



DAILY

April 24-27, 2013 • Montréal, Canada

Links

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Schedule at a Glance

Friday, April
26, 2013

6:30 AM – 6:30 PM
SPEAKER READY ROOM
OPEN

6:30 AM – 6:30 PM
REGISTRATION DESK
OPEN

7:00 AM – 8:00 AM
SUNRISE SYMPOSIUM 4:
VAD
Optimization – Pump It Up
(517CD)

SUNRISE SYMPOSIUM 5:
The “Omics” of Cardiac
Transplantation
(511)

SUNRISE SYMPOSIUM 6:
Bronchoscopic Battles and
Anastomotic Atrocities
(510)

SUNRISE SYMPOSIUM 7:
Proteins and Pathogenesis
of PH
(512A-G)

SUNRISE SYMPOSIUM 8:
Avatars and
Advanced Care Planning
(513ABC)

SUNRISE SYMPOSIUM 9:
What's New in
Xenotransplantation?
(514B)

8:00AM – 9:30 AM
CONCURRENT SESSION
19: MCS 5: The Aftermath of

This issue of Daily
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REVIEW: It's All About the Outcomes



Pulmonary hypertension is a challenging condition to treat and the results are not always satisfactory in the long term.

During **Thursday's Concurrent Session 4, “PH1: All About Outcomes,”** data was presented outcomes in pulmonary hypertension.

To start off the session, Schilz et al presented data from the PROSPECT Registry evaluating the use of thermostable epoprostenol arginine (Veletri) in patients with pulmonary arterial hypertension (PAH). In a multivariate analysis, renal insufficiency, male sex, and functional class IV were significant independent predictors of mortality. Surprisingly, time from diagnosis to study entry was not an independent predictor. Further data is likely from the PROSPECT Registry, so stay tuned!

Continuing the theme of predictors on mortality, Cogswell et al attempted to develop a simplified prediction model. The REVEAL model, while a good predictor, is complicated, requiring 19 variables some of which may not always be present and some of which cannot be modified. These researchers developed a simplified REVEAL model, using variables including cause of pulmonary hypertension, NYHA class, BNP level, GFR, and echocardiographic findings. This model performed as well as the original REVEAL model and may be more useful clinically.

Vizza et al changed course slightly, looking at why PAH patients die. Reviewing 202 patients with 71 deaths, they confirmed that most deaths, approximately 60%, were due to right heart failure.

However, a significant proportion of patients died from either sudden death or extracardiac causes, and patients who died from an extracardiac cause had a lower BMI, suggesting that malnutrition may play a role. In addition, bleeding was a significant cause of extracardiac death, suggesting a re-evaluation of the role of anticoagulation in these patients.

Berman et al presented data that on the use of ECMO as rescue after pulmonary thromboendarterectomy. Approximately 5% of their patients were placed on ECMO after surgery for reasons including right ventricular failure, residual pulmonary hypertension, reperfusion injury, pulmonary hemorrhage, and cardiac arrest. Overall, 59% of these patients had survival to hospital discharge, which is higher than expected for post-cardiotomy support.

Mura et al presented data that osteopontin is a marker of disease severity in PAH. Using tissue from PAH patients after lung transplant and compared to normal lung tissue obtained during cancer resection, these researchers found that osteopontin gene expression levels were upregulated nearly four times the control. There was a significant correlation between gene expression and mean pulmonary arterial pressures. Although serum levels were not different, this raises hope for a biomarker in PAH.

Lastly, Bjurstrom et al presented data that pulmonary hypertension was present in up to 49% of patients of idiopathic pulmonary fibrosis, especially those with hypoxemia, lower DLCO, and lower six minute walk distances. However, there was no significant effect of pulmonary hypertension on survival.

