IN THE SPOTLIGHT: An Update from Your President

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It hasn’t even been two months since many of us were together in Washington D.C., but there has been a lot happening in the ISHLT and I want to take this opportunity to share some of these things with you, our members.

Shortly after the Annual Meeting, Dr. Carla Baan resigned her position on the Board of Directors due to other commitments not allowing adequate time for her to actively participate. We want to thank Carla for her past contributions to the ISHLT and look forward to her ongoing participation as an ISHLT member. Carla’s resignation left a 1 year term on the Board open and the Board has appointed Dr. Stephan Ensminger, MD, DPhil, a Cardiothoracic Surgeon from Bad Oeynhausen, Germany to fill this vacancy. We welcome Dr. Ensminger to the Board and look forward to his continued contributions to the ISHLT as a Board member!

The dust has barely settled on our very successful meeting in Washington D.C. and yet we are already actively planning for the 2017 Annual Scientific Sessions to be held in San Diego April 5-8. The Program Committee, led by Dr. Jeff Teuteberg, has received nearly 150 symposium proposals and the symposium planning committee members are hard at work putting together the best proposals possible from the submissions received. The symposium planning committee will be meeting in mid July to finalize the symposium schedule, but this is only the beginning. The Abstract Selection Committee is currently being appointed by Dr. Teuteberg and this will be followed by selection of abstract reviewers. Finally, the call for abstracts has been prepared and will be distributed to the members with an abstract receipt deadline of October 25, 2016. We request that you begin making plans now to submit your best basic and clinical science abstracts to be considered for presentation at the San Diego meeting. It is through the ongoing active participation of our members that the ISHLT Annual Meeting keeps getting better and better!

I also want to let you know that members of the Board, Strategic Planning Group, and Committees have been actively working to move forward on the priority strategic objectives reported to you in the May LINKS. The Education Committee has been developing policies/procedures to be used when considering the Endorsement of meetings or the provision of In-Kind Educational Grants to assist other organizations in developing meetings where the ISHLT can provide content expertise. It is hoped that policies regarding these activities can be acted upon by the Board during our July conference call and after they are approved such collaborative educational activities can be developed. The Governance Committee has been formed, chaired by Past President Duane Davis, and including Andy Fisher, David Taylor, Paul Corris, Richard Kirk, Stuart Sweet and me. Over the next few months this committee will not only take over the role of the previous nominating committee, but will also begin to develop job descriptions for ISHLT officers, Directors, Committee and Council Chairs, and Work Force leaders, a necessary first step to allow the evaluation ISHLT
leaders, programs and services. Discussions regarding the best platform to use for virtual meetings, for both educational and committee/council purposes, are ongoing. In addition, preliminary discussions have occurred regarding how best to proceed with the development of an ISHLT Research & Quality Innovation Task Force to explore partnerships with outside funding sources to provide additional resources to facilitate our Strategic Imperative to Improve Science and Drive Innovation. Thanks to each of you for your contributions to our very vibrant organization! Please let me or any of the ISHLT leaders know should you have any questions, suggestions or concerns.

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2015 JHLT Impact Factors Released

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I am pleased to announce that the 2015 Journal Impact Factors were released today and JHLT (Journal of Heart and Lung Transplantation) has continued its strong upward trajectory.

Our new Impact Factor is 7.509 which has risen from 6.650 last year. We received 8,788 citations in this review period compared to 8,562 last year showing a robust increasing trend.

We continue to rank 1/25 in Transplantation (AJT IF this year was 5.669), have now moved to 2/199 in surgery, increased to 5/58 in respiratory medicine and 8/124 in the very competitive cardiovascular category (beating all heart failure journal including JACC-HF, Circulation- HF and the European Journal of HF)

Thanks again for your support of the Journal and its leadership.

