

Focus on Pediatrics



**Goryeb Children's Hospital
Doctor Priority Line
855-Doc2Doc
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Pediatric Grand Rounds

Thursday at 8:00AM

- Sept. 28 Rajeshwari Mahalingam, MD, "Can changing my child's diet help their seizures?"
- October 5 Pediatric Business Meeting
- October 12 Mark Rieger, MD, "Update in Pediatric Orthopedics"
- October 19 TBD
- October 26 Graham Hartke, MD, "An Introduction to Tourette Syndrome"
- November 2 Pediatric Business Meeting

Message from the Chair

Dear Colleagues,

As this will be my last message in *Focus on Pediatrics* as Chair of Pediatrics, I wanted to give some special thanks and acknowledgements. Most of you are already aware that I will be retiring in October, after almost 32 years at Atlantic Health System. I feel very fortunate to be able to make this decision at a time when I still have great energy and love for the work that I do. Over 45+ years I have experienced great satisfaction knowing that I've been able to have a positive impact on my patients and their families. I have also had the privilege of leading an outstanding children's hospital. The physicians, nurse practitioners, PA's, nurses, respiratory therapists, psychologists, social workers, child life professionals, techs, and so many others have provided superb care and comfort to our patients. I want to thank you for that and also thank you for your collegiality, friendship, and support. Training and mentoring countless numbers of residents, students and other professionals has also been highly rewarding for me. Without question, I have received at least as much wisdom, course correction advice, and gratification from my patients, families, trainees, and colleagues, as I have provided to them.

People ask me what I will miss when I retire. The answer is easy. The relationships. But I am very much looking forward to pursuing my hobbies and spending more time with my family. I am also hoping to continue some of the professional work I am passionate about, particularly ensuring that behavioral care for children and adolescents is on par with physical healthcare.

I have no doubt that Pediatrics at AHS will stay the course, given support from hospital and system leadership and because Joanna Wright, Executive Director of Women's and Children's Services and Jenna Steitz, AMG Director of Pediatric Practice Operations, will continue to work closely with the new Chair of Pediatrics. They are both talented and dedicated professionals to whom I owe much.

Best wishes to all,

Walter D. Rosenfeld, MD
Chair of Pediatrics
Telephone: (973) 971-6310
Email: walter.rosenfeld@atlantichealth.org



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Type 1 Diabetes (T1D) Update: Newer Therapies

By Aditi Khokhar, MD



Dr. Aditi Khokhar is a board-certified pediatric endocrinologist. Prior to joining Goryeb Children's Hospital in Sep 2022, Aditi had worked as Assistant Professor in Pediatrics at Rutgers New Jersey Medical School and SUNY Upstate Medical University. She has published on various topics in pediatric endocrinology and has presented extensively at national and international conferences. She has strong interest in bone health.

Type 1 diabetes (T1D) is an autoimmune disease targeting pancreatic β -cells that results in lifelong absolute insulin deficiency. The condition is frequently associated with reduced quality of life, serious long-term complications, shortened life expectancy, and substantial costs for individuals and health-care systems. An estimated 8.4 million people were living with T1D across the globe in 2021 of which 1.5 million (18%) were younger than 20 years. This number is predicted to increase to 13.5-17.4 million people living with T1D by 2040 (1).



Since the discovery of insulin in 1922, many of the therapeutic successes in T1D led to improving the insulin delivery mechanisms. On November 17, 2022, the FDA approved TZIELD™ (teplizumab-mzwv), which is a CD-3 directed monoclonal antibody and is the first potential disease modifying agent in T1D. It is intended to delay the onset of stage 3 type 1 diabetes (T1D) in individuals 8 years and older with stage 2 T1D (1). Stage 2 T1D is defined as at least two positive pancreatic islet autoantibodies and dysglycemia, but not overt hyperglycemia, on an oral glucose tolerance test (OGTT). The approval was based on data from a phase 2, randomized, placebo-controlled, double-blind international trial, which included 76 participants

8 years and older who were at high risk of developing clinical diabetes. The median times to diagnosis of clinical diabetes was 59.6 months in the teplizumab group and 27.1 months in placebo group with a hazard ratio of 0.457 (teplizumab vs. placebo). At a median of 923 days, 50% of teplizumab-treated participants had been diagnosed with clinical diabetes compared to 78% of placebo-treated participants.

Teplizumab is given via intravenous infusion over at least 30 minutes once daily for 14 days. The most common reported adverse reactions are lymphopenia, rash, leukopenia, and headache. Additionally, there is risk for cytokine release syndrome (characterized by at least some of the following: fever, nausea, fatigue, headache, myalgia, arthralgia, increased ALT, increased AST, and/or increased total bilirubin) and hypersensitivity reactions.

Certain clinical and practical challenges/barriers for prescribing this therapy exist at this point. Post marketing data for Teplizumab is not yet available and as expected most practicing pediatric endocrinologists are naïve to medication management. Setting up a 14-day infusion in either an inpatient or an outpatient setting is complex. The potential adverse reactions in the form of cytokine release syndrome (CRS), lymphopenia and hypersensitivity reactions require close monitoring of clinical status and labs during and immediately after completion of therapy. In clinical trials, CRS was reported in 5% of TZIELD-treated patients compared to 0.8% of control-treated patients during the treatment period and through 28 days after the last study drug administration. Additionally, 78% of TZIELD-treated patients developed lymphopenia compared to 11% of control-treated patients. Currently the medication is only approved for children 8 years and older.

