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Encompass Health Rehabilitation Hospital of Altamonte Springs, formerly HealthSouth Rehabilitation Hospital of Altamonte Springs, is part of a nationwide network of inpatient rehabilitation hospitals and home health and hospice agencies. As Encompass Health, the hospital and its staff remain dedicated to guiding each patient through recovery and are committed to helping patients regain their independence.

7 SENIORS WHO USE CANNABIS ARE MORE PHYSICALLY ACTIVE THAN NON-CANNABIS USERS
FROM THE PUBLISHER

I am pleased to bring you another issue of Florida MD. Sometimes a patient may have the opportunity to participate in a clinical trial. Sometimes a patient may need specialized treatment that is not available in Central Florida. And sometimes there’s no money for that patient to get to those places. Fortunately there is Angel Flight Southeast to get those patients where they need to go. I asked them to tell us about their organization and how you, as physicians, can help. Please join me in supporting this truly wonderful organization.

Best regards,

Donald B. Rauhofer
Publisher

ANGELS ON EARTH HELP PATIENTS GET TO LIFESAVING MEDICAL TREATMENT

Everyone knows angels have wings! But did you know in Florida and many parts of the nation they have engines and tails with dedicated volunteers who donate lifesaving services every day? Leesburg, Fla.-based Angel Flight Southeast is a network of approximately 650 pilots who volunteer their time, personal airplanes and fuel to help passengers get to far-from-home medical care. A member of the national Air Charity Network, Angel Flight Southeast has been flying passengers since 1993.

Almost all of its passengers are chronic-needs patients who require multiple, sometimes 25-50 treatments. Passengers may be participating in clinical trials, may require post-transplant medical attention or are getting specialized treatment that is not available near home. Each passenger is vetted to confirm medical and financial need and is often referred to Angel Flight Southeast by medical personnel and social workers.

Angel Flight Southeast “Care Traffic Controllers” arrange flights 24 hours a day, 365 days a year. In the event of a transplant procedure, the Care Traffic Controllers have precious minutes to reach out to its list of volunteer pilots who have agreed to be prepared on a moment’s notice to fly a patient to receive his or her potentially lifesaving organ.

The organization is completely funded through donations by individuals and organizations. A typical Angel Flight Southeast pilot donates $400 to $500 in services-per-trip. In fact, Angel Flight Southeast has earned the Independent Charities of America Seal of Approval as a good steward of the funds it generates from the public. Each $1 donated generates more than $10 worth of contributed services by Angel Flight Southeast.

The charity always seeks prospective passengers, volunteer pilots and donations. For additional information, please visit https://www.angelflightse.org or call 1-888-744.8263.

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Keratoacanthoma, The Good and Bad Squamous Cell Carcinoma
By John “Lucky” Meisenheimer, MD and John Meisenheimer, VII

Many decades ago, keratoacanthomas were considered a pseudocancer or the “good” squamous cell carcinoma because they had a high rate of spontaneous involution. Spontaneous involution means that a tumor would appear with classic features of keratoacanthoma, and without even a biopsy in a period of a few weeks or months would involute and completely disappear. Some scientists still debate whether keratoacanthomas are squamous cell carcinomas or a separate, distinct clinical entity. Keratoacanthomas are notorious for rapid growth and can enlarge from a pinpoint to a size of a quarter or larger in just a week or two period of time. The problem with observing keratoacanthomas for spontaneous regression is that some keratoacanthomas don’t realize that they are supposed to involute. Untreated, they can become extremely invasive, even metastasize. In this day and age, keratoacanthomas are considered by most physicians to be a variant of squamous cell carcinoma. Almost all dermatologists will treat keratoacanthomas as squamous cell carcinomas.

Keratoacanthomas are also notorious for appearing in scars and at sites of injury. I have frequently had patients come in and say, “oh, I have this growth. I got it because I cut myself on a branch, etc., and then this started growing.” They are always shocked when the biopsy shows cancer. The trauma to the skin in some form or another stimulated the growth of the keratoacanthoma. I have also seen this in skin cancer surgery sites where people have had surgery done weeks before, and now they have a keratoacanthoma developing in the new scar. Sometimes the patient is upset because they feel that the surgeon did not get all the original cancer out. Still, on evaluation, it may show histologically a completely different type of cancer than the previous one that was treated. What you have is a keratoacanthoma arising from the trauma of the surgery along the scar line.

