Sharing Innovations and Insights with Our Partners in Care

# PEDIATRIC ROUNDS

# Interdisciplinary cleft care \15

## Liver surgery \04

Transnasal endoscopy \06 Integrated Healing Program \08

Cardiac precision medicine \12



**UPFRONT** Insights and transparent talk from leadership

To refer a patient, call (800) 266-0366.

# Collaboration leads to innovation

Through partnership, we drive better outcomes for kids

### BY JASON A. JARZEMBOWSKI, MD, PhD



Helping kids achieve their healthiest outcomes requires the talents of everyone involved in their care. This includes community-based pediatricians and subspecialists in tertiary care settings working together to improve the lives of kids and families.

At Children's Wisconsin, we have made collaboration across the care continuum a key focus to ensure we are taking a whole-child approach to health. This includes physical, emotional, social and dental wellbeing. The Integrated Healing Program highlighted in this issue demonstrates the potential we have to impact lives when pain

specialists, psychologists and therapists team up to treat patients with holistic, evidence-based programming. Several of our highly specialized programs are featured in this publication. This level of innovation is only possible in an environment that attracts top subspecialty physician talent and encourages pushing current practice to drive better outcomes. Innovation is an integral part of our culture.

Our clinicians and scientists continue to impact pediatric practice beyond the walls of Children's Wisconsin through research. With more than 1,000 active clinical studies and nearly \$30 million in external funding, the teams at Children's Wisconsin and the Medical College of Wisconsin, our academic partner, are poised to push boundaries in ways meaningful to the lives of kids and families.

Discovery, innovation and the best care for kids are made possible through partnerships. We appreciate opportunities to collaborate with you in these pursuits. The kids and families we serve deserve nothing less.

JA Jaraenbousi, MD, PhD

Jason A. Jarzembowski, MD, PhD Chief Executive Officer, Children's Specialty Group; Medical Director, Pathology and Laboratory Medicine, Children's Wisconsin; Vice Chair and Professor, Department of Pathology, and Senior Associate Dean of Clinical Affairs, Medical College of Wisconsin



## Children's Wisconsin is proud to be a surgical quality partner of the American College of Surgeons.

Children's Wisconsin is an ACS Surgical Quality Partner by participating in select ACS Quality Programs.



## Serving our community

The new Appleton Clinic makes an impact in its first year

The new Children's Wisconsin Appleton Clinic

opened one year ago to reduce the need for patients to travel to Milwaukee for specialty appointments. The 56,000-square-foot facility in the Fox Valley houses 26 specialties, as well as:

- An onsite lab
- Onsite imaging with plain film, X-ray and ultrasound
- EEG testing
- Audiology booths with visual reinforcement audiometry (VRA) equipment
- Optometry lanes for eye testing
- A more than 3,000-square-foot therapy gym, including speech-language pathology
- The only stress testing lab in Northeastern Wisconsin that offers complete cardiac and pulmonary exercise services

Approximately 130 staff and providers support the clinic, and Children's Wisconsin continues to recruit and hire.

### **NEWS & NOTES** Information from around Children's Wisconsin

To refer a patient, call (800) 266-0366.

Children's Wisconsin Appleton Clinic staff gathered in front of the building to mark the first anniversary of its opening.



The Appleton Clinic features custom artwork by a local artist.







Cara Mack. MD



Brian Craig, MD



Raj Prasad, MD

## Pediatricians and practitioners who encounter

Liver specialists and surgeons collaborate to achieve success for kids

With flying colors

patients with suspected liver diseases can turn to the Pediatric Liver Disease and Transplant Program at Children's Wisconsin for state-of-the-art care. The staff includes four full-time pediatric transplant hepatologists, a PhD-level nurse practitioner and pediatric surgeons with significant specialization in hepatobiliary and liver transplant surgery. Together, these providers bring unique expertise in pediatric liver problems and work closely with specialists in other areas, such as genetics and oncology, to provide the best possible care for young patients.