VAD Implantation (517CD)

CONCURRENT SESSION

20: Heart 5: Advances in Interpretation of Cardiac Allograft Immune Activation (511)

CONCURRENT SESSION

21: Lung 3: Clinical and Immune Monitoring (510)

CONCURRENT SESSION

22: PH 2: Right Ventricular Matters (512 A-G)

CONCURRENT SESSION

23: NHSAH 2: MCS and Heart Transplantation (513ABC)

CONCURRENT SESSION

24: BSTR 2: Exploring and Modifying the Immune Responses (514B)

9:00 AM – 6:00

POSTER HALL OPEN

POSTER SESSION 3 (516)

Basic Science and Translation Research
Heart Post Transplant Complications
Lung Failure, Diagnostics, Therapeutics
Mechanical Circulatory Support
Pediatrics
Pharmacy/Pharmacology
Hypertension

9:00 AM – 2:00 PM

EXHIBIT HALL OPEN

9:30 AM – 10:00 AM

ANNUAL BUSINESS MEETING

9:30 AM – 10:00 AM

COFFEE BREAK/VISIT EXHIBITS/VIEW POSTERS

10:00 AM – NOON

PLENARY SESSION:
How to Succeed When the Right Ventricle Fails (517CD)

NOON – 2:00 PM

LUNCH BREAK

12:10 PM – 2:00 PM

COUNCIL MEETINGS

2:00 PM – 3:30 PM

CONCURRENT SESSION
25: MCS 6: Infectious Issues and Pump Failure (517CD)

CONCURRENT SESSION

26: Heart 6: Are all Antibodies Equal? (511)

Dr: Defining and Refining your Diction, part 2.

Now that we have had our **prelude** (recall pronunciation guide from yesterday) on diction, allow me to suggest that over time the spoken word can become altered by many different speakers from many different countries and many different cultures from all over the world to gather in Montreal for the ISHLT meeting. Many of us may not necessarily be learned or scholarly but at least we can sound **erudite** (possessing extensive knowledge acquired from books). The traditional pronunciation of erudite is without the long-u, ER-uh-DYT. However, some speakers are changing its pronunciation. They prefer the long-u found in assume, duty, opportunity, and student. These speakers love this “cultivated” sound, therefore this “u” gets phonetically carried over to erudite, AIR-yoo-DYT. This pronunciation is not incorrect. It has become acceptable and current dictionaries list them. From his book, *Big Book of Beastly Mispronunciations*, Charles Harrington Elster believes speakers who say erudite with the long-u, AIR-yoo-DYT, “smack of pseudo-sophistication or sham erudition, ER-uh-DISH-un, because they ignore the etymologically significant ‘rude dwelling’ within these words and illogically transform the short Latin u into a long English u.” Do we leave this with the ages or preserve tradition?

What’s in a name ? (or an acronym?)

In 1821, James McGill bequeathed a portion of his lands for the construction of a university in Montreal, the city’s first. It was a difficult task, as the trustees almost didn’t collect the funds in time to meet the testament’s 10 year deadline for completing construction. But by 1829, classes at McGill’s medical school had begun and four years later its first graduate received the first MD CM awarded by McGill. As an interesting quirk, because McGill was setup by men who had graduated from the University of Edinburgh it followed that university’s tradition of bestowing an MD CM (medical doctorate and master’s in surgery) degree on graduates rather than the usual MD. As such a McGillian is always readily identifiable by his distinctive credentials. So as you walk around the convention center this week, keep an eye peeled at people’s badges. You just might spot a local. They will likely be able to tell you where the best restaurant’s are.



PREVIEW: Failure is Not an Option

The right ventricle has been a recurring theme at this year’s conference, and for good reason. Patients with end stage heart and lung disease are at high risk for right ventricular failure, and treatment of right heart failure is problematic with a tendency to develop a vicious cycle culminating in death. It has been said that the best way to treat RV failure is to prevent it. During today’s Plenary Session, experts will discuss **“How to Succeed When the Right Ventricle Fails.”** Dr. Andrew Redington will review normal right ventricular structure and function and review the pathophysiology of right ventricular failure. Dr. David Langleben will review how to assess the failing right ventricle both clinically and with different imaging modalities. Dr. Daniel Bernstein will tackle the problem of a failing systemic right ventricle, from the bench to the bedside, a useful notion for physicians taking care of patients with congenital heart disease. Dr. John Granton will discuss medical management of right heart failure, and Dr. Martin Strueber will discuss surgical management, including assist devices and transplant. Do not miss this plenary session!

PREVIEW: Gaining an Edge in North America

After the battle of the Plains of Abraham, Montreal remained the final obstacle to the British conquest of North America. So too, anti-donor antibodies remain obstacles to successful transplantation. The **AST-ISHLT joint session** on Friday will review this precise topic. Antibody detection and use of the C1q assay, the process of sensitization and desensitization, and the use of virtual cross-matching.