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Running Out of Air: Chronic Lung Allograft Dysfunction due to Respiratory Viral Infections

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Chronic lung allograft dysfunction (CLAD) is nomenclature that consists of a syndrome of progressive loss of function and graft loss that was originally described in heart-lung transplant recipients in 1984 [1]. It is an irreversible cause of long term allograft failure and death affecting up to 45% to 75% of patients within five years after a lung transplant [2]. It is recognized as consisting of two distinct phenotypes, bronchiolitis obliterans syndrome (BOS) and restrictive CLAD (R-CLAD). A considerable number of risk factors have been associated with CLAD. These have historically included alloimmune rejection events; acute allograft injury as well as non-immune events like gastroesophageal reflux and air pollution [3]. The greater the degree of HLA mismatch between the recipient and the donor, the higher is the risk of chronic rejection. More aggressive and effective immunosuppressant therapy has managed to decrease the incidence of acute allograft rejection but the rates of CLAD have continued unabated [4]. This implies that other factors in addition to the autoimmune mechanism are to blame for the development of CLAD.

An important non-immune risk factor for development of CLAD is the role of respiratory infections. Cytomegalovirus (CMV), respiratory viruses, bacteria and fungi that can routinely colonize or infect the respiratory tract have been implicated in causing CLAD [3]. Bridges et al. in 1998 described graft failure after adenoviral infections in lung or heart-lung transplant patients [5]. A year prior CMV pneumonitis was described as a significant risk factor for the development of BOS [6]. CMV pneumonitis in particular is linked with an increased production of an inflammatory cytokine CXCL10 which has been directly linked with decreasing FEV1. Increased production of other cytokines such as CCL 2 and CCL 5 during CMV pneumonia, also predict the development of BOS and mortality in patients with a lung transplant [7].

Kumar et al. showed that symptomatic or asymptomatic community acquired respiratory viral infections were significantly associated with BOS compared to patient with a negative multiplex viral PCR test. The most common virus isolated was rhinovirus. Interestingly, community acquired viral infections did not have an impact on acute rejection [8]. Magnusson et al. followed up 3 years later with a retrospective cohort study demonstrating patients who had a respiratory viral pathogen isolated from BAL’s within a year of their transplant had significantly faster development of BOS compared with patients who did not [9]. There have been older studies with conflicting data that show no impact of respiratory viral infections on allograft dysfunction, but these studies utilized older methods of isolating viral pathogens and only evaluated a limited scope of viruses [10]. They were also limited by small samples sizes. Recently, a more comprehensive retrospective analysis showed a significant and independent temporal link between symptomatic respiratory viral infections and the development of CLAD [11].
Historically there are data that both supports and negates the risk of respiratory viral infections and the risk of developing CLAD. The evidence however, is increasingly pointing to the former. This highlights an urgent need to prevent lung transplant recipients from being exposed to community acquired viral infections. Influenza, which is an important pathogen linked to CLAD, can be immunized against safely and effectively in the transplant population [12]. Effective immunization of healthcare workers and family members taking care of these patients adds another important layer of infection control. Other factors can assist in preventing nosocomial outbreaks of respiratory viral infections as well. These include effective hand hygiene as well as routinely admitting lung transplant recipients into mandatory masking and positive airway pressure rooms. Preventing contact with healthcare workers with a respiratory illness by re-assigning them to other non-immunocompromised patients can be an effective strategy as well.

Currently we have effective anti-influenza therapy and ribavirin that is sometimes used to treat symptomatic patients with respiratory syncytial virus (RSV), parainfluenza virus and human metapneumovirus. But there are no effective therapies for a number of other common respiratory viruses. As more studies continue to demonstrate a definitive link between community respiratory viruses as a risk factor for CLAD, there should be more momentum to discover effective and less toxic treatments of these other viral infections as well. Until then, infection control and prevention remain our best strategies in preventing this vulnerable population to succumbing to acute respiratory viral infections and the late sequelae that follows.