TREATING LIVER DISEASE **IN YOUNG PATIENTS** 

Cara Mack, MD, a pediatric gastroenterologist and transplant hepatologist at Children's Wisconsin, wants regional practitioners to know that the Pediatric Liver Disease and Transplant Program provides care for all liver ailments. "We have a very robust program that encompasses the care of children with common liver diseases such as fatty liver

disease and autoimmune hepatitis, as well as rare genetic diseases of the liver that the pediatrician may see only once in their career," Dr. Mack said. "For children with fatty liver disease and other co-morbid conditions related to obesity, we provide multidisciplinary care within the Lifestyle Medicine Collaborative. Here, patients see an obesity specialist, a liver specialist, an endocrinologist and a dietitian trained in the treatment of obesity and the co-morbidities of fatty liver disease and diabetes."

The team is well-versed in the management of liver tumors and partners with oncology and pediatric surgery to provide high-quality care for each child. The liver team also cares for children with rare diseases that have an underlying genetic etiology. "We partner with our Genetics and Genomics Program to ensure state-of-the-art diagnostic workup and genetic counseling for patients and families," Dr. Mack said.

Liver disease can present in infants and children with jaundice, failure to thrive and elevated liver tests. Other symptoms in children that may point to a liver disease include:

- Right upper quadrant abdominal pain
- Tiredness and excessive sleeping
- Itching over the whole body without a rash

### SURGERY AND TRANSPLANT

Medical management of many types of liver disease is the standard of care. But for certain conditions, the surgical team has the expertise to help. Brian Craig, MD, a pediatric surgeon with a special interest in hepatobiliary surgery at Children's Wisconsin, is proud of the program's structure and outcomes. "The way we think across each of our specialties – the hepatology team, the liver transplant surgery team and pediatric surgery team - is that our various areas of expertise nest within one another," he said. "What's really exciting is that we are intentionally looking for ways to expand both the breadth and depth of surgical care that we can offer to children with less common variations of liver and biliary surgical problems." This includes use of

## **Clinical trials: Access** to new treatments

One of the benefits of working with the Pediatric Liver

Disease and Transplant Program at Children's Wisconsin is the opportunity for a patient to be included in a medical or treatment trial. Cara Mack, MD, a pediatric gastroenterologist and transplant hepatologist at Children's Wisconsin, is enthusiastic about the research that is underway. With the recent implementation of the Lifestyle Medicine Collaborative, health outcomes research on response to lifestyle changes as well as weight loss medications is now possible. Here is a glimpse at some of the other research in progress:

- Outcomes studies related to vaccination responses in transplant patients
- Discovering biomarkers of disease severity in primary sclerosing cholangitis
- Studying the effect of exercise on liver health post-Fontan cardiac surgery
- Research on the role of the immune system in bile duct injury within biliary atresia

robotic surgery and other minimally invasive procedures that improve outcomes and speed recovery.

Liver transplantation has resumed after a voluntary pause related to a staffing change. The program has welcomed Raj Prasad, MD, as surgical director of Liver Transplant to lead the team. He also appreciates the versatility of the multidisciplinary approach at Children's Wisconsin. "We are developing close links with the metabolic and genetic diseases programs, where some of these metabolic conditions could be effectively managed with liver transplantation, which stops the progression of the multisystem problems," he said. "I have come to the United States from the United Kingdom with significant experience in living donor liver transplantation in addition to transplantation from cadaveric donors, which allows us to

To learn more about the Pediatric Liver Disease and Transplant Program at Children's Wisconsin, visit childrenswi.org/ liverdisease.

PAGE 4 PEDIATRIC ROUNDS VOL.23\ISS.1

### **NEWS & NOTES** Information from around Children's Wisconsin

To refer a patient, call (800) 266-0366.

# Our transplant team

From 2013, Children's Wisconsin has transplanted 62 patients. Only two patients experienced graft failures due to primary graft dysfunction.

Patient survival rates from 2013 to date are 100 percent, and five-year post-transplant survivals are 99 percent.

accept organs from bigger donors, split the liver and transplant the small part in the child." This can speed up the match-totransplant timeline.

"Everything revolves around what a particular child and the family need," said Dr. Prasad. "We change and adapt to their needs and their requirements. I don't look at the transplant as a number - it's about building relationships and taking responsibility for their care and seeing them through not just the transplantation episode, but beyond that, so they have a good quality of life and go on to live as near normal a life as possible."

