



**ENHANCING HEALTH AND
FUNCTION THROUGH EDUCATION AND
RESEARCH IN THE FIELD OF
PHYSICAL MEDICINE AND
REHABILITATION**

Physiatrist's Voice

NEWSLETTER

September 2024

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PRESIDENT'S MESSAGE Andrew L. Sherman, MD, MS, President FSPMR

Dear all:

As I sit to write this, my last address as President of FSPMR, (I promise to keep it short) I am struck by many milestones, both individual and of the specialty. This month marks my 25th year as faculty at the University of Miami School of Medicine and recently the end of my tenure as interim Department Chair. As a chance to reflect on where PM&R was and where it is today in the state of Florida, I can only be filled with pride and accomplishment. The future is bright as I will outline below.

In just two short years, FSPMR has advanced the specialty in so many ways. We have increased our paid membership 3-fold. With that revenue, FSPMR has been able to give back to the field in key ways. FSPMR funded two major educational workshops for the nine (9!) PM&R residency programs and over 40 residents in each. FSPMR has created the senior physiatrist mentorship program. FSPMR has created two sub-committees: The senior physiatrists and the junior physiatrists each with a seat on the board. FSPMR created the partnership collaborative for all PM&R practices and programs that signed up all their physicians. FSPMR has established (finally!) the FSPMR Hall of Fame – the first induction to be done at the Annual Meeting in Orlando-dinner supported by member and chair of the nominating committee Craig Lichtblau MD and the FSPMR. With record attendance at the annual meetings FSPMR has been able to secure multiple sponsors to further underwrite the FSPMR mission. Finally, thanks to the Mayo Clinic Department of PM&R in partnership with Brooks Rehabilitation, quarterly MSK webinars have been made available.

Of course, in the FSPMR, we want to do more for our state physiatrists. To accomplish that, the singular focus must be – we need more members! Please send this newsletter to your non-member colleagues, encourage them to come to the annual meeting in Orlando – even if it is just for Saturday only. Make your voice heard. Tell FSPMR what programs are



Dr. Andrew Sherman





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PRESIDENT'S MESSAGE—CONTINUED

needed for the specialty to thrive in this state even more.

Yes thrive. It is an amazing time for physiatry in the state of Florida. Four rehabilitation hospitals, Brooks, Lynn Rehab, Sarasota and Memorial have all been named in the top 50 by US News and World Report and Tampa and UF Gainesville are both right on the doorstep. No less than six nationally-renowned academic physiatrists, including AAPMR past presidents, have relocated to Florida in various leadership roles, including Greg Worsowicz, MD, Leslie Morse, DO, **Raj Mitra, MD** and Curtis L Whitehair MD. Others have taken on CMO roles, insurance director roles, and have led the growth of Florida based PM&R companies such as SIMED and US Physiatry. Doximity has published that PM&R is the number one specialty for income increase – 11% - over the last year. Promising times indeed. Brooks Rehab – not the Mayo Clinic in Minnesota, was chosen to spearhead the new Rehabilitation Hospital at Mayo in Arizona! Baptist Hospital has just broken ground on a new 55 bed rehabilitation hospital in South Miami. Outpatient interventional pain and spine, PM&R MSK, and PM&R Neuro outpatient practices have grown exponentially – providing Florida patients with the highest quality of care.

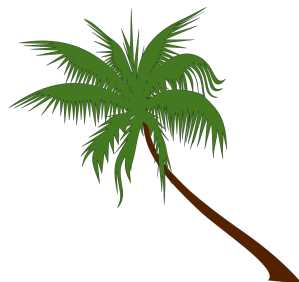
In summary, I said this would be short, while PM&R has made headway in all aspects – Clinical Care – inpatient and outpatient, Education (9 residency programs), and research – threats and challenges lie just around the corner. To preserve PM&R gains, it is imperative that all PM&R physicians who are not members of FSPMR consider joining. Any PM&R physician who joins now for 2025 will get the rest of 2024 membership free.

Consider attending the Annual Meeting, Hyatt Regency Orlando, September 19-22 or at least Sept 21 for the PM&R breakout and Hall of Fame Dinner (No extra charge). Hope to see you there.

Thank you for the last two years, allowing me to lead the state of Florida Community of Physiatrists. I can't wait to welcome our new slate of leaders including incoming President Diana Hussain, MD and give my full support.

Andrew Sherman MD, MS

President FSPMR





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FSPMR/ FSIPP Annual Conference

*Full details and links
pertaining to the Confer-
ence are updated regu-
larly are available on
our website:*

[FSPMR.org/EVENTS](https://www.fspmr.org/EVENTS)

Conference Agenda

Conference Registration
*New this year: a ONE-
DAY/Saturday Only
Registration Rate
\$350*

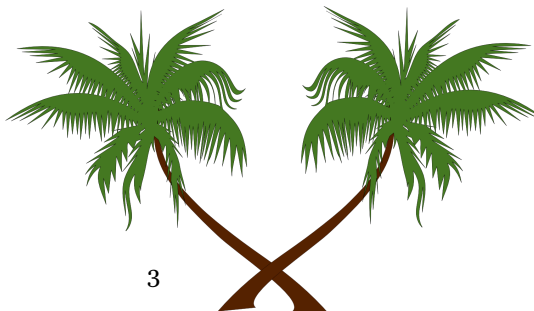
FLORIDA SOCIETY OF
INTERVENTIONAL PAIN PHYSICIANS &
FLORIDA SOCIETY OF
PHYSICAL MEDICINE AND REHABILITATION

ANNUAL CONFERENCE

SEPTEMBER 19-22, 2024

HYATT REGENCY ORLANDO
ORLANDO, FLORIDA

REGISTER NOW





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ANNUAL CONFERENCE SEPTEMBER 19-22, 2024

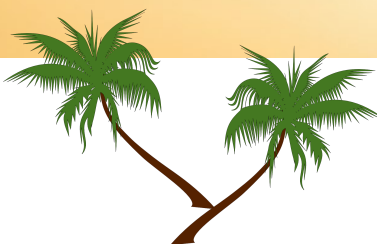
HYATT REGENCY ORLANDO
ORLANDO, FLORIDA



Friday, September 20, 2024

Joint Presidents Cocktail Reception with Exhibitors

5:30-7:30 PM





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FSPMR/FSIPP JOINT KEYNOTE PRESENTATION

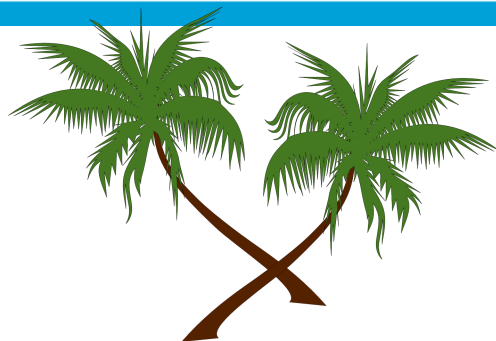


**Saturday , September 21,
Morning Session Combined with FSIPP
Joint Keynote**

Non-Surgical Management of
Anterior Cruciate Ligament Injury:
Who are the Candidates?

William F Micheo MD, FAAPMR, Professor and Chair
Associate Director, Sports Medicine Fellowship Physical
Medicine, Rehabilitation and Sports Medicine Department
University of Puerto Rico, School of Medicine

President of AAPM&R in 2009, Dr William Micheo is also
the 2023 Frank H. Krusen, MD, Lifetime Achievement
Award recipient. He is director of the Sports Injuries Unit of
the Center for Sports Health and Exercise Sciences of the
Olympic Training Center and is currently the medical
director for the Puerto Rican delegations that participate in
this Olympic cycle.





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FSPMR Annual Meeting, Saturday, September 21, 2024

Course Director, **Diana Hussain MD**, VP/Program Chair

Morning Combined with FSIPP, FSPMR's Presentations:

Longevity Medicine Principles & Effect on Chronic Pain - **Halland Chen MD**

Pain Rehabilitation Center - Cognitive, Behavioral, Multidisciplinary -
Christopher D Sletten PhD LP

Joint Keynote: Non-Surgical Management of Anterior Cruciate Ligament Injury :
Who are the Candidates? - **William Micheo MD**

1:00 - 5:15 PM Afternoon FSPMR Breakout

Latest Advances in PM&R

1:00 - 1:20

Chronic Stroke Recovery: Vagal Nerve Stimulation
Trevor Persaud DO

1:20 - 1:40

Spinal Cord Injury/Adaptive Sports/Upper Extremity
Shanterian King DO

1:40 - 2:00

Updates on Pediatric Rehabilitation
Paul Kornberg MD

2:00 - 2:30

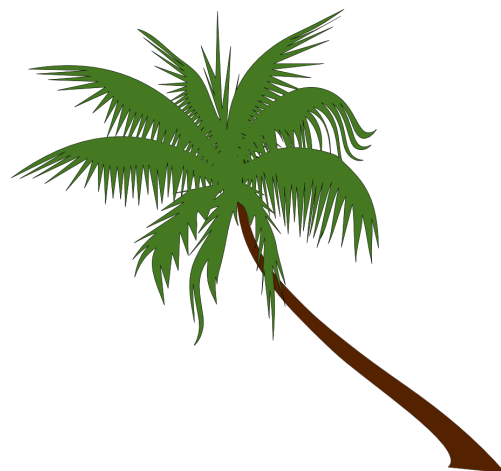
Sports Medicine: New Concussion Guidelines
Jason Zaremski MD

2:30 - 3:00

Advances in Shockwave Therapy for the Management of
Musculoskeletal Conditions
Adam Tenforde MD

3:30 - 3:45

Q&A
All Speakers (1:00 - 3:00)





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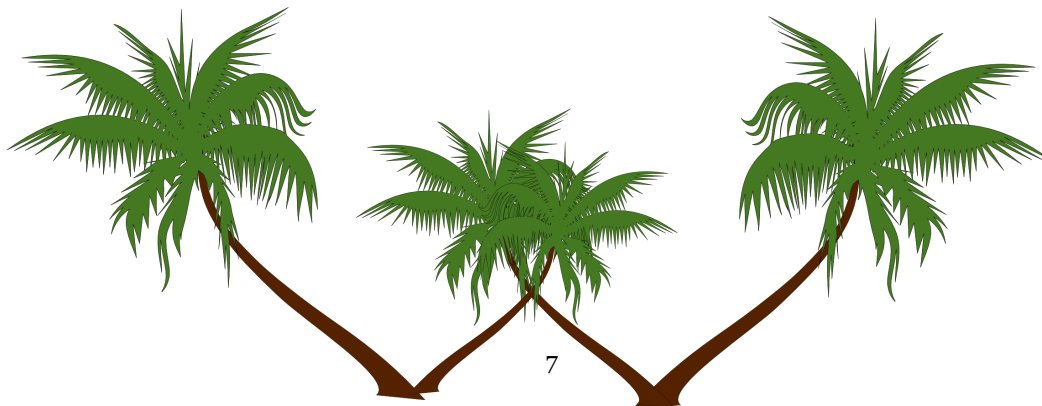
FSPMR Annual Meeting, Saturday, September 21, 2024