However, this may change in future as there are ongoing clinical trials for younger children.

The potential options of impacting early-stage disease have ignited the consideration of the need for and feasibility of population screening to identify those at increased risk for T1D. Most screening programs previously have targeted relatives of people living with the disease to improve yield and feasibility. However, ~90% of those who develop T1D do not have a family history. Universal screening for type 1 diabetes (T1D) is being talked about.



We offer screening for T1D risk for relatives of patients with T1D through TrialNet (for more information contact Marie Fox in Pediatric Research in the Division of Pediatric Endocrinology at marie.fox@atlantichalth.org)

Another recent advancement in T1D management is the FDA approval of the Beta Bionics' iLet Bionic Pancreas on May 19, 2023 for patients with T1D ages 6 years and older. This is the first automated insulin delivery system that claims to need only two pieces of information, the user's body weight and their estimation of a meal, to dose insulin accordingly. Users must estimate their meals as average size, smaller than average, or larger than average size, eliminating the need for carbohydrate counting. The delivery system consists of a tubed insulin pump, a Dexcom G6 continuous glucose monitor (CGM) and a connected smartphone or reader.

In a multicenter, randomized, controlled trial that enrolled 165 youth with T1D ages 6 to 17 years, the mean HbA1c decreased from $8.1\% \pm 1.2\%$ at baseline to $7.5\% \pm 0.7\%$ at 13 weeks in the bionic pancreas group versus $7.8\% \pm 1.1\%$ at both baseline and 13 weeks in those using standard insulin delivery system (adjusted difference = -0.5% , 95% CI -0.7% to -0.2% , $P < 0.001$). The standard insulin delivery varied from multiple daily insulin injections to more sophisticated technologies including insulin pump without automation, insulin pump with low glucose suspends, and hybrid closed-loop systems. Participants with baseline HbA1c $\geq 9.0\%$ ($n = 34$) decreased mean HbA1c from $9.7\% \pm 0.8\%$ to $7.9\% \pm 0.6\%$ after 13 weeks with biopic pancreas compared with $9.7\% \pm 0.5\%$ to $9.8\% \pm 0.8\%$ with standard insulin delivery system. A severe hypoglycemia event occurred in 3 (2.7%) participants in the bionic pancreas group and in 1 (1.9%) in the standard insulin delivery group.

References:

1. Gregory GA, Robinson TI et al. Global incidence, prevalence, and mortality of type 1 diabetes in 2021 with projection to 2040: a modelling study. *The Lancet Diabetes & endocrinology*. 2022 Oct 1;10(10):741-60.
2. TZIELD™ (teplizumab-mzwv) [package insert]. U.S. Food and Drug Administration website. https://www.accessdata.fda.gov/drugsatfda_docs/label/2022/761183s000lbl.pdf Revised 11/2022.
3. Herold KC, Bundy BN, et al. Type 1 Diabetes TrialNet Study G. An Anti-CD3 Antibody, Teplizumab, in Relatives at Risk for Type 1 Diabetes. *The New England journal of medicine*. 2019;381(7):603-13. Epub 2019/06/11. doi: 10.1056/NEJMoa1902226. PubMed PMID: 31180194; PMCID: PMC6776880.
4. Messer LH, Buckingham BA, et al. Positive Impact of the Bionic Pancreas on Diabetes Control in Youth 6-17 Years Old with Type 1 Diabetes: A Multicenter Randomized Trial. *Diabetes Technol Ther*. 2022 Oct;24(10):712-725.

Goryeb KidFIT: Artificial Sweeteners: Friend or Foe?

By Melissa Woo, MD & Katherine Mott



Dr. Melissa Woo completed her training at Tufts Medical Center and Massachusetts General Hospital in Boston, MA. She joined the Pediatric Endocrinology department at Goryeb Children's Hospital in 2016 and is the medical director of the KidFIT program at Goryeb Children's Hospital. The KidFIT program works to better address the increasing demand for a comprehensive, accessible, and sustainable weight management program for children and adolescents in the greater northern NJ area.

Katie Mott is a registered dietitian with diverse experiences who completed her training and graduate studies in nutrition through the College of Saint Elizabeth. Through her current role as dietitian for the Goryeb KidFit Program, she works to make healthy eating enjoyable and accessible for all families.



What are artificial sweeteners? What do we know about their safety and are they effective for weight management? The World Health Organization (WHO) recently released updated guidance recommending against the use of artificial sweeteners in weight management. Artificial sweeteners (also referred to as non-nutritive sweeteners or NSS) include sweeteners such as acesulfame K, aspartame, saccharin, sucralose, and stevia.

The recommendation is based on a recent systematic review, which found that NNS does not help with weight control in the long term and suggests that there may be "potential undesirable effects"¹ from long term use of these sweeteners, such as increased risk of non-communicable diseases like type 2 diabetes. The WHO recommends instead that consumers should take steps to reduce the sweetness of their diet altogether.