## A better way to scope?

Transnasal endoscopy is used to diagnose esophageal disorders in children

### Transnasal endoscopy (TNE) uses a very

thin, flexible scope to examine the esophagus, stomach and small intestine. While it has many possible uses, one of its primary functions at Children's Wisconsin is the diagnosis and surveillance of eosinophilic esophagitis in children. This chronic disease of the immune system causes damage to the esophagus, which can lead to food impaction, dysphagia, vomiting, choking and abdominal pain.

One of the primary advantages of TNE is that it requires no general anesthesia or deep sedation. It is performed with only a mild topical numbing agent. Forgoing general anesthesia makes the procedure safer and

faster than a sedated endoscopy and results in quicker recovery time.

### **BENEFITS OF TNE**

For many children, TNE is an overall easier experience than standard pediatric endoscopy.

"The food/drink restriction period prior to the procedure is two to four hours for TNE, compared to eight hours for a sedated endoscopy, which is much nicer for kids," said Rose Lee, MD, a pediatric gastroenterologist at Children's Wisconsin and assistant professor of Pediatric Gastroenterology at the Medical College of Wisconsin. "We just scoped a kid with Type 1 diabetes, and she had to drink some apple juice for her low sugar right before the procedure. We were able to scope her without any delay, but if it had been a sedated endoscopy, she wouldn't be able to drink the apple juice at that time."



In addition, the average procedure time for TNE is five to seven minutes, compared to 25 minutes for a sedated endoscopy. This improved efficiency gave Children's Wisconsin a chance to see 17 percent more eosinophilic esophagitis patients in 2023 than in 2022.

# scoping.

### **GOOD CANDIDATES FOR TNE**

TNE is no less accurate than a sedated endoscopy, but it is not without limits. The patient must be old enough and calm enough to tolerate the scope while remaining still. Consequently, a sedated endoscopy may be preferable for younger children (age <5) or those with special needs or severe anxiety.

Children's Wisconsin has offered TNE since the summer of 2022, and the Gastroenterology team keeps improving the experience based on patient feedback. For example, they now use Afrin to clear out the nasal passages before scoping since a lot of kids being seen for esophageal issues have seasonal allergies. Patient feedback has been positive, especially from kids who need multiple scopes over time.

### USE MAY EXPAND

While Dr. Lee's team uses TNE primarily for eosinophilic esophagitis and esophageal disorders, she sees other possible uses as the technique and technology develop. "Once we can get down to the duodenum and perform a full endoscopy, TNE can be used for anybody who needs upper endoscopy. If parents want to avoid general anesthesia – because general anesthesia comes with possible side effects and longer recovery time – TNE is a great option for them," she said.

Learn more about the Program at

Transnasal endoscopy can be an effective alternative to sedated endoscopy in kids as well as adults.

PAGE 6 PEDIATRIC ROUNDS VOL.23\ISS.1

GETTY IMAGES

CALSTOCK

The Gastroenterology team at Children's Wisconsin now uses nasal spray to prepare the nasal passage before

Gastroenterology, Liver and Nutrition childrenswi.org/gi.

### **NEWS & NOTES** Information from around Children's Wisconsin

To refer a patient, call (800) 266-0366.



# A valuable partnership

## Children's Wisconsin is proud to be a founding partner of the Wisconsin Institute of NeuroScience (WINS). Through this partnership, patients in our Neurosciences Center benefit from the combined expertise, resources and clinical experience of four regional health science partners: Children's Wisconsin, the Froedtert & the Medical College of Wisconsin health network, the Medical College of Wisconsin and the Clement J. Zablocki VA Medical Center. The goal of WINS is to advance neurosciences through world-class clinical care, unique clinical trials. groundbreaking research and innovative education.



Scan the QR code to learn more about WINS.



Ella Yee, pictured on her 17th birthday, benefited from the unique multidisciplinary approach in the Integrated Healing Program.

# Partnership for pain treatment

The Integrated Healing Program helps teens with chronic pain

### The Integrated Healing Program at Children's

Wisconsin will be three years old in May. This innovative collaboration with Rogers Behavioral Health helps teens ages 13–18 overcome chronic pain and the anxiety and depression that teens with chronic pain often experience.

The Children's Wisconsin team brings expertise in pain management and health psychology, while the Rogers team specializes in cognitive behavioral therapy and dialectical behavior therapy to treat chronic pain and the accompanying anxiety and/or depression. The fact that the Integrated Healing Program is based at a behavioral health center like Rogers and focuses so much on mental and behavioral health makes it unique in the national landscape.

