April 24, 2019

CTS INSPIRATIONS

CTS NEWS

President's Message

This month in our edition of CTS inspirations we are highlighting pulmonary hypertension and the resources available here in California for managing this challenging disease. Pulmonary hypertension remains difficult to diagnose and difficult to manage despite the progress in available therapies over the past two decades. We hope the resources contained here will serve as a reference as you care for patients for whom you may suspect or confirm have a diagnosis of pulmonary hypertension.

The dates for our next two educational conferences have been confirmed, so please save the dates. Our Southern California Conference will be held **October 4-5, 2019** and the Northern California Conference will be held on **January 17-18, 2020**. More details will be forthcoming once we have the contracts and CME approval finalized!

Respectfully,

Lorriana Leard, MD
President, California Thoracic Society

In this issue:

Pulmonary Hypertension Care Centers – Moving Towards Precision Medicine

Sachin Gupta, MD – Sutter Health, Northern California: GuptaS7@sutterhealth.org
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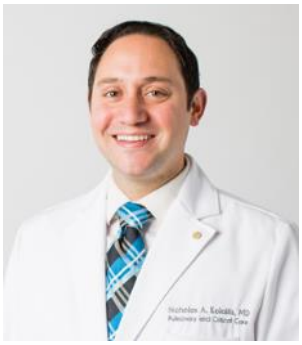
Sachin Gupta, MD



Nicholas Kolaitis, MD

Timothy Fernandes, MD

In the past two decades, we have seen a remarkable transformation in the approach to care for patients with Pulmonary Hypertension (PH). Once seen as a rapidly fatal disease, advances in earlier diagnosis, risk stratification, medical and adjunctive therapies, and patient support have significantly raised the level of care, resulting in increased survival for patients.

As we have seen with sub-specialty care for Cystic Fibrosis (CF), center-based care gives patients access to specialists that have a demonstrated ability to not only accurately diagnose the disease but also provide these complex patients with long term, multidisciplinary, experienced care utilizing the most up to date knowledge in the field. World Symposium PH guidelines strongly recommend that patients are referred early into their diagnosis to a PH Center. In light of the rapidly growing research in the field, CTS strongly supports such an approach so that patients can benefit from access to the latest in educational tools, management, and support groups.

This concept of collaborative management applies especially to patients coming from rural areas, who may have limited ability to travel to the largest of “big city” centers. In the State of California, we are fortunate to have several centers that serve regions that are outside of metropolitan areas, in addition to centers that are part of larger health networks that can serve patients in-network. All patients benefit from co-management with their primary physicians and specialists, especially when distance plays a role in their access to care.

Officially accredited PH centers are those that have gone through the application process and site review by the Pulmonary Hypertension Association Review Committee and meet strictly defined criteria up-front and on an on-going manner, similar to CF site accreditation. The tools they possess help them provide cutting edge care to patients. Other sites in the State, while not accredited also possess significant tools and expertise to support patients with this disease.

Through the CTS Education Committee, a Pulmonary Hypertension Sub-Committee was created with a focus on identifying resources for CTS members and their patients. Currently this includes a list & contact information for PH Accredited and Non-accredited Centers, a compilation of the current clinical trials available at these centers, and finally access to specific CTS physicians who will serve as access points for general disease state related questions for those practitioners in the State who are part of CTS. The current list of centers was composed from direct work the PH Committee has had with physician/teams across the state and from the PHA website.

The web-page with this information will be a page within the CTS website and updated bi-annually. We will explore adding further content to the site, based on your feedback, such as patient/provider educational resources and a calendar of events.

Our team of three Pulmonologists includes Dr. Tim Fernandes at UCSD who is an accomplished physician in the field of PH and particularly CTEPH; Dr. Nicholas Kolaitis at UCSF who brings his expertise in both Lung Transplantation and PH; and myself at Sutter Health at CPMC in San Francisco with my clinical background in management of CTEPH as well as Auto-immune mediated PH and overlap with ILD.

We look forward to working with you and supporting your needs as providers to these challenging patients. Please do not hesitate to reach out!