Keratoacanthomas, like other squamous cell carcinomas, are found in areas of sun damage, especially chronically sun-damaged skin. They are frequent on the arms and lower extremities, as well as the face. The characteristic appearance of a keratoacanthoma is a rapidly growing nodule on the skin resembling a little volcano with a crater on top. Histologically keratoacanthomas have a typical pattern of squamous cell carcinoma in the epidermis but with a central keratin plug. I have seen on more than one occasion where physician extenders and physicians have tried to lance these, thinking the rapid growth is an inflamed cyst.

There are a variety of ways of treating keratoacanthomas, but the most common way is either excision or depending on the location, Mohs surgery. As with most skin cancers, there are other ways to treat these tumors as well, and the treatment plan is based on multiple factors such as size, location, age of the patient, immune status, etc... Although keratoacanthomas can regress on their own, the risk you are taking using observation as a plan outweighs the benefit of treating them as a squamous cell carcinoma of which they are.

Lucky Meisenheimer, M.D. is a board-certified dermatologist specializing in Mohs Surgery. He is the director of the Meisenheimer Clinic – Dermatology and Mohs Surgery. John Meisenheimer, VII is a medical student at USF.
Encompass Health Rehabilitation Hospital of Altamonte Springs – Your Patients’ Return to Independence Starts Here

By Staff Writer

Encompass Health Rehabilitation Hospital of Altamonte Springs may have a new name, but it’s still providing the same high-quality care it has since opening in 2014.

Formerly HealthSouth Rehabilitation Hospital of Altamonte Springs, the hospital is part of a nationwide network of inpatient rehabilitation hospitals and home health and hospice agencies. As Encompass Health, the hospital and its staff remain dedicated to guiding each patient through recovery and are committed to helping patients regain their independence.

During the nearly six years the hospital has been open, Encompass Health Altamonte Springs has built a solid reputation for its approach to treating patients and helping them reach their individual goals.

Our hospital is here to help your patients regain their freedom after a debilitating illness or injury.

At Encompass Health Altamonte Springs, the journey to independence is as unique as each of its patients.

**JOURNEY TO RECOVERY**

Encompass Health Altamonte Springs provides high-quality, post-acute care for patients overcoming a variety of major illnesses and injuries.

The hospital serves patients recovering from conditions such as stroke, Parkinson’s disease, multiple sclerosis, neurological disorders, cardiac and pulmonary conditions, brain and spinal cord injuries, complex orthopedic conditions and amputations. The hospital is accredited by The Joint Commission, and its stroke rehabilitation program earned Disease-Specific Care certification from TJC.

In 2018, Encompass Health Altamonte Springs expanded its services to reach even more patients. The hospital added 20 new beds, giving it a total of 70. It also opened a new dialysis unit with four beds, allowing those in need of dialysis to continue their therapy and work toward their individual goals.

“That makes a really big impact,” said Dr. Eliam Fuentes-Tirado, the medical director of Encompass Health Altamonte Springs. “This makes us the only rehabilitation hospital (in the area) that can do dialysis without affecting therapy. They can go to therapy in the morning, and then in the afternoon have dialysis. We can do that without losing therapy hours and maximize that time while they’re here.”

Those admitted to an inpatient rehabilitation hospital must undergo therapy three hours a day and nursing care is provided around the clock, setting hospitals like Encompass Health Altamonte Springs apart from skilled nursing facilities, where there are no such regulations.

At Encompass Health Altamonte Springs, each patient’s journey through rehabilitation is unique, and the team at Encompass is here to help patients regain their freedom after a debilitating illness or injury.
Health Altamonte Springs uses its expertise, multidisciplinary care and advanced technologies to help them return to their communities at their highest level of independence.

A patient’s care team includes physical therapists, occupational therapists, speech-language pathologists, physicians, nurses, case managers, pharmacists and dietitians. They work together, frequently meeting, to help patients reach their highest levels of independence.

“We treat the patient as a whole. We have an individual plan of care. Each patient has goals, and then we work towards those goals,” Dr. Fuentes said. “The whole care team meets – physical therapy, occupational therapy, nursing, case management, pharmacy – to go over the plan and see where we need to make changes. It could be medications or medical issues; we all work together to address them.”

The secret to the hospital’s success, he added, is its staff and the fact that it is 100 percent dedicated to rehabilitation.

With an average length of stay of about 12 days, compared to 38.5 days at a skilled nursing home, Dr. Fuentes said Encompass Health can also get patients home sooner, which is better for the patient and more cost-efficient.

