Physiatrist's Voice

NEWSLETTER September 2021

Enhancing Health And Function Through Education And Research In The Field Of Physical Medicine And Rehabilitation

In this Issue

PRESIDENT'S MESSAGE

By Mark Rubenstein, M.D.
September 2021

Webster's Dictionary defines normalcy as "the state or fact of being normal." Some define it as the state of being expected. Less than two years ago most of us were living normal lives. Over the last 18+ months our worlds have been dramatically adjusted. Patients query as to how long we will have to live in relative social isolation with masks, hand sanitizer, and travel restrictions. As new variant after new variant is introduced into our society, one starts to wonder if we are living our new normal.

Months and years of planning meetings have been fruitless as the undertaking often proves implausible. This year's upcoming Academy (AAPM&R) meeting planned for Tennessee was just changed to virtual ONLY after the risks of the Delta Variant proved too significant to safely move forward (note that this letter is drafted as we begin the second week of September). Many were looking forward to live educational seminars and the ability to see our colleagues from around the country and world.

Last month we were fortunate to be able to hold the FSPMR Annual Business Meeting concurrent with the FSIPP/FSPMR meeting in Tampa. Safety was, of course, an issue. Precautions were used, and the meeting rooms were expanded in size to allow proper physical distancing. The program committee for FSPMR did a laudable job in orchestrating an informative and educational agenda for the FSPMR day-long breakout. Timely issues including systemic racism in medicine and specifically PM&R were discussed. Certainly that topic would not have even been considered as a featured draw 5 or 10 years ago.

Leading an organization is a privilege. I certainly do not take the responsibility lightly. Since my elementary school days I have always taken leadership roles. It was a natural transition for me to serve as a Chief Resident in the concluding year of my training program, and then

enter the domain of private industry, charitable boards, and organized medicine. More than fifteen years ago I was the President of the Palm Beach County Medical Society. I was the second youngest leader in the history of the organization. My mission was to lead and serve, but to then recruit other "younger" professionals to participate. Among my favorite activities was to present at meetings of "young physician groups." It was gratifying to be a young leader amongst the "young professionals." The truth was I was at the end of what one would consider a "young physician." I have no idea who decided what constituted a "young physician," but I was pleased to be still considered amongst them. For a few more years, I continued to represent the medical society at young physician events. It seemed like almost overnight I made the transition to what some politely call a "seasoned" physician. Or perhaps better terminology may be an "experienced physician."

Now that I've been practicing for more than 28 years, I'm still taking leadership roles in too many entities. It's still a privilege. We face threats and challenges to our profession, and we need to continue to "fight the good fight." Traveling to Tampa less than two weeks after a tiring FMA Annual meeting was not something I was that excited to do. My workload increased this summer after a prolonged COVID lull. Taking another weekend away from the office just set me even further behind. The risks of attending an event in close contact with others were certainly considered. The decision was made to go forward, and we thank the many of you that attended the meeting for your support and commitment. Some just felt that in our new sense of "normalcy," the "show must go on."

As an aside, who amongst you knows who performed the song "The Show Must Go On?" The younger crowd will respond with the likes of Queen (Freddie Mercury) or Pink Floyd, but those of us that are no longer the "young physicians" will remember a band called Three Dog Night who recorded it. The correct answer would actually be Leo Sayer. In Sayer's version, the last line of the chorus was "I won't let the show go on." Three Dog Night recorded it shortly thereafter, and they changed the lyrics to "I must let the show go on" in the same chorus. We had to make a decision about the meeting, and it became apparent that we would have a quorum for the business meeting of the board of directors (again, a sign of commitment that is much appreciated).

My role during the breakout was to simply moderate the proceedings by introducing the speakers and facilitating a relatively efficient schedule. Each presentation met its objectives and it was gratifying to see. The afternoon of the breakout included a series of resident case presentations. Most of us who practice pain and musculoskeletal

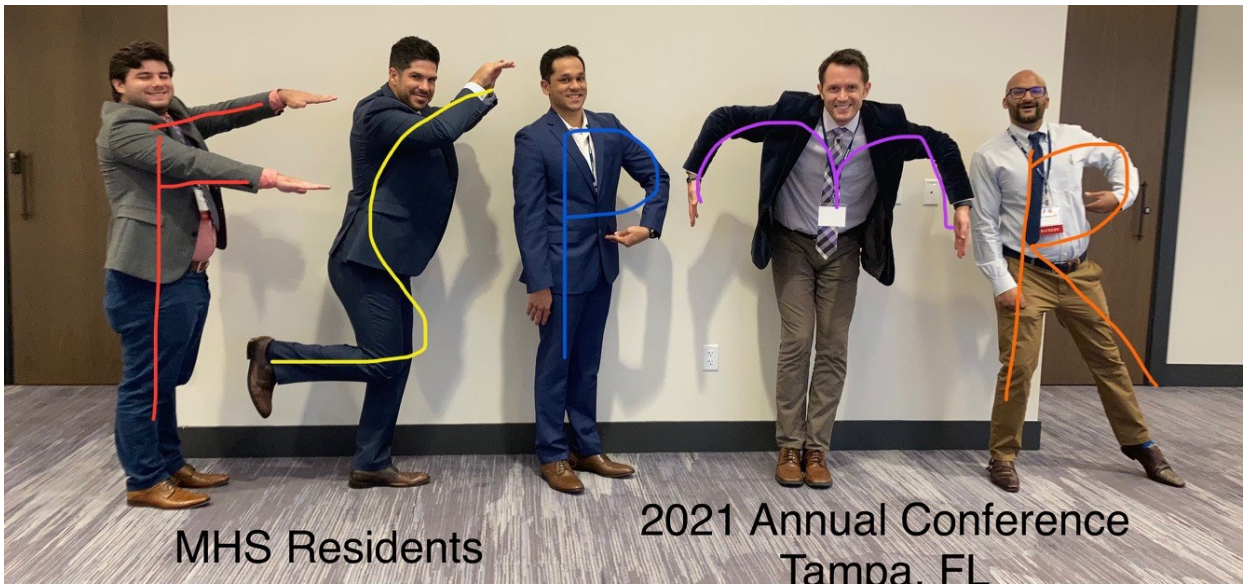
Physiatrist's Voice
NEWSLETTER September 2021

medicine have treated many patients similar to the resident's presentations. As we observed the energy, enthusiasm, and even nervousness of the "young physicians" when they presented, I was impressed by their preparation, organization, and due diligence. During the evening business meeting of the board of directors, each residency program in Florida was invited to present something about their programs for our edification. The exuberance of spirit exhibited was genuinely refreshing.

The message I convey when speaking to medical staffs or other physician groups is that we must be cognizant of the political side of medicine. If we do not commit to our chosen field of medicine, then healthcare will be severely compromised. Changes are constantly being proposed. In other columns I have discussed specific political issues that organized medicine is addressing. COVID has thrown wrenches into healthcare, the likes of which we have not seen before in our careers. It makes us wonder about the new state of "normal." The recent proceedings at the FSPMR Annual Meeting left me with rejuvenated hope that our young physicians will have the passion to promote high standards of healthcare and ensure the future of PM&R as a specialty.

Take your pick: Leo Sayer, Three Dog Night, Queen, or Pink Floyd (and maybe others). Whichever you choose, remember that "The Show Must Go On."

Physiatrist's Voice
NEWSLETTER September 2021



Memorial Healthcare PM&R Residents:

Drs Andres Gutierrez, Robert Mousselli, Noushad Mamun, Matthew Voelker, Uday Mathur.

Physiatrist's Voice
NEWSLETTER September 2021

Memorial Healthcare Residents Crew and

UMiami's Residents Drs Christine Brea, Natalie Miranda, and Edwin Amirianfar.