The second part of the session will look at antibody mediated rejection and examine the role this process plays even in non-thoracic transplantation. This session will bring together both thoracic and non-thoracic transplant communities. However, unlike Wolfe and Montcalm on the Plains of Abrahams, we have every reason to believe nobody will be killed at this encounter.

CONCURRENT SESSION
28: MCS 7: Changes in
Physiology during Support
(512A-G)

CONCURRENT SESSION
29: Donor Management 2:
Rethinking the Cardiac
Donor (513ABC)

CONCURRENT SESSION
30: Heart 7: Heart Failure –
What's New in
Transplantation (514B)

3:30 PM – 4:00 PM
COFFEE BREAK/VIEW
POSTERS

4:00PM – 5:30PM
CONCURRENT SESSION
31 MCS 8: The Cost for
Quality of Life after VAD
(517CD)

CONCURRENT SESSION
32: Heart 8: Mechanisms
and Markers of Acute
Rejection (511)

CONCURRENT SESSION
33: Lung 5: BOS – An
update (510)

CONCURRENT SESSION
34: PH 3: Right Ventricular
Assessment and Function
(512 A-G)

CONCURRENT SESSION
35: PEDS 2: Mechanical
Circulatory Support in
Children (513 ABC)

CONCURRENT SESSION
36: PHARM 1: Innovative
Pharmacotherapeutic
Approaches (514B)

4:00 PM – 5:30 PM
SYMPOSIUM 27:
ISHLT/AST JOINT
SESSION II.
Antibody-Mediated
Rejection: State of
the “Current” Art
(513DEF)

5:30 PM – 6:30 PM
MINI ORAL POSTER
ABSTRACT SESSIONS
POSTER VIEWING/WINE
AND CHEES
5:30PM – 6:30PM

GENERAL POSTER
SESSION 3 (516)

MINI ORAL SESSION 10
Pediatrics and Infectious
Diseases (512D)

MINI ORAL SESSION 6:
Heart Failure, Diagnosis
and Therapy (513ABC)



PREVIEW: Our Heartfelt Little Ones

Pediatric patients may not be little adults, as the ever-exacerbated pediatrician will tell you. However, it does appear that they have little RNA, microRNA to be precise. MicroRNA is a prognostic biomarker in pediatric heart failure according to the session by Dr. Miyamoto during **Peds 1: Heart Failure and Transplantation**. Unfortunately, younger children appear to be waiting longer for heart transplantation than their infant or older child counterparts. Children are fairly resilient though, since according to the presentation by Dr. Richmond, unlike adults pulmonary vascular resistance in children does not appear to be a negative prognostic marker. One wonders if that means that young hearts are better able to adapt to the increased afterload on the right ventricle. In a similar vein, Fontan patients frequently had CT evidence of cirrhosis but this did not seem to be associated with mortality. Not all is rosy though, since those children listed for transplantation from ECMO or mechanical ventilation has not seen the same decrease in mortality that other patients have seen. Similarly, maintenance steroid therapy post heart transplantation was associated with less severe hemodynamic compromise but at the expense higher incidence of cancer. It also did not affect graft survival. So clearly much reason to hope but much still left to be done for our littlest patients, different as they may be from the bigger adults.



REVIEW: Who's next? Allocation in times of organ shortage and improving VADs

Recently, an increasing numbers of patients on the heart transplant waiting list faced a smaller number of organ donors resulting in longer waiting times, acceptance of marginal organs and decreasing survival rates after heart transplantation. Given the data can we still apply current allocation criteria? In Wednesday's morning symposium two different allocation systems were evaluated and discussed if it is time for new allocation algorithms covering expected success after transplantation comparable to the lung allocation score. On the other hand one third of patients awaiting heart transplantation are currently bridged to transplant by a VAD. Outcomes after continuous VAD implantation increasingly improved and are comparable after 2 years now. These patients are not well represented in current allocation criteria. In daily practice physicians often have to decide whether to better implant a VAD or list the patient for transplantation. The question is: should stable patients have priority on the waiting list before they develop complications on the VAD? Wednesday's sessions discussed these topics and how to deal with this dilemma. 2013: who will receive a heart transplant? Will heart transplantation be reserved only for the patients with short history of heart failure, less comorbidities and the best expected benefit? Really a hot topic!