"Our program focuses more on trying to prepare the kids to be psychologically and behaviorally empowered and sound because we believe that is a critical part of their long-term benefit and recovery," said Steven Weisman, MD, medical director of the Jane B. Pettit Pain and Headache Center at Children's Wisconsin.

### UNIQUE APPROACH

The Integrated Healing Program addresses a challenging subset of patients. "We know from years of experience that we have a group of kids who need more intensive programming and treatment than we can provide in our multidisciplinary, outpatient chronic pain program," said Dr. Weisman.

The program employs an intensive multidisciplinary approach to help kids rewire pain pathways and break the vicious pain cycle. For four to six weeks, teens attend an outpatient program from 8 a.m.-4 p.m. every weekday. The program includes individual and group physical therapy, individual and group counseling, and psychology sessions.

Kimberly Anderson Khan, PsyD, is a Children's Wisconsin psychologist who works with the Integrated Healing Program. "Pain is a sensory experience and involves both the physical and the emotional experience of pain," she said. In addition to leading health psychology sessions to help teens understand the factors that can influence pain, she leads group sessions for parents.

Since the program launched in May 2021, more than 100 teens have participated with impressive results: More than 90 percent report overall improvement after the program. Participants report significant improvements in their physical functioning and return to age-appropriate activities, quality of life and emotional well-being, as well as being less worried about their pain and how it will affect them.

This is the only program of its kind in Wisconsin and one of just a few such programs across the country. While the Integrated Healing Program mostly draws patients from Wisconsin and nearby states, the program has received inquiries from families as far away as New York, Georgia and California.

### ELLA'S STORY

Over the past three years, there have been a number of success stories, such as Ella Yee, whose journey with chronic pain started in the sixth grade with frequent headaches, stomachaches and vomiting. Eventually, she was diagnosed with migraines, irritable bowel syndrome and postural orthostatic tachycardia syndrome (POTS). During her sophomore year of high school, Ella missed 20 days of school and withdrew from sports and social activities, spending much of her time isolated in her room.

Within two weeks of starting the program, Ella noticed improvements in her motivation, mood, functioning and energy levels. After completing the program, Ella returned to high school and her extracurricular activities with a new set of tools to handle symptom flare-ups.

### HELPING MORE KIDS LIKE ELLA

The Integrated Healing Program has been such a success that Dr. Weisman and Dr. Khan hope to grow its impact. The program recently increased capacity and expanded to serve patients with functional neurological disorders, such as gait problems that don't have a known medical cause. The program may eventually add a separate track for younger kids and/or other complex medical and behavioral conditions.

Learn more about the Integrated Healing Program at **childrenswi.org/IHP**.



Kimberly Anderson Khan, PsyD



Steven Weisman, MD

### **NEWS & NOTES** Information from around Children's Wisconsin

To refer a patient, call (800) 266-0366.

# New Kenosha Mental Health Walk-In Clinic

Same-day resource for kids and teens

### Children's Wisconsin opened the

Kenosha Mental Health Walk-In Clinic in February. This is our second mental health walk-in clinic to offer same-day care for children and teens (ages 5-18) experiencing urgent mental health issues.

Our first such clinic, the Craig Yabuki Mental Health Walk-In Clinic, is on the Milwaukee Campus. Now, with two locations, Children's Wisconsin offers more kids an alternative to traditional urgent care

Location: Kenosha Clinic 6809 122nd Ave. Kenosha, WI 53142 Office hours: Tuesday-Friday, 1-6:30 p.m. CT

and emergency room services when they have an immediate mental health need. Whether a child is experiencing depression, feels intimidated by bullies or is panicking about a test, the family can walk in for care without a referral or appointment.

Learn more or reserve a same-day appointment at childrenswi.org/ mentalhealthwalkin.



An innovative approach made chest wall surgery less painful for Jeb Koops, pictured before (inset) and after (right) the procedure.

## A better recovery from chest wall surgery

Cryoanalgesia freezes pain at the source

### Jeb Koops, an active 16-year-old, was

born with pectus excavatum, a congenital chest wall condition where the sternum grows inward, causing a visible indentation in the chest. This condition can compress the heart and lungs. Because Jeb also has cystic fibrosis (CF), doctors suggested at a young age that Jeb might eventually want corrective surgery to expand his lung space.