Physiatrist's Voice
NEWSLETTER September 2021

Dr Matthew Voelker at Annual Meeting

Drs Andres Gutierrez and
Robert Mousselli in
Resident Case Presentations

Physiatrist's Voice
NEWSLETTER September 2021

FSPMR 2021 Conference Photos

Dr Craig Lichtblau

receives his Outstanding Service/Above and Beyond Award.

Physiatrist's Voice
NEWSLETTER September 2021

FSPMR Conference Photos

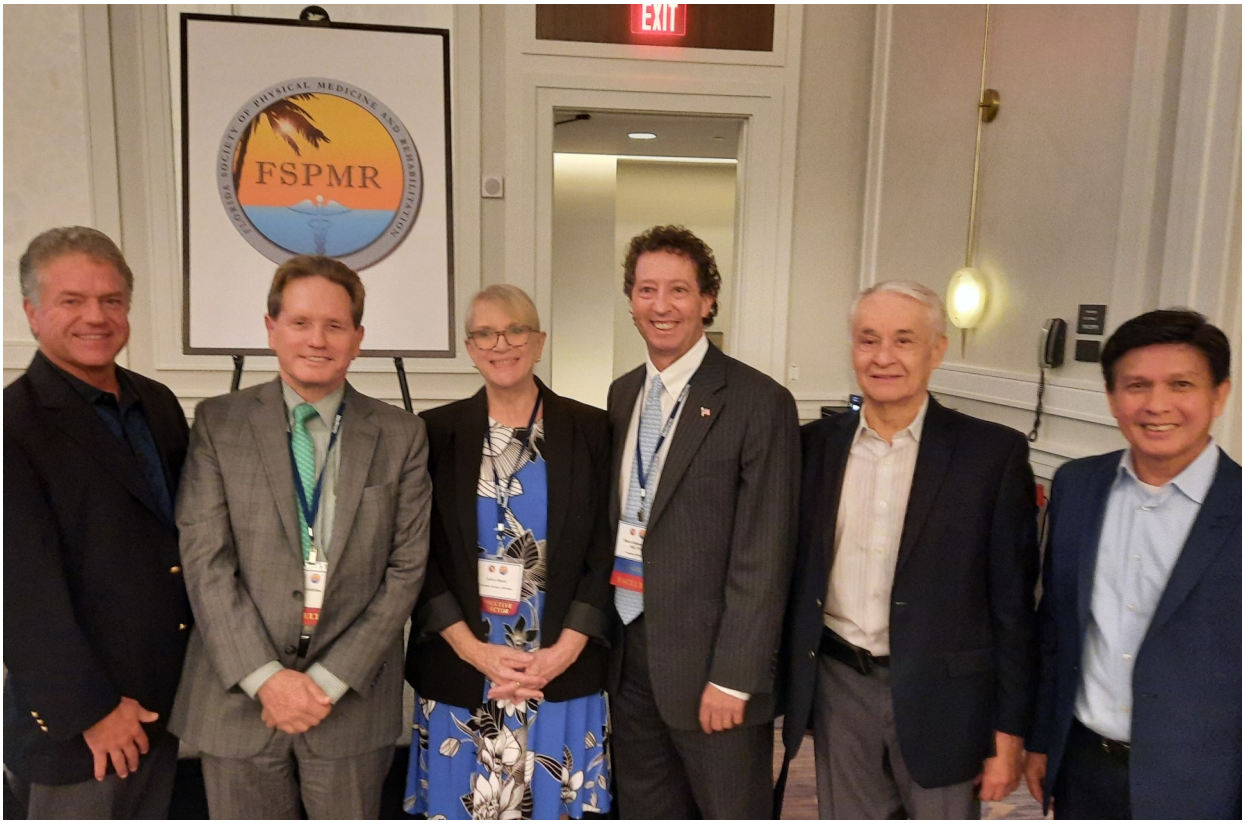
Residents Drs Matthew Voelker and Robert Mousselli thanking and acknowledging Dr Craig Lichtblau's (middle) contributions to FSPMR.

Physiatrist's Voice
NEWSLETTER September 2021

FSPMR Board Members:

Diana Hussain MD, Treasurer,
Colleen Zittel MD, Secretary,
Marc Gerber MD, Member-at-Large,
Craig Lichtblau MD, Immediate Past President,
Mark Rubenstein MD, President,
Jay Wright MD, Member-at-Large

Physiatrist's Voice
NEWSLETTER September 2021



Presidents All with Executive Director, Lorry Davis.

Drs Matthew Imfeld, Craig Lichtblau, Mark Rubenstein, Jairo Parada, Venerando Batas.

Physiatrist's Voice
NEWSLETTER September 2021

AMYOTROPHIC LATERAL SCLEROSIS (ALS)

by Craig H. Lichtblau, M.D., P.A.


Craig Lichtblau MD

ALS is also known as motor neuron disease or Lou Gehrig's disease. This is a neurodegenerative neuromuscular disease that results in progressive loss of motor neurons that control voluntary muscles. ALS is the most common type of motor neuron disease. Early symptoms of ALS include stiff muscles, muscle twitches and gradual increasing weakness and muscle wasting. Limb onset ALS begins with weakness in the arms or legs while bulbar onset begins with difficulty speaking or swallowing. Half of the people with ALS develop at least mild difficulties with thinking and behavior and about 15% develop frontotemporal dementia (FTD). Most people experience pain. The affected muscles are responsible for chewing foods, speaking and walking. Motor neuron loss continues until the ability to eat, speak, move and finally the ability to breath is lost. ALS eventually causes paralysis and early death usually from respiratory failure.

In most cases of ALS about 90-95% have no known cause and are best known as sporadic ALS. However, both genetic and environmental factors are believed to be involved. The remaining 5-10% of cases have a genetic cause linked to a history of the disease in the family and these are known as familial ALS. About have of these genetic cases are due to one or more specific genes. ALS and frontotemporal dementia are considered to be part of a common disease spectrum because of genetic, clinical and pathological similarities. The underlying mechanism involves damage to upper and motor neurons. In ALS/ frontotemporal dementia, neurons of the frontal and temporal lobes of the brain die as well. The diagnosis is based on a person's signs and symptoms with testing done to rule out other potential causes.

There is no cure for ALS at this time and treatment is targeted at improving the symptoms. A medication called Luzole may extend life about two to three months. Noninvasive ventilation may result in both improved quality and length of life. Mechanical ventilation can prolong survival, but does not stop disease progression. A feeding tube is usually required. It usually starts around the age of 60 and inherited cases around the age of 50. The average survival from onset to death is two to four years; though this can vary and about 10% survive longer than ten years. Death is usually due to respiratory failure. In Europe the disease affects about two to three people per 100,000 per year. Rates in much of the world are unclear.

In the United States it is more common in white people than black people. Descriptions of the disease date back to at least 1824 by Dr. Charles Bell. In 1869, the connection between the symptoms and the underlying neurologic problems

ALS – continued

was first described by a French neurologist, Dr. Jean-Martin Charcot, who in 1874 began using the term "amyotrophic lateral sclerosis." The disease became well known in the 20th-century United States when in 1939 it affected baseball player Lou Gehrig and later worldwide following the 1963 diagnosis of cosmologist Steven Hawking. The first ALS gene was discovered in 1993, while the first animal model was developed in 1994. In 2014 videos of the "ice bucket challenge" went viral on the internet and it increased public awareness of the condition.

Classification:

ALS itself can be classified a few different ways by how fast the disease progresses which is related to the age of onset, by whether it is familial or sporadic and by the region first detected. In about 25% of cases muscles of the facet, mouth and throat are affected first because motor neuron the part of the brainstem called the medulla oblongata (formerly called the "bulb") start to die first among the lower motor neurons.

