

LEHIGH COUNTY

Health & Medicine

Official Publication of The Lehigh County Medical Society

A PHYSICIAN WEDDING

SURVIVING AND
THRIVING IN
ITS MIDST

PSORIASIS
AND THE BALANCE
OF AUTOIMMUNE
DISEASE

FIXING PHYSICIAN BURNOUT



The Surgery Center of Allentown is a state-of-the-art ambulatory surgery center providing low-cost services and high-quality care for over 10 years.

Our services include:

**Colon and Rectal | Ear Nose and Throat | Ophthalmology | Orthopedics
Hand | Sports Medicine | Pain Management | Podiatry**

Our board certified physicians are committed to providing the highest level of personal care in a safe and comfortable environment.



Houman Ahdieh, M.D.
Ophthalmology



Richard D. Battista, M.D.
Orthopedics



Kenneth J. Brislin, M.D.
Orthopedics



David S. Bub, M.D.
Colon and Rectal
Surgery



Irena Cherfas, M.D.
Ophthalmology



Michelle Cintrón, D.O.
Pain Management



Byron M. Cook, D.P.M.
Podiatry



Robert J. Corba, D.O.
Pain Management



Mauricio Figueroa, M.D.
Ophthalmology



Dusty R. Haverly, D.P.M.
Podiatry



Gregor M. Hawk, M.D.
Orthopedics



Christopher A.
Hawkins, M.D.
Orthopedics



Jay V. Kalawadia, M.D.
Orthopedics



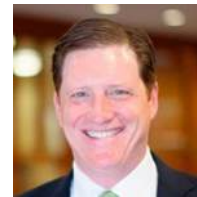
Jay H. Kaufman, D.P.M.
Podiatry



Mark Krakauer, M.D.
Ophthalmic Plastic
Surgery



Mark S. Maehrer, D.P.M.
Podiatry



Patrick J. McDaid, M.D.
Orthopedics



Mark E. Moran, D.O.
Ophthalmology



Robert C. Palumbo, M.D.
Orthopedics



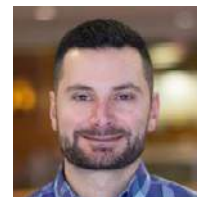
Andrew J. Pestcoe, D.O.
Ear Nose and Throat



Paul F. Pollice, M.D.
Orthopedics



Daniel I. Ross, M.D.
Ophthalmology



Dean L. Sorrento, D.P.M.
Podiatry



Jay S. Talsania, M.D.
Orthopedics



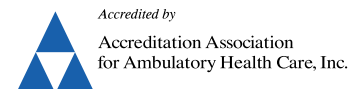
Lawrence E. Weiss, M.D.
Orthopedics



Robert E. Wertz, M.D.
Pain Management

We accept most major insurance plans, including Workers Compensation and High Deductible Health Plans.

To learn more about our surgery center and specialty physicians visit SCOAllentown.com or call **484.268.5232**.



Accredited by
Accreditation Association
for Ambulatory Health Care, Inc.

FREE WRIST AND HAND TREATMENT FOR VETERANS AND UNINSURED RESIDENTS WITH HAND OR WRIST PAIN

Evaluation Dates: Saturday Nov. 2nd & Saturday Dec. 7, 2019

Surgery Date: January 25, 2020

INFO: 610-973-6464



THE TOUCHING
HANDS PROJECT

Free Wrist and Hand evaluations and treatment, including appropriate x-rays, nerve testing, splinting, and surgery for our Veterans and Uninsured Residents of Lehigh, Berks, Bucks, Northampton, Montgomery, and other Eastern PA counties.

Fellowship trained Orthopaedic Hand Surgeons Drs. Talsania, McDaid, Battista, and Weiss of OAA, along with volunteer staff from the Surgical Center of Allentown, including Anesthesiologists, Nurses, OR Staff, Hand Therapists and clerical support staff will lend a hand.

All treatment will be provided free of charge, including follow up office visits and therapy.

Screening of patients is scheduled for SATURDAY, NOVEMBER 2, 2019 and SATURDAY DECEMBER 7, 2019. Surgery date for those who require it is January 25, 2020.

**OAA Orthopaedic Specialists,
250 Cetronia Rd, Allentown, PA 18104**



LEHIGH COUNTY
Health & Medicine



LEHIGH COUNTY MEDICAL SOCIETY
1620 W Highland St. | Allentown, PA 18102
610-437-2288 | lcmcsoc.org

2019 LCMS BOARD OF DIRECTORS

William A. Tufflash, MD, PC
President

Bruce D. Nicholson, MD
Immediate Past President Elect

Rajender S. Totlani, MD
Vice President

Oscar A. Morffi, MD
Treasurer

Charles J. Scagliotti, MD, FACS
Secretary

CENSORS

Howard E. Hudson, Jr., MD
Edward F. Guarino, MD

TRUSTEES

George A. Arangio, MD
Wayne E. Dubov, MD
Kenneth J. Toff, DO

EDITOR

David Griffiths
Executive Officer

The opinions expressed in this publication are for general information only and are not intended to provide specific legal, medical or other advice or recommendations for any individuals. The placement of editorial opinions and paid advertising does not imply endorsement by the Lehigh County Medical Society. All rights reserved. No portion of this publication may be reproduced electronically or in print without the expressed written consent of the publisher or editor.



5 IN THIS ISSUE

6 LCMS NEWS

ON THE COVER

8 FIXING PHYSICIAN BURNOUT
Starts with Believing in the Abstract
By Joseph Patruno, MD

FEATURES

11 A PHYSICIAN WEDDING
Surviving and Thriving in its Midst
By Susan Shelly

16 PEDIATRIC CANCER

18 CHOOSING THE RIGHT REHABILITATION FACILITY
After Injury or Illness
By Frank Hyland, MSPT

20 PSORIASIS

and the Balance of Autoimmune Disease
By Saira Agarwala

23 HOW TRAUMA AFFECTS STUDENTS IN THE CLASSROOM

and What You Can Do to Help
By Laura McHugh

25 THE ONE HEALTH CONCEPTUALIZATION OF PUBLIC HEALTH PRACTICE

Veterinarians in Public Health: Looking Outside The Two Legged Box
By Erica Tramuta-Drobnis, VMD

28 WRIST TENDONITIS

30 USHER SYNDROME
By Elisa Giusto, D.O.



Lehigh County Health & Medicine is published by **Hoffmann Publishing Group, Inc.**
Reading, PA | HoffmannPublishing.com | (610) 685.0914

SEE PAST ISSUES AT LH.HoffmannPublishing.com

FOR ADVERTISING INFO CONTACT:

Tracy Hoffman, Tracy@hoffmannpublishing.com, 610.685.0914 x201

RECEIVE THE LATEST UPDATES BY FOLLOWING US ON SOCIAL MEDIA



Hard to believe that fall is coming, officially beginning on September 23rd. Chock full of health and wellness insights, our fall issue of *Lehigh County Health and Medicine* is also here!

This issue covers a range of topics, from childhood trauma and umbilical cord blood banking, to patient choice, Psoriasis, physician burnout, and a discussion on why veterinarians are important in public health.

September is Childhood Cancer Awareness Month, and we are featuring the Pediatric Cancer Foundation of the Lehigh Valley. Please read about the important work they do for both children stricken with cancer and their families.

September 21st is Usher Syndrome Awareness Day. A rare disease that affects approximately 3 to 10 in 100,000 people, this disease affects hearing, vision, and balance. Please read on to find out more.

In an article from the United Way of the Greater Lehigh Valley (UWGLV), find out how trauma can affect our youth. Trauma can affect all of us, but its influence on children and their still-developing brains can be the most lasting. See how UWGLV works with school districts in our area on this important health issue.

Once again, thank you for reading our health news magazine. You can also read more of this issue online, or see past issues at <https://lcmcdsoc.org/our-publication> .+

LEHIGH CALENDAR OF EVENTS

Upcoming meetings for LCMS members. Others may attend, but will need to notify the Society of attendance plans in advance, and pay for their dinners.

UPCOMING GENERAL MEMBERSHIP MEETINGS

PLEASE LOOK FOR MORE INFORMATION
BY MAIL AND EMAIL.

OCTOBER 15TH

Safe and Effective Management of Acute and Chronic Pain in the Context of the Opioids Crisis

MARCH 17TH

Recognizing and Responding to Children at Risk - Suspected Child Abuse & Neglect (SCAN) Education for Physicians



LCMS NEWS

NEW MEMBERS

Jamie R. Allen, DO, Resident
James D Balshi, MD, FACS,
Vascular Surgery
Steven J Capece, MD, Resident
Michael J Chen, MD, Resident
Mark D. Cipolle, MD, FACS,
Critical Care Medicine (Internal Medicine)
Megan E Fisher, MD Resident
Aaron S Frey, DO, Resident
Desire Guthier, DO, Resident
Matthew J. Hamilton, Medical Student
Firas Ido, MD, Resident
Nicholas P Johnson, DO, Resident

Jasmine I Kashkoush, MD, Resident
Bibi S Khoyratty, MD, Internal Medicine
Amanda Koziel, MD, Resident
Sherwin Mashkouri, MD, Resident
Nikhil A Mehta, MD, Resident
Alyson A Melin, DO, Resident
Monica B. Mistry, DO, Resident
Dhruv Patel, MD, Resident

Jennifer C Rovella, DO,
Pulmonary & Critical Care Medicine
Cody Sacks, Medical Student
Zaina Shahid, MD, Resident
Jamie C Shawver, DO, Resident
Andrew Sheno, Medical Student
Collin Sherman, Medical Student
Kenneth P. Skorinko, MD,
Cardiovascular Disease
Beth C Stepanczuk, MD,
Physical Medicine and Rehabilitation
Janet Williams, MD, Resident
Tyler F Willing, DO, Resident

RE-INSTATED MEMBERS

Andrew J. Pestcoe, DO, Otolaryngology
Lorena Rosero, MD, Resident

JOIN THE CIN WHERE THE DOCTORS HAVE ALL THE SEATS AT THE DECISION-MAKING TABLE.