The best reason to partner with Encompass Health Altamonte Springs, Dr. Fuentes said, is outcomes.

“We have really good outcomes,” he said. “Our discharge to nursing homes is very low, 8 percent. We want to see our patients go home. No one wants to be in a hospital. They are not here because they want to be but because they need to be. If they are willing to work hard and give their best effort, 93 percent of the time we are able to send them home.”

When patients are ready to return to their home, Encompass Health Altamonte Springs has a detailed discharge process that begins at admission and includes patients and their families and caregivers every step of the way.

If further care is needed after discharge, patients can choose to continue that high level of care they received in the hospital at home. In addition to inpatient rehabilitation, the Encompass Health also has a home health and hospice segment, which was one of the reasons for the rebranding.

WHY THE NEW NAME?

Encompass Health Rehabilitation Hospital of Altamonte Springs unveiled its new name and brand on Oct. 1, 2018, as part of companywide rebranding initiative.

The Birmingham, Alabama-based company launched its new name and brand on Jan. 1, 2018, and has completed the transition of its 136 inpatient rehabilitation hospitals and 328 home health and hospice locations serving 39 states and Puerto Rico in 2019. The rebranding initiative to shift the company to the Encompass Health name was made to better reflect the company’s nationwide network of hospitals, including locations like Encompass Health Altamonte Springs, and home health and hospice agencies.

The company acquired Dallas, Texas based Encompass Home Health & Hospice in 2014. As it expanded its national footprint and services, it was determined that the HealthSouth name did not properly reflect the company or its future. By combining the inpatient rehabilitation segment and home health services under one name, Encompass Health, the new brand became reflective of how the company has progressed, offering both hospital and home-based care in the post-acute environment.

“Our new Encompass Health brand reflects more than the change of our name. It reinforces our commitment to working together to continuously improve the care we provide our patients,” said Lori Bedard, regional vice president of Encompass Health’s Southeast region. “With a focus on clinical collaboration and strengthening relationships, we will continue to play an important role in making a difference in the lives of our patients.”

The new name also reflects the continuum of care from one setting to the next that having both an inpatient rehabilitation hospitals and home health location allows.

Encompass Health Altamonte Springs is one of 89 overlap markets in the company, which means the there is a home health and hospice location within an approximate 30-mile radius of the hospital. If a patient chooses to continue their care with Encompass Health in a home setting, a care transition coordinator based within the hospital can help them smoothly transition their care to the home setting.

“Now patients can be connected with the same person in home health who was helping in them in our hospital after they leave,” Dr. Fuentes said. “Not only are they getting top-tier inpatient care at their stay in the hospital, by connecting them with our home health team, we have people in that same system dedicated to getting them plugged back into the community once the patient leaves us. It’s really helping us make good and safe transitions for our patients back into their everyday lives.”

PATIENT EXPERIENCE IS MORE IMPORTANT THAN EVER

The world is changing, and Encompass Health understands that there are many uncertainties for patients, especially when it comes to determining their best and safest pathway to independence. What has not changed is their commitment to provide the exceptional, compassionate care and advanced therapy their hospitals have been known for throughout the years.

A strong support system is an integral piece in a patient’s recovery, which is why the care teams at Encompass Health are committed to keeping you, your patients and their caregivers connected every step of the way. Getting your patients back to their lives is and always will be the top priority.

Patients who are recovering from COVID-19, strokes or other
debilitating conditions or injuries should receive therapy at a rehabilitation hospital. CMS has given our hospitals the flexibility to treat patients who do not meet the therapy and 60 percent rules required to refer a patient to a rehabilitation hospital in the past.

Under the guidance of our hospitals’ rehabilitation experts, patients follow a customized rehabilitation plan with intensive therapy and frequent physician visits.

Encompass Health clinicians and support staff are following elevated protocols to prevent the spread of infection in the hospitals, while also allowing patients to continue to receive the care, nutrition and therapy crucial to recovery.

THE BENEFITS OF BEING ENCOMPASS HEALTH

As part of the nation’s largest network of inpatient rehabilitation hospitals and home health and hospice locations, Encompass Health Altamonte Springs has access to a wealth of resources.

“We have so many resources being under this umbrella of a big company,” Dr. Fuentes said. “I know if I have an issue I can go to a colleague or one of our many educational resources. It’s a great benefit to our patients.”