This form is called "bulbar onset ALS". In about 5% of cases muscles of the trunk of the body are affected first. In most cases the disease spreads and affects other spinal cord regions. A few people with ALS are limited to one spinal cord region. These regional variants of ALS are associated with a better prognosis.

Classic ALS involves upper motor neurons in the brain and lower motor neurons in the spinal cord. Primary lateral sclerosis involves only upper motor neurons and progressive muscular atrophy involves only lower motor neurons. There is a debate over whether progressive or primary lateral sclerosis and progressive muscular atrophy are separate diseases or simply variants of ALS. Classic ALS accounts for about 70% of all cases of ALS and can be subdivided into limb onset ALS, also known as spinal onset and bulbar onset ALS.

Limb onset ALS begins with weakness in the arms and legs and accounts for about two-thirds of all classic ALS cases. Bulbar onset ALS begins with weakness in the muscles of speech, chewing and swallowing and accounts for one-third of cases. Bulbar ALS onset is associated with a worse prognosis than limb onset ALS. A population base study found that bulbar onset ALS has a median survival of two years and a ten year survival rate of 3% while limb onset ALS has a median survival rate of 2.6 years and a ten year survival rate of 13%. A rare variant is respiratory onset ALS that accounts for about 3% of all cases of ALS. The initial symptoms are difficulty breathing "dyspnea" with exertion, at rest or while lying down (orthopnea).

Spinal and bulbar symptoms tend to be mild or absent at the beginning. It is

ASL– continued

more common in males. Respiratory onset ALS has the worst prognosis of any ALS variant. In a population based study, those with respiratory onset had a median survival rate of 1.4 years and a 0% survival at ten years.

Primary lateral sclerosis accounts for 5% of all cases of ALS and affects upper motor neurons in the arms and legs; however, more than 75% of people that apparent progressive primary lateral sclerosis develop lower motor neuron signs within four years of symptoms onset that a definite diagnosis of primary lateral sclerosis cannot be made until then. Primary lateral sclerosis has a better prognosis than classic amyotrophic lateral sclerosis as it progresses slower and results in less functional decline, does not affect the ability to breath and causes less severe weight loss.

Progressive muscular atrophy accounts for 5% of all cases of ALS and affects lower motor neurons in the arms and legs. While progressive muscular atrophy is associated with longer survival on average than classic amyotrophic lateral sclerosis, it still progresses to other spinal cord regions over time eventually leading to respiratory failure and death.

Upper motor neuron signs can develop late in the course of progressive muscle atrophy in which case the diagnosis might be changed to classic amyotrophic lateral sclerosis.

Age of Onset:

ALS can also be classified based on the age of onset. While the peak age of onset is 58 to 63 for sporadic ALS, 47 to 52 for familial ALS and about 10% of all cases of ALS begin before age 45 known as young onset ALS and about 1% of all cases that begin before the age of 25 is known as juvenile ALS.

People who develop young onset ALS are more likely to be male and are less likely to have bulbar onset of symptoms and are more likely to have a slower progression of disease. Juvenile ALS is more likely to be familial than adult onset ALS, although most people with juvenile ALS live longer than those with adult onset ALS. Some of them are associated with a poor prognosis. Late onset, after the age of 65, is associated with a more rapid functional decline and shorter survival.

Signs and Symptoms:

The disorder causes muscle weakness, atrophy and muscle spasms throughout the body due to degeneration of the upper motor and lower motor neurons. Individuals affected by this disorder may ultimately lose the ability to initiate and control all voluntary movements, although bladder and bowel function and the

ALS – continued

extraocular muscles are usually spared until the final stages of the disease. Cognitive or behavioral dysfunction is present.

In 30-50% of individuals with ALS about half of the people will experience mild changes in cognition and behavior and 10-15% will show signs of frontotemporal dementia (FTD), repeating phrases or gestures, apathy and loss of inhibition which are frequently reported behavioral features of ALS. Language dysfunction, executive dysfunction and trouble with social cognition and verbal memory are the most commonly reported cognitive symptoms in ALS. A meta-analysis found no relationship between dysfunction and disease severity; however, cognitive and behavioral dysfunctions have been found to correlate reduced survival in people with ALS and increased caregiver burden and this may be due to deficits in social cognition. About 50% of people who have ALS experience the emotional ability in which they cry or laugh for no reason. It is more common in those with bulbar onset ALS.

Pain is a symptom experienced by most people with ALS and can take the form of neuropathic pain, spasticity, muscle cramps, and nociceptive pain caused by reduced mobility and muscle weakness. Examples of nociceptive pain in ALS include contractures, neck pain, back pain, shoulder pain and pressure ulcers. Sensory nerves and the autonomic nervous system are generally unaffected meaning the majority of people with ALS maintain hearing, sight, touch, smell and taste.

Initial Symptoms:

The start of ALS may be so subtle that the symptoms are overlooked. The earliest symptoms of ALS are muscle weakness or muscle atrophy. Other symptoms include trouble swallowing or breathing, cramping, stiffness of affected muscles, muscle weakness affecting an arm or a leg or slurred and nasal speech. The parts of the body affected by early symptoms of ALS depend on which motor neurons in the body are damaged first.

In limb onset ALS the first symptoms are in the arms or legs. If the legs are affected first people may experience awkwardness, tripping or stumbling when walking or running. This is often marked by walking with a drop foot that drags gently on the ground. If the arms are affected first they may experience difficulty with tasks requiring manual dexterity such as buttoning a shirt, writing or turning a key in a lock.

In bulbar onset ALS the first symptoms are difficulty speaking or swallowing and speech may become slurred and nasal in character or quieter.

ALS – continued

There may be difficulty with swallowing and loss of tongue muscle. A smaller portion of people experience respiratory onset ALS where the intercostal muscles that support breathing are affected first. Over time people experiencing increasing difficulty moving, swallowing (dysphagia) and speaking or forming words (dysarthria), symptoms of upper motor neuron involvement include tight and stiff muscles (spasticity) and exaggerated reflexes (hyperreflexia) including an overactive gag reflex.

Abnormal reflexes such as Babinski sign, which indicates upper motor neuron damage, may be present. Symptoms of lower motor neuron degeneration include muscle weakness, atrophy and muscle cramps including twitches of muscles that could be seen under the skin (fasciculation). However, twitching is more of a side effect than a diagnostic symptom. It either occurs after or accompanies weakness and atrophy.

Late Changes:

Difficulty with chewing and swallowing make eating very difficult and increases the risk of choking or of aspirating food into the lungs. In later stages of the disorder aspiration pneumonia can develop and maintaining a healthy weight can become a significant problem that may require the insertion of a feeding tube. As the diaphragm and intercostal muscles of the rib cage that support breathing weaken, measures of lung function such as vital capacity and inspiratory pressure diminish. In respiratory onset ALS this may occur before significant lung weakness is apparent.

The most common cause of death among people with ALS is respiratory failure or pneumonia, and most people with ALS die in their own home. Their breathing stops while they sleep. Although respiratory support can ease problems with breathing and prolong survival, it does not stop the progression of ALS. Most people with ALS die between two to four years after diagnosis. Around 50% of people with ALS die within 30 months of their symptoms beginning and about 20% of people with ALS live between five to ten years after symptoms begin. Cases that live longer than ten years are considered outliers.

Diagnosis:

No test can provide definite diagnosis of ALS; although the presence of upper and lower motor neuron signs in a single limb is suggested. Instead, the diagnosis of ALS is primarily based on the symptoms and signs a physician observes in the person and a series of tests to rule out other diseases. Physicians obtain the persons full medical history and usually conduct neurological examination at regular intervals to assess symptoms such as muscle weak-

ALS – continued

ness, atrophy of muscles, hyperreflexia and spasticity are worsening.