Joining a clinically integrated network (CIN) enables private practices to benefit from collaboration with a large group without giving up their independence. But our CIN—the PA Clinical Network—goes further, adding the power of:

- A robust population health platform, integrated with every payer and EMR, to deliver real-time, actionable care insights, achieve quality outcomes, and demonstrate shared savings
- Strong technology infrastructure and hands-on support to facilitate collaboration while lightening the load of today's administrative complexities
- Complete transparency on decisions affecting your value-based compensation, with governance by independent physicians like you who won't be overruled by large institutional interests

717.909.2646 | PennsylvaniaCIN.com

The PA Clinical Network | Created by the Care Centered Collaborative at the PA Medical Society.

Learn why the PA Clinical Network, backed by the PA Medical Society, offers independent physicians more power at less risk.

Call 717.909.2646 to schedule a meeting.



PAClinical**Network**

AT THE PENNSYLVANIA MEDICAL SOCIETY

FEATURE

FIXING PHYSICIAN BURNOUT

Starts with Believing in the Abstract

BY JOSEPH PATRUNO, MD
Chief Wellness Officer, Lehigh Valley
Health Network

Considerable attention has been circulating around the topic of physician burnout, for good reason. Like a bank account that contains energy instead of money, burnout is when your energy account is depleted, but you keep spending. Almost half of the physicians in the United States have reported feeling burned out, defined by three key symptoms: exhaustion, depersonalization, and lack of efficacy. Hospitals and health systems have just started to see the adverse effects this can have on patient care and satisfaction, from reductions in quality and productivity to a decline in overall morale of the organization.

A MULTI-FACETED PROBLEM

Through studies and surveys, researchers have traced the architecture of this fairly new form of physical and moral exhaustion to varying aspects of patient care and practice administration. Some areas of origin include:

- **Growth of networks and changes in practice dynamics which have led to geographic isolation of physicians**
- **Regulatory reimbursement issues and growing administrative burden**
- **Little one-to-one communication with peers; reliance on texting and email**
- **Practice structures providing caregivers with less autonomy in managing patients and practices**
- **Suboptimal compensation models**

Data indicates that, to a great extent, the problem is operational and organizational as opposed to originating from personal issues. As expectations and demands become too high and caregivers' sense of control is diminished, burnout is inevitable. Plus, requirements relating to financial challenges, meaningful use, quality expectations, maintenance of certification, and other administrative activities are intensifying. The responsibility to manage

the problem falls, therefore, both on organizations and individuals.

TAKING A LEAP OF FAITH

The substance of the solution to health care burnout is to create an environment where doctors and other caregivers are professionally fulfilled. This becomes a complex undertaking in many health systems, since they are increasingly under pressure to operate like businesses with financial constraints and revenue goals. Supporting physician wellness is difficult to truly quantify. That's why solutions need to begin off paper: Leaders have to believe that the well-being of caregivers really matters and makes a difference in the quality of the health care being delivered. They must recognize there is a return on investment, and believe if they can optimize their staff well-being, it will have a positive effect on the environment and the overall culture, as well as the bottom line.

Several large, academic health centers, such as Stanford Health Care and Mayo Clinic, were able to take this view of the problem and have invested in caregiver wellness. Consequently, they are farther along in solving it and have been able to create an approach that comes at the problem from numerous angles that are now being implemented at many health systems. It's about optimizing efficiency in practice with a focus on workplace systems, processes, and practices. It is finding and implementing those ideas that promote quality, effectiveness, and positive patient and colleague experiences with a goal of bettering work-life balance. The essence of the goal is to allow caregivers the most time actually communicating with, and caring for, patients. When they are not doing this it is about finding time to be professionally or personally satisfied and achieve balance in life.

HOW HEALTH SYSTEMS ARE GETTING STARTED

Since burnout has emerged, many hospitals are unaware of how extensive the problem is within their own organization. Some have followed the Mayo Clinic's lead and incorporated a survey, (Mayo's is

called the Well-Being Index) to monitor the wellness of doctors and other caregivers. By having physicians answer key questions and recording the results, leaders and others can identify departments, specialties, and population groups who may be, or are, at risk for burnout. This makes leadership aware and accountable in exploring cohorts with high burnout or "distress" scores. Without data and measuring distress it becomes difficult to create strategies and solutions to optimize wellness. The data also makes it possible to determine and measure the financial effects of burnout on the organization based on its influence on attrition, lost productivity, and reimbursable elements of quality and patient experience, among others.

ONCE HEALTH SYSTEMS HAVE ACCESS TO DATA, THEY ARE STRATEGIZING PATHS FORWARD:

- **Appointing a chief wellness officer to champion physicians and advocate for efforts under consideration**
- **Reassessing physical spaces and processes in offices and units are structured for patient care and also caregiver efficiency**
- **Making electronic medical records systems more usable, by offering training programs and offering point of care assistance.**
- **Experimenting with, and using, scribes to assist with record keeping; this might include virtual scribes, which entails a medical professional listening to the physician-patient conversation and then interpreting and transcribing notes**
- **Assuring that all caregivers and administrative staff are working efficiently and at the top of their licenses to promote satisfaction and team-based care (this can involve creating systems that let team members take on roles that alleviate the physician's administrative load)**

Continued on page 10



HERE ARE SOME INITIATIVES THAT HAVE APPEARED LOCALLY:

- Programs to promote resilience and a supportive environment, such as mindfulness-based stress reduction
- Peer programs that offer fellow physicians as confidants and trained caregivers
- Resources to maintain physical health including gyms and health coaching
- Personal spaces for doctors where they can reconnect with colleagues, such as lounges, in both inpatient and outpatient settings
- Social gatherings aimed at bringing caregivers together outside of the workplace with a focus on community and commensalism

Offering caregivers some latitude in how they manage their offices by balancing standardization with a level of independent contributions to the practice

THE PERSONAL SIDE OF BURNOUT

As noted above, chronic physician exhaustion is mostly attributed to operational factors. There are certain administrative realities to practicing medicine that most likely will not go away; this includes constantly evolving system requirements and financial stressors. While doctors by nature just want to take care of patients, they cannot be ignorant to these pressures. Therefore, there is value to the personal side of mitigating burnout, which involves resiliency. Local hospitals as well as national institutions have begun to introduce initiatives that emphasize the importance of helping physicians focus on themselves and their emotional, social, and spiritual needs. These programs are apt to be most successful when they are geographically accessible and can be seamlessly integrated into the typical workday.

Other programs aimed at creating a “culture of wellness” (this is defined as establishing organizational values, behaviors, and leadership that prioritize personal and professional growth, community, and compassion for self and others).

FINDING BALANCE IN A COMPLEX WORLD

As the friction between keeping a business afloat and what caregivers value most is brought to the fore and addressed, the issue of physician burnout starts to become manageable. It’s a matter of organizations prioritizing the health of their caregivers in a similar way they do the patients they care for. This mindset has started to take hold, with some innovative organizations even changing their mission statements and focusing on network goals that revolve around the concept of the Quadruple Aim: A model where caregiver wellness is prioritized in the same way as quality, experience, and cost.

With a national focus on burnout, caregivers themselves are becoming more engaged, taking the opportunity to share

their workplace needs and wants, and also considering their own work-life balance. Locally, some hospitals have seen their high distress rate drop by bringing the problem into the light, empowering caregivers to share their needs, and by supporting meaningful changes. While it’s a huge undertaking to begin the seismic shift that ensures the systems in place are serving the wellness purpose, with every conversation and each small step taken, we’re chipping away at the problem. Whether health system or physician, it’s important to remember that cultural change takes time and wellness is a journey. +

Physician Well-Being: The Reciprocity of Practice Efficiency, Culture of Wellness, and Personal Resilience, NJEM Catalyst; <https://catalyst.nejm.org/physician-well-being-efficiency-wellness-resilience/>

A Physician Wedding

SURVIVING AND THRIVING IN ITS MIDST

BY SUSAN SHELLY

It goes without saying that no two weddings are alike, including those of physicians.

While weddings involving doctors vary dramatically depending on style, venue, type of service and so forth, we wondered if there were common denominators that set physicians' weddings apart from others.

Lehigh County Health and Medicine decided to take a look at factors affecting these weddings. We wanted to know how they might be different from other weddings, and if so, how. We wanted to find out if weddings involving physicians tend to be current and trendy, or if they lean toward traditional.

Continued on page 13





An elegant ballroom for all of your social and corporate event needs. Unbeatable value, flexibility & customization.

Weddings | Banquets | Meetings | Parties
Conference Rooms | Grand Ballroom with Stage

1114 West Walnut St.

Allentown, PA 18102

610.433.6204 x 12

info@thebarristersclub.com

www.TheBarristersClub.com

And, we wanted to understand particular challenges that may pop up while juggling a busy medical career with the job of thinking about and planning for a wedding, especially if the union includes not one, but two medical professionals.

Nearly 40 percent of physicians marry other doctors or medical professionals, according to the American Medical Association.

To learn those things and more, we went to the pros – wedding planners who have worked with doctors and doctors' families to plan memorable weddings, while helping to keep everyone sane along the way.