Some organizations disagree- the FDA states that these additives do "not pose safety concerns"² as long as daily intake is within the ADI (acceptable daily intake) levels, this being the amount of a substance that some-



one could consume per day without a risk to health. For example, a person would need to consume 23 packets of Splenda per day or 75 packets of Equal in order to reach the ADI.² There are limiting factors to consider along with these recommendations. Evidence may be complicated by characteristics of study participants and patterns of NSS use. Additionally, the impact of NSS on weight loss is conflicting, and the effect of NNS on taste preference, food intake and appetite is not well understood.

One place where the evidence is clearer, however, is in which groups are more at risk.

Children remain one of the more susceptible groups in consideration to NNS consumption, as they have higher food and beverage intake per kilogram of their body weight.³ The American Academy of Pediatrics (AAP) currently says there is insufficient evidence about the long-term safety of artificial sweeteners in children and teens.

It is important to note that the WHO recommendation has been assessed as conditional, and that a discussion with patients and parents of the risks and benefits of these sweeteners is warranted. In our KidFit program, weight management is our primary goal, however, individualized sessions and goals help families determine which choices may be best for them. We always recommend and discuss a reduction in processed foods in the diet

overall, and strongly encourage families to focus not only on nutrient dense foods but also beverages, with milk and water typically being the best choices.

Our KidFit program is designed to help children and families manage weight loss in a safe and healthy way. All patients meet with our registered dietitian, as well as a physician or physician assistant if desired, and all patients receive a complimentary fitness assessment with our exercise physiologist, and have the option to meet with our social worker to further support behavioral and lifestyle changes. We strive to provide an environment that is both educational and collaborative, in order to help families make the best choices for them.

Parents can learn more about KidFit Ed and KidFit Med by calling 973-971-8824 or visiting our website: www.atlantichealth.org/goryebkid-fit

References:

1. "Use of Non-Sugar Sweeteners: Who Guideline." *World Health Organization*, www.who.int/publications-detail-redirect/9789240073616. Accessed 2 Aug. 2023.
2. Center for Food Safety and Applied Nutrition. "Aspartame and Other Sweeteners in Food." *U.S. Food and Drug Administration*, www.fda.gov/food/food-additives-petitions/aspartame-and-other-sweeteners-food. Accessed 2 Aug. 2023.
3. Baker-Smith, Carissa M., et al; The Use of Nonnutritive Sweeteners in Children. *American Academy of Pediatrics* November 2019; 144 (5): e20192765. 10.1542/peds.2019-2765

We would like to share the resident nutrition newsletter as an additional educational resource. This newsletter provides great educational pearls, updates, and re-freshers on common pediatric nutrition topics. **The Summer 2023 newsletter focuses on pediatric bone health; [click here to download.](#)**



Dr. Allison Hubschmann completed her undergraduate degree at Georgetown University where she was a Division I lacrosse player before living and working in NYC for many years. She went back to pursue her original dream of medicine, completing a post-baccalaureate program at Drew University and then on to New York Institute of Technology College of Osteopathic Medicine. She is currently a second-year resident with an interest in Hospitalist Medicine. Nutrition has always played a major role in her life during her athletic career and especially now as she treats patients at Goryeb.

Dr. Victoria "Tori" Berger is originally from Jacksonville, FL and completed her undergraduate and master's degrees at Tulane University before making her way to the University of New England College of Osteopathic Medicine for medical school. She is now a second-year pediatric resident at Goryeb Children's Hospital with a passion for culinary medicine, which she hopes to make a focus in her pediatric career. Her overlapping interest in nutrition continues to be further explored as she continues to work on the nutrition curriculum for the pediatric residency program.



Dr. Francis Peropat is a 2nd year resident at Goryeb Children's Hospital. He is a graduate of St. George's University Medical School and has a special interest in pursuing a career in Pediatric Gastroenterology

Fever and Rash in the Pediatric Patient presenting to the Emergency Department

By Renas Almubarak, MD



Dr. Renas Almubarak joined Morristown Medical Center in 2020. She completed her pediatric residency at the University of Minnesota and her fellowship in pediatric emergency medicine at Nationwide Children's Hospital in Columbus, Ohio. She is interested in Ultrasound use in the pediatric ER.

Rash and fever are some of the most common chief complaints presenting to the emergency department and may create a diagnostic dilemma for the physician. Although many relatively benign conditions present with these symptoms, some life-threatening disease states will also present as a rash in a febrile patient. Table 1 outlines some of the more common diagnoses and the “can’t miss” diagnoses.

| Type of Disease | Diagnoses |
|--------------------------------|--|
| Common, non-life threatening | <ul style="list-style-type: none"> • Viral exanthema • Roseola • Parvovirus • Coxsackievirus (hand, foot, and mouth disease) • Varicella • Measles • Epstein-Barr virus/cytomegalovirus • Eczema herpeticum • Scarlet fever • Lyme disease • Erythema multiforme • Henoch-Schönlein purpura • Cellulitis/erysipelas |
| Life-Threatening, “can’t miss” | <ul style="list-style-type: none"> • Staphylococcal scalded skin syndrome • Meningococcal disease (Neisseria meningitidis) • Toxic shock syndrome • Stevens-Johnson syndrome/toxic epidermal necrolysis • Kawasaki disease • Drug reaction with eosinophilia and systemic symptoms (DRESS) • Acute rheumatic fever • Rocky Mountain spotted fever |

The evaluation of rashes in the febrile pediatric patient includes a broad differential diagnosis and use of the history and physical examination to identify red flags, such as hemodynamic instability, erythroderma, desquamation, petechiae/purpura, mucous membrane involvement, and severe pain, that should increase suspicion for worrisome disease.