Management:

There is no cure for ALS. Management is focused on treating symptoms and providing supportive care, the goal of improving quality of life and prolonging survival. Riluzole prolongs survival by about two to three months. Edaravone slows functional decline slightly in a small number of people with ALS. It is expensive and must be administered by daily IV infusions that may decrease quality of live. Noninvasive ventilation is the main treatment of respiratory failure in ALS. In people with normal bulbar function it prolongs survival by about seven months and improves quality of life. Invasive ventilation is an option for people with advanced ALS when noninvasive ventilation is not enough to manage their symptoms.

While invasive ventilation prolongs survival, disease progression and functional decline continue. It may decrease the quality of life of people with ALS or their caregivers.

Physical therapy can promote functional independence through aerobic range of motion and stretching exercises. Occupational therapy can assist with activities of daily living through adaptive equipment. Speech therapy can assist people with ALS who have difficulty sleeping.

Preventing weight loss and malnutrition in people with ALS improves both survival and quality of life. Initially, difficulty swallowing can be managed by diet changes and swallowing techniques. A feeding tube should be considered if someone with ALS loses 5% of their body weight or if they cannot safely swallow food and water. A feeding tube is inserted by percutaneous endoscopic gastrostomy (PEG). PEG tubes do not improve survival they usually improve quality of life.

Treatments:

From the 1960's to about 2014 about 50 drugs for ALS were tested in randomized control trials. Of these, Riluzole was the only one that showed a slight benefit in improving survival. Drugs tested and not shown to be effective in clinical trials in humans include anti-viral drugs, anti-excitotoxic drugs, growth factors, neurotrophic factors and anti-inflammatory drugs, antioxidants, antiepileptic drugs, and drugs to improve mitochondrial function.

Physiatrist's Voice
NEWSLETTER September 2021

The following is also an article from Craig Lichtblau MD

Support Care for Hospital Discharge: A Critical Unmet Need

OPEN ACCESS Freely available online

International Journal of Physical Medicine and Rehabilitation

Review Article

Support Care Following Hospital Discharge: A Critical Unmet Need

Craig H. Lichtblau[1*], Christopher Warburton[2], Gabriel Meli[3]

[1]Physical Medicine and Rehabilitation Consultant to the Paley Orthopedic and Spine Institute at St. Mary's Medical Center, West Palm Beach, FL, USA, Consultant to Children's Medical Services for the State of Florida, District 9, St. Mary's Medical Center; [2]University of Miami Miller School of Medicine, Miami, FL, USA; [3]B.S. Cornell University, Ithaca, NY, USA

ABSTRACT

Patients, who suffer catastrophic and non-catastrophic injuries, as well as debilitating diseases, are often left with physical and cognitive deficits that require support care following their hospital discharge. While the type and level of support varies according to the severity of the injury or the patient's condition , receiving the appropriate level of care is critical to reducing morbidity and mortality, for improving quality of life for these patients, and for minimizing overall healthcare costs. Given that the costs of the necessary ongoing care for disabled persons can be exorbitant, it is critical that these costs be covered by insurance. Debilitated conditions that result from injury and disease should not bankrupt patients and their families and instead should be managed by insurance organizations that exist and are regularly funded for the specific purpose of helping people whose suffering is unanticipated. Currently, there is a gap between what is medically necessary and what insurance covers, leaving people to choose between paying for services they cannot afford or forgoing the care they require. By enabling physiatrists to define long-term care needs and implementing covered support care services, secondary complications and associated expenses can be avoided or quickly treated, driving down burdens on patients and the overall healthcare system.

Keywords: Support care; Physiatry; Catastrophic injury; Disability; Stroke; TBI; SCI

INTRODUCTION

Millions of Americans suffer catastrophic and non-catastrophic traumas and diseases each year, and many of them are left in a debilitated state, requiring long-term care. Secondary complications in these patients are common and associated with poorer outcomes and higher costs. Though these complications occur in patients who have suffered dozens of distinct types of acute incidents, for brevity, we highlight examples from some well-known phenomena, such as stroke, Traumatic Brain Injury (TBI), and Spinal Cord Injury (SCI).

Millions of Americans who experience catastrophic and non-catastrophic trauma and diseases each year suffer from costly secondary complications

More than 75% of those undergoing stroke rehabilitation experience secondary complications, which include pneumonia, falls, urinary tract and other infections, pain, depression, cardiac disease, and thromboembolism [1,2]. Similarly, while an estimated 50,000 people die each year from TBIs, the remaining 1.45 million who have experienced a TBI are at a higher risk of secondary complications [3]. These high prevalence complications can include urinary tract infections, pneumonia, pressure ulcers, joint contractures, and deep venous thrombosis [4].

Correspondence to: Craig H. Lichtblau, Physical Medicine and Rehabilitation Consultant to the Paley Orthopedic and Spine Institute at St. Mary's Medical Center, West Palm Beach, FL, USA, Consultant to Children's Medical Services for the State of Florida, District 9, St. Mary's Medical Center, E-mail: c.lichtblau@chlmd.com

Received: June 25, 2021; **Accepted:** July 09, 2021; **Published:** July 16, 2021

Citation: Lichtblau CH, Warburton C, Meli G (2021) Support Care Following Hospital Discharge: A Critical Unmet Need. Int J Phys Med Rehabil. 9: 610.

Like TBI, SCI, which occurs in more than 12,000 people in the U.S. each year, heightens one's risk for secondary complications, particularly in the year following the injury [5]. Common complications following SCI include pneumonia, depression, urinary tract infections, pressure ulcers, fractures, deep vein thrombosis, spasticity, cardiovascular problems and more [6].

These secondary complications significantly increase healthcare costs. Data on the timescale of costs for stroke patients for instance are telling, as they show that costs associated with acute ischemic stroke are substantial initially but double within a year of the initial event [7].

Research on the economics of stroke that consider medical costs over the 4 years following stroke have revealed the exorbitant costs incurred following the initial medical incident [8]. The total projected cost for stroke in 2050 is expected to surpass $1.5 trillion annually (in 2005 dollars) for certain groups [9].

Pain and costs associated with secondary complications are preventable

Experts have pointed to the importance of identifying and treating secondary complications quickly, as some of these complications are fatal, and earlier intervention is associated with better outcomes [10]. With the right care and prevention strategies, secondary complications can be largely avoided. Safety at home, for example, is equally as important as safety in the hospital or other healthcare settings, and when people are in unsafe conditions, they are at risk for having to be hospitalized again [11]. Fall-related injuries, which are highly preventable and often occur in those who have suffered strokes or traumatic injuries, enhance costs due to hospitalization, diagnostic procedures, and potentially surgeries [12].

Lack of adequate support care has been identified as a major risk factor for adverse events, and many secondary complications have been recognized as preventable or treatable when promptly recognized [2,13,14]. Having the right kind of care in the home can help to provide safe conditions and to prevent hospitalization through other mechanisms. For instance, better communication between home health nurses and physicians is associated with a reduced risk of hospital readmission in high-risk patients [15]. Without home health nurses, this necessary communication amongst healthcare professionals is lacking. Physiatrists have the medical expertise to offer specific guidance for long-term care support and should be leveraged to help classify the type and volume of care each patient requires.

Successful prevention requires the appropriate type and volume of care

Better and quicker care is all associated with better outcomes for those at risk for secondary complications following catastrophic events. Having more access to care increases the likelihood of early intervention in the case of complications. Quality of support following stroke is associated with improved behavioral and emotional outcomes [16]. There are significant discrepancies in data on the type and frequency of complications following stroke, which may be at least partially explained by differences in the type of support care patients received [2].