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References:


Thoracic Transplantation on the Cusp of the Post-Antibiotic Era

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The lead article in the May 21, 2016 issue of The Economist, entitled “When the Drugs Don’t Work,” was, in my opinion, brilliant [1]. As a transplant infectious diseases specialist, I think about antimicrobial resistance on a daily basis. I often find myself needing to use older, toxic antimicrobials in combinations that have not been systematically evaluated in clinical trials in an attempt to manage multidrug resistant infections, such as those due to carbapenem-resistant Enterobacteriaceae. We are often able to effectively treat these infections; however, antimicrobials such as the polymyxins and aminoglycosides, especially when used in conjunction with calcineurin inhibitors, can lead to toxicities such as kidney injury, which may in turn have deleterious downstream effects on patient and graft outcomes.

While there are a few newer agents currently available, including ceftazidime-avibactam and ceftolozane-tazobactam, as well as a small number of additional agents in development, the pipeline remains relatively dry. Compound these issues with more recently described mechanisms of antibiotic resistance, including the MCR-1 gene conveying resistance to colistin, it becomes apparent that we are headed towards a post-antibiotic era.

So why was the article in The Economist so remarkable? It highlighted the need to fight antimicrobial resistance on several fronts, including policy change, encouragement of innovation by decoupling payments from sales, focusing on the cost of antibiotic resistance to society as a whole, and most importantly emphasizing behavioral change among physicians, patients, and the agricultural industry [1]. At the end of the day, we are all stakeholders in this issue.

My message is not one of doom and gloom. Rather, I prefer to look at the current state of affairs as an opportunity to impact change on a global scale.

In March 2015, the White House released the National Action Plan for Combating Antibiotic-Resistant Bacteria, which stated that “antibiotic resistance is a global health problem that requires international attention and collaboration because bacteria do not recognize borders.” It recommended formalized stewardship programs to reduce antimicrobial resistance and stressed the urgent need for global collaboration [2]. Solid organ transplant recipients are particularly vulnerable to the acquisition of multidrug-resistant organisms (MDROs) due to poor functional status, prolonged hospitalization, previous colonization and/or infection with MDROs, and the excessive and often protracted use of broad-spectrum antimicrobials [3]. Stewardship programs have been effective in decreasing the inappropriate use of antibiotics and limiting the evolution of antimicrobial resistance without negatively altering clinical outcomes [4]. However, while our patients likely benefit from the downstream effect of hospital-wide stewardship initiatives, there is currently no formal guidance on antimicrobial stewardship for organ transplant recipients [5].
As healthcare providers, I challenge us, regardless of specialty, to be an antibiotic steward. We should use rapid diagnostic testing as available, review antibiotic use on a daily basis, work together in an interdisciplinary manner to ensure that the choice of antibiotic, dose, and duration are appropriate for each patient we treat. Globally, we, as members of the International Society for Heart & Lung Transplantation, have a unique opportunity to pioneer thoracic transplant stewardship. The evolution of antibiotic resistance is real, but we can be the drivers of major change now and ensure that not only our patients, but our society agriculturally and environmentally from hospitals to homes will continue to thrive in the future.

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References:
When Your Transplant Recipient Travels Overseas

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“Thank you doc, I’m glad my heart transplant is doing fine. I’ll see you next time. Oh and by the way, I’m travelling with my friends to the Brazilian Amazon in a month. Should I take anything for that?”

Most providers have been in that situation and that sense of bewilderment that takes you over is unshakeable. As the number of heart transplant recipients grows each year, with many of them living longer and healthier lives, travelling has become more frequent. In this globalized world, many transplant recipients are increasingly choosing international destinations [1]. While an exciting and rewarding undertaking, travelling overseas represents unique challenges to transplant recipients and must be carefully evaluated by the transplant team. For one, transplant recipients are at a significantly higher risk of contracting opportunistic and travel related infections [2-4]. Second, they are less likely to respond to important travel related vaccines [5]. Third, immunosuppressive drugs can have important drug interactions with common travel related medications.

Unfortunately, studies have shown that despite pitfalls many transplant recipients fail to seek timely or any pre-travel medical advice even when travelling to high risk areas [1, 6]. Some of the more common reasons included thinking that it is not necessary, not knowing about the need for pre-travel medical advice and not being advised by their physician or coordinator to seek medical advice. This leads to overall low rates of vaccination, poor adherence to safety measures such as mosquito precautions and basic food hygiene, among others. When problems occur, they not only lead to significant morbidity but also decrease quality of life.