One of the more difficult aspects of diagnosing a pediatric patient who presents with a fever and rash is that no single test provides a diagnosis. To avoid unnecessary testing, diagnosis should rely on visual examination together with the history and other physical examination findings.

Kawasaki disease, toxic shock syndrome and Staphylococcal Scalded Skin Syndrome (SSSS) are a few of the diagnoses that are important not to miss in the ER due to the significant morbidity and mortality associated with them.

Kawasaki disease is an acute, multisystem vasculitis of unclear etiology and is the leading cause of pediatric acquired heart disease in the United States. Kawasaki disease is rare in infants

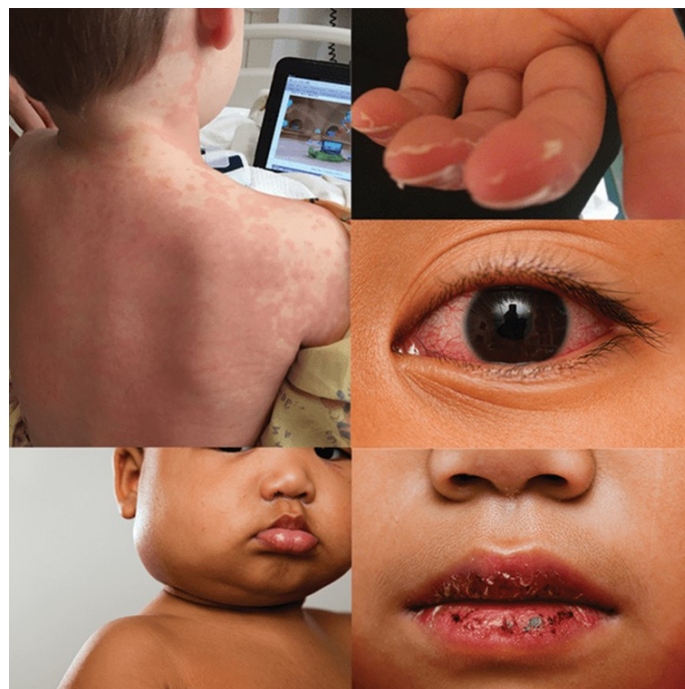


Staphylococcal Scalded Skin Syndrome with diffuse erythema and desquamation

aged < 3 months and in children aged > 8 years. The rash is typically a widespread targetoid, morbilliform, or macular exanthema. Irritability and fever, often unresponsive to antipyretics, are hallmarks of the disease. Diagnosis is based on the well-known clinical criteria, and laboratory results can aid in diagnosis. According to the American Heart Association, children should be treated with IVIG and high-dose aspirin as soon as possible to decrease the incidence of coronary artery aneurysm.

Toxic shock syndrome (TSS) is a potentially fatal disease. The most common etiologies are *Staphylococcus aureus* or *S. pyogenes*. For both staphylococcal and streptococcal-mediated TSS, patients develop diffuse erythema, watery diarrhea, decreased urine output, and extremity edema.

Erythroderma is a diffuse, red, and macular rash that resembles a sunburn. Skin and mucous membranes can be involved, including the conjunctiva, vaginal mucosa, and oral mucosa. Patients may have neurological findings and cardiopulmonary symptoms. The



Clinical Features of Kawasaki Disease

Continued on the next page

Fever and Rash (cont.)

treatment includes aggressive fluid resuscitation and clindamycin, which decreases toxin production, in addition to a cephalosporin, and consideration for MRSA coverage with vancomycin.

S aureus can produce suppurated infections or sepsis with different types of manifestations, such as skin lesions (impetigo, pyoderma, cellulitis, abscess) and pneumonia. In SSSS, exfoliative toxins are produced and act at a remote site, causing a red rash and separation of the epidermis beneath the granular cell layer (ie, intraepidermal splitting). The separation of the epidermis causes a painful, sunburn-like rash and development of bullae (large, fragile, fluid-filled blisters). The blisters burst and slough in



Erythema Multiforme Rash

a sheet-like manner, leaving the remaining layer without the epidermis and exposing a moist and reddish area on the topical surface. SSSS is most commonly seen in children and neonates. The diaper area of newborns is a very common surface for skin rashes associated with SSSS. Patients with SSSS should be hospitalized, and IV antistaphylococcal antibiotics should be administered once blood cultures are obtained.

In summary, fever and rash is a very common combination of chief complaints seen in the ED setting. Keys to differentiating deadly from benign causes are in obtaining a detailed history and performing a thorough physical examination looking for red flags.

Residency Program Updates

Thank you to everyone who joined us in June to celebrate the Goryeb Children's Hospital Class of 2023! We proudly awarded the first Medical Education Track certificates to the graduating residents from Cohort 1. This longitudinal comprehensive experience will provides pediatric residents the skills to explore the role of pediatricians as medical educators through mentorship, focused educational experiences, formal didactics, and a medical education scholarly project. In addition to our Medical Track certificate holders, please join us in congratulating the 2022-2023 resident and faculty award winners.