PREVIEW: The Storm Of CF

Any clinician taking care of the cystic fibrosis is aware of the unique challenges in this population, including diabetes and malnutrition, multi-drug resistant infections, the need for dosing adjustments of medications, high incidence of gastrointestinal complications, and post-transplant complications including infection and chronic rejection. During Saturday morning's "**Symposium 28: Pharma Symposium: A Lifecycle Journey in Cystic Fibrosis and Lung Transplantation**," experts will help address some of these issues as they follow a patient through the transplant journey. Dr. Denis Hadjiadis will help provide insight into the treatment of multidrug resistant organisms, including Mycobacterium abscessus and Burkholderia cepacia, and their implications for transplant. Dr. Joseph Pilewski will discuss early post-transplant care of these patients, with a special emphasis on preventing early allograft infection with resistant pathogens. Dr. Haifa Lyster will review dosing considerations for medications post transplant. Last, Dr. Peter Hopkins will review strategies to prevent obliterative bronchiolitis in this population including the use of various immunosuppression protocols, aggressive treatment of gastroesophageal reflux disease, and the use of azithromycin. He will finish with discussion of novel therapies including mesenchymal stem cells, IL-17 receptor blockers, and pirfenidone.

MINI ORAL SESSION 7:
Mechanical Circulatory
Support II (513DEF)

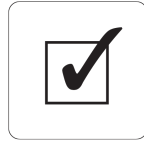
MINI ORAL SESSION 8:
Lung Failure, Heart Donor
Management and Lung
Donor Management (514B)

MINI ORAL SESSION 9:
Nursing, Health, Science
and Allied Health (514C)

7:30 PM – 8:45 PM
PRESIDENT'S COCKTAIL
RECEPTION
La Ruelle des
Fortification

ERRATA: Words Examined

Recombination area
should be
recombobulation area



REVIEW: Focus on the Right Heart


The right ventricle is often under appreciated. Much like a middle child, it is often neglected right up until the point when it stops working properly. So how shall we give the RV the respect it deserves? The speakers at **Heart 2: Heart failure – focus on the right heart** did just that. Thursday's sessions dealt with that oft-neglected ventricle. Dr. Gill reviewed the interesting proposition that RV function could be predictive of outcome in non-ischemic cardiomyopathy patients but not ischemic ones. Dr. Haddad followed with an examination of ways to assess RV dysfunction in hypertrophic cardiomyopathy. Dr. Sasser presented on the benefits of Sildenafil therapy in heart failure (other benefits of sildenafil were tactfully omitted). Dr. Patel did a double dose presenting on the RA/PCWP ratio as prognostic marker (which disappoints) and on discordant right and left sided filling pressures, which are more common than we expect. I guess all those hours spent staring at the JVP of patients may have been for naught.

Follow us at @ISHLT and join the conversation! #ISHLT2013

 **Jennifer Cowger** @preventfailure 24 Apr
#ishlt2013 I was amazed at how different organ allocation practices are across the world
Expand

 **Kristina Hidalgo** @HidalgoNP 2h
Great talk about late right heart failure & distinguishing if it is persistent early right heart failure or a separate entity #ISHLT2013
Expand

 **Alexander Bernhardt** @bernhardt_ 24 Apr
Great debate on allocation and VADs by Hermann Reichenspurner and Joseph Rogers #ISHLT2013 #VAD #allocation #Hearttransplantation
Expand

 **Josef Stehlik** @JosefStehlik 10 Apr
ISHLT: A really nice meeting app. Congrats. (P.S. 'You guys' made me join twitter...) #ISHLT2013
Expand

 **Stuart Sweet** @StuartCSweet 22h
Wow. Posters are packed! #ISHLT2013. Squeeze in...
Retweeted by The ISHLT
Expand

 **Cobalt Jacket** @cobaltjacket 14 Apr
.@ishlt As a TX parent, it feels good to see three of my son's docs speaking at #ISHLT2013. They are obviously accomplishing Big Things.™
Retweeted by The ISHLT
Expand