Course Director, **Diana Hussain MD**, VP/Program Chair

- continued -

Resident Case Presentations

- 3:45 - 3:55 **Memorial Healthcare:** A Rare Case of Spinal Cord Infarction: A Case Report
Jorge Bilbao DO & Cody Barbari DO
- 3:55 - 4:05 **UMiami:** Pentoxifylline and Vitamin E: A Dynamic Duo Against Radiation Plexopathy
Sara Kurtevski MD & Harika Vallabhaneni MD
- 4:05 - 4:15 **UCF/HCA FL W Hospital:** A Case of Holocord Syringomyelia Presenting as Rapidly Progressive Peripheral Neuropathy with Unilateral Foot Drop
Justin Buck DO & Kristina Ledbetter DO
- 4:15 - 4:25 **USF:** An Unusual Suspect, Syphilis-induced Lumbosacral Plexopathy: A Case Report
Anthony Safadi DO & Artish Patel MD
- 4:25 - 4:35 **UF:** Expanding Therapeutic Potential in Wound Healing with Tadalafil: A Case Report
Danny Kiehl DO & Tobin Chakkala DO
- 4:35 - 4:45 **Larkin Community Hospital:** Comprehensive Care in Stiff Person Syndrome: A Decade of Insights and Outcomes
Jasmine Sidhu MD & Hein Thant MD
- 4:45 - 5:00 Expert Panel:
Andrew Sherman MD, Craig Lichtblau MD, Mitchell Freed MD
- 5:30 - 8:00 **FSPMR Annual Business Meeting/Dinner/Hall of Fame Awards**





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Thank You 2022 - 2024 Board of Directors



Andrew Sherman MD
President



Diana Hussain MD
Vice President



Chelsea Frost MD
Secretary



Parag Shah MD MBA
Treasurer



Mark Rubenstein MD
Immediate Past President



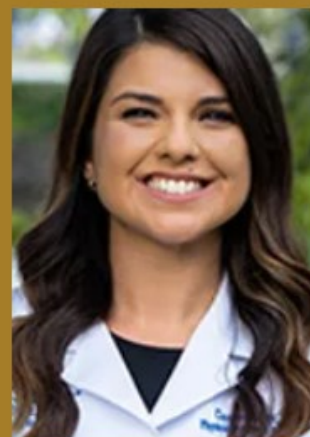
Craig Lichtblau MD
Past President Director



Lindsay Shroyer MD
Member-at-Large



Marc Gerber MD
Member-at-Large



Cassandra List MD
Member-at-Large



Rigoberto Nunez MD
Member-at-Large



Brian Higdon MD
Early Career Director



Physiatrist's Voice

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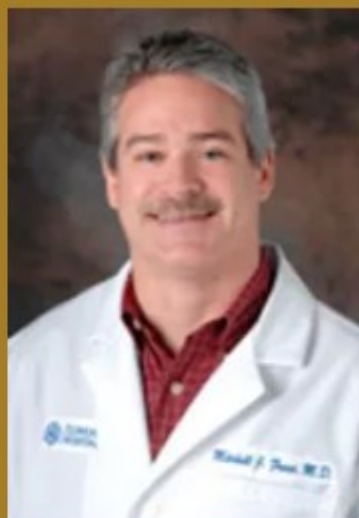
September 2024

Thank You 2022 - 2024 Appointed Positions



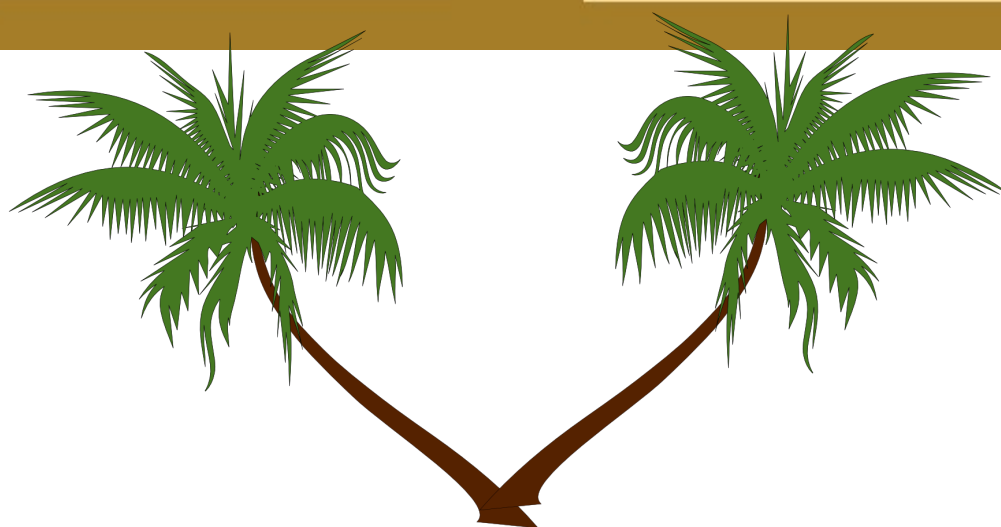
Kenneth Ngo MD

Membership Committee Chair



Mitchell Freed MD

Carrier Advisory Council (CAC)
Rep





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Florida Society of Physical Medicine & Rehabilitation

Officers & Board of Directors Elections

2024 – 2026

Per FSPMR Bylaws: The Officers are elected by a majority vote of the members at the Annual Meeting. The Officers shall be elected from a list of nominees presented by the Nominating Committee to the members, per the list below. Nominations may also be made from the floor via write-in votes at the time of the ***Annual Meeting, September 21, 2024.***

President 2024 - 2026 – Diana Hussain MD, Orlando

(current Vice President) *No vote needed, VP ascends to Presidency.*

Vice President - Marc Gerber MD, Orlando

Secretary - Chelsea Frost MD, Gainesville, *incumbent*

Treasurer - Parag Shah MD MBA, Jacksonville, *incumbent*

Immediate Past President – Andrew Sherman MD, Miami

Past President Director - Craig Lichtblau MD, W Palm Beach, *incumbent*

Early Career Director - Jose Vives Alvarado MD, Miami

Members-at-Large, in alpha order:

Cassandra List MD, Jacksonville, *incumbent*

Kenneth Ngo MD, Jacksonville

Rigoberto Nunez MD, Tampa, *incumbent*

Lindsay Shroyer MD, St Petersburg, *incumbent*

The Critical Importance of the Appropriate Amount and Level of Aid and Attendant Care

Craig H Lichtblau^{1*}, Scott Raffa², Kaveh Asadi³, Christopher Warburton⁴, Gabrielle Meli⁴, Allyson Gorman⁵

¹Medical Director, Osseointegration Program, 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; ²Neurosurgeon, Paley Orthopedic and Spine Institute at St. Mary's Medical Center, West Palm Beach, FL, USA; ³Pediatric Neurosurgeon, Paley Orthopedic and Spine Institute at St. Mary's Medical Center, West Palm Beach, FL, USA; ⁴University of Miami Miller School of Medicine, Miami, FL, USA; ⁵Medical College of Wisconsin, Wauwatosa, WI, USA

INTRODUCTION

According to a 2017 Gallup poll, nurses are more trusted than any other professional [1]. Experts have deemed nurses a lifeline to healthcare for those who struggle to access services, as nurses provide high quality care that is effective, safe, efficient, timely, person-centered, and equitable [2].

A critical aspect of nurse-driven quality care is the allocation of the proper nursing resources to ensure that patients get the level and type of care they need. Given the importance of efficiency in caregiving in the context of limited staff and medical resources, there are incentives to delegate nursing responsibilities to reduce the burden on Registered Nurses (RNs) and the time required for them to care for patients [3-5]. While this delegation is often appropriate, it can also be catastrophic if deployed to patients requiring higher levels of care.

Ultimately, physicians with the training and expertise to best understand current and future needs of a patient should define their needs and the appropriate healthcare staff should be deployed accordingly. Given the distinct functional levels of care providers and the associated costs of utilizing their services, medical financial planning also depends vitally on the early identification of care needs so that patients have the necessary assets to ensure their long-term care.

Here we describe the roles and functions of RNs, Licensed Practical Nurses (LPNs), which are also often referred to as Licensed Vocational Nurses (LVNs), and Certified Nursing Assistants (CNAs). We also highlight state-by-state differences in nursing requirements and responsibilities, which must be considered when determining what level of care is appropriate for any given patient.

RNS ARE MORE HIGHLY EDUCATED AND MEDICALLY TRAINED THAN LPNS AND CNAS

RNs are nursing professionals who have passed the National Council Licensure (NCLEX-RN) examination and are licensed by their local state board of nursing to provide patient care [6]. RNs collaborate with physicians and physician's assistants in the coordination of care plans and interact with patients and their families regarding ongoing care. They are responsible for promoting beneficial behavioral changes and for leading their teams to provide more cost-effective care. RNs are often involved in health promotion at a variety of levels, including helping to create healthier spaces for people to live and work.

RNs can perform and interpret diagnostic tests and adjust medications, and in addition to care coordination and preventative care, RNs also deploy acute clinical judgment. RNs often play a key role in managing patients with chronic diseases such as diabetes and asthma [2,7]. They are also often involved in care related to communicable diseases like influenza and in maternal health [7]. In cases where patients are unstable or at risk for life-threatening complications or comorbidities, RNs are likely to be required to help manage the patient and prevent premature death or unnecessary suffering.

LPNS CAN PROVIDE A RANGE OF NURSING CARE SERVICES

LPNs, also known as LVNs, pass a different examination from RNs. This exam, the NCLEX-PN, is specifically designed for practical nurses [6]. While educated, licensed, and skilled well-beyond entry-level professionals in healthcare, LPNs have a smaller scope to their practice than RNs due to lower levels of education and training, and RNs possess a distinct license from LPNs [8].

Correspondence to: Craig H Lichtblau, Medical Director, Osseointegration Program, 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, Email: c.lichtblau@chlmd.com

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LPNs are appropriate for providing basic nursing care to stable or chronically ill patients [6].

Unlike RNs, LPNs provide care when patients have an established care plan in place, and their care focuses on prevention and overall health promotion. They conduct nurse assessments and diagnostics and provide treatment and education through collaboration with both patients and healthcare providers [9].

LPNs usually work under the supervision of either RNs or physicians and can often provide additional care services while being supervised [10]. These services include assisting with wound care, collecting blood and urine samples, administering vaccinations and medications, providing tube feeding, inserting catheters, performing CPR, and executing nursing care plans [10].