Medical Education Track Certificates

- Caroline Consol, DO
- Danielle Harrison, MD
- Jeanette Kusi, MD
- Shailja Modi, DO
- Melissa Neavear, DO



Awards:

| | |
|--|-------------------------|
| Hemant Kairam, MD Award <i>Graduating resident who exhibits excellence in the practice of pediatric primary care</i> | Caroline Consol, DO |
| Gloria O. Schragar, MD Award <i>Graduating resident who exhibits excellence in teaching</i> | Jeanette Kusi, MD |
| Benjamin Josephson, MD Award <i>Graduating resident who displays the most humanistic approach to pediatric care</i> | Simrat Veera, DO |
| John Chappel Award <i>Graduating resident of outstanding commitment to improving healthcare through compassionate communication</i> | Jeanette Kusi, MD |
| Pediatric Intern of the Year <i>Intern who has exhibited compassion, professionalism, educational growth, and commitment to the pediatric community</i> | Francis Peropat, MD |
| General Pediatric Teacher of the Year | Jami Zaretsky, MD |
| Pediatric Subspecialty Teacher of the Year | Judith Ugale Wilson, MD |
| Pediatric Resident Appreciation Award | Sabrina McCabe |

Lastly, as one year ends another begins and interview season is on the horizon. If you are interested in joining the pediatric resident recruitment and selection committee, please contact Program Director, Dr. Tyree Winters: (Tyree.Winters@atlanticealth.org).

We wish everyone a healthy summer and wonderful start to the 2023-2024 year.



Goryeb Pediatric Neurosurgery: A Comprehensive Care Team

By Richard C.E. Anderson, MD



Dr. Richard Anderson is the Director of Pediatric Neurosurgery at Goryeb Children's Hospital. He is a board-certified pediatric neurosurgeon and a Clinical Associate Professor in the Department of Neurosurgery at the NYU Grossman School of Medicine. He specializes in the surgical treatment of pediatric brain and spinal tumors, complex spinal disorders including tethered spinal cords and scoliosis, cranio-synostosis, spasticity, Chiari I malformation, vascular malformations, hydrocephalus, and general pediatric neurosurgery. Dr. Anderson received his medical training at the Johns Hopkins University School of Medicine, neurosurgical training at Columbia University Medical Center/New York Presbyterian Hospital, and advanced pediatric fellowship training at University of Utah/Primary Children's Medical Center.

We are very excited to highlight pediatric neurosurgery in this issue of *Focus on Pediatrics*. With eight attending pediatric neurosurgeons on staff, we have one of the largest divisions of pediatric neurosurgery in the nation. Our pediatric neurosurgeons include Richard Anderson MD, Luigi Bassani MD, John Collins MD, Lawrence Daniels MD, Arno Fried MD, Cathy Mazzola MD, Meleine Martinez Sosa MD, and Luke Tomycz MD. Together with the support from the pediatric intensive care unit, pediatric anesthesia, child neurology, pediatric hospitalists and residents, and the entire pediatric clinical team, children are provided with the highest level of neurosurgical care.



The tremendous depth of experience at Goryeb allows us to care for children with almost any pediatric neurosurgical need using the most advanced techniques. We routinely care for children with complex brain and spinal cord tumors, tethered spinal cords, Chiari and other congenital malformations, epilepsy, cranio-synostosis, hydrocephalus, scoliosis, vascular malformations including arteriovenous malformations (AVM), cavernous malformations and moyamoya, and spasticity.

The broad clinical experience at Goryeb is an essential component of our multidisciplinary centers. Two highlights would be the multidisciplinary epilepsy center and the spasticity center. Led by our medical director and epileptologist Rajeshwari "Raji" Mahalingam MD, the multidisciplinary epilepsy team includes child neurology and epilepsy, pediatric neurosurgery, nursing, dieticians, social work, and others. All treatment modalities are offered ranging from ketogenic diets to antiepileptic medications to surgical resections of epileptic foci. The operating room is completely modernized and equipped with the most advanced equipment for epilepsy surgery including minimally invasive stereotactic EEG placement.

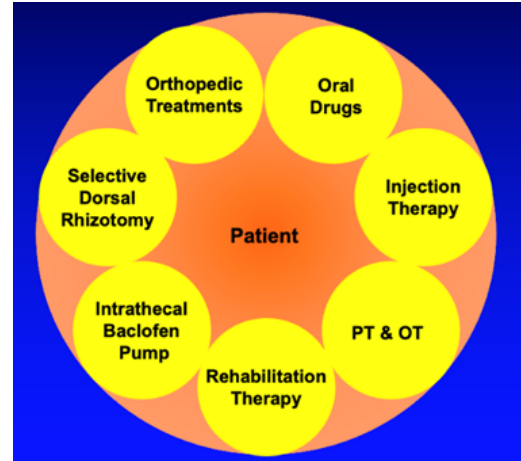


Figure 1. Treatment options for children with spasticity.

The multidisciplinary spasticity center is led by our medical director Aura Shoval MD (left, pictured with family), who specializes in pediatric physical medicine and rehabilitation (physiatry). The center brings together physiatry, pediatric neurosurgery, child neurology, orthopedic surgery, physical and occupational therapy, nursing, orthotics, and social work to provide a global evaluation and treatment recommendation for each child. The complete spectrum of treatment options are considered including physical and occupational therapies, oral medications, intramuscular injections (e.g. Botox, ethanol), intrathecal baclofen pumps, and selective dorsal rhizotomy (Figure 1). Very recently we completed the first interdisciplinary selective dorsal rhizotomy at Goryeb in a six-year-old girl with cerebral palsy and spasticity. By incorporating the physical and occupational therapy team in the operating room to manually palpate the muscles when stimulating the nerve roots during surgery, we are able to selectively lesion the most spastic nerve roots and significantly reduce spasticity permanently. Furthermore, the surgery was performed in a minimally invasive fashion through a one-and-a-half-inch incision, permitting a smaller surgery, faster recovery, and an easier transition to start rehabilitation (Figure 2).