FINDING TIME TO PLAN

Practicing physicians normally spend long days in hospitals or offices, and evenings can be consumed with catching up with email, messages from patients and colleagues and other work. Planning for a wedding – even thinking about planning for a wedding – can seem overwhelming.

While many people dream of planning every detail of their own wedding, for others it's simply not a practical goal and the task of planning the event becomes frustrating and overwhelming.

Finding time to plan can be equally, or even more difficult for medical students and residents. If there's any way you can manage it financially, it may be well worth your time and money to hire some help, advised Amy Jones, owner of Philadelphia-based Amy Champagne Events.

"Trying to manage and handle all the details of an event with multiple vendors when you already have an extremely demanding schedule could take the enjoyment out of the process and the event," Jones said. "As the wedding approaches, it's important for the couple to use their down time doing things they enjoy instead of being consumed with a multitude of wedding tasks."

THE DIFFERENT FLAVORS OF WEDDING PLANNERS

There are many types of wedding planners, from full service to someone who steps in to help on the day of the event. There are planners and designers and event stylists and coordinators. Here's a rundown:

Full service. A full-service planner is with you from the very beginning until the wedding is a memory. The planner can help you draft a budget; find a venue, come up with a timeline; and recommend, hire, and manage vendors. He or she will be on site the day of the wedding to assure that everything goes smoothly.

Partial planner. This is someone who takes some aspects of planning off of your plate, but is not responsible for handling all of the wedding plans. For instance, a partial planner might identify and negotiate with vendors who meet your needs, but not be responsible for site planning, menus or day-of management.

Day-of planner. Also called a wedding day manager, this type of planner understands your vision of exactly what you want the wedding to look like and how it should proceed, and works on the day of the event to make sure that happens.

Month-of coordinator. A month-of coordinator works with you for a prescribed amount of time, typically for four to eight weeks before the wedding. So, you'd find and negotiate with vendors, locate a venue, plan a menu and so forth, leaving the coordinator to step in and handle any last-minute problems or overlooked details that pop up close to the wedding day. The coordinator also would be on hand the day of the wedding.

Event manager. An event manager also typically comes on board later in the planning process to do things like review final contracts with vendors, schedule and run a final venue walk through, take care of last minute details and manage the rehearsal, wedding day and any other wedding events.

Stylist. Some people hire a stylist in addition to a planner. A stylist pays attention to every detail of the event, focusing on design and

visuals and making sure that everything is perfect.

Merida Alexander, owner of Philadelphia-area Events by Merida, urged those planning a wedding to at the very least hire a day-of-planner to manage details on the day of the wedding.

"Even if you don't need a full-service planner, please have a day-of coordinator so you and your family can be present and have fun on your wedding day," Alexander said. "They'll help you take care of all the little details and help you when things go wrong. Remember that you don't get a do-over."

PLANNING A WEDDING ON A BUDGET

Planning a big, fancy wedding can be exciting and great fun, but not if you're stressed out about every dollar you're spending and not sure how you'll pay your rent, much less come up with money for a dress, flowers and all the other wedding essentials.

It's no secret that medical school is expensive, and many students, residents and young doctors have very significant student debt.

With the average cost of a wedding at more than \$35,000 you need to decide what makes sense for you and what you can afford. Don't be pressured into spending more than is reasonable for you. It will only prove to be stressful and put you even further into debt.

Having said that, however, as long as you're going to be spending money, look for a credit card with a great rewards incentive and charge all your wedding expenses to it to reap the benefits. Just be sure you know how you're going to pay the bill when it comes due.

DESTINATION WEDDINGS

About 25 percent of all U.S. weddings these days are destination weddings, and they bring with them a whole other set of opportunities and challenges.

A new subset of wedding planner is the destination planner, who scouts out locations and venues in far-flung locations when you're

Continued on page 14

Wedding Venues Available in the Lehigh Valley

There is no shortage of wedding venues in the Lehigh Valley, that's for certain. We perused a number of wedding websites and compiled a list of some of the most popular, including a variety of settings. They are listed in alphabetical order.

Bally Spring Inn

Originally part of a large farm established in the 1700s. The scenic property is located along the Perkiomen Creek. Includes indoor and outdoor spaces.

90 Airport Road, Barto
www.ballyspringinn.com

The Bank Street Annex

Featuring art deco architecture design, the Annex offers on-site food preparation.

316 Northampton St., Easton
www.bankstannex.com

Barley Sheaf Farm

Located on a historic property, the private estate includes woodland and pasture views and can accommodate 300 guests.

5281 York Road, Holicong
www.barleysheaf.com

The Barrister Club

Built in 1928 by the Women's Club of Allentown, the club now houses the Bar Association of Lehigh Valley, with space available for events. Rental includes the services of an event coordinator.

1114 W. Walnut St., Allentown
www.thebarristersclub.com

Bear Creek Mountain Resort

With mountain views and a choice of locations, Bear Creek has become a popular wedding destination. Guests enjoy the large deck.

101 Doe Mountain Lane, Macungie
www.bcmountainresort.com

Glasbern

Billed as "luxury rustic," Glasbern offers three options for events of varying sizes. A working farm, Glasbern specializes in locally sourced meals.

2141 Pack House Road, Fogelsville
www.glasbern.com

Green Pond Country Club

Limited to one wedding at a time, the venue can accommodate up to 300 guests.

3604 Farmersville Road, Bethlehem
www.greenpondcc.com

Hotel Bethlehem

Built in 1922 and completely restored, this historical venue has space for up to 300 people in its grand ballroom.

437 Main St., Bethlehem
www.hotelbethlehem.com

The Lake House Inn

This historic venue offers lake views and seats up to 300 guests.

1100 Old Bethlehem Road, Perkasie
www.thelhi.com

Monterre Vineyards

Featuring an "in the vineyard" cocktail hour, Monterre is known for its outdoor amenities.

6341 Kernsville Road, Orefield
www.monterrevineyards.com

Pearl S. Buck Estate

The former home of writer Pearl S. Buck, the property is listed as a national historic landmark.

520 Dublin Road, Perkasie
www.pearlsbuck.jhollandergourmet.com

The Sayre Mansion

Built in 1858, the mansion accommodates up to 150 guests and features a tented terrace.

250 Wyandotte St., Bethlehem
www.sayremansion.com

not able to do so. He or she also can help guests with travel plans, identify activities near the wedding site, arrange for vendors and assist guests with any cultural or practical matters that might arise.

PICKING A DATE

There's more than the weather to consider when picking a wedding date. Doctors may also have to work around work schedules, the needs of colleagues and other practicalities. Medical students and residents need to consider class schedules, exams and rotations, among other things.

Also, keep in mind that your wedding might not be the only game in town on the date that you choose.

When we spoke recently with Nancy Ellen, owner of Can Do Events, a Montgomery County firm that plans weddings in Pennsylvania, New Jersey and Delaware, she was preparing for a Labor Day weekend wedding in Center City Philadelphia.

Her concern was that, while the bridal couple was looking forward to a beautiful event, thousands of others were looking forward to the Made in America music festival, a massive event held each Labor Day weekend on the Benjamin Franklin Parkway.



“Luckily, the event is not by the Parkway, but I’m worried about guests being able to get there,” Ellen said. “When the couple picked their date and location, it didn’t occur to them that Made in America would be in town.”

Consider any pre-scheduled, large events, and don’t forget about holidays that might make it difficult for guests to attend or make the cost of travel and lodging more expensive.

FACTORING IN DIVERSITY

Physicians practicing in the U.S. tend to be a pretty diverse group, and many guest lists include relatives and friends who will be traveling not just from another town or state, but another country.

This can be a factor when considering wedding venues, guest accommodations and transportation, advised Sharon Pellechia, owner of the Lehigh Valley-based An Affair to Remember by Sharon.

Incorporating some traditions or customs that reflect the cultural background of an international bride or groom can add another level of meaning to a wedding.

“It’s really nice when someone wants to include some of their cultural customs,” Pellechia said. “I’m always glad when that’s added to a wedding.”

ESTABLISHING A GUEST LIST

Your wedding budget really will dictate the number of guests you’ll have, as about half of total wedding costs typically go toward food and drink for guests.

According to tripsavvy.com’s Wedding Statistics and Honeymoon Facts & Figures, the average number of wedding guests is 136, with a per-guest cost of \$268. If you do the math, that comes to \$36,448.

CHOOSING A VENUE

The Lehigh Valley and surrounding area are rich with a variety of wedding venues. There are those with great historical significance, such as the Bank Street Annex in Easton. There are beautiful country locations and outdoor wedding venues, barns, posh country clubs or hotels.

Susan Norcross, owner and wedding director of The Styled Bride, Philadelphia, said that while venues for physician weddings vary, she notices a trend toward locations that have the capacity to accommodate various events.

“Doctors might gravitate toward an upscale hotel that can host the rehearsal dinner, welcome drinks and brunch all in one location,” Norcross said. “Many of them don’t have a lot of time, so it’s nice to have everyone in one place for the weekend.” +

See the venue sidebar for some other ideas.

SAY "I DO"
TO YOUR 2020 WEDDING DESTINATION

BOOK YOUR WEDDING IN MAY, JUNE, JULY OR AUGUST AND RECEIVE THE FOLLOWING:

COMPLIMENTARY ADDITIONAL 1- NIGHT STAY FOR THE BRIDE AND GROOM	COMPLIMENTARY LATE NIGHT SNACK \$500 OFF THE ROOM RENTAL FEE	COMPLIMENTARY SIGNATURE COCKTAIL INCLUDED IN YOUR BAR PACKAGE
---	---	--

Offer valid for all newly booked weddings May-Aug, 2020. Not valid on previously booked weddings. Not valid with any other promos or discounts.