LPNs provide hands-on care, particularly in long-term care and support settings and are often viewed as an important contributor to cost effectiveness in the nursing industry [8]. As the need to delegate tasks away from the highly-in-demand RNs has increased, the LPN role has also grown more common across the globe, but the quality of patient care has been shown in certain contexts to depend critically on LPNs collaborating with RNs [11]. While these professionals have long worked side-by-side and collaborated in long-term care as well as in rehabilitation, more recently they have begun to support one another in acute care settings [11]. While LPNs are most appropriate for stable patients, if working alongside RNs, LPNs may be able to contribute to the care of patients with more complex needs.

CNAS CAN PROVIDE BASIC CARE UNDER THE SUPERVISION OF HIGHER-LEVEL NURSING STAFF

CNAs are professionals who have completed training programs that are approved by the state in which they practice [12]. Whereas CNAs can provide basic care under the supervision of LPNs or RNs and often work in nursing homes and assisted living facilities, their training is less extensive than LPN and RN professionals.

Like LPNs, CNAs can assist with monitoring patients' vital signs and with daily living activities such as dressing and bathing. However, CNAs often add value through nonclinical support such as helping to ensure that patients maintain their dignity while they deteriorate. Tasks frequently pursued by CNAs include serving meals, transporting patients, cleaning patients' rooms, making beds, answering patient calls, and reporting information to higher ranking nurses [10].

While CNAs can successfully support patients with a range of morbidities and risks, it is essential that their role consist only of tasks that are appropriate based on their skills and training. If, for instance, a CNA is caring for high-risk patients, higher level nurses should manage clinical care.

STATE DIFFERENCES IN CNA FUNCTIONS MAY DICTATE THE LEVEL OF CARE REQUIRED

The realities of nursing differ from state-to-state, and the rules and regulations of some states restrict nurses from providing care to their full capacity [2]. The Nursing Practice Act (NPA), enacted more than a century ago, defines the laws of the practice of nursing [1]. However, states are left to govern the practice, with each state having a Board of Nursing (BON) to regulate the NPA in their state [13].

Training, licensure, and continuing education requirements differ between states for nurses [14-16]. For example, for CNAs, while all certification programs require a minimum age of 16 to 18 and a high-school diploma or GED equivalent and involve classroom instruction, clinical training, written exams, and skills evaluation, the education and certification programs differ by state [12].

DISCUSSION

Some of the key differences state to state are the minimum number of hours of training required to become certified and the number of annual working hours required to maintain certification. The scope of the clinical duties that CNAs can perform therefore differ by state as well [15,17,18]. It is therefore important that those planning for long-term patient care consider the specific tasks that RNs, LPNs, and CNAs can perform in the patient's home state so that the appropriate level of care can be assigned to optimize the patient's health.

High quality long-term healthcare depends critically on the assignment of the appropriate amount (number of hours) and level of care, which means having medical doctors and/or medical experts determine for any given patient which tasks can be performed by RNs versus LPNs versus CNAs, based on appropriate clinical need and the laws in state in which the patient resides. When this requirement is not met, patients suffer. For instance, data has shown that nursing homes with high rates of LPN care relative to RN care have higher rates of emergency department visits and rehospitalizations [19]. It is therefore crucial that the proper nursing professionals be charged with caring for patients in the context of the patient's condition and risk factors and the specific capabilities of the healthcare professional in the state where the patient resides [20,21].

CONCLUSION

Early detection and early intervention are key to decreasing morbidity and mortality, highlighting the need for medical professionals with these capabilities. For example, patients who have been catastrophically injured or who are in a sedentary state are at an increased risk for secondary complications such as deep vein thrombosis, pulmonary embolism, pneumonia, sepsis, urinary tract infection, decubiti, cellulitis, osteomyelitis, seizures (stroke, traumatic brain injury), and autonomic dysreflexia (spinal cord injury at T6 and above). Medically fragile patients therefore require an RN level of care to ensure complications are rapidly identified and managed. In patients who are medically stable,

LPNs may be sufficient for early detection and early intervention for secondary complications. However, CNAs do not have the level of education and training required to provide early detection and early intervention for secondary complications and should therefore not be relied on for that level of clinical management.

REFERENCES

1. Toney-Butler TJ, Martin RL. Florida nurse practice act laws and rules.
2. Wakefield M, Williams DR, Le Menestrel S. The future of nursing 2020-2030: Charting a path to achieve health equity. National Academy of Sciences. 2021.
3. Beckett CD, Zadwinski IM, Dean J, Iseler J, Powell JM, Buck-Maxwell B. An integrative review of team nursing and delegation: Implications for nurse staffing during COVID-19. *Worldviews Evid Based Nurs*. 2021;18(4):251-60.
4. Campbell A, Layne D, Scott B. Relational quality of registered nurses and nursing assistants: Influence on patient safety culture. *Healthcare (Basel)*. 2021;9(2):189.
5. Sloane PD, Pickard CG. Custodial nursing home care: Setting realistic goals. *J Am Geriatr Soc*. 1985;33(12):864-868.
6. Benstmeier K, Christman B. Scope of Practice. In: *Nursing Fundamentals*. 2021.
7. Swanson M, Wong ST, Martin-Misener R, Browne AJ. The role of registered nurses in primary care and public health collaboration: A scoping review. *Nurs Open*. 2020;7(4):1197-1207.
8. Jones CB, McCollum M, Tran AK, Toles M, Knaf GJ. Supporting the dynamic careers of licensed practical nurses: A strategy to bolster the long-term care nurse workforce. *Policy Polit Nurs Pract*. 2021;22(4):297-309.
9. Phillips LA, de Los Santos N, Jackson J. Licensed practical nurses' perceptions of their work environments and their intention to stay: A cross-sectional study of four practice settings. *Nurs Open*. 2021;8(6):3299-305.
10. Licensed Practical Nurse (LPN) vs. Certified Nursing Assistant (CNA). 2024.
11. Prentice D, Moore J, Crawford J, Lankshear S, Limoges J. Collaboration among registered nurses and licensed practical nurses: A scoping review of practice guidelines. *Nurs Res Pract*. 2020;2020(1):5057084.
12. CNA certification requirements by state. 2024.
13. Nursing practice act. 2024.
14. RN licensing requirements by state. 2024.
15. McMullen TL, Resnick B, Chin-Hansen J, Geiger-Brown JM, Miller N, Rubenstein R. Certified nurse aide scope of practice: State-by-state differences in allowable delegated activities. *J Am Med Dir Assoc*. 2015;16(1):20-24.
16. Holmboe B, Poulin L, Singer S, Finkelman B, Salman A. Educating together, improving together: Harmonizing interprofessional approaches to address the opioid epidemic. *NAM*. 2021.
17. McMullen TL, Resnick B, Chin-Hansen J, Geiger-Brown JM, Miller N, Rubenstein R. Certified nurse aide scope of practice: State-by-state differences in allowable delegated activities. *J Am Med Dir Assoc*. 2015;16(1):20-24.
18. Lerner NB, Johantgen M, Trinkoff AM, Storr CL, Han K. Are nursing home survey deficiencies higher in facilities with greater staff turnover. *J Am Med Dir Assoc*. 2014;15(2):102-107.
19. Yang BK, Carter MW, Trinkoff AM, Nelson HW. Nurse staffing and skill mix patterns in relation to resident care outcomes in US nursing homes. *J Am Med Dir Assoc*. 2021;22(5):1081-1087.
20. Keutscheid LC. Defining professional nursing accountability: A literature review. *J Prof Nurs*. 2014;30(1):43-47.
21. Orton ML, Nelson Follin N, Dannapfel P, Wengström Y. Roles and functions in clinical care for registered nurses with a PhD: a systematic literature review. *Scand J Caring Sci*. 2022;36(1):16-26.



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Multiple Sclerosis

By Craig Lichtblau, M.D.

Multiple Sclerosis is potentially a disabling disease of the central nervous system. In Multiple Sclerosis, the immune system attacks the myelin that covers nerve fibers and causes communication problems between the brain, the spinal cord, and the rest of the body. Progression of the disease causes permanent damage and/or deterioration of nerve fibers.

These central nervous system plaques vary widely between patients, depending on the location and severity of the nerve fiber damage in the central nervous system. These plaques are separated by time and space.

Patients with Multiple Sclerosis can lose the ability to be independent or they can have decrease in strength or sensation in a small portion of their body. These signs and symptoms differ greatly from person to person and over the course of the disease, depending on the location of the affected nerve fibers.



Symptoms

Common symptoms include:

- ◆ Numbness or weakness in one or more limbs, that typically occur on one side of the body at a time.
- ◆ Tingling, electric shock sensations that occur with certain neck movements, especially bending the neck forward (Lhermitte's sign).
- ◆ Lack of coordination, unsteady gait, or inability to walk.
- ◆ Partial or complete loss of vision, usually in one eye at a time, often with pain during movement.
- ◆ Prolonged double vision.
- ◆ Blurry vision.
- ◆ Vertigo.
- ◆ Problems with sexual, bowel, and bladder function.
- ◆ Fatigue.
- ◆ Slurred speech.
- ◆ Cognitive problems.

Most people with Multiple Sclerosis have a relapsing-remitting disease, experiencing periods of new symptoms or relapses that develop over days or weeks and usually improve partially or completely. These relapses are followed by quiet periods of disease remission, that can last months or even years.

Small increases in body temperature can temporarily worsen signs and symptoms of Multiple Sclerosis. These are not considered true disease relapses but are pseudo-relapses.



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September 2024

Multiple Sclerosis
by Craig H. Lichtblau, M.D.
-continued-

At least 20% to 40% of those with relapsing-remitting Multiple Sclerosis can eventually develop a steady progression of symptoms, with or without periods of remission, within 10 to 20 years from disease onset, this is known as secondary progressive Multiple Sclerosis. The worsening of symptoms usually includes problems with mobility and gait. The rate of disease progression varies greatly among people with secondary progressive Multiple Sclerosis.

Some people with Multiple Sclerosis experience a gradual onset and steady progression of signs and symptoms without any relapses, known as primary progressive Multiple Sclerosis.

The cause of Multiple Sclerosis is unknown. Multiple Sclerosis is considered an immune-mediated disease, in which the body's immune system attacks its own tissues. This immune system malfunction destroys myelin, the fatty substance that coats and protects nerve fibers in the brain and spinal cord.