CALIFORNIA PULMONARY HYPERTENSION EXPERT REFERRAL CENTERS

INSTITUTION	CONTACT	DIVISION				
*** PHA Accredited Regional Clinical Program**						
**** PHA Accredited Comprehensive Care Center**						
****Cottage Health**	Dr. Jeffrey Sager, Pulmonary					
****Stanford**	Drs. Roham Zamanian, Vinicio de Jesus Perez, Andrew Sweatt, Kristina Kudelko	Pulmonary				
****UC Davis**	Dr. Roblee Allen, Pulmonary					
***French Hospital Medical Center**	Dr. Michael Ryan, Pulmonary	Pulmonary				
Harbor UCLA	Dr. Ronald Oudiz, Cardiology					
Kaiser Permanente, Northern California	Drs. Dana McGlothlin, Jana Svetlichnaya, Choon Goh	Pulmonary				
Loma Linda	Dr. Paresh Giri,	Pulmonary				
Mercy Hospital, Dignity Health, Sacramento	Dr. Munir Janmohamed	Cardiology				
Sutter Health	Drs. Sachin Gupta, Helena Wang	Pulmonary				
UC Irvine	Dr. Mike Rovzar,	Pulmonary				
UCLA	Drs. Rajan Saggar, Richard Channick	Pulmonary				
UCSD	Drs. Nick Kim, Tim Fernandes, David Poch, Demos Papamatheakis, Kim Kerr	Pulmonary				
UCSF	Drs. Teresa DeMarco, Van Selby, Mandar Aras, Liviu Klein	Cardiology				
	Dr. Nicholas Kolaitis	Pulmonary				

INSTITUTION	CONTACT	DIVISION				
UCSF Fresno	Dr. Vijay Balasubramanian	Pulmonary				
USC	Dr. Sivagini Ramesh,	Pulmonary				

ISHLT 2019 HIGHLIGHTS

Sachin Gupta, MD
Sutter Health, Northern California

Coming off of the 6th World Health Symposium on Pulmonary Hypertension in 2018, the ISHLT (International Society for Heart and Lung Transplantation) 2019 Conference in Orlando earlier this month was amongst the first major conferences since the guideline recommendations to have presentations that reacted to the changes. We outlined in the December CTS Newsletter the most prominent recommendation change being the *revised hemodynamic criteria for PH being a mean PA pressure of >20 mmHg, rather than >25 mmHg*. Below are some of my personal key take-aways from the conference:

Dr. Mardi-Gomberg from Inova Fairfax Hospital in Virginia reviewed the relevant literature evaluating patients who fall into the mean PA pressure range of 20-25 and emphasized that these patients, though at higher risk for mortality, probably represent only 1-2% of current referrals and therefore will be unlikely to impact volume of patients we see in clinic. She also emphasized that the revision in hemodynamic cut offs do not reflect that our defined PCWP and PVR cut-offs also exclude a segment of patients who may otherwise have physiologic pulmonary hypertension; however the gap prevents *overdiagnosis* and treatment in an area which remains incompletely studied. Treatment algorithms cannot and probably should not change for now, given that all of the studies performed in PAH are with patients with a mean PA pressure >25 mmHg, and usually well above 50 mmHg. During the same session, Dr. Frantz of the Mayo Clinic stressed that PAH medications have not been demonstrated to affect disease progression in early disease (ie mPAP 21-25) and therefore prescribing PAH therapies in this setting may provide greater risk than benefit until proven otherwise.

Dr. Sahay of Houston Methodist Hospital led an important discussion about PH risk assessment. His research compared the subjective physician rating of patient's morbidity/mortality risk (low/intermediate/high) amongst those with WHO Functional class 2 symptoms to objective risk assessment utilizing each of the three main risk assessment tools. The study findings revealed that our subjective (clinical) assessment of patients falls short of accurate risk stratification, which takes into account not only functional class, but also variables such as RHC numbers, 6MWT, BNP, and etiology of disease. Specifically, 18-46% of patients were classified as intermediate risk, and 4-25% were classified as high risk by utilizing objective algorithms. Based on previous data, we know in the field of PH that morbidity and mortality is affected by being in a higher risk category, and that the goals of therapy are to bring patients down to a low risk score to improve those outcomes.

Amongst therapies discussed at the meeting, early phase 2 data about Ralinepag was presented including 6MWD and PVR affects, new data about oral Treprostinil (Orenitram) from the FREEDOM-EV study were presented (changes in composite all cause morbidity), and finally the use of beta-blockers in PAH was shown to negatively impact RV failure.

Finally, the conference brought together PH specialists from cardiology, pulmonary, and cardiothoracic surgery to discuss growth in our understanding of CTEPH management in the era of balloon pulmonary angioplasty (BPA) as a tool for patients with inoperable chronic PE, with presenters

discussing their experiences using BPA and perioperative consideration. Risk stratification of patients to receive BPA vs endarterectomy vs medical management alone is critical to reduce risk of complications from procedures, particularly in those with RV failure. A discussion of what tools we can use to risk stratify was given by Dr. Benza of Allegheny General Hospital of Pittsburgh, including a risk algorithm like the REVEAL calculator, but also emphasizing that imaging like Echo and cardiac MRI have a major role to play in helping physicians determine how a patient may do with an intervention like endarterectomy. As the number of centers grow that offer percutaneous balloon pulmonary angioplasty, it will be critical for researchers to accurately assess and compare morbidity and mortality for this versus surgical management. Important factors to allow a fair comparison will include equivalence of clot burden and presence/severity of RV failure.