One such resource is ACE-IT, Encompass Health’s proprietary EMR system. Nearly a decade ago, when acute care providers were incentivized to adopt an EHR as part of the HITECH Act, Encompass Health leaders decided to make a $200 million-plus investment in an EHR, even though post-acute providers were not eligible for any government subsidies.

ACE-IT has the ability to interface with acute-care hospitals and exchanges, thus creating a smoother transition from one setting of care to the next and improving patient safety and outcomes.

That vast EMR database also is allowing the company to develop evidence-based predictive models to improve outcomes and reduce acute-care transfers and readmissions.

“Encompass Health was an early adopter of an electronic health record (EHR) in the post-acute space. That investment is paying off and allowing us to create post-acute solutions to improve outcomes throughout the entire episode of care,” said Encompass Health President and CEO Mark Tarr during the company’s 2019 fourth quarter earnings call.

“In 2020, we’ll continue our work with Cerner, a leader in health information technology, to develop those solutions. Our development work will focus on reducing readmissions to reduce the episodic cost of care. We expanded our proprietary readmission prediction model to nine hospitals last year, and this year, we will roll it out companywide. The model will predict the risk of a patient readmitting to an acute hospital after they are discharged from an Encompass Health hospital. A playbook with best practices will also be a part of this rollout.”

By coupling those predictive models with clinical intervention, the company’s goal is to improve outcomes — it already consistently exceeds national industry standards on quality outcomes — and reduce the total cost of care.

UNITED WITH A SHARED SET OF VALUES

As HealthSouth Altamonte Springs evolved into Encompass Health Altamonte Springs, the hospital recognized that they had an opportunity to reaffirm and celebrate the things that make them stand apart. A vital part of the company’s rebrand was focusing on a shared set of values that would propel each hospital forward in their mission of serving their communities.

The company sought the input from employees to form The Encompass Health Way. More than 11,000 employees participated in an online dialogue about their values, and values co-creation sessions were held across the country in five different locations. The final result was a shared set of values that combined both the legacy businesses.

“The values emphasized by the Encompass Health brand reflect beliefs we have always practiced at Altamonte Springs. These values — setting the standard, leading with empathy, doing what’s right, focusing on the positive and recognizing that we’re stronger when we work together; these are values that we have always put into action in our hospital in everything we do,” said Dr. Fuentes.

“This rebrand gives us the opportunity to recognize those values, and celebrate the ways we can serve our community. By providing compassionate, high-quality care with a focus on creating life-changing results, the Encompass Health brand emphasizes not only who we are, but what we aspire to be every day.”

As HealthSouth Altamonte Springs, the hospital developed a reputation of compassionate, high-quality rehabilitative care delivering superior outcomes for its patients. Under the Encompass Health brand, the hospital is continuing in that mission and finding new ways to help its patients on their journey to wellness. While in many ways the Encompass Health brand represents new beginnings for the company, it also represents a continued commitment to the qualities that make the hospital unique.

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- Spasticity management
- Spinal cord injury
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- Wound care
Seniors Who Use Cannabis Are More Physically Active Than Non-Cannabis Users  
By Michael Patterson, NHA, OTR/L, CEAS

A study published in the July 2020 issue of American Journal of Health and Behavior found that persons over 60 years old who use cannabis exercise more and have a lower BMI than non-cannabis users. A link to the study can be found below:

https://www.ingentaconnect.com/contentone/png/ajhb/2020/00000044/00000004/art00005

Adults, over age 50 are the fastest growing population of cannabis users in the United States, with people over 65 demonstrating the largest increase in usage. The reasons for cannabis use are varied, but typically center around some of the common complaints associated with aging, including pain. The more data demonstrating the benefits of cannabis for seniors, the better physicians and health care practitioners can use cannabis to decrease the symptoms of aging and increase quality of life for their patients.

By age 75, approximately 33% of men and 50% of women are no longer physically active. This inactivity can decrease functional mobility and increase health problems related to being sedentary (muscle atrophy, increased falls, increased pain, decreased physical independence). The goal of the research was to understand if cannabis use impacted results of an intervention to increase physical activity in sedentary adults aged 60 and over.

The study was performed by the University of Colorado-Boulder Department of Psychology and Neuroscience. It consisted of a FORCE study (FORCE-Fitness, Older Adults, and Resting State Connectivity Enhancement) in which adults 60 and over would be randomly assigned to either a low or moderate-intensity in a 16-week supervised exercise program. A total of 164 participants were included in the study. Participants were recruited through multiple methods including advertisements in senior community centers, ads on social media, and publication bulletins in AARP magazine. Data from the study showed the body mass index (BMI) for cannabis users was significantly lower than non-cannabis users (p=.007). Also, Cannabis users reported .70 more days of exercise on the Stanford 7-Day Physical Activity Recall than non-users (p=.068).