Risk Factors

Risk factors for developing Multiple Sclerosis include:

- ◆ Age: Multiple Sclerosis can occur at any age, usually occurring around 20 to 40 years of age; however, both younger and older people can be affected.
- ◆ Sex: Women are 2 to 3 times more likely than men to have relapsing-remitting Multiple Sclerosis.
- ◆ Family History: If a parent or sibling has Multiple Sclerosis, you are at a higher risk for developing the disease.
- ◆ Infections: A variety of viruses have been linked to Multiple Sclerosis, including Epstein Barr (the virus that causes infectious mononucleosis).
- ◆ Race: Caucasian people, particularly those of Northern Europe descent, are at a higher risk for developing Multiple Sclerosis. People of Asian, African, and Native American descent have the lowest risk.
- ◆ Climate: Multiple Sclerosis is far more common in countries with temperate climates, including Canada, the Northern United States, New Zealand, Southeastern Australia, and Europe.
- ◆ Birth Month: Your birth month may also affect the chances of developing Multiple Sclerosis, since exposure to the sun during a mother's pregnancy seems to decrease later development of Multiple Sclerosis in these children.
- ◆ Vitamin-D: Having low Vitamin-D and low exposure to sunlight is associated with greater risk of Multiple Sclerosis.
- ◆ Genetics: A gene in chromosome 6p21 has been found to be associated with Multiple Sclerosis.
- ◆ Obesity: An association between obesity and Multiple Sclerosis has been found in females, this is especially true for females that had childhood and adolescent obesity.
- ◆ Certain Autoimmune diseases: There is a slightly higher risk of developing Multiple Sclerosis if you have other autoimmune disorders, such as thyroid disease, Pernicious anemia, psoriasis,



Physiatrist's Voice

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Multiple Sclerosis
by Craig H. Lichtblau, M.D.
-continued-

Type 1 Diabetes, or inflammatory bowel disease.

- ◆ Smoking: Smokers who experience an initial symptom that may signal Multiple Sclerosis, are more likely than non-smokers, to develop a second event that confirms relapsing-remitting Multiple Sclerosis.

Complications

People with Multiple Sclerosis may develop complications such as:

- ◆ Muscle stiffness or spasms.
- ◆ Severe weakness or paralysis, typically in the legs.
- ◆ Problems with bladder, bowel, or sexual function.
- ◆ Cognitive problems like forgetfulness or word finding difficulties.
- ◆ Mood problems such as depression, anxiety, or mood swings.
- ◆ Seizures, though possible, are very rare.

Treatments Options Include:

Treatments for Multiple Sclerosis attacks

1. Corticosteroids
 - a. Prescribed to reduce nerve inflammation.
2. Plasma Exchange (Plasmapheresis)
 - a. The liquid portion of blood (plasma) is removed and separated from blood cells, mixed with protein solution (albumin), and then put back into the body.
 - b. Plasma exchange may be used if symptoms are new, severe, and there has not been a response to steroids.

Treatments to modify progression

There are several disease modifying therapies for relapsing-remitting Multiple Sclerosis, some of these disease modifying therapies can be of benefit for secondary progressive Multiple Sclerosis, and one is available for treatment of primary progressive Multiple Sclerosis.

Much of the immune response associated with Multiple Sclerosis occurs in the early stages of the disease. Aggressive treatment with these medications as early as possible can lower the relapse rate, slow the formation of new lesions, and potentially reduce risk of brain atrophy and disability accumulation.

Many of the disease-modifying therapies used to treat Multiple Sclerosis carry significant health risks.

Treatment options for relapsing-remitting Multiple Sclerosis include injectable, oral, and infusion medications.



Physiatrist's Voice

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Multiple Sclerosis
by Craig H. Lichtblau, M.D.
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1. Injectable treatments

- a. Interferon beta medications
 - i. These used to be the most prescribed medications to treat Multiple Sclerosis.
 - ii. Side effects of interferons may include flu-like symptoms and injection-site reactions.
 - iii. Blood tests need to be obtained to monitor liver enzymes, because of possible liver damage.
 - iv. People may develop neutralizing antibodies after taking the interferon, reducing the effectiveness of the drug.
- b. Glatiramer acetate (Copaxone, Glatopa)
 - i. This medication can block the immune system's attack on the myelin and must be injected beneath the skin.
- c. Monoclonal antibodies
 - i. Ofatumumab (Kesimpta, Arzerra) targets B-cells that damage the nervous system. Ofatumumab is given by injection under the skin and can decrease Multiple Sclerosis brain lesions and worsening symptoms.

2. Oral Medications

- a. Teriflunomide (Aubagio)
 - i. This is a once-daily medication, which can reduce the relapse rate.
 - ii. Has many side effects that include liver damage and hair loss.
 - iii. This medication is associated with birth defects when taken by both men and women, using contraceptives when taking this medication and up to two years afterwards is a necessity.
- b. Dimethyl fumarate (Tecfidera)
 - i. This is a twice-daily oral medication, which can reduce relapses.
- c. Diroximel fumarate (Vumerity)
 - i. This is a twice-daily oral capsule, that typically causes fewer side effects than Dimethyl fumarate and has been approved for treatment of relapsing forms of Multiple Sclerosis.
- d. Monomethyl fumarate (Bafiertam)
 - i. Approved by the FDA as a delayed-release medication, that has a slow and steady action.
 - ii. It is hoped that due to its timed release, its side effects will be decreased.
- e. Fingolimod (Gilenya)
 - i. This is a once-daily medication, that reduces the rate of relapse.
- f. Siponimod (Mayzent)
 - i. This is a once-daily medication, which can reduce relapse rates and help slow the progression of Multiple Sclerosis.
 - ii. It is approved for secondary progressive Multiple Sclerosis.
 - iii. Possible side effects include viral infections, liver problems, low white blood count, change in heart rate, headaches, and vision problems.



Physiatrist's Voice

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Multiple Sclerosis
by Craig H. Lichtblau, M.D.
-continued-

- iv. Harmful to a developing fetus, women who may become pregnant should use contraceptives when taking this medication and for 10 days after stopping.
- g. Ozanimod (Zeposia)
 - i. This is a once-daily medication, that decreases the relapse rate of Multiple Sclerosis.
- h. Ponesimod (Ponvory)
 - i. This is a once-daily medication with a gradually increasing dosing schedule.
 - ii. This medication has a low relapse rate and has demonstrated fewer brain lesions than some other Multiple Sclerosis medications.
- i. Cladribine (Mavenclad)
 - i. Prescribed as a second line treatment for relapsing-remitting Multiple Sclerosis and was also approved for secondary progressive Multiple Sclerosis.
 - ii. Given in two treatment courses, spread over a two-week period, over the course of two years.
 - iii. Side effects include upper respiratory infections, headaches, tumors, serious infections, and reduced levels of white blood cells.

3. Infusion Treatments

- a. Natalizumab (Tysabri)
 - a. This treatment is a monoclonal antibody that has been shown to decrease relapse rates and slow down the risk of disability.
 - b. It is considered a first line treatment for people with severe Multiple Sclerosis or as a second line treatment in others.
 - c. This medication increases the risk of a potentially serious viral infection of the brain called progressive multifocal leukoencephalopathy (PML) in those who are positive for antibodies of the PML JC virus.
- b. Ocrelizumab (Ocrevus)
 - a. This treatment is a humanized monoclonal antibody that reduces the relapse rate and the risk of disabling progression in relapsing-remitting Multiple Sclerosis, also slowing the progression of the primary progressive form of Multiple Sclerosis.
 - b. The only DMT approved by the FDA to treat both relapse-remitting and primary progressive Multiple Sclerosis.
- c. Alemtuzumab (Campath, Lemtrada)
 - a. This treatment is a monoclonal antibody that decreases annual relapse rates and demonstrates MRI benefits.
 - b. Targets a protein on the surface of immune cells and depleting white blood cells that limit potential nerve damage; however, this increases the risk of infections and autoimmune disorders, such as thyroid autoimmune disorder and rare immune mediated kidney disease.



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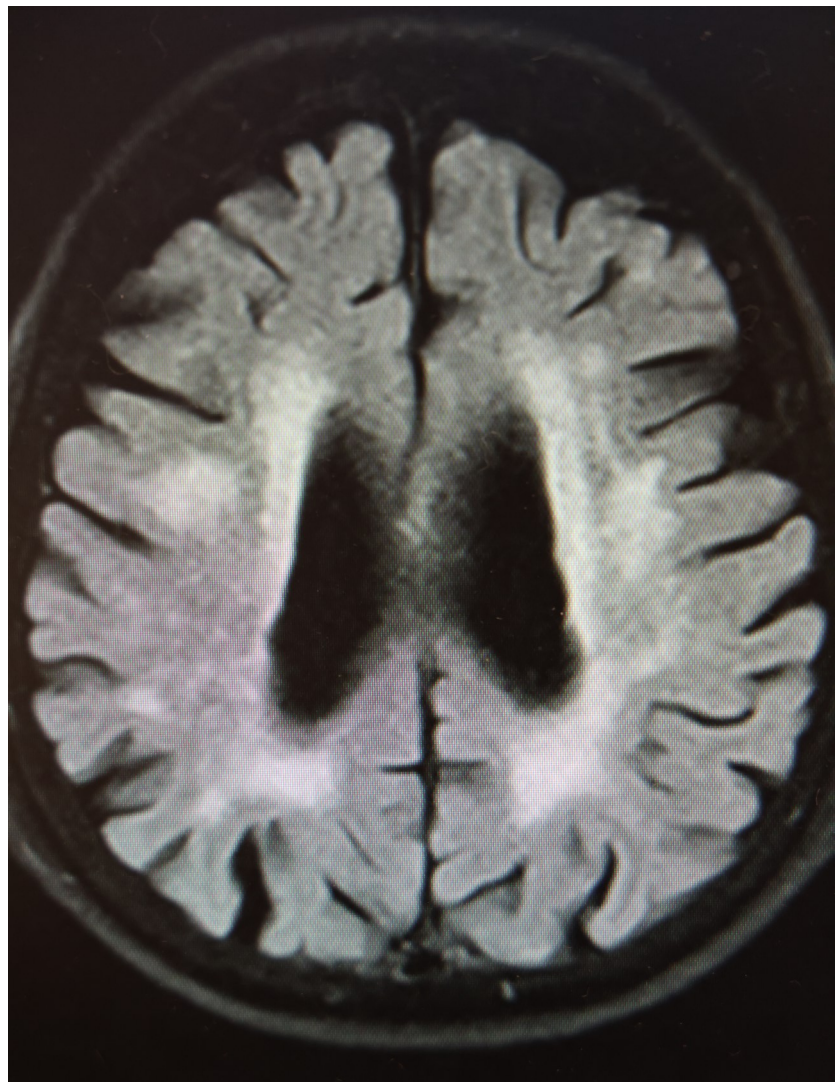
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Multiple Sclerosis
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- c. Treatment involves five consecutive days of drug infusion, followed by another three days of infusions a year later.
- d. Briumvi (Ublituximab-xiiy)
 - a. A one hour, twice a year B-cell therapy for people with relapsing Multiple Sclerosis.