BEAR CREEK
MOUNTAIN RESORT & CONFERENCE CENTER

ADVERTISE IN
LEHIGH COUNTY
Health & Medicine

The official
Lehigh County
Medical Society
magazine

FOR ADVERTISING INFORMATION & OPPORTUNITIES CONTACT
Tracy Hoffmann
Tracy@hoffmannpublishing.com
610.685.0914 x201

Hoffmann
Publishing Group



pediatric cancer

Twenty-two. That is the number of children in the Lehigh Valley who were diagnosed with cancer this year – at the time this article was written. That means that 22 local families who work, shop, worship and live in the Lehigh Valley have had their worlds turned upside down by the words “your child has cancer.” In 2018, a total of 41 Lehigh Valley children were diagnosed with cancer.

The Pediatric Cancer Foundation of the Lehigh Valley (PCFLV) is a local non-profit, dedicated to helping those local pediatric cancer patients and their families. PCFLV embraces the pediatric cancer journey alongside children and their families, moving forward as a community with love, hope and smiles. They support at diagnosis, encourage during treatment, empower in survivorship, and if necessary, comfort throughout bereavement.

For 16 years, PCFLV has been providing free and unique programming and is focused on creating a loving and supportive cancer community for families whose lives have been forever changed by pediatric cancer. Many of their programs allow the patients, their siblings and their parents opportunities to connect, share experiences and provide comfort and support to each other. They also provide an opportunity to focus on something other than cancer, medicine, needle sticks and doctor appointments. All programs are open to families whose children are on treatment or in survivorship. Siblings are included as well. Bereaved families are also invited to attend any of these activities.

PCFLV's ongoing programming includes Kids Konnect (featuring either an activity or arts and crafts project for kids aged 4-12) and teen activities such as bowling and go-karting. PCFLV rotates each month between moms' nights out, dads' nights out, and parent nights. These evenings include anything from art to sports to theater performances to dinner.

Each year, PCFLV holds Camp Smile, a one-week day camp which includes sports, art, theater, special visitors and much more. At this year's Camp Smile, there were 52 campers (a combination of cancer patients, their siblings and siblings of children who passed away) and 44 counselors in attendance. At the end of Camp Smile, parents join the campers and counselors for lunch and get to see their children in a theatrical performance.

"Camp Smile is the best week of the year, according to all of the campers," said Michelle Zenie, Executive Director of PCFLV and cancer mom. "It is a wonderful week filled with love and, of course, smiles."

In addition, PCFLV makes monthly visits, called Chemo Circus, to the outpatient pediatric oncology clinic at the Lehigh Valley Reilly Children's Hospital, armed with an array of arts and crafts, gifts, entertainment, and food to distract children during their treatment.

"I love being able to sit with our kids and get them to laugh and "escape" for a bit while receiving their chemotherapy treatments," said Kris Buss, PCFLV Program Coordinator. "We often take a special visitor – like a princess or super hero – along to Chemo Circus, which adds a bit of levity to the clinic atmosphere."

Each month, PCFLV holds Caregiver Coffee, which provides parents a chance to grab a cup of coffee and get a short respite break while their children are either in the clinic or in-patient. Parents have the opportunity to chat with fellow pediatric cancer parents and PCFLV staff.

PCFLV also addresses the often unrecognized costs of dealing with a pediatric cancer diagnosis. In many instances, one parent needs to either reduce their work hours or quit their job during their child's treatment protocol. And there are many costs related to a cancer diagnosis which are not covered by insurance. To that end, PCFLV provides families with grocery store, gas station and hospital cafeteria gift cards, along with EZPass gift certificates for families who travel to appointments in Philadelphia.

Through Lehigh Valley Health Network, PCFLV has a Family Assistance Fund which assists with mortgage/rent payments, car payments and repairs, and other necessities.

PCFLV also offers a one-time housecleaning service for newly diagnosed families.

For cancer kids who are going on to higher education, PCFLV provides a one-time \$3,000 scholarship. This the only program PCFLV holds where siblings are not included. In June, PCFLV handed out 5 scholarships to graduating seniors.

The PCFLV Back-To-School program provides school supplies (backpacks stuffed with pencils, paper, etc.) to kids each August prior to the start of the school year. For the Holidays, PCFLV collects gift cards for their Adopt-A-Family program, allowing parents to focus on the Holiday and not the cost of gifts. PCFLV also purchases and distributes tickets to local sporting and entertainment events, a luxury that many pediatric cancer families are unable to afford.

Bereavement programs are also provided to families who have lost a child to cancer. From support groups to remembrance projects, these programs offer comfort and support. In addition, PCFLV provides a \$500 stipend to bereaved families to help with final expenses or funeral costs.

September is Pediatric Cancer Awareness Month. Each day in September, PCFLV posts a story and photo of a Lehigh Valley pediatric cancer patient on its social media sites. These stories are written either by a parent or by the child themselves. Called 30 Days/30 Stories, this campaign allows everyone a glimpse into the world of pediatric cancer that exists right here in the Lehigh Valley. The 30 Days/30 Stories series can be seen by going to pcflv.org.

Also throughout the month of September, numerous schools and businesses hold events that raise awareness and funds for PCFLV. These events range from gold-out high school football games to bake sales. To learn more about these events, you can go to pcflv.org. +



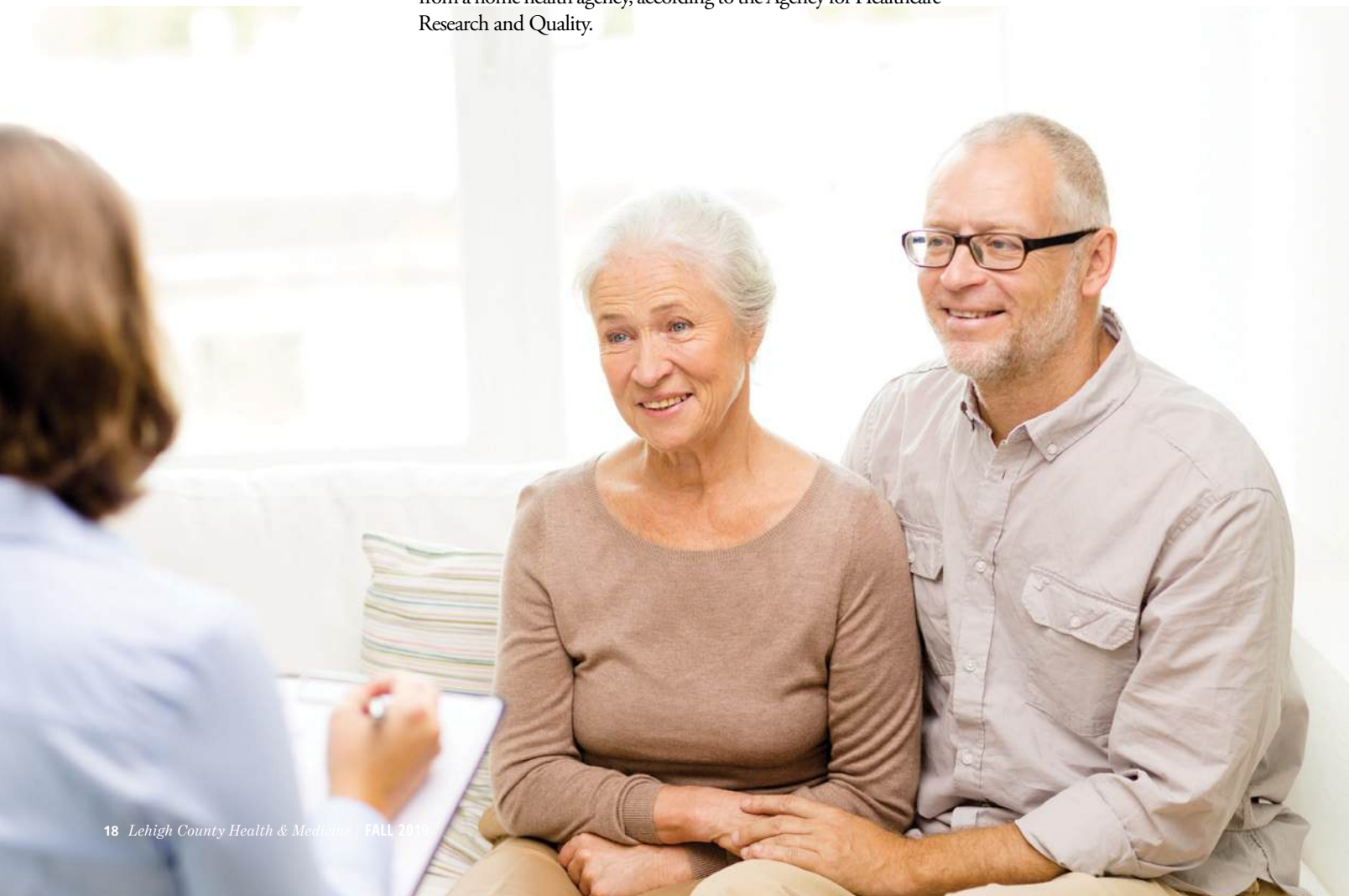
To learn more about PCFLV, their fundraising events, volunteer opportunities and sponsorship packages, please go to pcflv.org or call Tracy at 610-297-7292.