It is an exciting time in the world of Pulmonary Hypertension, with many senior and junior faculty members working together to expand the diagnosis, management, and therapy options for patients across the five World Health Organization Pulmonary Hypertension sub-groups.

QUESTIONS?
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SOUTHWESTERN JOURNAL OF PULMONARY AND CRITICAL CARE - VOLUME 18

Volume 18							
Title (Click on title to open the manuscript, **CME in Bold**)	**Journal Section**	**First Author**	**Year**	**Vol**	**Issue**	**Pages**	**Date Posted**
Update and Arizona Thoracic Society Position Statement on Stem Cell Therapy for Lung Disease	Pulmonary	Arizona Thoracic Society	2019	18	4	82-6	4/16/19
Sleep Related Breathing Disorders and Neurally Mediated Syncope (SRBD and NMS)	Sleep	Valencia D	2019	18	4	76-81	4/5/19
Medical Image of the Month: Ludwig's Angina	Imaging	Estep L	2019	18	4	74-5	4/2/19
April 2019 Critical Care Case of the Month: A Severe Drinking Problem	**Imaging**	**Marquez FJ**	**2019**	**18**	**4**	**67-73**	**4/1/19**
FDA Commissioner Gottlieb Resigns	News	Robbins RA	2019	18	3	65-6	3/7/19
Ultrasound for Critical Care Physicians: An Unexpected Target Lesion	Critical Care	Smith J	2019	18	3	63-4	3/5/19
Physicians Generate an Average $2.4 Million a Year Per Hospital	News	Robbins RA	2019	18	3	61-2	3/4/19
Medical Image of the Month: Incarcerated Morgagni Hernia	Imaging	Hothi S	2019	18	3	59-60	3/2/19
March 2019 Pulmonary Case of the Month: A 59-Year-Old Woman with Fatigue	**Pulmonary**	**Wesselius LJ**	**2019**	**18**	**3**	**52-8**	**3/1/19**
Medical Image of the Month: Pectus Excavatum	Imaging	Insel M	2019	18	2	50-1	2/2/19
February 2019 Imaging Case of the Month: Recurrent Bronchitis and Pneumonia in a 66-Year-Old Woman	**Imaging**	**Gotway MB**	**2019**	**18**	**2**	**31-49**	**2/1/19**
More Medical Science and Less Advertising	Editorial	Robbins RA	2019	18	1	29-30	1/28/19
The Need for Improved ICU Severity Scoring	Editorial	Medrek SK	2019	18	1	26-8	1/25/19
Co-Infection with Nocardia and Mycobacterium Avium Complex (MAC) in a Patient with Acquired Immunodeficiency Syndrome	Pulmonary	Babwani Z	2019	18	1	22-5	1/24/19
Drug Prices Continue to Rise	News	Robbins RA	2019	18	1	20-1	1/14/19
Progressive Massive Fibrosis in Workers Outside the Coal Industry: A Case Series from New Mexico	Pulmonary	Casaus L	2019	18	1	10-19	1/8/19
Medical Image of the Month: Massive Right Atrial Dilation After Mitral Valve Replacement	Imaging	Young R	2019	18	1	8-9	1/2/19
January 2019 Critical Care Case of the Month: A 32-Year-Old Woman with Cardiac Arrest	**Critical Care**	**Watkins SA**	**2019**	**18**	**1**	**1-7**	**1/1/19**

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AARC DAY ON CAPITOL HILL 2019

On Tuesday, April 9, six CSRC members joined the AARC Political Advocacy Contact Team (PACT) in Washington, DC for AARC Day on Capitol Hill 2019. This annual event is sponsored by the AARC and focuses on legislative initiatives that are important to our patients and to the Respiratory Care Profession. This year the PACT brought two "asks" to Capitol Hill.

The first is the Better Respiration through Expanding Access to Tele-Health (BREATHE) Act. When introduced, this bipartisan legislation will provide funding to the Centers for Medicare and Medicaid Services (CMS) for a three year pilot study that would provide reimbursement for qualified respiratory therapists to provide care to Medicare beneficiaries with COPD through telehealth modalities and services. The goal of the study is to quantitatively prove what we already know; respiratory therapists can provide patient care to COPD patients to help improve quality of life while providing a cost savings to the Medicare system. Congressman Mike Thompson (D-CA) and Mike Kelly (R-PA) are the authors of the BREATHE Act and expect to formally introduce the act in the coming weeks. CSRC PACT members have 29+ appointments scheduled with the 55 members of the California Congressional delegation and will ask them to co-sponsor the BREATHE Act on the House side as well as introduce companion legislation on the Senate side when introduced.