It is therefore extremely important for the transplant team to alert their patients to the potential risks involved in overseas travel and seek expert advice well ahead of time. Travel related vaccines and prophylaxis, as well as important safety related tips are all best addressed during a dedicated pre-travel visit with a specialist familiar with transplant patients [5, 7]. The following are some of the most important topics that should be discussed with transplant recipients wishing to travel overseas.

**When to travel after transplant?** Whether to attend a wedding or visit a sick family member, patients don’t always get to decide when to travel. Many do, however, so when possible patients should be discouraged from travelling to high risk areas during periods of greater immunosuppression. This not only generally includes the first year after transplant but also several months after treatment for rejection.

**Where to go?** Once again, patients don’t always get to decide where to travel and with careful preparation many places are safe. However, some destinations should give the transplant recipient
and the provider some pause. For example, destinations where yellow fever is endemic are not appropriate because transplant recipients cannot receive the yellow fever vaccine. Areas with active outbreaks of disease should also be avoided. Knowledge of these areas requires some continued updating from reliable epidemiological source. Cruise ships are generally thought of as safe however severe viral outbreaks occur and can severely affect the transplant recipient. Most significant at this time, the Zika virus outbreak in Central and South America as well as in many parts of the Caribbean (see figure) represents a major health risk and the majority of experts recommend that transplant recipients avoid travelling to these areas for the time being [8].

**What is planned for the trip?** This is a large topic and will vary with each circumstance but some basic common sense should prevail at all times. For example, because of poorer sanitation and decreased access to health care, backpacking through the countryside in many areas of the world is likely much riskier than staying at a big urban center. Visiting family and friends, although often thought of as safe, can actually increase risk for food/water borne infections.

**What precautions should be taken?** There is a long list of safety measures many depending on the destination. Because diarrhea is the most common illness affecting travelers, a detailed discussion on food and water precautions is essential. Transplant recipients should only drink boiled or bottled water and avoid ice, unpasteurized dairy products and raw/undercooked foods. Good hand hygiene might help prevent some respiratory viral infections. Mosquito precautions with bed nets, repellants and protective clothing might help with preventing malaria as well as dengue, Chikungunya and Zika viruses. In regions where *Schistosoma* species is endemic, travelers should avoid swimming in fresh water. Finally, travelers should be counseled on bloodborne and sexually transmitted infections including not sharing needles, acquiring tattoos or having unprotected sex with new partners.

**What vaccines should be given?** For many travel related vaccines, their efficacy in transplant recipients is diminished and thus it is strongly encouraged that patients complete each vaccine series well in advance of travelling. Vaccine boosters are sometimes necessary. Most importantly, all travel related live vaccines are deemed contraindicated for transplant recipients, including yellow fever, oral polio, Bacille Calmette-Guerin (BCG) and oral typhoid vaccines. Safe travel related vaccines include Hepatitis A and B, meningococcal conjugate, inactivated polio, rabies and Japanese encephalitis. The cholera vaccine is also safe but not available in the United States.

**What prophylactic medications should be prescribed?** Malaria prophylaxis should be given when indicated. The CDC’s Yellow Book maintains a list of countries and regions where it is needed [9]. Further, drug resistant is a common and serious issue, dictating what prophylaxis regimen is effective. Because of its efficacy and minimal side effects, atovaquone-proguanil is the most common drug prescribed. Doxycycline is also effective and well tolerated, except when significant sun exposure is expected. Most transplant recipients are also usually prescribed antibiotics (either a fluoroquinolone or azithromycin) for empiric self-treatment of recurrent diarrhea associated with fevers and blood/pus in stools.
Where can one obtain more information? There are many online resources and guidelines available to the providers and patients. These include the Centers for Disease Control and Prevention travel website (http://wwwnc.cdc.gov/travel/), which maintains excellent and detailed information on infectious risks for each destination along with travel advisories and current outbreaks. For more specific discussion on transplant recipients, and directed for providers, the AST guidelines offer guidance on vaccines, prophylaxis and other issues.