Recent developments or emerging therapies

- 1. Bruton's tyrosine kinase (BTK) inhibitor
 - a. An emerging therapy being studied in relapsing-remitting Multiple Sclerosis and secondary progressive Multiple Sclerosis.
 - b. Works by modulating B cells.
- 2. Stem cell transplantation
 - a. Destroys the immune system of someone with Multiple Sclerosis and then replaces it with transplanted healthy stem cells.
 - b. Researchers are still investigating whether this therapy can decrease inflammation in people with Multiple Sclerosis and help "reset" the immune system.



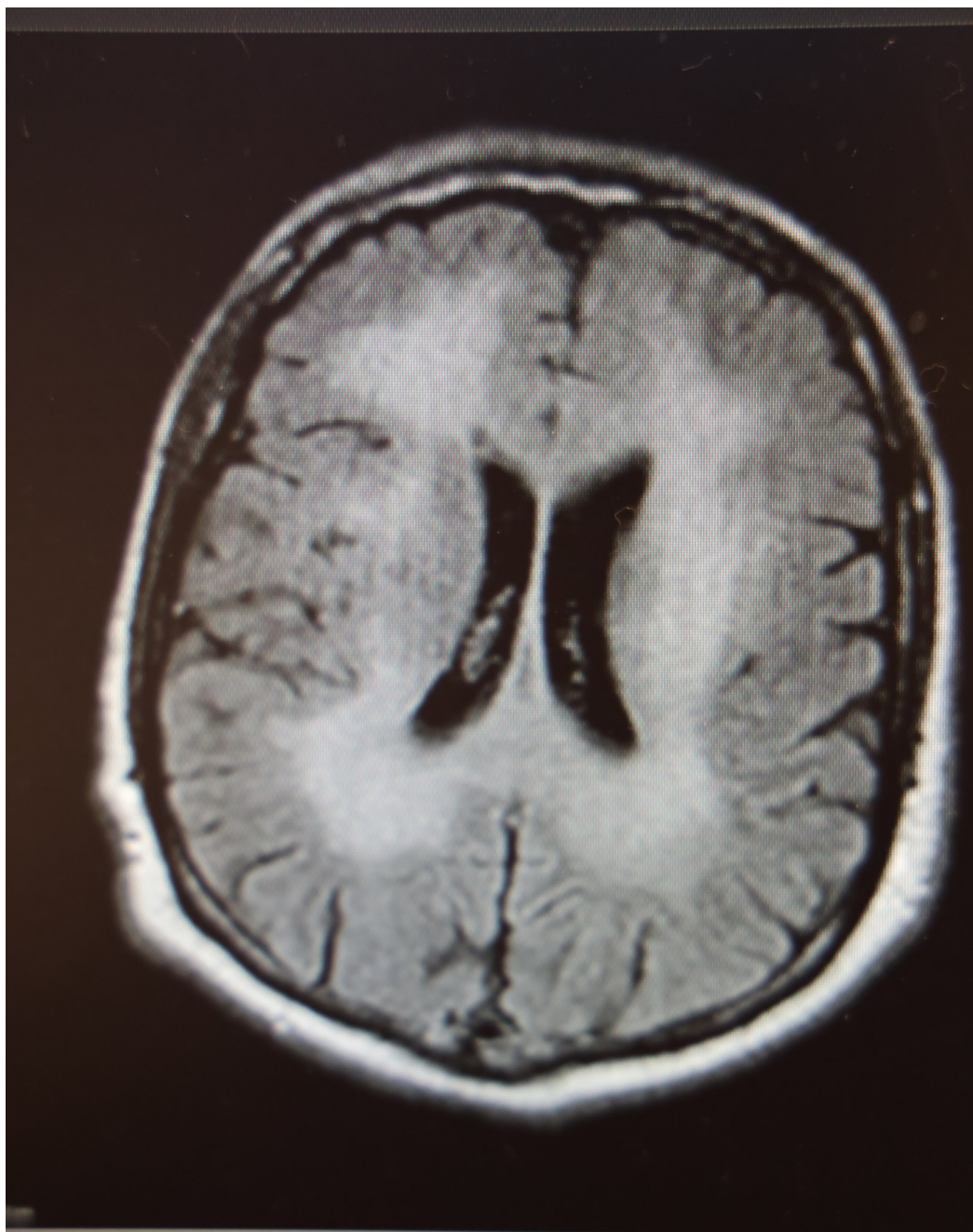


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Multiple Sclerosis
by Craig H. Lichtblau, M.D.
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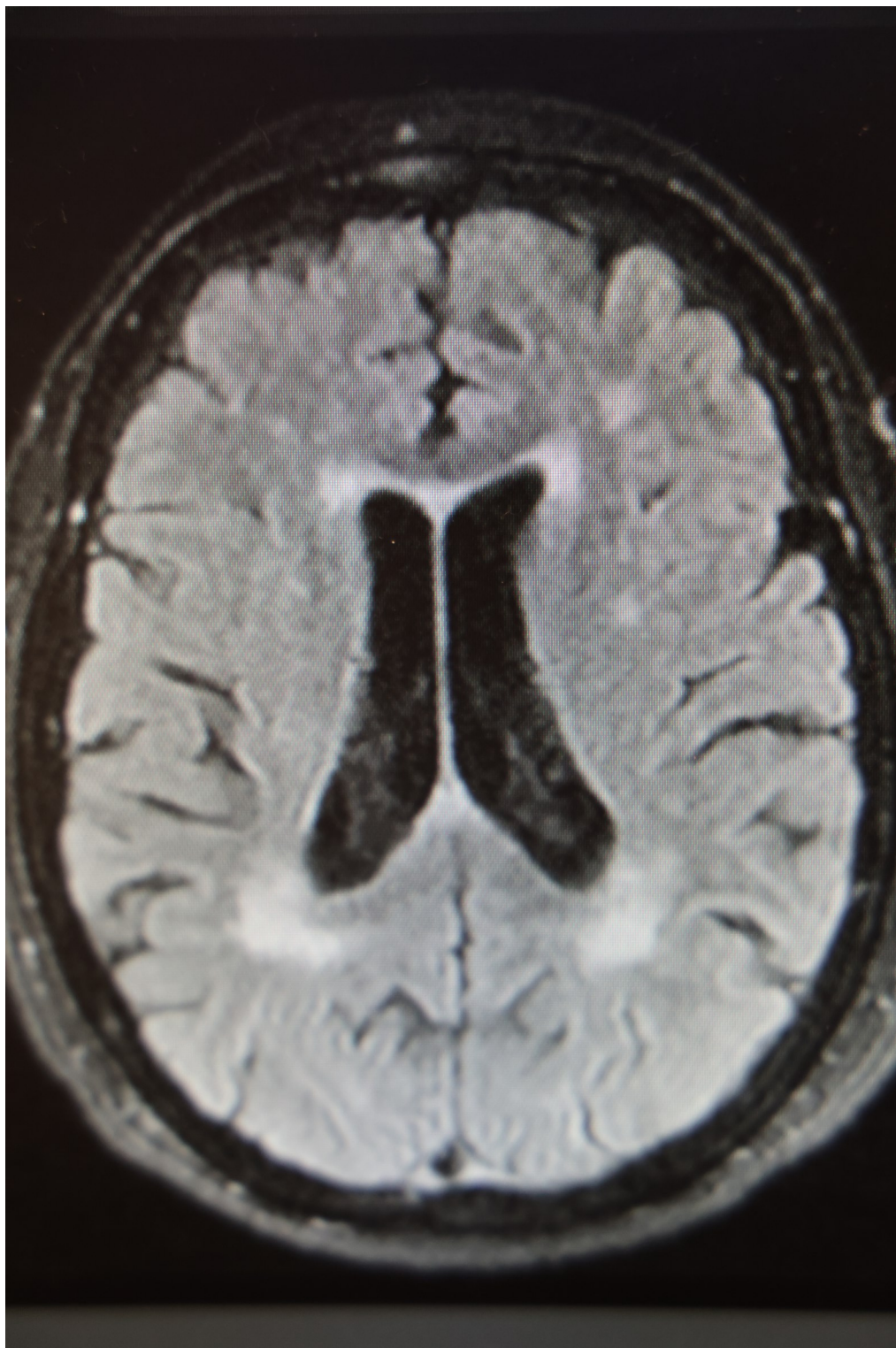


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Multiple Sclerosis
by Craig H. Lichtblau, M.D.
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Multiple Sclerosis
by Craig H. Lichtblau, M.D.
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Multiple Sclerosis
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Multiple Sclerosis
by Craig H. Lichtblau, M.D.
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Physiatrist's Voice

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Residency Updates





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University of Florida PM&R Residency Program

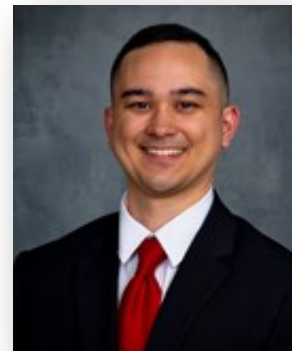
Daniel Kiehl DO Resident Liaison

Irene Estores MD, Program Director, and

Jason Zaremski MD, Assistant Program Director

Hello FSPMR Family!

Greetings from warm, hot, and sunny Gainesville, FL, (AKA The Swamp)! Hope everyone is off to a fantastic start to the new academic year! We have a few announcements to make including some of our new attendings, resident accomplishments, and fun social events we've had to kick off the year!



Daniel Kiehl DO



Welcome
to
UF PM&R!



Our first weekend wellness event of the year hosted by Dr. Ackerman!!



College of Medicine

Department of Physical Medicine
and Rehabilitation

UNIVERSITY of FLORIDA



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Daniel Kiehl DO Resident Liaison

Irene Estores MD, Program Director, and

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UF

Department of Physical Medicine & Rehabilitation

COLLEGE of MEDICINE



We are happy to have Dr. Michael Guju, on board with us at UF PMR as one of our new Spine attendings! Dr. Guju Graduated Medical School at USF Morsani College of Medicine completed his PM&R residency at Eastern Virginia Medical School, and just finished his Pain Medicine Fellowship at UPMC! Welcome to Gainesville Dr. Guju!

We are also thrilled to have Dr. Yvette Little join us as one of our new inpatient attendings! Dr. Little graduated medical school at the Alabama College of Osteopathic Medicine, and completed her PM&R Residency at Memorial Healthcare System in Hollywood! We are so happy to have Dr. Little here at UF!

Welcome TO UFHRH



Dr. Little is a Clinical Assistant Professor at UF's Department of PM&R.

She obtained her medical degree from Alabama College of Osteopathic Medicine and completed her residency in PM&R at Memorial Healthcare System, in Hollywood, FL.

As a Physiatrist, her goal is to help patients regain their physical function and quality of life after enduring an illness, injury or disability.

Yvette Little, DO



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University of Florida PM&R Residency Program

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Irene Estores MD, Program Director, and

Jason Zaremski MD, Assistant Program Director

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Our new PGY 2's, Nick White, Abenezer Amare, Cole Verble, and Eleazar Fariscal along with PGY 3 Joe Rinaldi with all smiles in their first week at the inpatient rehab hospital!