CHOOSING THE RIGHT REHABILITATION FACILITY

AFTER INJURY OR ILLNESS

BY FRANK HYLAND, MSPT
Executive Director, Good Shepherd Rehabilitation Network

After suffering traumatic injury or illness, most people understandably want to return to their normal lives as quickly as possible. In order to continue on the path to recovery, some patients need care at a post-acute or rehabilitation hospital. In fact, an estimated one in five hospitalized patients in the U.S. are transferred from an acute care hospital to a skilled nursing facility, inpatient rehabilitation facility, long-term acute care hospital or directly home with care from a home health agency, according to the Agency for Healthcare Research and Quality.



In many cases, critical decisions about a rehabilitation stay must be made in as little as 24 to 48 hours before discharge with little advice or support available. The choices can seem overwhelming, but it's important to understand your options and rights as you navigate this next step.

DO YOUR DUE DILIGENCE

Although it may be difficult in the immediate aftermath of a trauma or serious illness, it is vitally important to ask questions and make informed decisions about your future care. You have the right to choose a facility that is right for you.

In order to get the best medical care and support, you should feel empowered to be an advocate for your own or a loved one's recovery. Be sure to have an open and honest discussion with the medical care team and keep a record of any information given to you by your doctors. Take notes or ask to record conversations so that you can refer back to important information as you weigh all options.

Then, begin researching the type of care and rehabilitation required for your injury, and seek out respected experts and highly-rated facilities. For example, look for facilities with third-party certifications, like the Commission on the Accreditation of Rehabilitation Facilities, which ensures high standards of care and quality are met by its accredited inpatient rehabilitation providers.

Instead of relying on second-hand information, call rehabilitation providers directly to ask questions about your situation and learn what you can expect with the transfer and admissions process. Once you make a decision, share it with a trusted friend or family member to ensure your wishes are carried out.

ASK THE RIGHT QUESTIONS WHEN COMPARING REHABILITATION FACILITIES

There are many options, specifically in the Lehigh Valley, for rehabilitative care. For the best possible outcomes, select a facility with:

- A successful history of providing rehabilitation care as its core focus;

WHEN CONTACTING AN INPATIENT REHABILITATION FACILITY, ARM YOURSELF WITH THE RIGHT QUESTIONS TO ASK.

How long has the facility offered specialized rehabilitation care?

How quickly do the facility's patients gain function or recover?

How many patients leave the inpatient setting for home versus a nursing home?

Does the facility have functional outcomes for its patients that exceed regional and national averages?

Is the facility nationally recognized for its standards of care? Does it have third-party accreditations?

Does the facility offer innovative rehabilitation technology?

Is the inpatient facility's care overseen by physical medicine and rehabilitation physicians, who are specially trained in a specific area of rehabilitation medicine?

Do physicians, physician assistants and nurse practitioners see patients at the inpatient facility on a daily basis?

Do the physicians follow the patient throughout recovery – from inpatient to outpatient and beyond?

Will your therapy be in a group setting or will you have one-on-one attention from therapists?

What type of therapies are offered?

How much therapy will you receive on a daily basis?

- Coordinated clinical teams that specialize in specific conditions, such as stroke, amputation, brain injury and spinal cord injury;
- Staff physiatrists who focus on helping patients recover function;
- Specially trained nursing staff who are certified in caring for patients undergoing rehabilitation;
- The latest assistive and rehabilitation technology that can help increase, maintain or improve the functional capability of people with injury or disability;
- A proven record of positive outcomes, where patients are able to return home rather than to a long-term nursing home facility;
- And the highest level of rehabilitation accreditation possible, indicating high standards and outstanding outcomes.

MOST IMPORTANTLY, YOU HAVE A CHOICE

Your choice of a rehabilitation provider is indeed just that. No one at an acute care facility should dictate where you receive rehabilitation care. Many hospitals have the option of keeping patients within their own networks and often recommend moving to their facilities as the next step. While this may be attractive as a short-term convenience, consider the longer-term implications of your decision. It's important to explore all options that offer intense rehabilitation for your specific condition before making a decision. +

Frank Hyland, MSPT, is the Executive Director of Good Shepherd Rehabilitation Network, overseeing inpatient and outpatient rehabilitation services for Neurorehabilitation, Pediatrics, Musculoskeletal-Orthopedics and Cardiopulmonary-Complex Medical. Previously, he was the vice president of Rehabilitation Services, and administrator, Good Shepherd Rehabilitation Hospital, joining the organization in 1981. In 2015, Hyland was awarded the Healthcare Heroes Lifetime Achievement Award from Lehigh Valley Business for his significant contributions to improving health care in the Lehigh Valley community.

FEATURE



Psoriasis AND THE BALANCE OF AUTOIMMUNE DISEASE

BY SAIRA AGARWALA
Lewis Katz School of Medicine MS3

Pсориаз is a chronic autoimmune disease of the skin. Most commonly, it manifests as a plaque-like rash. The disease is not curable; however, it can be treated and controlled. Patients will experience periodic flare ups of the rash often followed by long periods of latency. Psoriasis affects as many as 7.5 million Americans. Both males and females are equally affected; and while it is primarily a disease of adulthood, it can also affect children. Fortunately, this disease does not often cause life threatening systemic complications. It can, however, seriously impact one's quality of life.

Our Skin and Psoriasis

Our skin is made up of several different layers which are constantly dying, shedding, and replenishing. Psoriasis is the overproduction of cells within these layers of skin. (See Image 1.) There are several different subtypes of psoriasis which are categorized by both clinical features as well as which part(s) of the body it affects. (See Table 1.) The severity of psoriasis is graded as mild to severe based on the amount of skin involved, and is measured as a percentage of body surface area.

Our Immune System and Psoriasis

The immune system defends our bodies from disease, and like most things in life, functions in a delicate balance. Too little immunity, and we end up with infections. Too much immunity, and we end up with autoimmune conditions, such as psoriasis. The immune system has a component for general functions (innate immunity) and a component that is highly specialized (adaptive immunity). These two components are intimately interconnected and constantly activating and deactivating one another. How they communicate is highly complex, but the word to remember is cytokines. Cytokines are usually called "IL" and numbered (ex. IL-23). The cells in our bodies use cytokines to communicate.

The adaptive immune system does not attack things at random – it needs to be told to do so. This is where the genetic and environmental interaction, seen in

so many autoimmune diseases, comes in to play. Some environmental exposure activates our innate immunity and some genetic predisposition allows our adaptive immune system to become activated. In the case of psoriasis, cells in our skin are activated. The innate immune system and the adaptive immune system synergize (using cytokines), causing inflammation and an overproliferation of our skin cells.

Given the process of inflammation being inherent to psoriasis, the risk of the disease increases with other diseases that also cause inflammation. If there is already inflammation present, the immune system is more likely to become activated and start attacking our bodies. Some other conditions associated with psoriasis are obesity, hypertension, metabolic syndrome, smoking, and infections. And also, psoriasis often arises in areas of trauma or skin breakdown.

Treatments and New Advances

The National Psoriasis Foundation outlined goals of therapy for plaque psoriasis as the following: after three months of treatment, less than 3% body surface area (BSA) involvement or 75 percent improvement. In other words, patients should expect improvement but perhaps not total eradication in 3 months of treatment. Treatment is focused both topically and if necessary, orally.

The goal of topical therapies is roughly divided into hydration and reducing inflammation. The reduction of inflammation is accomplished by toning down the innate and the adaptive immune system, and by attempting to turn off the excessive cell proliferation.

If the psoriasis is really severe and covers a large surface area of the body, medications can be given orally. It is impractical to apply a topical therapy to large surface area of skin, and oral delivery ensures that medication distributes to the entire body. Most of these medications have similar targets to the topical therapies.

The downside of systemic therapies is that they are widespread and tend to have side effects. The goal of new research is to make medications more targeted. Ideally, treatment would turn down the immune system as it pertains to psoriasis, but not necessarily around the entire body. This is where the injectable medications enter the picture.

For those patients with treatment resistant psoriasis, new types of injectable medications are becoming available. These medications are part of a new trend in medicine called "Biologics," which are often incredibly expensive and sometimes impractical. These therapies tend to end in the suffix "-umab." The goals of these medications is to target those cytokines discussed earlier. These drugs are beneficial because unlike the other kinds of immune modulating therapies, they do not turn down the immune system in totality. They can target a more specific process. These medications do still come with their own group of side effects. While these types of therapies are exciting and show promise in the field, at this time, they are not practical for widespread use.

Patient Advocacy

Over time, with education efforts and the assistance of celebrities including Kim Kardashian and Johnathan Van Ness, the national opinion is transitioning away from hiding this affliction and toward honesty and acceptance. This type of spotlight supports new research and with it, the discovery of new treatments.

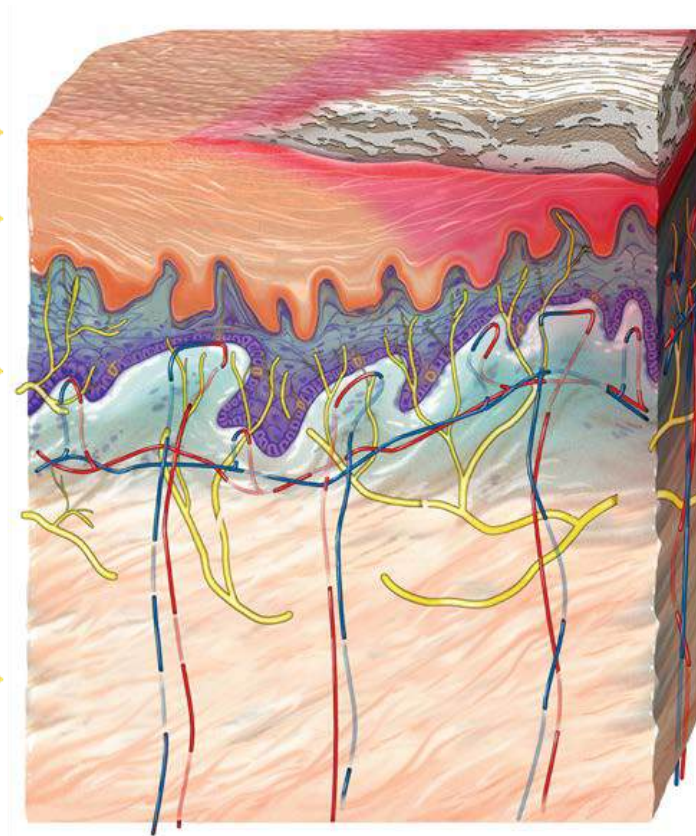
Dermatological diagnoses are often based on visual observations and therefore can become more subjective than other disease diagnoses. Dermatologists themselves attest that psoriasis is often misdiagnosed, especially in those with atypical presentations. This is not to say that all patients should continue to get another opinion until they finally hear someone tell them they have psoriasis.