Travel related infections represent a serious risk to transplant patients but a timely visit to a travel clinic can help prevent most of these complications. With those issues addressed, your patient can travel more confidently and enjoy the trip!

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References:
Donor Management Research Update and Double Randomization

Donor management research is critical to transplant recipients. Immunomodulating effects of pre-procurement injury not only affect the incidence and severity of primary graft dysfunction but also could promote antibody-mediated rejection. Donor management meaningfully influences organ utilization, early graft function, and long-term graft survival. It therefore directly affects wait-list deaths, costs (postop ICU care), and transplant benefits (quality of life and graft longevity).

As previously reported in Links, two HRSA funded consensus conferences were held (Donor Intervention Research Expert Panel November 2014, Crystal City and May 2015, Philadelphia) to define barriers to donor management research and explore their possible solutions.

Two of several conclusions of these conferences were:

1. Need for a national oversight board to vet for scientific merit, provide safety monitoring and facilitate transplant center IRB approval analogous to existing national IRBs.
2. Recognition that the existing network of regulations which safeguards us from human research abuse is a misfit for donor-related research in the complex context of organ allocation.

As a result, the IOM (now National Academy of Medicine) plans a study of donor management research which will result in recommendations addressing the barriers impeding this important research. Highlighting the importance and momentum of this issue was the announcement at the June White House Summit on Transplantation of a 4.2 million dollar grant to the new Donor Management Research Institute generously provided by the Arnold Foundation.

During the two DIREP conferences, at least one solution surfaced for almost every barrier explored, except one: double randomization.

Double randomization occurs if an organ from a donor in a randomized study is transplanted into a recipient also enrolled in another randomized study. Generally, this event can result in disqualification of the recipient from their trial.

Double randomization is the one issue for which my DIREP notes come up blank over and over again. It was the one issue habitually moved to the "parking lot."

However, two other clinical phenomena disturbingly broaden our consideration of donor-related double randomization. First, donor management is not uniform between OPOs. Steroid, hormonal,
and other therapies that vary across OPOs are commonly not reported in transplant studies that have recruited donors from multiple OPOs and from which intra-OPO protocols may have changed over the course of the recipient study. Secondly, donors may already be in a randomized study before they are donors. Pre-brain death (pre-donor) randomized interventions are actions about which transplant teams and their "randomized" recipients are generally unaware. Until the New England Journal’s publication of the Hypothermia Trial (Niemann CV et al, *NEJM* 2015;373:405-414), disclosure of donor randomization had never, to my knowledge, been provided on DonorNet offers associated with a randomized donor intervention. The hypothermia disclosure occurred only because of the foresight and rigorous efforts of the authors, recognized leaders in donor management research.

Double randomization applied to the donor-recipient relationship is unique in its application of the concept, and its harmonization is necessary to increase the number and quality of organs and standardize the reporting of pre- and post-brain death pre-procurement donor interventions.

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IMACS and the Global Evolution of Mechanical Circulatory Support

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After three years of global data collection, the ISHLT Registry for Mechanical Circulatory Support (IMACS) is poised to report the global evolution of Mechanical Circulatory Support (MCS) therapies. Thirty-one countries are currently represented in the IMACS database (Figure 1). Total patient enrollment now exceeds 10,000 patients, supporting the IMACS mission of promoting scientific investigations and publications based on analyses of the international MCS experience. Nearly one-third of patients are actively listed for transplantation, whereas over 40% received a durable device with the intention of long-term or “destination” therapy. Isolated left ventricular support has been utilized in over 90% of patients. The most common age group is 50 to 69 years, accounting for nearly 60% of patients. More than 80% of patients at the time of implant are inotrope dependent and often in rapid circulatory decline. Penetration into ambulatory heart failure has been limited, accounting for less than 5% of patients at implant.