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Daniel Kiehl DO Resident Liaison

Irene Estores MD, Program Director, and

Jason Zaremski MD, Assistant Program Director

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Huge congratulations to our Education Chief, PGY-4 Rosie Conic for being elected as President of the AAPM&R PHiT Council!

Dr. Conic also attended the AMA Section Leadership Retreat in her role as the Resident Fellow Representative on the International Medical Graduate Section Governing Council!





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U.S. Olympic & Paralympic
MEDICAL NETWORK



Our APD, Dr. Zaremski, had an incredible time in Paris at the 2024 Olympic Games treating our world class athletes and finding time to enjoy French cuisine and watch a few of the live events at some of the amazing venues!





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PGY-3 Danny Kiehl and our Program Director Dr. Estores educating the new MS1's at UF about Physiatry and how to get involved in the PM&R community as a Medical Student!

Enjoying some Pickleball with the warm weather here in Gainesville!



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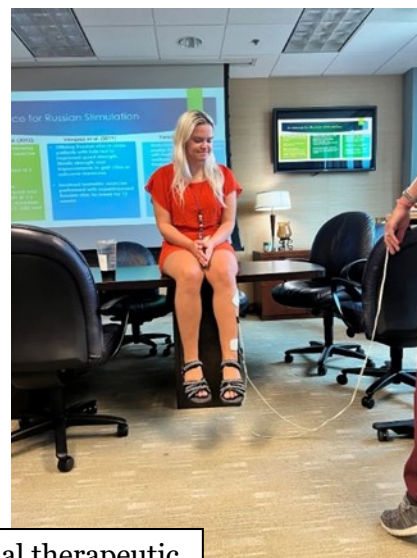
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Jason Zaremski MD, Assistant Program Director

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Drs Coffey, White, and Conic experiencing additional therapeutic modalities including BFR and Russian Stim!

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Memorial Healthcare System PM&R Residency Program

PM&R Resident Liaison Jorge Bilbao DO
Jeremy Jacobs DO, Residency Program Director

Hello, FSPMR family, I hope everyone is doing well! Below we have some very exciting updates we wanted to share with everyone for the September Newsletter.

We are proud to announce that six of our current residents were accepted to present their research posters at the upcoming AAPM&R 2024 Annual Assembly in San Diego, California. We hope to see you all there! In other research news, Dr. Cody Barbari and Dr. Jorge Bilbao are getting prepared to present at the upcoming FSPMR Annual Conference in Orlando, Florida. This event is right around the corner!

At our inpatient rehabilitation hospital, we also have some exciting events to announce!

In September, we will be having our 8th Annual Adaptive Bowl-A-Thon to benefit Memorial Rehab Adaptive Sports and Recreation Program. This organization's mission is to provide recreational and athletic experiences for those with physical disabilities for all ages.

Lastly, our beloved Dr. Cody Barbari recently teamed up with a local thrift store to set up a clothing drive. This took place over the summer months and our donations have been delivered to their new homes.



Jorge Bilbao DO



Photo 1: MRHS Clothing Drive (L to R: Dr. Joanne Delgado, Dr. Whitney Oliveira, Dr. Cesar Trivino, Dr. Cody Barbari, Dr. Sri Moturu, Dr. Emma Adkins, Dr. Ellen Dzierzak, Dr. Noushad Mamun, Dr. Amanda Hargrove, Dr. Yvette Little, Dr. Elvis Guzman)



Physiatrist's Voice

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September 2024

University of Miami Miller School of Medicine/Jackson Memorial Hospital PM&R
Residency Update

Lance Reccoppa MD, RESIDENT LIAISON

Diana Molinares MD, PM&R Residency Program Director

Dear FSPMR,

It has been an eventful and exciting few months for our residency program! The end of the academic year was filled with many scholarly activities, including our annual Research Day. All the PGY3s and PGY4s presented the research projects they had diligently been working on and were scored by faculty.

Not only did our residents present research within our department, they also presented at many conferences over the last few months. Our program was represented at the American Medical Society for Sports Medicine Conference, Alzheimer's Association International Conference, American Osteopathic Association Conference, North American Neuromodulation Society Conference, and Society of Women Innovators in Pain Medicine Conference!

We want to send a sincere congratulations to all of the 2024 PMR Graduates. Our residency program celebrated the graduation of our highly well-accomplished PGY4s. We had an excellent time recognizing each graduate over music, food, and drinks. We wish them only the best in their future endeavors.

We are excited to announce that Dr. Alwin David, one of our current PGY4s, matched at Cleveland Clinic for the North American Spine Society (NASS) Interventional Spine & Musculoskeletal Medicine Fellowship. While we will be sad to see Dr. David leave Miami after graduation, we are very proud of him and what he will accomplish!

We are also excited to announce the addition to the University of Miami Pain Team, Dr. Amir Mahajer! Our program is looking forward to the FSPMR Interventional Pain Meeting in Orlando.

All the best and see you soon,

Lance Reccoppa, MD, PGY-3

FSPMR Liason for University of Miami/Jackson Health System PMR Program



Lance Reccoppa MD

P.S. Follow our program on Instagram! @umiami_pmr





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University of Miami Miller School of Medicine/Jackson Memorial Hospital PM&R
Residency Update

Lance Reccoppa MD, RESIDENT LIAISON

Diana Molinares MD, PM&R Residency Program Director

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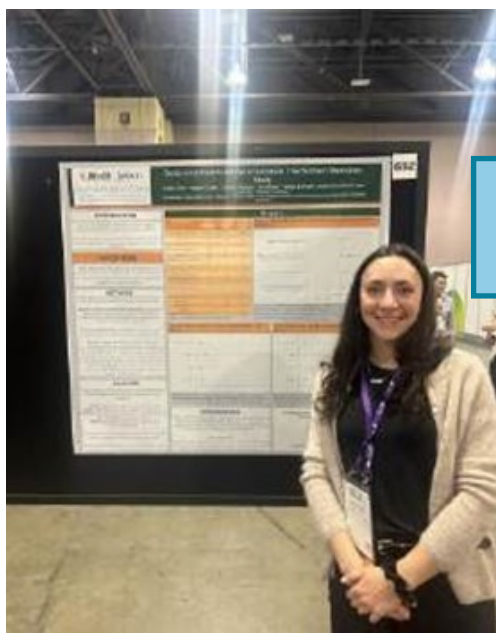
Annual PMR Research Day for PGY3's:
From left to right: Dr. Sandra De Mar, Dr. Kaitlyn Brunworth, Dr. Robin Mata,
Dr. Sona Chowdhary, Dr. Vittoria Constantino, Dr. Alwin David



Dr. Harika Vallabhaneni getting hands-on at
WPIM Conference in Chicago, IL



Dr. Arielle Farhi presenting at the Alzheimer's Association International Conference in





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Lance Reccoppa MD, RESIDENT LIAISON

Diana Molinares MD, PM&R Residency Program Director

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Dr. Felicia Mix giving a presentation at
AOA Conference in Bloomington, MN

Dr. Azmeer Khamisani, Dr. Sandra De Mel,
Dr. Michael Morgan
at AMSSM in Baltimore, MD



Dr. Shemar Crawford,
Dr. Harika Vallabhaneni,
Dr. Lorenzo Diaz,
Dr. Robin Mata,
Dr. Daniel Wang,
Dr. Jeremy Jeung
at ASPN in Miami, FL





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Dr. Robin Mata presenting at the podium of
ASPN in Miami, FL



UM PMR Graduation 2024. From left to right:
Dr. Javier Santana, Dr. Eric Kincaid- Sharp, Dr.
Alexandria Moriera, Dr. Lauren Cuenant, Dr.
Scott Daniel, Dr. Jonathan Presley, Dr. Andrew
Logan, and Dr. Lorenzo Diaz

It's a Match! Dr. Alwin David, the newest incoming fellow at
Cleveland Clinic for the North American Spine Society (NASS)
Interventional Spine & Musculoskeletal Medicine Fellowship





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Larkin Community Hospital South Miami PM&R Residency Update
Resident Liaisons Hein Linn Thant, MD and Puja C. Shah, DO
Residency Program Director Jose J. Diaz, DO

Hello FSPM&R family,

We hope everyone is well! We have much to reflect on from this past quarter and are excited for the eventful start to the academic year.

A round of applause to our 2024 graduating class. We wish them success in their future endeavors.

Welcome to our New PGY-2 Residents and thank you for a fun welcome party. We look forward to the growth of our PM&R community and to celebrating more moments together.



Hein Linn Thant, MD



Puja C. Shah, DO



Congratulations to our residents, Michael Arias, DO, for matching into Neuromuscular Medicine at UCLA and Chris Johnson, DO, for matching into Interventional Spine and Musculoskeletal Medicine at Johns Hopkins. The future is bright.

Our annual research day was a huge success with amazing presentations by our alumni and current residents.



Larkin Hospital South Miami



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Residency Program Director Jose J. Diaz, DO
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We have continued therapist-led resident training at our inpatient rehabilitation hospital site. The insight is invaluable and adds to the interdisciplinary approach of our field.



Proud of our successful partnership with Friends of Medicine and NSU-KPCOM's PM&R interest group in educating the next generation of PM&R trainees through diverse learning stations including ultrasound, electrodiagnostic studies, and diagnostic imaging review.



Larkin Hospital South Miami



Physiatrist's Voice

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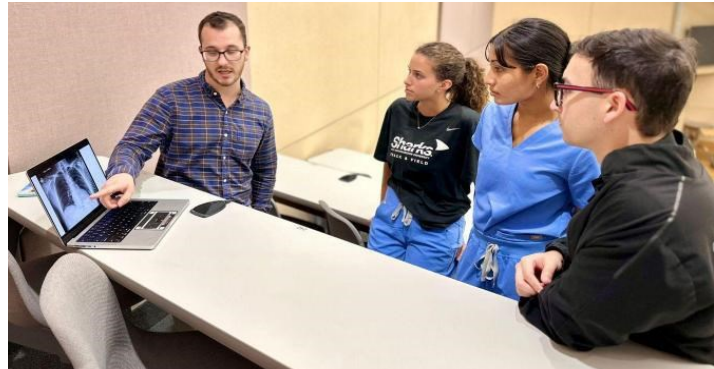
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Residency Program Director Jose J. Diaz, DO

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We had considerable representation of our department at the 2024 ASPN conference. Residents shared research projects, participated in hands-on training, and ran the 5K race.