Deploying appropriate prevention strategies for complications, such as for bladder and bowel problems following stroke can prevent hospital readmissions and further medical complications [17]. Further, nurses can be trained to reduce the specific risks that patients face post-stroke, including the risk of falls, malnutrition, dehydration, dysphagia, altered glucose metabolism, pneumonia, delirium, and depression [18]. Recent research supports the notions that highly specialized nursing care can improve outcomes in stroke [19].

In TBI, only about 1 out of every 4 people achieves long-term functional independence [20]. Expert assessment of functional status following injury is critical for these patients to receive the appropriate amount and level of care to help prevent complications. Specially trained caregivers must also be deployed to improve outcomes for this patient population. Research has also shown that duration of medical attention required is lower when registered nurses spend more time with patients each day [21]. This observation is likely due to the enhanced likelihood that medical risks are rapidly addressed and new or worsened conditions or injuries are prevented.

But what is medically necessary in the context of long-term care is not covered by insurance

Too many patients do not have the ongoing care required to quickly identify signs of secondary complications, largely because this type of care tends not to be covered by insurance companies. Though home care delivery was once the norm in healthcare, the needs for patients who require home health care are today poorly met under the current model of healthcare delivery [22]. There is thus a significant gap between what patients need and what insurance covers in cases where long-term care is needed.

Medicare, for example, does not generally cover long-term home health care [23]. In cases where Medicare does provide such coverage, that coverage is for part-time care and is only provided for a limited period. For home health care services to be covered by Medicare at all, those services need not only to be deemed medically necessary but must also be provided on a non-continuous basis [24]. This policy, by definition, prevents people who need to be regularly monitored from getting adequate care unless they have the medical means to pay directly for the services. Patients and their families are thus left with the difficult decision of whether to forego necessary medical attention or incur significant debts to receive services they cannot afford.

Without coverage for necessary medical support, patients and their families face exorbitant costs

Rising unmet needs in long-term home care is placing an increasing burden on family caregivers [25]. In addition to the emotional, physical, and work-related stresses, the financial costs of caring for patients who require care at home and who are at risk for new or worsening complications negatively affects families across the country. A family member with a disability is the second most common reason given for why medical bills have had a major impact on the family [26]. According to the

U.S. Consumer Financial Protection Bureau in 2014, medical bills are by far the most common cause of unpaid bills [27]. Medical bankruptcy is common and receives significant attention because of the is perceived injustice of Americans suffering due to the health care finance system [28].

Exacerbating the problem of the personal financial burden of long-term disability is that indebtedness is known to negatively affect health, with severe financial distress increasing the risk for mortality in certain contexts [29,30]. Hospital admissions in turn have negative financial consequences, including enhancing out-of-pocket medical spending, increasing bankruptcy, reducing earnings, and minimizing access to credit [31]. While the Patient Protection and Affordable Care Act (ACA) provided more universal care, it did not provide the comprehensive care that prevents financial suffering in cases of long-term disability, and this unmet need must be addressed through new and innovative solutions [28].

Coverage for appropriate care is urgently needed to reduce the burden of secondary complications

This vicious cycle where medical need leads to financial demise, which worsens health and leads to further financial destruction needs to be broken by ensuring that people's medical needs are covered from the moment they are needed. The Affordable Care Act pushed for improving quality of care while reducing costs, with one of the strategies for cost reductions to include shifting care from costly settings like hospitals to less expensive settings such as the home [32]. Indeed, moving delivery of care to the home has been deemed one of the best opportunities to improve care while driving down costs, as home care not only enhances health-related outcomes but also reduces the length of hospital stays and spending [33-40].

In the case of primary care alone, home-based care reduces emergency department visits, hospitalizations, and readmissions, saving $ 2,700 on average per beneficiary annually while also enhancing satisfaction for both patients and caregivers [40]. In cases where more regular care is appropriate or urgently needed, these savings are undoubtedly significantly higher.

In addition to driving down costs, home-based care tends to be preferred to other types of care by patients who require long-term medical attention. Even when people know that they cannot adequately care for themselves, they often express a preference to be able to stay at home [25]. Having them do so should be the least costly option for every healthcare stakeholder, including the patient.

Coverage must be standardized and transparent

There is currently no standardized, evidence-based way to provide effective support care for those requiring long-term home care, which obviates transparency on how to best support these patients. Instead, we need a clear, uniform approach for providing those who need long-term home care support with the care they need. As part of this protocol, rather than insurance companies, physiatrists, who are specially trained and uniquely qualified to prescribe and describe support care for the future, should dictate the amount and level of care patients can and do receive.

To capitalize on the opportunities of home-based care, a true shift away from fee-for service models toward value-based care is critical [40]. Currently, Medicare emphasizes office-based care and fee-for-service models, preventing clinical decision making that is conducive to improved long-term health outcomes [22,25]. The majority of experts interviewed on the topic believed that the Medicare home health benefit should be more flexible and should be based on patients' needs. The need to evolve Medicare to respond to increasing demands of patients with limitations in their daily activities was also highlighted.

Physicians-not insurance companies-should dictate the care patients receive

Physicians as the gatekeepers to long-term care coverage is consistent with value-based care not only because it will improve long-term health outcomes and drive down costs associated with healthcare utilization but also because physicians can assign volume and level of care based on the specific needs of the patient to successfully balance care and cost. For instance, depending on the specific needs of the patient, physicians may deem different levels of care appropriate.

Research has shown that both Registered Nurses (RNs) and Licensed Practical Nurses (LPNs) are valuable for maintaining the safety of nursing home residents, though RNs are uniquely able to contribute successful care in certain complex scenarios such as with medication reconciliation, which may be more relevant for certain patient populations [41]. Certified Nursing Assistants (CNAs), however, are important for care that does not require medical monitoring. For instance, rather than use a costlier care option such as an RN or LPN, a CNA is adequate for custodial care and prevention of falls, for medically stable, physically disabled patients.

Not only will a healthcare system that enables people to get long-term care in their own homes affordably improve health outcomes and health-related spending, but it is consistent with the trend toward personalized, on-demand care that is customized to and directed toward the consumer. Now is the time for a new pathway for home-based health care to be paved, supported by physiatrist recommendations, and fully integrated into the U.S. health care system [25].

Takeaway

Traumatic catastrophic and non-catastrophic injuries are not only painful, dangerous, debilitating and life-altering, but it is also an incredible financial burden [42].

More than 12% of the U.S. population suffers significant disabilities, and there is growing consensus that persons with disabilities are an unrecognized health disparity population [43]. These patients require long-term care services, most of which are not covered by health insurance and thus place enormous financial burden on the patients and their families. Because each patient is different, and each injury is unique, careful expert evaluation is required to determine the most appropriate care for each patient, and medical coverage for such care should

track with expert assessments and recommendations. In other words, those in need of higher levels of care should not be subject to the same coverage limitations as those with lesser disabilities and risks of complications. Though we have focused on stroke, TBI, and SCI, the number of Americans who suffer disability following injury are not limited to these conditions. Disability from myocardial infarction, amputation, burns; orthopedic trauma, progressive neurologic disease, cancer, and chronic pain are also common and add tremendously to the overall burden of disability in our country.

Though the injuries themselves are distinct, there is significant overlap in the secondary complications, likely owing to the way each of these injuries impacts patients' abilities to function normally, properly care for themselves, and identify secondary complications quickly. With better, more personalized support care that has been appropriately defined by physiatrists, the health outcomes associated with these complications and the accompanying costs could be significantly reduced.