**ANALYSIS**

The study clearly shows that the use of cannabis for Seniors does not inhibit but increases functional mobility, exercise, and overall physical activity. The study did not address the cannabis dosage per patient who used cannabis and the method of ingestion. Therefore, the standardization of a dose and method of ingestion of cannabis specific to each patient prior to exercise is unknown. However, from a physician standpoint, cannabis use continues to demonstrate positive outcomes and few side effects compared to traditional pharmaceutical medicines.

Michael Patterson NHA, OTR/L, CEAS is CEO of US Cannabis Pharmaceutical Research and Development LLC. (uscprd.com). Mr. Patterson is a healthcare executive with over 25 years experience in the following areas: Cannabis-Hemp investment, Law, Regulation, Compliance, Operations, and Management, Skilled Nursing, Pharmacy, Laboratory, Assisted Living, Home Healthcare, and Healthcare Analytics. Michael is a subject matter expert in the Global Cannabis and Hemp Industry with Gerson Lehman Group (glg.it) and Guidepoint. Mr. Patterson is an editorial board member of the American Journal of Medical Cannabis, licensed Nursing Home Administrator, and licensed Occupational Therapist in 4 states.
Florida Law Update: New Laws That Went Into Effect On July 1, 2020

By Julie A. Tyk, JD

With a global pandemic, protests, 2020 election and murder hornets, it is easy to miss the new laws passed during the Florida legislation session earlier this year. Here is a brief summary of some new laws that passed in Florida and went into effect on July 1, 2020.

PHARMACISTS (HB 389)
Pharmacists will be able to play an expanded role in providing health care to patients. In part, they will be able to enter “collaborative” agreements with physicians to treat patients for chronic illnesses such as arthritis, asthma, chronic obstructive pulmonary diseases, Type 2 diabetes, HIV, AIDS and obesity. Rules still need to be finalized to carry out the bill.

ADVANCED PRACTICE REGISTERED NURSES (HB 607)
Advanced practice registered nurses (APRN) will have authority to practice independently of physicians. APRN practitioners with at least 3000 hours of experience under the supervision of a physician could qualify to provide services including family medicine, general pediatrics and general internal medicine. They will need to complete minimum graduate level course work in differential diagnosis and pharmacology.

INTERMEDIATE CARE (SB 1344)
The law helps clear the way for building new “intermediate care” facilities for people with developmental and intellectual disabilities.

WOMEN’S HEALTH (SB 698)
Health-care providers will not be able to conduct pelvic exams on women without written consent. The measure also seeks to prevent misconduct by doctors who provide fertility treatment.

OPIOIDS (HB 743)
This bill revises a 2019 law meant to crack down on opioid abuse by allowing health care practitioners to discuss non-opioid alternatives with patients’ representatives rather than just the patients. The measure also requires practitioners to provide people with a state-published pamphlet on opioids.

EMOTIONAL SUPPORT ANIMALS (SB 1084)
It allows housing providers to prohibit use in situations where the animal poses a direct threat to the safety, health, or property of others. Property owners can also request written proof of the support animal’s certification from federal, state, and local government agencies or specified health care providers.

INCARCERATED PREGNANT WOMEN (CS/HB 1259)
The law creates new protections for incarcerated pregnant women when placed in housing separate from the general population. It requires corrections staff to draft a report on why the housing was needed and whether medical staff objected. It also calls for medical checkups every 24 hours and hourly observation by staff.

A medical malpractice claim can have far-reaching implications. The Health Care Practice Group at Pearson Doyle Mohre and Pastis, LLP, is committed to assisting Clients in navigating and defending medical malpractice claims. For more information and assistance, please contact David Doyle and Julie Tyk at Pearson Doyle Mohre & Pastis, LLP.

By Julie A. Tyk, JD, is a Partner with Pearson Doyle Mohre & Pastis, LLP. Julie concentrates her practice in medical practice defense litigation, insurance defense litigation and health care law. She has represented physicians, hospitals, ambulatory surgical centers, nurses and other health care providers across the state of Florida. She may be contacted by calling (407) 951-8523; jtyk@pdmplaw.com.
COULD UNTREATED CENTRAL SLEEP APNEA BE CONTRIBUTING TO YOUR PATIENT’S SYMPTOMS?