On behalf of the entire pediatric neurosurgery team, we would like to extend a very loud shout-out to the entire pediatrics team at Goryeb for its continued support. We are very excited to continue to work together to advance the care of any patient with pediatric neurosurgical needs.

| | Standard Method | Minimally Invasive |
|----------------|-----------------|--------------------|
| Skin incision | 5-7 inches | 1-2 inches |
| Bone removed | 5-6 levels | 1 level |
| Recovery | 7 days | 2 days |
| Pain (IV) | 4-5 days | 1 day |
| Rehabilitation | Inpatient | Outpatient |

Figure 2. Comparison of outcomes between standard and minimally invasive selective dorsal rhizotomy.

14th Annual neoFORUM

By Gaines Mimms, MD

Our 14th annual neoFORUM 2023 continued the tradition as the premier regional neonatology conference. Over 250 neonatologists, nurse practitioners, nurses, respiratory therapists, residents, and students attended the two-day conference in person on June 8th-9th at Fiddler's Elbow Country Club as well as virtual participation nationally. Our guest faculty was composed of internationally recognized leaders in the field including Dr. Pankaj Agrawal (University of Miami), Dr. Keith Barrington (University of Montreal), Dr. Satyan Lakshminrusimha (University of California Davis), Dr. Camilia Martin (Cornell University), and Dr. DeWayne Pursley (Harvard University). Contemporary and controversial topics in the care of critically ill infants were presented with active audience participation, including the impact of hypoxia-hyperoxia in the NICU and delivery room, enteral and parenteral nutritional challenges, and the clinical and ethical implications of the new frontier in genetic testing. Dr. Pursley discussed critical issues of racial disparity which impact health equity in the NICU. As a neonatologist and parent of an ELBW infant, Dr. Barrington brought insight into how we communicate and care for our NICU parents. The moderated Poster Symposium highlighted translational and clinical research initiatives from researchers throughout the region. As part of the neoFORUM tradition, MANA hosts the Medical Directors Dinner which brings together our colleagues from throughout New Jersey to share in a convivial and collaborative evening. Dr. Satyan Lakshminrusimha was the keynote speaker who addressed the well-received topic of "Economics and Neonatology." Our neoFORUM Committee which consists of Karen Gluck, Melissa Buck, John Ladino, Chris Stryker and Tom Murphy has already started planning the 15th annual neoFORUM.



Save the date!
neoFORUM
June 6 - 7, 2024

Welcome to Goryeb



Rajeshwari Mahalingam, MD, FAES is a board certified pediatric neurologist and epileptologist with 20 years of experience in this field in NJ. She did her initial training in India followed by pediatric neurology training at Weill Cornell and epilepsy/neurophysiology training at CHOP (Children's Hospital of Philadelphia). Her clinical interest in the field of epilepsy includes epilepsy diets, epilepsy surgery, developmental and epileptic encephalopathies (DEEs) and Clinical Trials.

Neonatal-Perinatal Medicine Fellowship



Goryeb Children's Hospital/Atlantic Health System, in collaboration with MANA, are excited to welcome our first Larry Skolnick Neonatal-Perinatal Medicine Fellow, Dr. Josephine (Josie) Miller. Dr. Miller graduated from Poznan University of Medical Sciences Center for Medical Education, Poland, and completed her Pediatric Residency at Jersey Shore Medical Center.

The Neonatal-Perinatal Medicine Fellowship program is funded entirely through philanthropy in honor of Dr. Larry Skolnick. Dr. Skolnick's vision and commitment led to the creation of a center of excellence, which incorporates exemplary family-centered bedside care in the NICU, clinical and translational research, and now graduate medical education.

The Neonatal-Perinatal Medicine Fellowship is a three-year program with accreditation to host up to 6 fellows.

Please take a moment to welcome Josie to the Goryeb family.



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Pediatric Emergency Medicine Fellowship

Christopher S. Amato, MD created and has been the director of the PEM fellowship since 2006. He prides the fellowship for its sense of family. Given our small group of PEM attendings and fellows, we always have a close-knit family feel. Mahsa Akhavan, MD joined Dr. Amato in 2019 as the first Associate Program Director for the PEM fellowship. They share their passions for education and mentorship of future PEM colleagues.

The program currently has a maximum of 4 fellows at one time. They may come from Pediatric or Emergency Medicine residency backgrounds. As such, the Pediatrics trained fellows complete a 3-year fellowship, while the EM trained fellows complete a 2-year track. The goal of the fellowship is to develop compassionate, confident, and professional Pediatric Emergency Medicine Physicians who value good communication and teamwork with fellow clinicians and other members of the patient care team. Graduates have gone on to pursue careers at a myriad of hospitals across the country and several have continued the tradition of training residents in PEM.