Larkin Hospital South Miami



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Residency Program Director Jose J. Diaz, DO

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Larkin Hospital South Miami



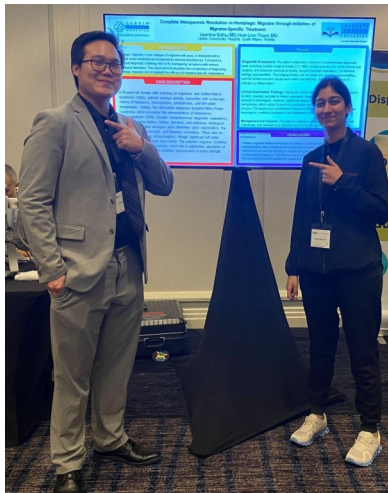
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Residency Program Director Jose J. Diaz, DO
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Residents attended and presented their research at the 2024 annual WAPMU conference. We appreciate the advanced education provided in the cadaver and live-model ultrasound labs.



Please see the articles and pictures detailing some of these events further, submitted by our residents. We eagerly anticipate the FSIPP/FSPM&R conference in September!

Best,

Puja C. Shah, DO and Hein Linn Thant, MD

Resident Liaisons Larkin Community Hospital South Miami PM&R Residency Department



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Resident Liaisons Hein Linn Thant, MD and Puja C. Shah, DO
Residency Program Director Jose J. Diaz, DO

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Sleep Hygiene and Hormonal Impact: The Role of Dopamine and Motivation

Ravi C. Shah, OMS4 and Puja C. Shah, DO

Sleep is an essential function that affects nearly every aspect of our lives, from physical health to cognitive performance. Among the various factors influenced by sleep, hormones play a critical role in regulating bodily functions, emotions, and behaviors. A key hormone involved in this intricate process is dopamine, which is closely linked to motivation and reward. This article explores the connection between sleep hygiene, hormones, and dopamine, as well as the effect of sleep on motivation and practical strategies to enhance motivation through improved sleep.

Understanding Sleep Hygiene

Sleep hygiene refers to a set of practices and habits that contribute to quality sleep. Good sleep hygiene includes maintaining a regular sleep schedule, creating a comfortable sleep environment, and avoiding stimulants before bedtime. These practices are critical because they influence sleep architecture—the structure of the different sleep stages—and the overall quality of rest. Poor sleep hygiene can lead to disrupted sleep patterns, including difficulty falling asleep, frequent awakenings, and unrefreshing sleep. This can affect not only daily functioning but also the balance of hormones that regulate various bodily processes.

The Hormonal Influence of Sleep

Sleep plays a vital role in regulating several hormones, including:

- Melatonin:** Often called the "sleep hormone," melatonin is produced by the pineal gland and helps regulate the sleep-wake cycle. Its release is influenced by the light-dark cycle, with levels peaking during the night to promote sleep.
- Cortisol:** Known as the "stress hormone," cortisol follows a diurnal rhythm, peaking in the morning to help with wakefulness and energy levels. Poor sleep can lead to dysregulation of cortisol, resulting in stress and fatigue.
- Growth Hormone:** Released during deep sleep (slow-wave sleep), growth hormone is essential for tissue repair, muscle growth, and overall recovery.
- Leptin and Ghrelin:** These hormones regulate hunger and appetite. Leptin suppresses appetite, while ghrelin stimulates it. Sleep deprivation increases ghrelin and decreases leptin levels, leading to increased hunger and potential weight gain.

Dopamine: The Motivation Molecule

Dopamine is a neurotransmitter that plays a central role in the brain's reward system, influencing motivation, pleasure, and reinforcement of behaviors. It is often referred to as the "motivation molecule" because of its critical role in driving goal-directed behavior.

The relationship between sleep and dopamine is complex. Sleep deprivation has been shown to alter dopamine signaling, leading to reduced motivation, impaired cognitive function, and decreased mood. This is because sleep is essential for the proper functioning of the brain's reward pathways.

A study published in the Journal of Neuroscience found that sleep deprivation significantly reduces dopamine receptor availability in the brain's striatum, a region involved in reward processing. This reduction in dopamine receptor availability may contribute to the lack of motivation and drive commonly experienced after poor sleep.

Sleep and Motivation



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Resident Liaisons Hein Linn Thant, MD and Puja C. Shah, DO
Residency Program Director Jose J. Diaz, DO

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Motivation is the driving force behind goal-oriented behavior, and it is closely tied to dopamine levels. When sleep is disrupted, dopamine signaling is impaired, leading to reduced motivation. This can manifest as difficulty starting tasks, lack of enthusiasm, and decreased productivity.

Several well-studied theories highlight the importance of sleep for maintaining motivation:

The Two-Process Model of Sleep Regulation: This model suggests that sleep is regulated by two processes: the homeostatic process (the need for sleep) and the circadian process (the internal clock). Disruptions to either process can impair motivation by affecting dopamine levels and other neurochemical systems.

The Role of Slow-Wave Sleep: Slow-wave sleep, also known as deep sleep, is critical for the consolidation of memories and the regulation of emotions. It is during this stage that the brain undergoes repair and restoration. Studies have shown that slow-wave sleep is essential for maintaining motivation and goal-directed behavior.

The Impact of REM Sleep: Rapid Eye Movement (REM) sleep is another critical stage of sleep associated with dreaming and emotional regulation. REM sleep is thought to play a role in processing emotional experiences, and disruptions to REM sleep can lead to mood disturbances and reduced motivation.

Improving Motivation Through Better Sleep

Given the profound impact of sleep on motivation, improving sleep quality can be a powerful strategy for enhancing motivation and overall well-being. Here are some evidence-based strategies to consider:

Establish a Consistent Sleep Schedule: Going to bed and waking up at the same time every day helps regulate the circadian rhythm, leading to better sleep quality and improved motivation.

Create a Relaxing Bedtime Routine: Engaging in calming activities before bed, such as reading, meditation, or gentle stretching, can signal to your body that it is time to wind down.

Limit Exposure to Screens Before Bed: The light emitted by phones, tablets, and computers can interfere with melatonin production and disrupt sleep. Reducing screen time before bed can improve sleep quality.

Optimize Your Sleep Environment: A comfortable mattress, cool room temperature, and minimal noise can create an ideal sleep environment conducive to restful sleep.

Manage Stress: Chronic stress can interfere with sleep by increasing cortisol levels. Stress management techniques, such as mindfulness and deep breathing, can help improve sleep and motivation.

Exercise Regularly: Physical activity has been shown to improve sleep quality and increase dopamine levels, thereby boosting motivation.

Be Mindful of Diet: Avoid heavy meals, caffeine, and alcohol before bedtime, as these can disrupt sleep. A balanced diet that supports overall health can also positively affect sleep and motivation.



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-continued -

Conclusion

Sleep is a fundamental aspect of our well-being that profoundly influences hormonal regulation, including dopamine levels, which in turn affect motivation. By understanding the relationship between sleep and motivation, and by adopting practices that promote better sleep hygiene, individuals can enhance their motivation, cognitive function, and overall quality of life. Emphasizing the importance of sleep in daily routines is not only beneficial for physical health but also for mental clarity and sustained motivation.

References

Volkow, N. D., Tomasi, D., Wang, G. J., Telang, F., Fowler, J. S., Logan, J., ... & Wong, C. (2012). Effects of sleep deprivation on dopamine D2/D3 receptor availability in the human brain. *The Journal of Neuroscience*, 32(19), 6713-6719. DOI: 10.1523/JNEUROSCI.0045-12.2012

Spiegel, K., Tasali, E., Penev, P., & Van Cauter, E. (2004). Brief communication: Sleep curtailment in healthy young men is associated with decreased leptin levels, elevated ghrelin levels, and increased hunger and appetite. *Annals of Internal Medicine*, 141(11), 846-850. DOI: 10.7326/0003-4819-141-11-200412070-00008

Walker, M. P. (2009). The role of sleep in cognition and emotion. *Annals of the New York Academy of Sciences*, 1156(1), 168-197. DOI: 10.1111/j.1749-6632.2009.04416.x

Stickgold, R., & Walker, M. P. (2007). Sleep-dependent memory consolidation and reconsolidation. *Sleep Medicine*, 8(4), 331-343. DOI: 10.1016/j.sleep.2007.03.011

Hobson, J. A., & Pace-Schott, E. F. (2002). The cognitive neuroscience of sleep: Neuronal systems, consciousness, and learning. *Nature Reviews Neuroscience*, 3(9), 679-693. DOI: 10.1038/nnr915

Authors: Ravi C. Shah, OMS4 (left) and Puja C. Shah, DO (right)





Physiatrist's Voice

NEWSLETTER

September 2024

LARKIN COMMUNITY HOSPITAL PM&R RESIDENCY UPDATE

Hein Linn Thant, MD, Liaison

Jose J. Diaz, DO, Residency Program Director

Residents Embrace Hands-On Learning

Our residents Hein Linn Thant, Jasmine Sidhu, and Puja Shah recently had the opportunity to dive deep into an array of advanced topics during the World Academy of Pain Medicine United (WAPMU) conference and share their e-poster case report on hemiplegic migraine. The event featured dynamic workshops and lectures, starting with the Headache Management Lecture Series and followed by immersive ultrasound sessions covering the cervical spine, lumbar spine, thoracic spine, and upper and lower extremities. Highlights included hands-on cadaver lab stations where residents explored cutting-edge techniques such as SCS, PNS, kyphoplasty, SI joint fusion, interspinous spacer demonstrations, BVN and RF ablations, and targeted drug delivery Systems. We are grateful to our esteemed faculty, including Drs. Gurtej Singh, Anson Moise, Nomen Azeem, Ali Valimahomed, Mark Jones, Grant Chen, Amitabh Gulati, Neal Rakesh, and Matthew Pingree, for their expert guidance and dedication to advancing our education. These sessions have not only enriched our knowledge but have also inspired us to continue pushing the boundaries of patient care.