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82%

97% reduction

94%

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⁵ Important Safety Information
The remedē® System is indicated for moderate to severe Central Sleep Apnea in adult patients. A doctor will need to evaluate the patient’s condition to determine if the remedē System is appropriate. Patients will not be able to have an MRI or diathermy (special heat therapies) if the remedē system is implanted. The remedē System may be used with another stimulation device such as a heart pacemaker or defibrillator; special testing will be needed to ensure the devices are not interacting. As with any surgically implanted device, there are risks related to the surgical procedure itself which may include, but are not limited to, pain, swelling, and infection. Once the therapy is turned on, some patients may experience discomfort from stimulation and/or from the presence of the device. The majority of these events are resolved either on their own or by adjusting the therapy settings. The remedē System may not work for everyone. There are additional risks associated with removing the system. If it is decided to remove the system, another surgery will be required.

For further information, please visit www.respicardia.com, call +1-952-540-4470 or email info@respicardia.com.

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The remedē® System has received FDA and CE Mark approvals.
Central Sleep Apnea – A New Treatment Option

By Tabarak Qureshi, MD FCCP

Phrenic Nerve Stimulation-The new treatment for Central Sleep Apnea Central Sleep Apnea (CSA) occurs when the brain does not send correct signals to the muscles to control breathing. These include disorders in which respiratory effort is diminished or absent in and intermittent or cyclic fashion due to central nervous system or cardiac dysfunction. CSA is not as common as obstructive sleep apnea, but is a distinct disorder which requires a different treatment pathway and new therapeutic options. Patients with CSA are difficult to treat. Positive airway therapies (PAP) have been used traditionally to open airway and support ventilation during sleep. These therapies have been used with varying success in patients with CSA. Other therapies including oxygen have been used to treat CSA with varying success.

Pharmacological therapies (acetazolamide and theophylline) are also limited in effectiveness and have varying side effects. Phrenic Nerve Stimulation (PNS) is a novel and new form of therapy in which electric signals are sent to the phrenic nerve, which in turn activates the diaphragm resulting in a normal breathing pattern by using the patient’s own neurological and muscular system to treat CSA. Diagnosis is typically made on an overnight polysomnogram (PSG). Some home sleep study devices can help detect CSA. If a patient is found to have moderate to severe sleep apnea (Apnea hypopnea index >15/hr) with 50% central apnea events, phrenic nerve stimulation may be appropriate. Untreated CSA has been associated with higher rates of congestive heart failure and atrial fibrillation.

PHRENIC NERVE STIMULATION:

Within the heart failure population in which CSA is present, the overall mortality is almost doubled and significantly increases the risk of hospitalization. Phrenic nerve stimulation (PNS), is FDA approved under the brand name Remede (Respicardia) and is a novel way to treat CSA with phrenic nerve stimulation which in turns activates the diaphragm and restores normal breathing rhythm during CSA. PNS includes a pulse generator and transvenous lead. The device generates impulses to the phrenic nerve and senses respirations via transthoracic impedance. The system delivers high frequency impulses to the diaphragm during sleep at night that causes smooth contractions to the diaphragm.

IMPLANTATION:

After a patient is diagnosed with CSA, the device is implanted under local anesthesia as an outpatient procedure by an electrophysiologist. This procedure requires a pulse generator to be implanted in the upper chest with two leads in appropriate veins. One lead delivers therapy via neurostimulation while the other lead senses breathing via changes in intrathoracic pressure. The patient typically returns to the clinic in 30 days to download the data. Once the data has been downloaded, individual adjustments can be made to each device.

The neurostimulator delivers a series of low amplitude (3-4 amps) pulses over a short duration of time (0.15msec) at a rapid rate(20Hz). This stimulation will selectively stimulate the phrenic nerve and in turn selectively stimulate the phrenic never and create a smooth and steady diaphragmatic contraction.