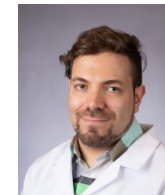


Houman Khosrozadeh, 2nd year fellow
Medical School: University of Texas medical branch SOM
Pediatric Residency: Salah Foundation Children's Hospital at Broward Health Medical Center, Fort Lauderdale, FL

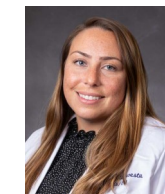
First year fellows



Shannon Kostin
Medical School: SGU
Pediatric Residency: Maimonides Children's Hospital, Brooklyn, NY



Yevgeniy Liverant ("Yev")
Medical School: NYMC
Pediatric Residency: Maria Fareri Children's Hospital at Westchester Medical Center, Valhalla, NY



Sybille Moesta ("Bille")
Medical School: SGU
Pediatric Residency: Staten Island University Hospital, Staten Island, NY

For Your Patients

Check out the [TeenHealthFX](#) website for adolescents!
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Do you have questions or content you would like to see in the next issue?
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Research Roundup

By Mary Kennedy, MSN, APRN, CPNP



Mary Kennedy, MSN, APRN, CPNP, is a Clinical Research Nurse Coordinator supporting Pediatric Gastroenterology and Atlantic Center for Research's pediatric projects at Atlantic Health System (AHS). In addition to her BSN, from Niagara University, she holds a Pediatric Nurse Practitioner Master's Degree from CUNY's Hunter-Bellevue School of Nursing with national board certification, and additional specialty certification in Care of Children with Special Needs from New York University.

We are excited to introduce Research Roundup, a new column highlighting research conducted by members of the Department of Pediatrics. In this space, we'll share news about the world-class pediatric specialty programs associated with Goryeb Children's Hospital, including ongoing research, scholarly work, and major achievements of our research teams.

Our first installment serves as a brief introduction to Goryeb's extensive research portfolio, which includes over 100 active projects impacting patients from birth to adulthood. These efforts include observational, interventional, and translational studies, as well as registries, and represent multidisciplinary as well as multi-site collaborations. These projects have earned Goryeb Children's Hospital, recognition at local, state, national and international levels.

Our research success represents our commitment to our patients and the communities that we serve and demonstrates the trust patients and their families place in our physicians and extended care teams. A large part of our success depends on our relationships with patients and their families who voluntarily participate in our research projects and clinical trials.

Our ongoing collaborative efforts with patients, families and researchers enable us to contribute to a rapidly increasing body of knowledge, translating research findings and novel interventions into evidence-based practice. These quality improvements have already and will continue to enhance the lives of children while helping them reach their full potential.

Atlantic Health System's long-standing reputation for excellence in clinical research has endured throughout historically challenging times. During the Covid-19 pandemic, we were able to both protect our patients and maintain enrollment in many existing studies, while devoting additional efforts to learning more about the effects of SARS-CoV-2 on children—including those with chronic illness.

In upcoming columns, we will highlight specific research efforts within the Pediatric Divisions. Our next issue will highlight some of the work from our Pediatric Infectious Disease Team, including findings from their recent surveillance of SARS-CoV-2 antibody prevalence in New Jersey. We hope you'll stay tuned to read more about the successes of Goryeb's Pediatric research teams.

Pediatric Day Hospital

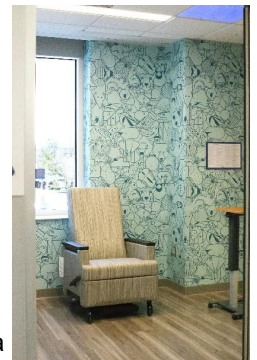
By Laura Danielsen, BSN, RN, CPEN & Amy Rothkopf, MPH, MSN, CPNP-PC

The Pediatric Day Hospital moved to the second floor of Goryeb Children's Hospital on March 20, 2023. In the new space, we have 2 state-of-the-art procedure rooms. The six prep and recovery rooms each have a window and colorful animal-themed seek-and-find wallpaper, designed to be a welcome distraction while waiting. Each room has a lighting remote so patients can choose their favorite overhead color as a personalized touch in their own space. The unit décor includes light grey floors, marble bathrooms, and soft lighting.



The Pediatric Day Hospital is used by many different departments providing a myriad of services, including, but not limited to:

- Pediatric Pulmonology (Bronchoscopy)
- Audiology (Sedated Brainstem Auditory Evoked Response testing)
- Pediatric Gastroenterology (Endoscopy and Colonoscopy)
- Pediatric General Surgery (Supprelin implants)
- Pediatric Neurology (sedated EEG lead application)
- Pediatric Physical Medicine and Rehab (Lumbar Punctures, Intrathecal Spinraza injections, Botox and Alcohol injections)
- Pediatric Rheumatology (Joint injections with U/S guidance)
- Pediatric Cardiology (sedated echocardiograms)



Laura Danielsen, BSN, RN, CPEN has been a pediatric nurse at Morristown Medical Center since 1987. She worked on the Pediatric floor before transitioning to the PICU. She joined the Pediatric Emergency Department in 2000 where she worked for 18 years. Since joining the Day Hospital team in 2018 she has become the Assistant Nurse Manager of both the Children's Day Hospital and the Pediatric Infusion Center.