The overall survival of 80% at one year and 70% at two years reflects the improved outcomes experienced world-wide with current generation continuous flow pumps. The primary causes of mortality are multi-organ failure, complications of right heart failure, and neurologic events. Bleeding and infection are the major adverse events both within the first three months and later. Analyzing the first 2 years of follow-up, the greatest risk of mortality occurs within the first 3 months after implant, with a constant phase of risk thereafter out to about 2 years (Figure 2). Older age, higher body mass index, INTERMACS profiles 1 and 2, the need for bi-ventricular support, a smaller left ventricular cavity size, concomitant cardiac surgery, poor nutritional state, renal dysfunction, and hepatic dysfunction were identified as risk factors for early mortality.

The IMACS analysis noted that elderly patients, particularly over about age 65, are especially vulnerable to the added risk of major associated comorbidities and/or circulatory collapse at the time of implant. The risk of death within the first year is nearly twice as high for a 70 year old compared to a 40 year old patient in the presence of renal failure, cardiogenic shock, or the need for bi-ventricular support.

The entire IMACS team wishes to give special thanks to all of the contributing IMACS hospitals and the collectives from EUROMACS, JMACS, INTERMACS, and the United Kingdom for supplying their patient data to ISHLT. Our goals for the coming year focus on expanding the number of enrolling hospitals and collectives and enhancing IMACS research under the purview of our IMACS Research Sub-committee (Chair, Jennifer Cowger). For anyone wishing further information about participation in IMACS, please refer to our website at www.ISHLT.org/registries or email us at: IMACS@uabmc.edu. Telephone inquiries can be made at 205-975-3906.

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During the American Thoracic Society (ATS) meeting in May, several interesting and relevant topics were discussed in the poster session “Contemporary questions in lung transplantation”. The topics were broad – ranging from persistent questions on the benefit of surveillance bronchoscopies in the lung transplant population while others addressed newer issues regarding the adequacy of the lung allocation scoring system and the concept of body composition, frailty and outcomes after lung transplantation. Here are some intriguing musings from this ATS session:

**Potential improvements in the Lung Allocation system gained favored responses...**

In two separate abstracts, Mooney and colleagues showed that both broader geographic sharing in patients with LAS > 50 and multiple listed lung transplant candidates decreased waitlist mortality suggesting that these may be important alterations to incorporate into the LAS. On the other hand, Nunley et al. showed that small changes in the LAS while listed may actually decrease chances for waitlisted patients to get transplanted.

**Health related quality of life (HRQL) is now getting the attention that it has deserved...**

While Dilling et al showed that the majority of patients having an improvement in their quality of life, the rigors of post-transplant care may result in worsening depression, anxiety and suicidal ideation, two abstracts from the UCSF group (Singer and Shah and colleagues) showed significant improvements in all lung transplant recipients including those with connective tissue disease.

**Much to be gained by understanding Body composition as opposed to BMI...**

Several studies are now assessing the importance of body composition compared to BMI to determine effect on outcome. By utilizing dual energy X-ray absorptiometry (DXA) scanning, Ahmad and colleagues were able to measure body fat percentage (BF%). They found that BF% was higher than predicted by BMI calculation and there was an association with BF% and increase length of stay and one year readmissions in COPD patients. Debiane and colleagues evaluated skeletal muscle (SM) and visceral fat (VF) by using SliceOmatic software via chest CT scan. They found that an increased axial VF:SM ratio was associated with a reduced 6MWD up to one year post transplant. Li et al. also measured pectoralis muscle area (PMA) by single axial CT imaging and found that although there was an overall association with BMI, there were several cases where this was not true. Finally, Madahar and colleagues used DXA scan to define lean body mass and sarcopenia was defined as an appendicular skeletal muscle index (ASMI). They found that 90% of lung transplant candidates had abnormal body composition and 25% were simultaneously obese and sarcopenic.
The limitations of PFTs continue to foster studies for diagnostic testing for BOS/CLAD...