Hein Linn Thant, MD





Physiatrist's Voice

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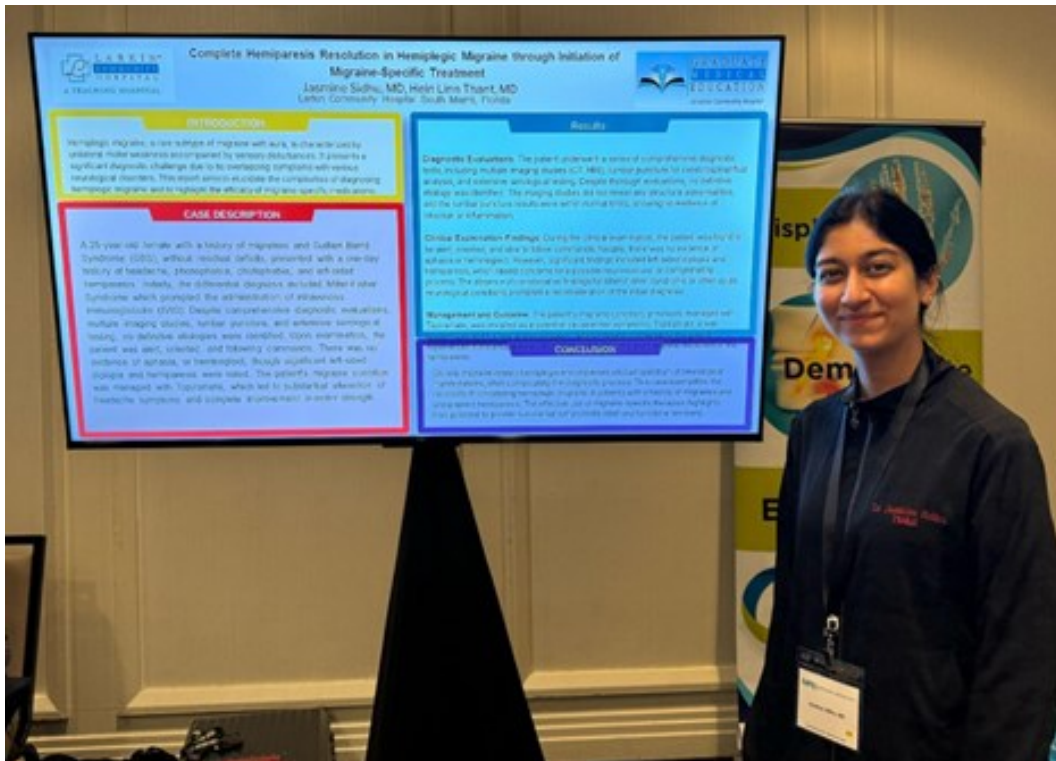
September 2024

LARKIN COMMUNITY HOSPITAL PM&R RESIDENCY UPDATE

Hein Linn Thant, MD, Liaison

Jose J. Diaz, DO, Residency Program Director

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Physiatrist's Voice

NEWSLETTER

September 2024

Larkin Palm Springs Campus PM&R Residency Program
Shawn Haynes MD, Resident Liaison
Franz Richter MD, Program Director

Hello everyone!

I hope everyone has had a great start to their new year!

We are proud to welcome our two incoming residents: Dr. Hugo Armando de la Uz, MD and Dr. Dennis Gonzalez Betancourt, MD. The new PGY-2s are getting well acquainted with the program and the city! We already have a tight bond and formed friendships that will last a lifetime.

“Outcomes in patients with lower extremity amputation after peripheral nerve stimulation a retrospective analysis” by Dr. Stephanie Lau, Dr. Taylor Alfonso, and Dr Arshi Honda, was submitted to the ASPN conference in Miami and we were proudly represented by Dr. Stephanie Lau at the ASPN 5K this year.

We have had the privilege of hosting guest lectures from Apex Biologix who presented regenerative medicine techniques and treatments. It was a great addition to our residency and will certainly be helpful to practice various procedures.

A team of our residents also participated in the organization and medical care at the Living Your Best Life Community Health Fair.

Our residency graduation ceremony was held at the Steele Auditorium at Nova Southeastern University. Program Director, Dr. Richter, had personalized stories and kind words for each graduating senior. The graduates are now headed off to their respective fellowships and career positions. The graduating senior class will be deeply missed. As the first graduating class from our program, they helped to lay the foundation for future residents and build a community of integrity, support and leadership in our community.

Best,

Shawn Haynes, MD



Shawn Haynes MD

Larkin Hospital Palm Springs



Physiatrist's Voice

NEWSLETTER

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Larkin Palm Springs Campus PM&R Residency Program

Shawn Haynes MD, Resident Liaison

Franz Richter MD, Program Director

- continued -



Larkin Hospital Palm Springs



Physiatrist's Voice

NEWSLETTER

September 2024

University of South Florida PM&R Residency Update
Artish Patel MD , Resident Liaison
Marissa McCarthy, MD, Residency Program Director

Greetings from Tampa!

I hope everyone is doing well. First, I am looking forward to another year serving as the FSPMR USF PM&R Residency Liaison. Second, I am looking forward to the FSPMR/FSIPP annual conference in Orlando soon. Many of our residents will be attending this year and we look forward to meeting you all.

As a general update, with the start of the new academic year we have begun hosting rotating 4th year medical students who are pursuing PM&R residency positions. Our residents always enjoy mentoring and teaching medical students who are interested in physiatry. Furthermore, our residents recently enjoyed a team building event centered around hippotherapy, picture included below.

I look forward to providing more exciting updates throughout the year!

Best Regards,
Artish Patel, MD



Artish Patel MD



Pictured above: Dr. Matthew Larsen, Dr. Clayton Moss, Dr. Daniel Bavender,
and Dr. Anthony Safadi



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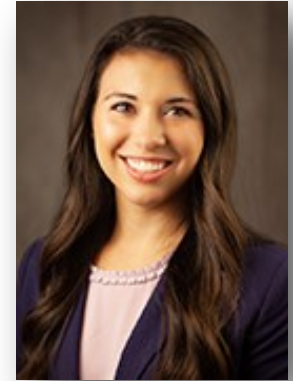
September 2024

UCF/HCA/West FL Hospital PM&R Residency Program
Megan Craig DO
Susan Belcher MD, Program Director

Hello from the sunny and hot Pensacola!

Wow, I can't believe another year has passed. I hope everyone is getting settled into the new year. We have enjoyed having our new PGY-2s joining us and getting acquainted to the program and Pensacola!

We kicked off the year with a fantastic Welcome Party hosted by GME. It was a wonderful opportunity for all residents. – both new and returning – to connect in a relaxed and enjoyable setting. It was the perfect way to set a positive tone for the year ahead. (Pictured below!)



Megan Craig DO

We have some exciting wellness events planned coming up, including bowling and a boat outing at Crab Island in Destin, Florida.

We are continuing our Spinal Interventional Simulation Training this year with our attending, Dr. Buchalter. The PGY-2s are becoming more comfortable with manipulating the needle and hitting their targets before they start their pain management rotations. One of our sessions includes learning airway management.

Our didactic sessions are starting out strong with sessions with our therapy team, getting to test different modalities, a gait lecture with FSU medical students, and a few special guest lectures! We are looking forward to an incredible year full of fun and lots of learning!

We look forward to seeing everyone in September at FSPMR! We wish everyone a happy and healthy year.

Megan Craig, DO (PGY-3)



Physiatrist's Voice

NEWSLETTER

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PM&R Pioneers

Craig H Lichtblau MD

We help our early career physiatrists by providing mentors for them. We call our mentors PM&R Pioneers. These mentors are for both practice management and clinical issues. They are listed below and early career members can contact them.

What makes a PM&R Pioneer? They have a minimum of 20 years of experience and want to share their knowledge, training and experience with new FSPMR members.

If you wish to serve in this capacity and you are not yet on the PM&R Pioneers list, please submit your name to Lorry Davis, FSPMR Executive Director, lorry4@earthlink.net. Thank you for your consideration and if you'd like to discuss it further with me before deciding, please contact me at C.Lichtblau@chlmd.com.

Craig Lichtblau MD

Past President Director, FSPMR

Craig Lichtblau MD	(561) 842-3694
Michael Creamer DO	(407) 649-8707
Anthony Dorto MD	(305) 932-4797
Mitchell Freed MD	(407) 898-2924
Matthew Imfeld MD	(407) 352-6121
Jesse Lipnick MD	(352) 224-1813
Thomas Rizzo Jr MD	(904) 953-2735
Mark Rubenstein MD	(561) 296-9991
Andrew Sherman MD	(305) 585-1332
Paulette Smart-Mackey MD	(321)-558-4996
Jonathan Tarrash MD	(561) 496-6622
Colleen Zittel MD	(407) 643-1329



Physiatrist's Voice

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A Member of Both FSPMR and FSIPP?

Lorry S Davis MED, FSPMR Executive Director

YES! It is now economical and efficacious to belong to both.

FSPMR and FSIPP have developed an agreement that FSPMR members can also become FSIPP members for just an additional \$100. And FSIPP members can become FSPMR members for just an additional \$100.

Why belong to both? One important reason is there are now numerous physiatrists, FSPMR members, who are also practicing interventional pain. Conversely, there are physiatrists who are FSIPP members, who primarily identify with interventional pain, but who also want to stay in touch with their PM&R roots. And you get two birds with one stone at the annual FSPMR meeting in conjunction with FSIPP.

Another reason is that it helps both organizations' numbers, which has political significance, as well as bearing on influence with current and potential industry supporters.

Lastly, dues are a smaller but important revenue stream for FSPMR and FSIPP. Our societies love members who are supportive, stay current with their membership dues and come to meetings. We also love members who might not make it to meetings but are supportive through their membership dues. We need ALL of you.

For FSPMR members to also become FSIPP members, please go to <https://fsipp.org/doctors/join-fsipp/>, to the box that says FSPMR Primary/FSIPP Secondary, \$100.

For physiatrists who are FSIPP Primary and would like to be FSPMR Secondary, please go to <https://www.fspmr.org/join-renew-payment.html>, to the item that says Physiatrist/FSIPP Primary/FSPMR Secondary, \$100.

Thank you!



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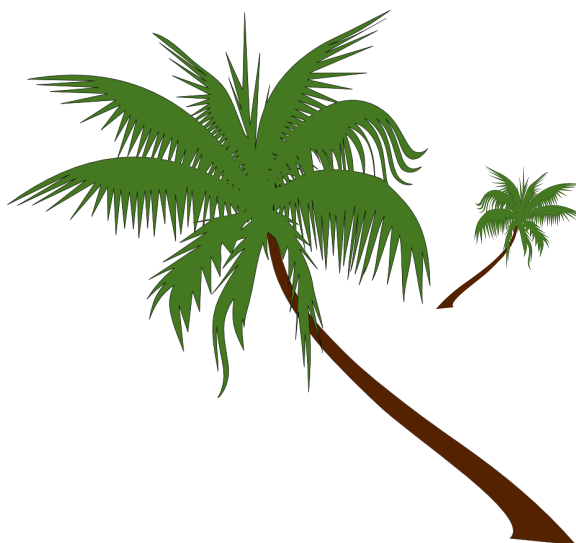
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Physiatrist's Voice

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**Deadline for our next issue, is November 15th
for our December 2024 Newsletter**

Guidelines for your articles are available on the website: [FSPMR.org/newsletters](https://www.fspmr.org/newsletters) Here a few for your convenience;

- Pictures: should be in .jpg or .gif format. All files must have minimum resolution of 72 dpi. (max. 300) with a image size no larger than: 1500 px x 900 px
- Documents should be submitted in electronic format (.docx). If a PDF is to be submitted, each page must be submitted separately.
- All articles will be approved by Web site committee editors.
- FSPMR will retain full editorial rights to any submissions.

Newsletter Disclaimer:

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FSPMR Office: 904 994 6944,
Executive Director Lorry Davis MEd,
lorry4@earthlink.net