Amy Rothkopf, MPH, MSN, CPNP-PC is the nurse manager for Outpatient Pediatrics, overseeing the Pediatric Day Hospital, Infusion Center, Valerie Center, and Multidisciplinary Neuroscience Center. She has been in this role for 9 months, and was previously a clinical nurse practitioner in Pediatric Heart Failure and Transplant at New York-Presbyterian Hospital. She received her nursing training from Columbia University and a Masters in Health Policy and Management from the T.H. Chan School of Public Health at Harvard University.

Telemental Healthcare: When to use, when not to use, and questions for families to ask

By Christopher Lynch, PhD



Dr. Christopher Lynch is a Clinical Psychologist and coordinator of the Pediatric Behavioral Medicine initiative at Goryeb Children's Hospital. Dr. Lynch received a doctorate in Clinical and School Psychology from Hofstra University and has worked in a range of settings both at home and abroad.

The use of remote, electronic communication tools to provide mental health care is far from new. As early as the late 1950's/early 1960's, two-way television was being piloted as a way to enhance mental health care (1). With the expansion of the internet in the 1990's, there was some growth in the use of online therapy programs and, in the 2000's, there was development in the use of mental health apps. However, it was not until the COVID-19 Pandemic, that the use of telemental health exploded. In the practice of psychology alone, virtual clinical work increased 12-fold during the pandemic with the vast majority of psychologists endorsing that they will likely continue to conduct a sizable portion of their work virtually in the post-pandemic years (2).

Although the Public Health Emergency has ended, recent changes in licensing laws and insurance regulations support the ongoing use of telemental healthcare. In addition, high rates of satisfaction with the use of telemental healthcare is noted with both professionals and patients (3). These factors, along with the high demand for mental health services will help ensure its continued use into the foreseeable future.

Despite the benefits and growth of telemental healthcare, this form of providing services does present several challenges for its use in children/adolescents. Drawing both from the literature and my own clinical experience these challenges include:

Privacy: Finding a private space to receive services can be especially difficult for children. In some cases, there may not be a private space or the child may be in an area of the house where people are periodically walking by. Wearing headphones helps but not all children like to wear headphones and sometimes headphones get lost or malfunction. I have also had occasions where, contrary to my instructions, parents have eavesdropped. Having and stating a clear policy about privacy helps but, given that the clinician is not physically present, this cannot be guaranteed.

Distraction: Some children have difficulty with sustaining attention when services are delivered via a screen. Children and adolescents spend a significant amount of time looking at screens so the virtual platform quickly loses its novelty. Additionally, kids are often seen after school when they may already be mentally drained and, thus, less able to sustain attention to a screen. The biggest distraction, however, is often the use of another electronic device during therapy sessions. This includes children staring at their phones or even trying to covertly play video games while in session (this is fairly easy to spot but often denied when called out).

Concrete, Hands-On, Activities: Younger children in particular often respond best to therapy when concrete, hands-on activities are used. This includes therapeutic game playing, drawing, use of arts and crafts, and physical practice of techniques (for example, deep breathing, progressive muscle relaxation). There are some interactive activities that can be done virtually but many children respond best with physical manipulatives.

In addition to the practical challenges noted above, there are also more systemic challenges when it comes to the use of companies who position themselves as a telemental health business. In 2022, \$4.8 Billion was invested in virtual mental health start-ups.

Questions have arisen in regard to the quality of care provided by these companies in light of their rapid growth. Concerns include the qualifications of the people offering services, caseloads and their impact on quality, and alarming prescription patterns.

The families you work with may consider the use of telemental health for their children and this may be a viable option. However, I would encourage families to consider several questions including:

- *Is my child suitable for receiving therapy virtually or would they do best with in-person services? (Do they have the attention span? Are they prone to distraction? Do they do best with hands-on activities?)*
- *Is our home set up so that my child can receive services in a private, non-distracting environment?*
- *Can the therapist also see my child in-person if we decide that the virtual option is not working or if the situation calls for an in-person visit?*
- *If using a telemental health company: Is this company reputable? Are there any documented complaints about this company? Do they specialize in working with children or do they have child/adolescent specialists?*

It looks like telemental health is here to stay. This can help address service gaps and make therapy more accessible to children and families. However, it is not for everyone and care must be taken to ensure that it is being used appropriately. With prudent decisions over its use, telemental healthcare can be another tool in helping us to address the current mental health crisis.

References:

1. Wittson, C. L., & Benschoter, R. (1972). Two-way television: helping the medical center reach out. *American Journal of Psychiatry*, 129(5), 624-627.
2. Pierce, B. S., Perrin, P. B., Tyler, C. M., McKee, G. B., & Watson, J. D. (2021). The COVID-19 telepsychology revolution: A national study of pandemic-based changes in US mental health care delivery. *American Psychologist*, 76(1), 14.
3. Brenden Drerup, Jennifer Espenschied, Joseph Wiedemer, and Lisa Hamilton. Reduced No-Show Rates and Sustained Patient Satisfaction of Telehealth During the COVID-19 Pandemic. *Telemedicine and e-Health*. Dec 2021. 1409-1415. <http://doi.org/10.1089/tmj.2021.0002>

Pediatric Family Advisory Council



We Need Your help!

We are looking for family members to provide partnership and feedback as part of the Family Advisory Council. Participants can be parents, caregivers or previous patients over the age of 13. Please refer families that may be interested in improving the patient experience at Goryeb Children's Hospital to: Kristin Holtzman Kristin.Holtzman@atlantichealth.org or 973-971-6754.