As Jeb grew, his breastbone continued to curve inward. When he turned 14, Jeb had surgery at Children's Wisconsin.

At Children's Wisconsin, pectus excavatum is treated with the Nuss procedure, a minimally invasive surgery that implants a curved metal bar to lift the sternum and reshape the chest. The bar is removed a few years later, and patients are left with small scars on the sides of their chest. Compared to open surgical options,

the Nuss procedure has shorter operating time, less blood loss and smaller, less visible incisions. Children's Wisconsin was one of the first pediatric centers to adopt the Nuss procedure and has a long history of successful outcomes.

However, even with this minimally invasive technique, persistent dull bony pain generally lasts about a month after chest wall surgery, which can be difficult for patients to endure. That is why John Densmore, MD, a pediatric surgeon who leads the congenital chest wall program, is incorporating a powerful new tool: cryoanalgesia.

### **CRYOANALGESIA AND POSTOPERATIVE PAIN**

Cryoanalgesia, also known as cryoablation, uses extreme cold to freeze nerves with a small, camera-guided probe that reaches -60 degrees Celsius.

"We are temporarily freezing nerves, which then have to regrow," Dr. Densmore said. "Fortunately, it takes six weeks for them to reconnect, and we're using that six weeks of dulling the nerves to our advantage."

During surgery, before performing the Nuss procedure, Dr. Densmore and his team freeze the third to the seventh intercostal nerve on each side. They also block the nerves with EXPAREL®, a long-acting local anesthetic.

"So, we have an immediate block from two different modalities. It's sort of a belt and suspenders approach," he said. While this technique doubles a patient's time in the operating room - the surgery now takes four hours - it drastically reduces their recovery time.

Before cryoanalgesia, kids often endured postoperative pain for a month or more. Now kids might have aches as their nerves start to regrow, but it's manageable with over-the-counter pain relievers.

Jeb reported feeling some muscle soreness after his surgery but no pain. During his recovery at home, he never needed the opioid pain medication he was prescribed.

## **STARTING A** CONVERSATION

More than 40 patients at Children's Wisconsin have had the Nuss procedure with cryoanalgesia in the last two years. Intraoperative cryoanalgesia has become standard, resulting in an



Dr. Densmore encourages providers who identify a child with pectus excavatum to refer them to the Children's Wisconsin chest wall program. Not every case of pectus excavatum requires surgery, but now that recovery has improved, it should not be a barrier to surgery for those who would benefit from it.

"We're not here to operate on every kid in front of us - we're here to educate them about options," Dr. Densmore said. "I'll see children at age 2, and I'll say, let's see each other every two, three, four or five years whatever the comfort level is. The more time that we can have with a family to set expectations, the easier and better it's going to be for them. We've laid groundwork that will give the family and the kid a structure to have a conversation about it at the right time."

For many kids with pectus excavatum, which is more common in boys, the early teenage years are a good time for corrective surgery – before the child reaches skeletal maturity.

Many patients, including Jeb, report that breathing feels easier after their chest wall is raised. It also lifts their confidence. After his surgery, Jeb quickly resumed life as a high school sophomore: hanging out with friends, playing video games and attending school basketball games. Next year, he plans to return to the football field, where he plays wide receiver.

the Children's



John Densmore, MD (right), favors minimally invasive surgical approaches and a multimodal strategy to address postoperative pain.

Learn more about Wisconsin chest wall program at childrenswi.org/ chestwallprogram.

### **NEWS & NOTES** Information from around Children's Wisconsin

To refer a patient, call (800) 266-0366.



## **Highlighting** excellence in surgical care

### The 2023 Diagnostic,

Anesthesia and Surgical Health Annual Report highlights the expertise and innovation taking place at Children's Wisconsin in these surgical specialties:

- Cardiothoracic surgery
- Dental intervention
- General and thoracic surgery
- Neurosurgery
- Ophthalmology
- Otolaryngology
- Plastic surgery
- Transplant surgery
- Urology



Scan the QR code to read the 2023 Diagnostic, Anesthesia and Surgical **Health Annual** Report.



Jov Lincoln. PhD. analvzes samples in the lab.