REFERENCES

1. Hong KS, Kang DW, Koo JS, Yu KH, Han MK, Cho YJ, et al. Impact of neurological and medical complications on 3-month outcomes in acute ischaemic stroke. Eur J Neurol. 2008;15(12):1324-1331.
2. Janus-Laszuk B, Mirowska-Guzel D, Sarzynska-Dlugosz I, Czlonkowska A. Effect of medical complications on the after-stroke rehabilitation outcome. NeuroRehabil. 2017;40(2):223-232.
3. Report to Congress: Traumatic Brain Injury in the United States | Concussion | Traumatic Brain Injury | CDC Injury Center.
4. Odgaard L, Aadal L, Eskildsen M, Poulsen I. Nursing Sensitive Outcomes after Severe Traumatic Brain Injury: A Nationwide Study. J Neurosci Nurs. 2018;50(3):149-154.
5. Stillman MD, Barber J, Burns S, Williams S, Hoffman JM. Complications of spinal cord injury over the first year after discharge from inpatient rehabilitation. Arch Phys Med Rehabil. 2017;98(9): 1800-1805.
6. Nas K, Yazmalar L, Şah V, Aydin A, Öneş K. Rehabilitation of spinal cord injuries. World J Orthop. 2015;6(1):8-16.
7. Johnson BH, Bonafede MM, Watson C. Short-and longer-term health-care resource utilization and costs associated with acute ischemic stroke. Clinicoecon Outcomes Res. 2016;8:53-61.
8. Lee WC, Christensen MC, Joshi AV, Pashos CL. Long-term cost of stroke subtypes among medicare beneficiaries. Cerebrovasc Dis. 2007;23(1):57-65.
9. Brown DL, Boden-Albala B, Langa KM, Lisabeth LD, Fair M, Smith MA, et al. Projected costs of ischemic stroke in the United States. Neurology. 2006;67(8):1390-1395.
10. Sweis R, Biller J. Systemic complications of spinal cord injury. Curr Neurol Neurosci Rep. 2017;17(2):8.
11. Romagnoli KM, Handler SM, Hochheiser H. Home care: More than just a visiting nurse. BMJ Qual Saf. 2013;22(12):972-974.
12. Bamgbade S, Dearmon V. Fall prevention for older adults receiving home healthcare. Home Healthc. Now. 2016;34(2):68-75.
13. Langhorne P, Stott DJ, Robertson L, MacDonald J, Jones L, McAlpine C, et al. Medical complications after stroke: A multicenter study. Stroke. 2000;31(6):1223-1229.
14. Adamuz J, Juve-Udina ME, Gonzalez-Samartino M, Jiménez-Martínez E, Tapia-Pérez M, López-Jiménez MM, et al. Care complexity individual factors associated with adverse events and in-hospital mortality. PLoS ONE. 2020;15:e0236370.
15. Pesko MF, Gerber LM, Peng TR, Press MJ. Home Health Care: Nurse-Physician Communication, Patient Severity, and Hospital Readmission. Health Serv Res. 2018;53(2):1008-1024.
16. Villain M, Sibon I, Renou P, Poli M, Swendsen J. Very early social support following mild stroke is associated with emotional and behavioral outcomes three months later. Clin Rehabil. 2017;31(1): 135-141.
17. Chohan SA, Venkatesh PK, How CH. Long-term complications of stroke and secondary prevention: An overview for primary care physicians. Singapore Med J. 2019;60(12):616-620.
18. Tamburri LM, Hollender KD, Orzano D. Protecting patient safety and preventing modifiable complications after acute ischemic stroke. Crit Care Nurse. 2020;40(1):56-65.
19. Theofanidis D, Gibbon B. Nursing interventions in stroke care delivery: An evidence-based clinical review. J Vasc Nurs. 2016;34(4): 144-151.
20. Ahmed S, Venigalla H, Mekala HM, Dar S, Hassan M, Ayub S. Traumatic brain injury and neuropsychiatric complications. Indian J Psychol Med. 2017;39(2):114-121.
21. Needleman J, Buerhaus P, Mattke S, Stewart M, Zelevinsky K. Nurse-staffing levels and the quality of care in hospitals. N Eng J Med. 2002;346(22):1715-1722.
22. Yao NA, Rose K, LeBaron V, Camacho F, Boling P. Increasing Role of Nurse Practitioners in House Call Programs. J Am Geriatr Soc. 2017;65(4):847-852.
23. Medicare Coverage of In-Home Health Care.
24. Ellenbecker CH, Samia L, Cushman MJ, Alster K. Patient safety and quality in home health care. Agency for Healthcare Research and Quality (US); 2008.
25. Landers S, Madigan E, Leff B, Rosati RJ, Mc Cann BA, Hornbake B, et al. The future of home health care: A strategic framework for optimizing value. Home Health Care Manag Pract. 2016;28(4): 262-278.
26. The burden of medical debt: Results from the Kaiser Family Foundation/New York Times Medical Bills Survey.
27. Consumer credit reports: A Study of Medical and Non-Medical Collections; 2014.
28. Himmelstein DU, Woolhandler S, Lawless RM, Thorne D, Foohey P. Medical bankruptcy: Still common despite the affordable care act. Am J Pub Hea. 2019;109(3):431-433.
29. Turunen E, Hiilamo H. Health effects of indebtedness: A systematic review. BMC Public Health. 2014;14(1):489.
30. Ramsey SD, Bansal A, Fedorenko CR, Blough KD, Overstreet KA, Overstreet V, et al. Financial insolvency as a risk factor for early mortality among patients with cancer. J Clin Oncol. 2016;34(9): 980-986.
31. Dobkin C, Finkelstein A, Kluender R, Notowidigdo MJ. The economic consequences of hospital admissions. Am Econ Rev 2018;108(2):308-352.
32. Changing patterns of health insurance and health-care delivery-Health-care utilization as a proxy in disability determination-NCBI Bookshelf.
33. Barrett DL, Secic M, Borowske D. The gatekeeper program: Proactive identification and case management of at-risk older adults prevents nursing home placement, saving healthcare dollars program evaluation. Home Healthcare Nurse. 2010;28(3):191-197.
34. Counsell SR, Callahan CM, Clark DO, Tu W, Buttar AB, Stump AB, et al. Geriatric care management for low-income seniors: A randomized controlled trial. J Am Med Asso. 2007;298(22): 2623-2633.
35. Leftwich Beales J, Edes T. Veteran's Affairs Home Based Primary Care. Clin Geriatr Med. 2009;25(1):149-154.

36. Impact of home care on hospital days: A meta-analysis - PubMed.

37. Leff B, Burton L, Mader SL, Naughton B, Burl J, Greenough WB, et al. Comparison of functional outcomes associated with hospital at home care and traditional acute hospital care. J Am Geriatr Soc. 2009;57(2):273-278.

38. Elkan R, Kendrick D, Dewey M, Hewitt M, Robinson J, Blair M, et al. Effectiveness of home based support for older people: Systematic review and meta-analysis. BMJ. 2001;323(7315):719-724.