Barbosa and colleagues looked at a novel imaging method, Functional Respiratory Imaging, using paired inspiratory-expiratory CT scan and found it to be an excellent technique to measure regional drivers for FEV1 decline. Using this technique could serve as a predictor for BOS. Ventilation heterogeneity as measured by the Multiple Breath Washout using Nitrogen by the Melbourne group showed that 6 month elevations was associated with increased risk of BOS / mortality within 4 years.

To perform or not to perform surveillance bronchoscopies that remains the question...over the past decade.

Two abstracts from Michigan (Haupt et al.) and Cleveland (Inaty et al.) readdressed the question with a lively discussion from the audience. Both groups showed that surveillance bronchoscopies (done within the first three months post-transplant) resulted in positive clinical findings. However, debate remains whether changes in management from these bronchoscopies affect outcome and whether there is a true overall benefit versus risk of surveillance bronchoscopies. The discussion continues...

We were reminded of various post-transplant conditions that may result in poorer outcomes...

These conditions included bronchiectasis (Kennedy et al), early nosocomial adenovirus (Mohamedaly et al) and early rehospitalizations (Courtwright et al) all resulting in higher than expected mortality after transplantation. However, Weigt and colleagues shed some positive light on outcomes showing that lung transplant recipients with weak to moderate range DSA could successfully undergo transplantation.

Refining our understanding of medical management and biological predictors for lung transplantation also seemed to be a recurring theme...

Circulating plasma elastase was found to be strongly associated with BOS development by Milla and colleagues, while Anderson et al. showed that neuron specific enolase is an early marker of delirium in lung transplant recipients with predictive/prognostic utility. Thoracic adipose tissue that was sampled in lung transplant recipients from the Lung Transplant Body Composition study cohort elicited a distinct gene expression profile associated with lung allograft reperfusion suggesting a link between recipient adiposity, PGD and mortality.

Last but not least a potpourri of important topics in lung transplant...

A European study of viral respiratory tract infections in lung transplant recipients showed a significant variability in the management of patients thus emphasizing the importance of prospective trials to guide practice patterns. Lastly, the BODE index, which has been used to prognosticate COPD
candidates for lung transplant, was found to have decreased prognostic implications in lung transplant due to low incidence of comorbid conditions contributing to mortality in this population.

And there you have it. Our lung transplant community continues to eagerly study the important conundrums in lung transplantation in an effort to improve outcomes!

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Poems from ISHLT: I am a Doctor

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I am a doctor. My patients are fragile.
My hands touch their skin a neutral way.
Noncommittal touch is an asset.

A toddling child, unsteady on his legs,
is my first patient today. His heart heaves to
and from beneath my hands. He plays

with the pens in my pocket. I tell his mother,
He needs an operation. She cries
My hand touches her arm. There, there.

I begin to button the boy's shirt,
my fingers clumsy, unused to this work.
His mother reaches to fasten him closed.

My hand
weaves into his hair. But,
he is not my child...
(There, there...)
He is my patient.

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Poems from ISHLT: Hospital Death (1993)

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The winding down of once white sheets,
all can see the stains and holes.
The cloth unwinding,
clothing the dead as winter snows.
The white peaks of forehead and
face and chest and toes.
The hands of the dying
are the hands of the dead.
They are cold, they are cold.
They are lying unfastened or grasping,
as they go, as they go-
The opening of the exit door,
The turning off of the ventilator.

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EDITOR’S CORNER: The ISHLT Links Newsletter: Its Mission and Vision 2020

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The ISHLT Links Newsletter is a reflection of what the ISHLT represents and how we perform as a group. Because the Links is free for all the world to see for anyone with internet access, we are transparent and accountable for its content. Although there could be downsides, with proper decorum and appropriateness, the upsides surpass the downsides. The Links is an educational vehicle for not only for the ISHLT but for the world, especially for patients and families dealing with heart and lung problems that may need replacement or transplantation or have already been replaced or transplanted.