TRIAL DATA:

The Pivotal trial was a prospective, multicenter, randomized control study of phrenic nerve pacing for patients with CSA. Patients were eligible if they had an Apnea-Hypopnea Index (AHI) greater than 20 events/hour with at least 50% central apneas. A total of 151 patients were randomized to treatment or control at the time of implant. Of note, all patients underwent device implantation, but the control group had the stimulation component of their devices turned off for the first 6 months and then therapy was turned on for the remainder of the trial. The device was successfully implanted 97% of the time with an average procedure duration of 2.7 hours. Procedural risks were similar to other transvenous systems, and there was a 91% freedom from serious adverse events related to the therapy, device, or procedure. At 6 months post implant, 87% of patients had a reduction in the AHI, and this improvement was sustained throughout the trial. Recently, the 3-year safety and effectiveness outcomes were published, demonstrating a strong safety profile and a similar sustained effectiveness benefit.

Post-hoc analysis of the Pivotal trial showed that heart failure was prevalent in 64% of patients, with an average left ventricular ejection fraction (LVEF) of 34.5%. These patients demonstrated similar improvements in AHI as the overall patient population in the trial. After 12 months of therapy, there was a 6.8 ± 20.0 point improvement in the Minnesota Living with Heart Failure questionnaire, an improvement in left ventricular ejection fraction, and a decrease in left ventricular end-systolic volume (LVESV). Concomitant cardiac electronic devices were present in 63% of patients. Interaction between the phrenic nerve stimulator and an implanted cardiac device was extremely rare; all events were resolved by reprogramming the phrenic nerve stimulator. Based on the results of the Pivotal trial, in October 2017, the U.S. Food and Drug Administration (FDA) approved phrenic nerve stimulation for moderate to severe central sleep apnea in adults.

CONCLUSION:

Central sleep apnea has serious health outcomes if left untreated. Positive airway pressure therapies are ineffective in some patients and potentially dangerous for patients with heart failure (ejection fractions of <45%). This leaves a substantial number of patients untreated.
Phrenic nerve stimulation is a promising therapy for the unmet clinical need. Ordering sleep studies in individuals with atrial fibrillation and congestive heart failure who complain of daytime fatigue may identify and in turn benefit these patients.

Transvenous phrenic nerve stimulation is a novel therapy for central sleep apnea. This is the only FDA approved therapy for patients with CSA and a left ventricular EF <45%. These results are transformative for most patients and rewarding for the physicians taking care of this difficult sleep-breathing disorder. References available upon request.

Tabarak Qureshi, MD FCCP is Assistant professor of Medicine, University of Central Florida School of Medicine. He is also Transformational Medical Director of ICU AdventHealth Altamonte and Director of the Sleep Lab - Central Florida Pulmonary Group.
HDL: Making the Good Even Better

By Pragati Gusmano, ND and Juan Lopez, PharmD, FAPC

High-density lipoprotein (HDL) is largely considered cardio protective - it is our “good” cholesterol, after all. Emerging research suggests it’s not that simple. HDL can be “good”, but it depends heavily on how well the HDL particle functions within the body. If the HDL function is not optimal, it can cause damage to arteries rather than protecting them.

The main function of HDL is collecting excess cholesterol and bringing it to the liver to be recycled or eliminated, a process known as reverse cholesterol transport. Reverse cholesterol transport is vital to cardiovascular health; well-functioning HDL is critical to reducing the formation of arterial plaques that can lead to heart attacks and stroke.

In addition to reverse cholesterol transport, HDL has an antioxidant effect that reduces the oxidation of LDL. Oxidized LDL is a contributing factor to the development of arterial plaque and coronary heart disease.

WHAT IS HDL?

HDL is a particle, made up of a phospholipid shell that contains lipids, such as cholesterol. HDL particles are embedded with many different proteins, which are vital for the effective function of HDL. When the proteins are damaged or oxidized, HDL dysfunction comes into play and HDL becomes compromised. The two proteins that we look at most often are PON and apoA1.

Lifestyle changes should be the first course of action in supporting HDL function. Key changes include smoking cessation, increasing movement and eating a Mediterranean style diet, which is naturally rich in fruits and vegetables that contain several phytonutrients shown to support HDL function.

In addition to lifestyle, plant bio-actives are a powerful way to mitigate the factors that can damage the proteins on the surface of HDL.

POMEGRANATE, LYCOPENE, AND QUERCITIN

In clinical studies, pomegranate polyphenols have been shown to increase PON expression and reduce oxidative stress within 4-6 weeks. Both of these factors can improve HDL function.

Lycopene has demonstrated the ability to protect the central components of HDL. Clinical studies have shown that lycopene supplementation can reduce levels of the pro-inflammatory marker SAA, which can interfere with HDL function. Lycopene has the ability to increase expression of the protein PON, which is critical for HDL anti-oxidant properties. Further, lycopene has the ability to improve reverse cholesterol transport, the key function of HDL.