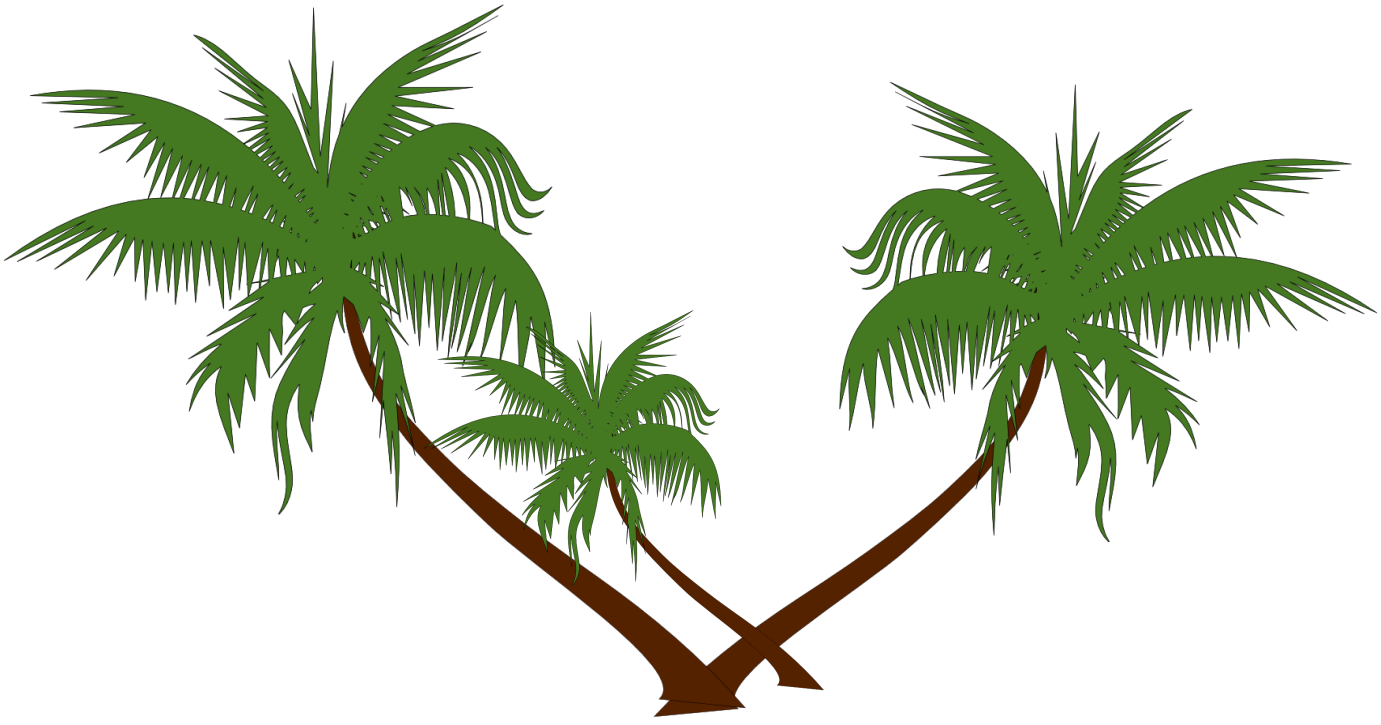
39. Mamolen NL, Brenner PS. The impact of a burn wound education program and implementation of a clinical pathway on patient outcomes. J Burn Care Rehabil. 2000;21(5):440-445.

40. 5 Obstacles to home-based health care, and How to overcome them.

41. Vogelsmeier A, Anderson RA, Anbari A, Ganong L, Farag A, Niemeyer M. A qualitative study describing nursing home nurses sensemaking to detect medication order discrepancies. BMC Health Ser Res. 2017;17(1):531.

42. Wiseman T, Foster K, Curtis K. The experience of emotional wellbeing for patients with physical injury: A qualitative follow-up study. Injury. 2016;47(9):1983-1989.

43. Krahn GL, Walker DK, Correa-De-Araujo R. Persons with disabilities as an unrecognized health disparity population. Am J Public Health. 2015;105(S2):S198-S206.



Physiatrist's Voice
NEWSLETTER September 2021

Residency Updates

Physiatrist's Voice
NEWSLETTER September 2021

West Florida Hospital Pensacola

Zeeshan Haque, MD, PGY-2
FSPMR Resident Liaison
West Florida Hospital/UCF PM&R Residency Program
Susan Belcher MD, Program Director

Zeeshan Haque MD

Greetings from Pensacola, Florida! It's a pleasure to meet you all and to introduce myself. My name is Zeeshan Haque, the liaison for our brand-new West Florida Hospital/UCF PM&R Residency Program. We are excited to be a part of FSPMR as well as the PM&R community. The names of my co-residents are Dr. Himat Gill, Dr. Sean O'Leary, and Dr. Steven Tran. A fun fact is that three of the four of us are originally from Michigan.

We've recently kicked off our new residency program and some of us have already had exposure to several procedures (ultrasound-guided injections, Botox injections, trigger point injections) at our MSK clinic rotation with our wonderful Program Director, Dr. Belcher. We've also had an excellent introduction to pain medicine from our weekly didactic series with Dr. Buchalter. I would also like to give a special shoutout to our awesome Program Coordinator, Cody, for helping us have a smooth transition into the program. Her availability and efforts to help us are really appreciated. We also have a new Instagram page, @ucf_wfh_pmrresidency. Please give us a follow!

In terms of wellness, the four of us have started a tradition in which we play basketball & dine-out on Wednesdays. Also, from attending our first Gallery Night in downtown Pensacola to going on a banana boat ride together, we've taken the opportunity to form a tight-knit cohort here at our residency program!

West Florida Hospital Pensacola—continued

Again, it's very nice to meet you all and I'm looking forward to hearing from you all soon!

Physiatrist's Voice
NEWSLETTER September 2021

LARKIN COMMUNITY HOSPITAL PM&R RESIDENCY UPDATE

Arun Zachariah, DO PGY-3, Resident Liaison to FSPMR
Jose J. Diaz, DO, Residency Program Director


Arun Zachariah,DO

Hello and welcome from Larkin Physical Medicine and Rehabilitation Residency Program! My name is Arun Zachariah; I am a current PGY3 at Larkin PM&R and will be the new FSPMR Liaison, thank you for having me. First of all, I would like to congratulate all of the new PGY1s and PGY2s beginning their PM&R residency. This is the next big step in your medical careers, while there is a huge learning curve ahead of you, I am sure you will excel.

Secondly, we would like to say a farewell to our graduating Class of 2021, including the former chiefs Tanner Candelore and Kate Nelson. Our new Chiefs for the year are Trevor Persaud and Eric Lam, with special congratulations to Eric for becoming a new father a few weeks ago!

Welcome to the Class of 2024!

Chukwuemeka Ajufo, MD
Medical School: American University of the Caribbean
Intern Year: Ocala Regional Medical Center

Richard Choueiri, DO
Medical School: Lake Erie College of Osteopathic Medicine (LECOM) Bradenton
Intern Year: Rowan University School of Osteopathic Medicine Stratford

Francis DeAsis, DO
Medical School: Midwestern University (Chicago College of Osteopathic Medicine)
Intern Year: Hackensack Palisades Medical Center, North Bergen, NJ (TY)

Felix Ferre, DO
Medical School: Universidad Central del Caribe (Puerto Rico)
Intern Year: Damas Hospital

Brandon Forman, DO
Medical School: Lincoln Memorial University Debusk College of Osteopathic Medicine
Intern Year: Mercy Catholic Medical Center

Natasha Mehta, DO
Medical School: Michigan State College of Osteopathic Medicine
Intern Year: Ascension Macomb Oakland Hospital (TY)

LARKIN COMMUNITY HOSPITAL PM&R RESIDENCY UPDATE
Arun Zachariah, DO PGY-3, Resident Liaison to FSPMR
Jose J. Diaz, DO, Residency Program Director
-continued-

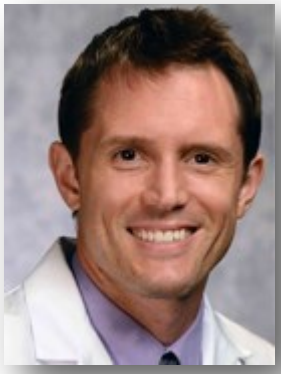
Brian Palacios, MD
Medical School: Saba University School of Medicine
Intern Year: Mercy Health Jewish Hospital
Brandon Stillman, DO
Medical School: Nova Southeastern University College of Osteopathic Medicine
Intern Year: University of Kentucky

And lastly, in new news, one of our PGY4s, Alan Nguyen is now on the Health and Human Performance Advisory Board at Nova Southeastern. We wish everyone the best in the new year to come!