The second ask is a request for elected members to sign a letter directing the CMS to carefully monitor patient access to liquid oxygen systems during the competitive bidding suspension period that will take place during the next 18 to 24 months. Even with the increased reimbursement rates implemented on January 1, 2019, reimbursement for liquid oxygen systems falls short of the actual cost to provide such systems. Providers are no longer incentivized to provide liquid oxygen, resulting in a dramatic loss of access to liquid oxygen systems. In 2016, 8,141 beneficiaries received portable liquid oxygen, down from 40,938 in 2010, the beginning of competitive bidding. Access to stationary liquid oxygen during the same period went from 32,220 to 5,948. The letter further requests that the CMS report back to Congress during the first six months of the pause in competitive bidding as to whether patients who need portable oxygen systems are receiving them.

<u>The CSRC PACT Members:</u>

Donna Murphy, BA, RCP, RRT
San Diego Region President

Sherleen Bose, BA, RCP, RRT, CHT
CSRC Secretary

Theresa Cantu, BSRC, RCP, RRT-NPS, AE-C
Central California Region
Government Affairs Committee Chair

Jeffrey Davis, BS, RCP, RRT
CSRC Vice President

Shawn Gardner, BSRC, RCP, RRT
CSRC Government Affairs Committee Co-Chair

Michael Madison, MBA, RCP, RRT
CSRC President

Assembly Bill 5 - Dynamex - Proposed Amendment - RCP Exemption

April of 2018, the California Supreme Court, in its ruling on Dynamex Operations West, Inc. v. Superior Court of Los Angeles, rewrote the definition of who qualifies as an "independent contractor" in California. This is especially relevant to healthcare, as physicians, surgeons and per diem allied health professionals (respiratory therapists) will be significantly impacted by this ruling. It is feared that RCP jobs will be lost as hospital facilities and providers attempt to balance their budgets under the subsequent increased payroll expenses dictated by the change in the definition of independent contractors. There is also great concern in Sacramento that this Supreme Court Ruling side stepped normal legislative processes and authority. In January 2019, Assemblywoman Lorena Gonzales (D – 80th Assembly District) introduced Assembly Bill 5 to re-establish legislative authority by validating the ruling legislatively. Since its introduction, a number of professional associations and interest groups have proposed amendments to the bill providing "carve outs" (exemptions for physicians, surgeons and respiratory therapists). Specifically, the CSRC has proposed language (highlighted below) that would exempt respiratory therapists in much the same manner as physicians and surgeons.

(b) This section and the holding in Dynamex Operations West, Inc. v. Superior Court of Los Angeles (2018) 4 Cal.5th 903, do not apply to the following occupations as defined below, and instead, for these occupations only, the employment relationship shall be governed by the test adopted by the California Supreme Court in the case of S. G. Borello & Sons, Inc. v Department of Industrial Relations (1989) 48 Cal.3d 341.:

(1) A person or organization who is licensed by the Department of Insurance pursuant to Chapter 5 (commencing with Section 1621), Chapter 6 (commencing with Section 1760), and Chapter 8 (commencing with Section 1831) of Part 2 of Division 1 of the Insurance Code.

(2) A physician and surgeon licensed by the State of California pursuant to Division 2 (commencing with Section 500) of the Business and Professions Code, performing professional or medical services provided to or by a health care entity, including an entity organized as a sole proprietorship, partnership, or professional corporation as defined in Section 13401 of the Corporations Code.

(3) A securities broker-dealer or investment adviser or their agents and representatives that are registered with the Securities and Exchange Commission or the Financial Industry Regulatory Authority or licensed by the State of California under Chapter 2 (commencing with Section 25210) or Chapter 3 (commencing with Section 25230) of Division 1 of Part 3 of Title 4 of the Corporations Code.

(4) A direct sales salesperson as described in Section 650 of the Unemployment Insurance Code, so long as the conditions for exclusion from employment under that section are met.

(5) A Respiratory Care Practitioner licensed by the State of California pursuant to Division 2 (commencing with Section 3700) of the Business and Professions Code.

The amendment language was proposed to the author in early April by the CSRC's legislative advocates, Aaron Read & Associates. It is hoped that this amendment will be accepted and will be carried forward as the bill makes its way through the legislative process. The CSRC is currently taking a "support if amended" position on Assembly Bill 5 until it receives conformation from Assemblywomen Gonzales. Until that time, the CSRC will continue to work with the I'm Independent Coalition to seek workable solutions that mitigate the negative economic impact of the CA Supreme Court Dynamex ruling.

For further information on the work of the I'm Independent Coalition, their website link is provided below.

www.imindipendnet.co

ANNOUNCEMENTS

The California Society for Pulmonary Rehabilitation will host its annual CSPR Conference on May 3 & 4, 2019 in Sacramento, CA. The event will be hosted at the Holiday Inn Downtown Arena, Sacramento. CA. We have an outstanding line up of topics and speakers.

For more information and registration please click link https://www.cspr.org/