Continued on page 22

FEATURE

Normal skin

Keratin layer →
 Epidermis →
 Dermis →
 Subcutaneous layer →



Psoriasis

← Scales and plaques

Inflamed skin

Adapted from Nucleus Medical Media

TABLE 1

Plaque Psoriasis	White skin plaques	Extensor surfaces
Guttate Psoriasis	Small, red dots	Face and trunk, usually children
Pustular Psoriasis	Pus filled lesions on top of red skin	Widespread or localized
Inverse Psoriasis	Smooth, dry, red areas	Skin folds (armpit, under the breast)
Nail Psoriasis	Small pits, tan brown color	Nails
(+/-) Psoriatic Arthritis	Swelling and stiffness	Joints

Rather, they should understand what to expect from treatment and when to tell their doctor “it’s not working.”

In line with the treatment guidelines, patients should expect to see some improvement in about 3 months. It is important to understand that most medicine works in a stepwise approach – starting with the least intense medication and working your way up. Patients should recognize that it might be necessary to go through a few medications that are not effective to find

the right one. That said, it is your body and you know it best. If something isn’t right, tell your doctor and work together to find a solution you are satisfied with. +

HOW TRAUMA AFFECTS STUDENTS IN THE CLASSROOM

and what you can do to help

BY LAURA MCHUGH
United Way of the Greater Lehigh Valley

In 13 years of teaching, Rick Amato admits there were times he would make judgments about his students based on their behavior or disconnect in the classroom. But today, the principal of Broughal Middle School in Bethlehem says he understands and responds to his students differently.

“When you cannot see inside a child’s brain, you make assumptions that the behavior is deliberate. In fact, sometimes the children have so much stress that their brains have been wired differently,” said Amato.

The cause of that stress: exposure to trauma.

“Students who are struggling with trauma may explode or shut down in school. For many of the students, it’s because things are happening in their lives, in their home or in the community. I’ve come to understand what an epidemic we’re in,” added Harrison

Bailey, principal of Bethlehem’s Liberty High School.

Research shows that exposure to childhood trauma is common. Two-thirds of U.S. adults are impacted by childhood trauma, and one in four children have experienced a traumatic event by the age of 4 years. Also known as Adverse Childhood Experiences or ACEs, traumatic events may include physical, emotional or sexual abuse, neglect, neighborhood or community violence, bullying and racial discrimination.

“Exposure to trauma often has our students stuck in survival mode, asking ‘Am I safe or not safe?’” remarked Beth Tomlinson, Senior Director of Education, United Way of the Greater Lehigh Valley. “To learn, a child needs to feel both physically and emotionally safe, so the child’s brain can be open to new ideas and feel confident he can learn new skills. But the survival brain is stuck in fight, flight or freeze mode.”

Traumatic events, especially if the trauma is frequent or severe, can create a state of toxic stress, where our bodies are constantly pumping out stress hormones, such as adrenalin and cortisol, which over time has a harmful effect on our brains and bodies.

“We know that exposure to trauma reshapes the brain in some really critical ways. When the parts of the brain that are responsible for decision-making, regulation of emotion and behaviors and attention are influenced in negative ways, it can have potentially much more negative effects than when trauma is experienced by an adult,” said Chris Liang, Ph.D., Chair of the Lehigh University Department of Education and Human Services.

Research from the Centers for Disease Control and Prevention shows that what happens to

Continued on page 24



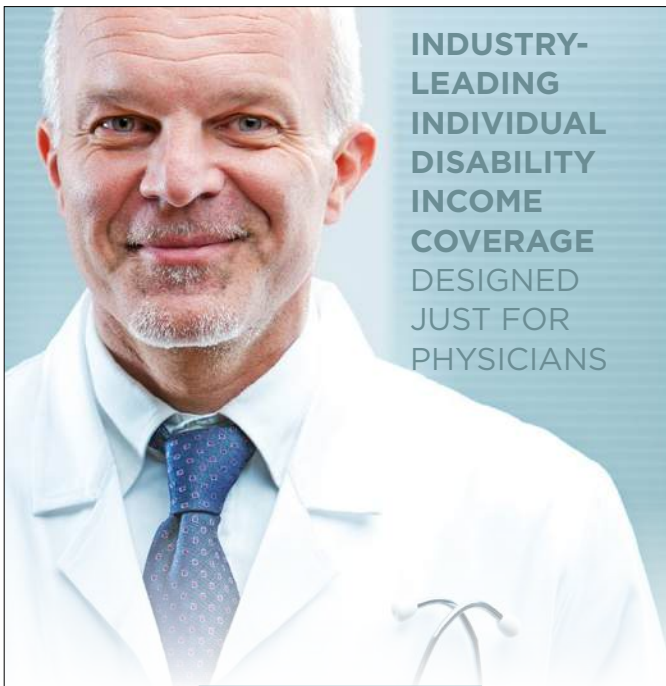
DR. JOHN G. KUNA & ASSOCIATES
PSYCHOLOGICAL AND COUNSELING SERVICES

**Listening,
Learning,
Understanding**

EVENING/WEEKEND APPOINTMENTS AVAILABLE
MOST INSURANCES ACCEPTED
12 CONVENIENT LOCATIONS

DRJOHNGKUNA.COM

570.961.3361



**INDUSTRY-
LEADING
INDIVIDUAL
DISABILITY
INCOME
COVERAGE
DESIGNED
JUST FOR
PHYSICIANS**

Contact us today to learn more

G.A. Legg and Associates

5100 Tilghman St. #255 | Allentown | 610 .395.8516
leggassetmanagement.com | leggal@ptd.net
Serving Physicians in Lehigh Valley for over 50 years

10% TO 25% DISCOUNT AVAILABLE THROUGH OUR OFFICE

us as children can stay with us well into adulthood. It can affect brain development, cause cognitive and emotional delays, weaken the immune system and impact the ability to form safe and trusting relationships with others. The impact on children, while their brains are still developing, can have the most lasting and harmful impact.

“If trauma is not dealt with in childhood, we see greater risk of chronic health problems, substance abuse, depression, suicide and obesity. In children, we’ll also see problems in school. When kids don’t do well in school, they’ll have a harder time succeeding in life,” said Liang.

“We can’t control what happens at home or in the community, but when educators create these environments in the school and focus on strong teacher-student relationships, students will be able to develop and flourish. All the negative effects we see on the brain can be repaired through these nurturing relationships,” he continued.

With training and support provided by United Way of the Greater Lehigh Valley and Lehigh University, Bethlehem Area School District became the first in the region to embrace and adopt trauma-informed practices.

“At United Way, we identified that the root cause of the difficult and complex social problems we were addressing was exposure to childhood trauma,” remarked Beth Tomlinson. “So the best way to support our families and our communities is really by addressing trauma early and building trauma-informed systems to break the cycle of community violence and build resilient communities.”

United Way strives for all schools in the Lehigh Valley to be trauma informed and to build resilience in all students.

“Schools in the Lehigh Valley area have heard the call to respond to trauma and risen to the challenge. We’ve partnered with Lehigh and Northampton counties to train educators on the impact of trauma on students and school staff and how a trauma-informed school environment creates a safe, supporting learning environment where all students can thrive,” said Tomlinson.

To become a trauma-informed school, Tomlinson recommends educating staff on trauma’s impact on the brain, behavior and learning, helping students feel safe in their learning environment, teaching students healthy social-emotional regulation skills and connecting students with behavioral health services when needed.

“Our job as educators is not to cure trauma. Our job is to help students through it,” added Bailey. +

Resilient Lehigh Valley is a multi-sector partnership of organizations and community members dedicated to building a trauma-informed and resilient community through education and collaboration.

For more information, visit www.resilientlehighvalley.org



THE ONE HEALTH CONCEPTUALIZATION OF PUBLIC HEALTH PRACTICE

Veterinarians in Public Health: Looking Outside The Two Legged Box

BY ERICA TRAMUTA-DROBNIS, VMD,
MPH Candidate

Many ask what business a veterinarian has in public health. Perhaps to some it is all too clear while to others it is beyond reason and logic. Why should we advocate the concepts of One Health, even One World? To think that other species play no role in the overall health of human society, dismisses the reality that humans are only one animal out of millions.

McCloskey et al., 2014, describe this One Health concept well. They state that the concept has been “fueled in some considerable part by the emergence and reemergence of infectious diseases, many of which involve multiple hosts and vectors, the term references a single bio-communicable planet (one world) that requires greater cooperation, and coordination, in order to prevent and prepare for inevitable if indeterminate disease events (one health)” (McCloskey et al., 2014).