Physiatrist's Voice
NEWSLETTER September 2021

Memorial Healthcare System PM&R Residency Program

Dr. Matthew Voelker DO, (PGY2) Resident Liaison
Dr. Jeremy Jacobs DO, Residency Program Director



Matthew Voelker DO

Memorial Healthcare System's residency is strong and growing in leaps and bounds. 2021 marks our programs 4th year and the first year we have a full resident class with our first PGY4 class that will graduate this June.

We would like to welcome two new outstanding Physicians to our team and say goodbye to one of our founding fathers. **Dr. David Valdes** from University of Miami who focus will be in outpatient Musculoskeletal with emphasis in teaching our residents. **Dr. Eduardo Maldonado**, who completed his fellowship in Georgetown at Med star and residency at the San Juan VA in Puerto Rico. His focus will be developing our cancer rehab program. The one and only **Dr. Alan Novick** will be transitioning from memorial after over 25 years and wonderful career as clinical physiatrist in brain injury medicine. He has been medical director as well as chief of medicine and was a visionary for our Rehabilitation Institute and Residency program. He was a true teacher and mentor and he will be missed at Memorial.

PGY-4 update: Drs. Steven Tijmes and Abhinav Mohan have completed interviews at numerous interventional Pain fellowships and are awaiting match. Dr. Michael Boeving will be starting his practice upon completion.

NANS 2021

Oral Presentation: "Headache Treatment with SPG blocks," Dr. Noushad Mamun PGY2.

Physiatrist's Voice
NEWSLETTER September 2021

Memorial Healthcare System PM&R Residency Program
Dr Matthew Voelker, PM&R Resident Liaison to FSPMR
Jeremy Jacobs DO, Residency Program Director
-continued-

FSPMR – August 2021 – Tampa, FL

Posters

"Malice of Chondromalacia PRP and its management," Dr. Uday Mathur PGY3

"Intercostal Neuralgia Secondary to Transaxillary Breast Augmentation," Drs. Robert Mousselli PGY3 and Noushad Mamun PGY2.

Oral Platform Presentation
"The Utilization of a spinal cord stimulator in a patient with bilateral Meralgia Parasthetica," by Drs. Robert Mousselli and Andres Gutierrez PGY3

It was nice to meet and be inspired by so many Florida Physiatrists in Tampa this past August and to learn from them and about the opportunities that await us. Thanks to Dr. Lichtblau for making it a reality.

AAPMR Accepted Posters NOV 2021

"Acute Transverse Myelitis following COVID-19 Vaccination." Dr. Tijmes PGY4, Dr. Delgado

"Lateral patellar dislocation associated femoral neuropathy." Dr. Boeving PGY4

OMM didactics/workshop will be led by resident DO's Robert Mousselli and Matthew Voelker, and will begin this month for an introduction emphasizing high yield concepts and OMT techniques.

To excellent health and wellness!

Your MHS PM&R family in Hollywood

Physiatrist's Voice
NEWSLETTER September 2021

University of Miami Miller School of Medicine/Jackson Memorial Hospital
PM&R Residency Update
Edwin Amirianfar DO, PGY-3, FSPMR Resident Liaison
Chane Price MD, Program Director

New Hired staff and their positions:

CHRISTOPHER ALESSIA, DO -
musculoskeletal outpatient

JOSE VIVES-ALVARADO, MD -
spinal cord injury

NICOLE PONTEE, MD -
complex care director

Edwin Amirianfar DO,

New Fellows:

Dr. Sony Isaac MD - Brain Injury Fellow

Dr. Ady Marie Correa-Mendoza - Cancer Fellow

Dr. Andrew Sherman was promoted to Vice Chair of Education

Dr. Chane Price was promoted to Program Director

Dr. Kevin Dalal was promoted to Medical Director Inpatient Rehabilitation Services and Spinal Cord Injury Service

Dr. Diana Molinares was promoted to Associate Program Director

Recent fellowships matches:

RICHARD ROSALES, M.D. – PGY4 Matched at Vanderbilt University in Nashville, Tennessee in the Sports Medicine Fellowship Program July 2022

Physiatrist's Voice
NEWSLETTER September 2021

University of South Florida PM&R Residency Update

Kareem Qaisi DO, FSPMR Resident Liaison
Marissa McCarthy, MD, Residency Program Director

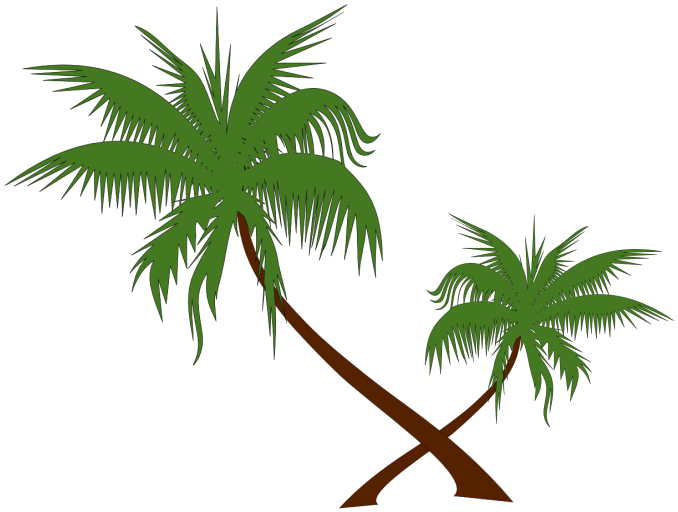

Kareem Qaisi DO

- Ground has broken on our new inpatient rehabilitation hospital, a joint venture between Tampa General Hospital and Kindred Healthcare. We are expecting a state-of-the-art, freestanding rehabilitation facility, housing 52 beds in the medical district of downtown Tampa. We are looking forward to the expected openng in the early half of 2022.

- USF PM&R has started an Instagram page! Increasing our social media presence is one of the many steps we are taking forward as a program to expand our outreach towards interacting with other PM&R programs, educating the community, and connecting with interested medical students. During the pandemic, social media has become an essential tool in remaining connected. Please check out our page: @usf_pmr

-

We would like to give a warm welcome to Dr. Chelsea Frost and Dr. Jessica Ibanez as additions to our Pain programs. Dr. Frost completed her PM&R residency at the University of Virginia and fellowship training at Emory University. Dr. Ibanez completed Anesthesia residency at Johns Hopkins and fellowship training at Brigham and Women's Hospital in Boston. We are thrilled to add such esteemed attendings to our residency program and look forward to working with them!



Physiatrist's Voice
NEWSLETTER September 2021

Professional Opportunities

September 2021

Opportunities:

Southeastern FL. Pelvic Rehab Medicine Be at the forefront of this specialized medicine. Training will be provided. This rapidly-growing field offers much professional growth. Comfortable lifestyle with 8-hour days and no call.

St. Augustine, FL. Medical Director, Rehab. Brand-new 40 bed acute inpatient rehab hospital slated to open 2/28/2022. Enjoy the advantages of an independent contractor affiliation. Income guarantee PLUS a Medical Director Stipend PLUS your professional receipts.
Other opportunities include an outpatient practice purchase in Palm Beach; a pelvic rehab medicine in Palm Beach; inpatient in Melbourne, Fort Pierce, Broward and Vero Beach; subacute in Ocala and Sarasota; and remote nurse practitioner supervision statewide.
Just added Tallahassee!

Contact Linda Farr, Farr Healthcare, Inc.,
farrhealth@comcast.net,
888-362-7200,
www.farrhealthcare.com

Physiatrist's Voice

NEWSLETTER September 2021

Deadline for our next issue, December 2021, is November 15th!

Guidelines for your articles are available on the website:

FSPMR.org/newsletters

Articles in this newsletter are not an endorsement of acceptance by the Florida Society of Physical Medicine and Rehabilitation.

They are published as a service to the author for the benefit of members.