The Links provides each member an opportunity to contribute which allows our ISHLT community to come together in harmony and with synergy by sharing knowledge, stories, wisdom, opinions, ideas, activities and more. Along with the necessary technological advances for the science of what we do, the Links affords us the opportunity to infuse culture, history, music, art and literature with the ultimate goal of keeping us grounded in the humanities. Not only do we figure out who, what, when, why and how our patients develop a heart or lung condition that demands our attention and efforts, we also tend to how our patients and families must cope with such heart and lung conditions while managed with different immunosuppressive agents, other long-term medications, regimented schedules and various mechanical devices. This is the Art and Science of it all.

The Ultimate Mission of the ISHLT Links Newsletter is to bring and maintain the humanities of our endeavors for the dignity of our patients and their donors through communication. We will be better health care providers and better communicators not just for our patients and their donors but for everyone who has access to the Links. We must keep challenging ourselves to strive for what’s best for our patients as we continue to do what’s most helpful, useful and least harmful. All of the failures and accomplishments can be and should be shared for the world to see what we are all about. We’re not just specialized professionals – we are human. We shall act accordingly, humanely and professionally.

Along with its Mission, the Vision of the ISHLT Links Newsletter began with Volume 3 of the June and July Issues back in 2011. I had you Look into my Eyes in the June Issue 2011 over concern about which style will emerge as your Chief Editor of the Links. The framework of the ISHLT Links was created and shared in the Structure-Function Relationship article from the July Issue 2011. Five years later, we have structure to our monthly ISHLT Links newsletter.

I. There is an Editorial Staff comprises yours truly, the Managing Editor, Senior Associate Editors, Associate Editors and an International Correspondents Board whose duties are:

A. to assist in assuring the content and its appropriateness.
B. to be active, and to hold their position, each editorial staff member is expected to contribute directly or indirectly at least two summary articles or missives each year – by either:
   a. assisting in soliciting writers for the Links (patients and their families are welcomed)
   b. generating ideas or suggestions for the Links
   c. criticizing or creating rebuttals against any concepts brought up in meetings or other publications including the Links.

II. We are in our eighth volume and provide 12 issues per volume.

III. Each successive Volume begins in May after our Annual Meeting – I suspect most members are not aware of this. Volume 9 will begin in May 2017.

IV. There are rotating assignments where Councils are paired and responsible for the content on a rotating basis and directed by the Communication Liaisons of their respective Councils. The idea is to generate a cluster of current and topical summaries across these pairings. However, anyone can submit anything, anytime as long as the article can be “linked” to the ISHLT and is appropriate for the world.

V. Within each Volume, there are 100 day, halftime and final reports from the President and Program Chair. Of course, the President and Program Chair are welcomed to sprinkle in other insightful “briefs” or “shorts” throughout the course of their tenure.

VI. There is considerable “elasticity” or free form to allow change over time.

VII. Quotes, words and sprinklings of other teachable points are featured

VIII. The Links is a vehicle for us to show the transparency and accountability of our society to each other and the rest of the world.

Today, we are refining and restructuring ourselves. We are in the midst of restructuring the ISHLT Links Newsletter. Much of the basic format will remain in place. But for Vision 2020 we want more of our members actively involved and contributing to the ISHLT and the Links Newsletter.

Although, the articles in the Links Newsletter are not formally citable by PubMed or other rigorous science groups, they are citable by anyone who searches the World Wide Web about heart, lung, transplant or anything pertaining to the ISHLT. Anyone who writes will create a link to the Internet. Anyone who writes will become a better and more confident writer and thinker. Each article is edited with some feedback to the writer by several editors. – Practice until you can’t get it wrong. A better and more confident writer and thinker becomes a better reader. Should I dare go on to state a better reader becomes a better writer. In the ISHLT we want active members. Those who have written an article or two have testimonials that they are “active members.” These articles can be added to resumes or CVs. With the expectations of the Links to link up with the literary arts, we are persuading and influencing creativity from the writers. As we put together our collective works we draw ourselves closer together which allows for all of us access for more external letters of references. Our professional career will be advanced.

All of this will enhance communication amongst ourselves and clarity of what we represent. We can show the world how such an International and Diverse Society can well work together effectively from across the globe. We will be proud to members of such a great society, the ISHLT.
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