Continued on page 26



Figure 1: The 'One Health Umbrella' developed by the networks 'One Health Sweden' & 'One Health Initiative' to illustrate the scope of the 'One Health concept'

This concept, visually depicted in Figure 1, the “One Health Umbrella,” conceptualizes the scope and breadth of what encompasses overall health and well-being, emphasizing the needed interdisciplinary cooperation, collaborations, and communications needed worldwide to ensure the overall health of the global society (Lerner & Berg, 2015). This umbrella integrates environmental health, veterinary medicine, public health and human health. It demonstrates the interconnected fields that span zoonotic diseases, antimicrobial resistance, biological threats, vector-borne diseases, and more, under the holistic, all-inclusive umbrella of individual, population and ecosystem health.

Where then does the role of the veterinarian cross the public health realm? Veterinarians’ expertise and experience puts them at the heart of key matters central to human health including concerns with antimicrobial and opioid use stewardship, food safety, and zoonotic diseases.

Three key arenas where veterinarians can play a pivotal role in the overall public health of a community include concepts surrounding zoonotic disease prevention, control and education, second, those same concepts as they relate to vector-borne diseases, and finally, the concept and benefits of animals as sentinels for diseases.

Zoonotic diseases, those diseases transmitted from animals to humans, are all too commonplace. They account for at least 60% of all human pathogens (Monath, 2013) and 75% of all emerging infectious diseases (Hinchliffe, 2014). We can better combat these diseases by considering various factors, in addition to understanding how diseases manifest clinically in humans. This will allow us to best be able to prevent, control or even eradicate them. Factors include the parasite’s life cycle, reservoir hosts, transmission modalities, prevention measures and targets, and disease manifestation in animals. Many see the key to the reduction of human exposure to

zoonotic pathogens as the control of disease in the animal reservoirs themselves (SciTech Europa, 2018).

Vectorborne diseases, those diseases transmitted from a vector to a species of concern. Vectors, including invertebrate species such as flies, fleas, ticks, and mosquitoes, help to transmit infectious diseases from one species to another. West Nile Virus (WNV), mosquito-borne, and Lyme disease, tickborne, both occur within Pennsylvania. It is paramount that we are able to recognize them in various species and minimize risk factors to exposure whenever possible. This is best done with a group approach, from various angles including environmental control of the vectors, and the prevention of disease occurrence in animals and in people, when feasible.

Mosquito-borne Disease: In 1999 in NYC, WNV was first brought to attention in the United States, not because of a new understanding in human medicine but instead, due to sudden massive bird die offs with subsequent neurologic illness noted in humans and horses. This vectorborne disease demonstrated the reach of the organism, the vector and the potential disease manifestations that were occurring in more than one species and allowed us to determine the natural transmission seen in the enzootic (sylvatic) cycles, the naturally occurring cycle between the vectors (mosquitoes) and the amplifying hosts (birds) (Staples & Fisher, 2016). From this we gained a better understanding of the parasite, its means of transmission and ways we can break the lifecycle to prevent disease transmission or sustainability.

Tickborne Disease: Even more widespread concern has surrounded the spread and increasing reach of *Borrelia burgdorferi*, the causative agent of Lyme Disease. The enzootic cycle is maintained between wild rodents, such as mice or squirrels, and ixodid ticks. Deer, often mischaracterized as the primary host and source of infection, serve as a key maintenance species for the vector ticks, but are resistant to infection. The adult ticks preferentially feed on them and thus, deer serve a key role in the lifecycle of the parasite (Beard, 2016).

Animals may be used as sentinels, indicators of the presence of disease (Bowser & Anderson, 2018), such as the classic “canary in the coal mine,” for agro-terrorism indices, and for infectious and vectorborne diseases such as monitoring our dog populations for Lyme disease incidence and wild birds for WNV and avian influenza (Bowser & Anderson, 2018).

Animals have been used as sentinels for disease for a long time. Since 1999 with WNV, surveillance using sentinel bird species has been used to determine exposure and viremia levels and determine level of risk in certain areas. Another sentinel that may be of use to healthcare practitioners is that of Lyme Disease in dogs. In some counties in Pennsylvania seroprevalence of exposure to *Borrelia burgdorferi* can reach as high as 90% of the tested population though fewer than 10% often show clinical signs. According to

the CDC, (2018) in 2017 statewide in PA, the incidence rate in dogs was 72.2%. The majority of these animals are asymptomatic and likely will clear the infection on their own. However, their exposure levels provide insight into human exposure and risk. Additionally, many people still choose not to use flea/tick preventatives for their pets and do not choose to use it for themselves. Many have the misconception that if they don't have deer in their immediate vicinity that they are not at risk. This is in fact a fallacy. The Ixodes ticks have a 2 year lifespan and it involves various stages of the tick feeding on different animal species. Each time that tick takes a meal it can transmit disease. Dogs and humans are incidentally infected. Knowing the level of Borrelia in one's area of practice, may help you to remember to evaluate your patients for tickborne diseases.

Consider asking your patients about tick exposure when presented with vague clinical signs such as general malaise, fever, headache, stiff neck, shifting myalgias, arthralgias or other clinical vague non-specific symptoms. Not all people read the book and develop Erythema migrans. Consider asking your patients if they have pets. Do their pets receive routine monthly flea/tick prevention? Have they seen ticks on their pets? Do they check themselves for ticks regularly? Have they removed any ticks in the past 4-6 weeks? Knowing of possible may be critical to helping you to get an accurate diagnosis and prevent treating symptoms instead of the underlying disease. Treating with the correct antibiotic, if bacterial, for the right amount of time, for the right duration of time is paramount. Having key information at your disposal is essential to ensure appropriate antibiotic stewardship, timely treatment, and adequate time and ability to educate your patients regarding prevention practices in the future.

Hopefully this brief commentary helps to demonstrate the value of looking at global health in a holistic manner, using the One Health approach. By understanding not just the practice of clinical medicine but the practice of veterinary medicine, ecological health, and other interrelated subjects,

collectively we can minimize the emerging and reemerging infections of concern. The ultimate prevention goal may be the prevention of the next pandemic flu. Pandemic influenza isn't going to be a virulent human strain, it, like previous pandemics, will be a strain that mutates and combines human viral DNA with avian and or swine viral DNA. If this occurs AND enough virulence develops, human to human transmission will occur and a global pandemic will result. Pandemic flu preparedness embodies the needed cooperation worldwide of many disciplines. Preparedness includes boots on the ground physicians recognizing aberrant flu-like-illness, such as illness at an uncommon times of year or in a population not usually afflicted to the degree being seen. It involves farmers reporting signs of illness in poultry flocks. It involves wildlife responders reporting large bird die offs. It requires collaboration of scientists and researchers to develop preventative vaccines, all in collaboration within the One Health umbrella to ensure we are all prepared.

To help prevent this seemingly inevitable catastrophic illness worldwide along with many other disease states, it is quintessential that we evaluate more than just human health or more than just animal health. So much more can be gleaned from the relationships between humans, animals, and our environment. Lieutenant Colonel Thomas J. Doker, DVM, MPH, a veterinarian in the Air Force in the field of Veterinary medicine, sums it up nicely, "The key to being a One Health advocate is to keep a One World-One Medicine-One Health perspective wherever you work, to seek collaborative partners, and to always be ready to educate others on the One Health concept!" (One Health Commission, 2019). +

CITATIONS

Beard, 2016. *Lyme Disease*. In Heymann, D. (Ed.), *Control of Communicable Diseases Manual (20th ed., pp. 363-67)*. Washington, D.C.: American Public Health Association.

Center for Disease Control, (CDC). (2017). *Lyme Disease Data Tables: historical Data*. Retrieved from <https://www.cdc.gov/lyme/stats/tables.html>

Hinchliffe, S. (2014). *More than one world, more than one health: re-configuring interspecies health*. *Social Science & Medicine (129)*. Pp. 28-35. DOI: <https://doi.org/10.1016/j.socscimed.2014.07.007>

Lerner, H., & Berg, C. (2015). *The concept of health in One Health and some practical implications for research and education: what is One Health?*. *Infection ecology & epidemiology*, 5, 25300. doi:10.3402/iee.v5.25300

McCloskey, B., Dar, O, Zumla, A, & Heymann, D. (2014). *Emerging infectious diseases and pandemic potential: status quo and reducing risk of global spread*. *The Lancet: Infectious diseases. Emerging Respiratory Tract Infections. Volume 14(10)*. Pp. 1001-1010. DOI: [https://doi.org/10.1016/S1473-3099\(14\)70846-1](https://doi.org/10.1016/S1473-3099(14)70846-1)

Monath, T. (2013). *vaccines against diseases transmitted from animals to humans. A one health paradigm*. *Vaccine (31) pp. 5321-5338*. DOI <https://doi.org/10.1016/j.vaccine.2013.09.029>

One Health Commission. (2019, June 23). In Facebook [Posts Page]. Retrieved July, 12, 2019 from <https://www.facebook.com/744003555648099/photo/sla.1208277975887319/2254126961302410/?type=3>

SciTech Europa. (2018, August 22). *How can a One Health approach mitigate the most prevalent health risks today?* Retrieved from <https://www.scitecheuropa.eu/one-health-approach/88605/>

Staples, E. & Fischer, M. (2016). *West Nile Virus Disease*. In Heymann, D. (Ed.), *Control of Communicable Diseases Manual (20th ed., pp. 675-679)*. Washington, D.C.: American Public Health Association.





