effects, Marlene Rose, PhD

9:30 am

Can donor heart endothelial activation be controlled? Edward D. Verrier, MD

9:45 am

COFFEE

Session VII

Moderator: John Wallwork, FRCP

10:00 am

Quality measurement: Why? When? With what? Stephen Large, FRCS

10:10 am

Myocyte or heart preservation? Franklin Rosenfeldt, FRACS, MD

10:30 am

Physiological measurement, Professor Robert Naeije

10:50 am

Biochemical measurement and mechanisms of dysfunction, Nicholas R. Banner, MRCP

11:10 am

Histological measurement, Martin Goddard, FRCS, MRCPATH

11:30 am

Setting Standards and Concluding Remarks, John Wallwork, FRCS

Noon

ADJOURN