Quercetin has been shown to increase the proteins on the surface of HDL, apoA1 and PON, promoting the heart healthy benefits of HDL. Quercetin also plays a role in the expression of enzymes that support the transport of cholesterol to and from HDL particles.

We know that HDL has an important role in cardiovascular health, but we reap the most benefit from this particle when it is functioning well. Oxidative stress, inflammation and glucose can all damage HDL. The good news is that lifestyle factors and plant bio-actives can serve to protect HDL function and improve dysfunction.

REFERENCES AVAILABLE UPON REQUEST.

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MARKETING YOUR PRACTICE

What Does Your Branding Say About Your Medical Practice?

By Sonda Eunus, MHA, CMPE

Your brand is the identity that you create for your practice. It is crucial to identify the core values that you want your brand to represent, because this is how it will be perceived by your target audience and the community at large.

Here are some questions to consider when building your brand:

• How do you want your practice to be perceived?
• What core values do you hold most important to your WHY?
• What does your brand look like? Colors, fonts, and shapes matter.
• What does your brand sound like?

When choosing your brand colors, be aware of the following color associations:

• Red — Red stands for passion, excitement, and anger. It can signify importance and command attention.
• Orange — Orange stands for playfulness, vitality, and friendliness. It is invigorating and evokes energy.
• Yellow — Yellow evokes happiness, youth, and optimism, but can also seem attention-grabbing or affordable.
• Green — Green evokes stability, prosperity, growth, and a connection to nature.
• Light Blue — A light shade of blue exudes tranquility, trust, openness. It can also signify innocence.
• Dark Blue — Dark blue stands for professionalism, security, and formality. It is mature and trustworthy.
• Purple — Purple can signify royalty, creativity, and luxury.
• Pink — Pink stands for femininity, youth, and innocence. It ranges from modern to luxurious.
• Brown — Brown creates a rugged, earthy, old-fashioned look or mood.
• White — White evokes cleanliness, virtue, health, or simplicity. It can range from affordable to high-end.
• Gray — Gray stands for neutrality. It can look subdued, classic, serious, mysterious, or mature.
• Black — Black evokes a powerful, sophisticated, edgy, luxurious, and modern feeling.

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WHAT IS YOUR BRAND’S PERSONALITY?

Think of your Business brand as a person. What is this person’s personality like? How does he or she dress, talk, and act in public? Here are just a few examples of a personality that your brand may have:

• Serious and Professional
• Warm and Friendly
• Cool and Quirky
• Funny and Playful

However, you choose to represent your brand, make sure that it is authentic to who you are. For example, if you are playful and like to crack jokes, infuse your marketing with humor and you will find that people respond positively to jokes, memes, and quotes that are applicable to them. For example, for pediatric practices, we have found that moms just can’t get enough of memes that make fun of their kids! You can add some (good-natured) jokes and memes to your social media posts and you will see some great engagement.

Similarly, if you want your brand to be viewed as serious and professional, you will want to consistently share valuable and informative content that educates your audience. You can choose to do so by looking for speaking opportunities to help build credibility and position you as the expert in your field, making educational videos and sharing them on your website, Youtube, and social media, or by writing educational articles and contributing to reputable publications.

If you’re going for warm and friendly, you will want to be seen engaging with your social media followers, being active in Facebook groups and other online groups, hosting community events, supporting great causes, etc.

If cool and quirky is your thing, you want to stand out from your competitors. You can use some colors that are not typical for your industry, create and share some fun videos, such as “funny (HIPAA-compliant) things that patients say”, paint your waiting room to inspire awe upon arrival, etc.

Keep in mind that for any brand personality, it is important to keep it consistent across your website content, social media posts, marketing materials, and any other communication that you may have with your audience.

Sonda Eunus is the Co-Founder of Pro Medical Marketing – an Internet Marketing Agency specializing in Medical practices. She has a Masters in Healthcare Management and is a MGMA Certified Medical Practice Executive. She has been heavily involved in operating her family’s Pediatric practices from an early age. She is passionate about helping medical practices grow and does so by sharing her experience in her writing, speaking, and consulting. Learn more about Sonda and Pro Medical Marketing at www.promedicalmarketing.com.
To healthcare heroes everywhere,

THANK YOU

We thank the many healthcare heroes who leave their homes and families every day to serve others during this time of great need. We are proud to be among them, standing strong for our community.