Wrist Tendonitis

Wrist tendonitis is a cumulative condition that develops from overusing one or more of the tendons that surround the wrist joint. Although any tendon surrounding the wrist can be involved, tendonitis usually occurs where tendons cross each other near the wrist bones.

Wrist tendons are fibrous tissues made of collagen that connect the muscles in the forearm to bones in the hand. When functioning properly, tendons glide easily through smooth sheaths that are lubricated with synovial fluid. Repetitive strain or friction can cause inflammation of a tendon within the sheath, resulting in pain, swelling, stiffness, and reduced range of motion.

TENDONITIS CAUSES

Many cases of wrist tendonitis are due to a repeated motion that causes irritation and pain.

Sports: Athletes playing racquet sports are at increased risk because the repeated motion places stress on the wrist. Improper technique or equipment when playing a sport can also cause tendonitis symptoms.

Work or hobbies: Jobs that require overhead reaching, repetitive motion, awkward positions,

or forceful exertion can cause progressive pain in the wrist due to tendonitis. Tendonitis may be seen in people who work on an assembly line or in a factory.

Age: Older adults may be susceptible to developing wrist tendonitis as tendons lose strength and elasticity with age.

Injury: Tendon damage can occur suddenly through an injury or fall.

Chronic conditions: Rheumatoid arthritis or other autoimmune diseases can also contribute to pain in the wrists through direct joint damage or tendonitis.

WRIST TENDONITIS SYMPTOMS

Whether wrist tendonitis develops as a result of overuse, injury, or inflammation, it can cause symptoms that are common amongst all etiologies.

Similar treatments exist regardless of whether wrist tendonitis is caused by degeneration of the tendon or inflammation.

TREATMENTS INCLUDE:

Splinting – Immobilizing the wrist allows the tendons and surrounding sheath to rest

Physical therapy – Exercises for wrist tendonitis can reduce pain and improve range of motion

Some indicators of wrist tendonitis include:

- Pain in the wrist
- Stiffness in the wrist joint
- Reduced range of motion
- Sharp, shooting pain
- Decreased grip strength
- Tenderness or numbness
- Inflammation or swelling
- Warmth or redness
- Creaking sensation in the tendon
- Wrist Tendonitis Treatment

Ice – Cold therapy reduces inflammation and stimulates blood flow

Anti-inflammatory drugs – Ibuprofen or other non-steroidal anti-inflammatory medication relieve pain and swelling

Cortisone injection – If other treatment methods are not effective, corticosteroids offer powerful relief; multiple repeated injections are not recommended, as they may weaken the wrist tendon

Platelet-rich plasma (PRP) – Platelets are separated from the blood and injected into the wrist to reduce inflammation

Surgery – For cases resistant to non-operative treatment, wrist tendonitis surgery may be necessary to remove inflamed tissue, alleviate tightness, and release any constricted tendons

WRIST TENDONITIS RECOVERY TIME

Recovery time for wrist tendonitis depends on the severity of the condition. Generally, new cases of wrist tendonitis require shorter duration/less invasive treatments and heal faster than more established cases. Severe injuries or neglected cases of wrist tendonitis are often associated with longer treatment times and a greater need for surgery.

Mild wrist pain usually responds to splinting, rest, cold therapy, and anti-inflammatory drugs within a few weeks. More advanced tendonitis may not respond to conservative treatment, and surgical recovery can take 3 months or more. Beginning a physiotherapy program immediately after surgery will speed up the recovery process.

PREPARING FOR AN APPOINTMENT

On the day of your visit, be prepared to tell your doctor:

- The location and intensity of your wrist pain
- When the pain began and how long it has lasted
- Background information such as an injury or event that may have caused your symptoms
- Previous treatments you have tried such as ice, splinting, or anti-inflammatory medication

Bring a list of your current medications and dosages and any specific questions you may have. You may want to ask some of the following questions:

1. What treatment options are available for my condition?
2. Can we begin with the least invasive treatment and progress to more involved procedures later?
3. Do I need surgery? If so, what are the benefits and drawbacks of scheduling surgery now versus waiting until a future date?
4. What happens during the procedure?
5. What are the side effects of this treatment?
6. Are there any associated risks or complications?
7. How long will it take for me to heal?
8. Will I need physical therapy? If so, how long will I have to be in therapy? ➕



Thank you PAVI for helping me walk again



PAD • Veins • Fibroids • Dialysis Access
Limb Salvage for Non-Healing Wounds

Lehigh Valley Vascular Institute
3450 High Point Blvd Suite F • Bethlehem
800-614-7294 • pavascularinstitute.com



Digital Cloud Company
Your business in the cloud.

***Receive a \$250 Prepaid Gift Card!**
Expiration 10/19

Let DCC Manage Your Communication & IT Needs.

Managed Hosted VoIP • Managed IT
Ask about our Residential Phone Service!
Includes Cordless IP Phone or ATA (Analog Telephone Adaptor)**
\$14.95 per month plus taxes and fees.

Call today for a custom consultation.

833-321-VoIP (8647)
www.dccvoip.com

*\$250 prepaid gift card for new business customers only. ** Cordless IP Phone and/or ATA for new residential customers only. Exclusions apply. See DCC for complete details.



USHER SYNDROME

BY ELISA GIUSTO, D.O.
Family Medicine PGY-2
PAMPAC Resident Representative



In honor of September 21st being Usher Syndrome Awareness Day, here is a review of this rare disease.

Usher syndrome is caused by mutations in specific genes that provide instructions for making proteins involved in normal hearing, vision, and balance. Usher syndrome was first described in 1858 by Dr. Albrecht Von Graefe, but was named for Dr. Charles Usher, a Scottish ophthalmologist who identified the disorder's recessive inheritance pattern. Usher syndrome affects approximately three to ten in 100,000 people worldwide. Higher than average numbers of people with Usher syndrome have been found among Jewish people in Israel, Berlin, Germany; French Canadians of Louisiana; Argentineans of Spanish descent; and Nigerian Africans. People with Usher Syndrome have congenital or early-onset hearing impairment followed by the development of loss of vision caused by retinitis pigmentosa. Vision loss occurs as the light-sensing cells of the retina gradually deteriorate. Night vision loss begins first, followed by blind spots that develop in the peripheral vision. Over time, these blind spots enlarge and merge to produce tunnel vision.

If a child has congenital hearing loss secondary to rubella infection and concurrent rubella retinopathy, the child may be mistakenly diagnosed with Usher syndrome. Electroretinography may facilitate the correct diagnosis, as the electroretinogram is only mildly abnormal in rubella but severely abnormal in Usher syndrome. Researchers have identified three major types of

Usher syndrome, designated as types I, II, and III. These types are distinguished by the severity of hearing loss, the presence or absence of balance problems, and the age at which signs and symptoms appear. The treatment of Usher syndrome is directed toward the specific symptoms that are apparent in each individual. Individuals with retinitis pigmentosa in association with Usher syndrome may find low-vision aids to be helpful. Sensorineural deafness should be assessed and communication options explored as early as possible to provide the child with a solid language base. Hearing aids or cochlear implants will benefit most infants and children with Usher syndrome. American Sign Language may be explored as a communication option. Some experts recommend that adult patients with common forms of retinitis pigmentosa take 15,000 IU daily of vitamin A palmitate under their ophthalmologists' care, follow a regular balanced diet, and avoid high-dose vitamin E supplementation. Although there is not cure for Usher Syndrome, children diagnosed with Usher Syndrome can live full and happy lives and I hope this shed some awareness about the disease. +

SOURCES

https://www.uptodate.com/contents/retinitis-pigmentosa-clinical-presentation-and-diagnosis?search=usher%20syndrome&source=search_result&selectedTitle=1-15&usage_type=default&display_rank=1

<https://rarediseases.org/rare-diseases/usher-syndrome/>

<https://ghr.nlm.nih.gov/condition/usher-syndrome#>

Steven Falowski, M.D.

DR. FALOWSKI is now seeing patients, just a short drive from the **LEHIGH VALLEY.**

Dr. Steven M. Falowski, a neurosurgeon at ARGIRES MAROTTI NEUROSURGICAL ASSOCIATES OF LANCASTER, has successfully provided treatment to numerous tremor sufferers and previously underwent his neurosurgical training at Thomas Jefferson University, with a focus on spinal cord stimulation and pain management, complex spinal procedures, and treatment for movement disorders such

as deep brain stimulation. He specializes in neuromodulation and spinal procedures and has been the course director of the annual NANS spinal cord stimulation/neuromodulation workshop, which is the largest training course of its kind. If you or a loved one suffers from tremors and are looking to improve quality of life, look to Dr. Falowski. Call us today!

REAL PEOPLE. REAL RESULTS.

Are you looking for a medically supervised nutrition, exercise and behavioral approach to losing weight? Or are you ready to explore weight-loss surgery?

St. Luke's Weight Management Center is pleased to offer both surgical and non-surgical approaches to better manage, care for and overcome obesity and the conditions and illnesses that go with it including diabetes, high blood pressure, depression, stroke and more. By achieving a healthy weight, patients can decrease the likelihood of developing these conditions and improve their quality of life.

Our Team

Ikemefuna Akusoba, MD • Lillybeth Birriel, MD
T. Javier Birriel, MD • Leonardo Claros, MD
Maher El Char, MD



Weight Management Center

St. Luke's Weight Management Center:

- Surgical and non-surgical options for weight loss
- Nationally accredited weight loss center with strong record of success
- Services available throughout the region



4 convenient locations – Allentown, Monroe, Sacred Heart & Warren

If you want to lose weight... and you want REAL results,
register for a FREE Informational Seminar at WeightLoss.sluhn.org,
or call 1-866-STLUKES (785-8537), option 4.