## Innovations in cardiac precision medicine

A targeted approach means brighter futures for kids with congenital heart disease

### Precision medicine has been gaining wider

adoption for its potential to deliver medical care that is optimized for each person. This level of personalization requires a multidisciplinary approach that considers a patient's genetics, environment, health history and lifestyle.

Cardiac precision medicine at the Herma Heart Institute (HHI) at Children's Wisconsin applies these concepts to improve the prevention, diagnosis and treatment of congenital heart disease (CHD) in babies, teens and adults. It is anchored by an invested team of medical professionals and researchers, including cardiologists, physician assistants, anesthesiologists, surgeons and techs. They all work in concert with patient

families to determine the best course of action for a patient.

This team approach has facilitated some recent breakthroughs in cardiac precision medicine.

### **BREAKTHROUGH 1: HYPOPLASTIC** LEFT HEART SYNDROME

A research team including Aoy Tomita-Mitchell, PhD, and Michael E. Mitchell, MD, has been studying how variants in the a-myosin heavy chain (MYH6) gene are implicated in hypoplastic left heart syndrome (HLHS) and other CHDs.

"We have a hardworking team focusing on this because it is a very important problem, and this genetic defect seems to be causative of HLHS in more than 10 percent of cases," said Dr. Mitchell, surgical director of the HHI. "This is a discovery that came from our institution: MYH6 variants are responsible for more cases of HLHS than any other known genetic disorder. In addition, they are associated with significantly worse clinical outcomes. We've come to understand more about the mechanism of the variant and how we can



at birth

use medications that are targeted to treat heart failure in patients with this variant."

This knowledge has led to personalized treatment plans that will help many patients with HLHS live into adulthood instead of passing in infancy.

### **BREAKTHROUGH 2: CORD BLOOD PROGRAM**

Collecting umbilical material (cord blood and tissue) can be extremely valuable because it can be used in two different ways: research and potential therapy.

"Contained in cord blood are stem cells," said Dr. Mitchell. "And what we hope to achieve from drawing cord blood is to generate different cell types, including those that make up the heart. We hope to then create biomaterials from the patient's own cells that can be used for surgical repair of patients with CHD."

Identifying pregnancies involving a fetus with HLHS or other CHDs and getting the families to sign up for the Cord Blood Program allows for the collection of cord blood at the time of delivery.

"There are many situations where you see cord blood thrown away because people



## Celebrating 50+ years of lifesaving heart care

reflects on a legacy of advancing comprehensive cardiac care. The Herma Heart Institute has made great strides in cardiac precision medicine, adult congenital heart disease (ACHD), pregnancy care, heart transplant, heart failure long-term success and clinical care management, all of which are highlighted in the report.

and Research Annual Report.

PAGE 12 PEDIATRIC ROUNDS VOL.23\ISS.1

### **NEWS & NOTES** Information from around Children's Wisconsin

To refer a patient, call (800) 266-0366.

Collection kits are used to procure umbilical material

aren't aware of the difference it can make or aren't informed about an opportunity they might have to save it," said Joy Lincoln, PhD, director of cardiovascular research at the HHI. "In our case, we have partnered and collaborated with the largest national stem cell banking company, the Cord Blood Registry. They have a clinical-grade storage facility, so after families join our program, we can store their samples at no cost in preparation for clinical application." The Cord Blood Program was started in 2020, and in 2022, it collected 58 samples from patients' umbilical-derived cord tissue and cord blood. From the samples, Dr. Lincoln and her team have been isolating stem cell populations and using them in the lab to better understand the cause of CHD. "The goal is to use patients' own cells extracted from umbilical material to develop surgical material," said Dr. Lincoln. "We can use those cells to develop a tissue that will be implanted back into the child at the time of their surgical intervention. If they ever need corrective surgery, we have the potential to differentiate the stem cells derived from the umbilical material into necessary cardiac cells."

Learn more about the Herma Heart Institute's groundbreaking work at childrenswi. org/heart.

### The Herma Heart Institute 2023 Quality, Outcomes and Research Annual Report



Scan the QR code to read the Herma Heart Institute 2023 Quality, Outcomes



Relocating the ED entrance to the front of the hospital has improved visibility and allows for quick, easy and seamless access to emergency care.

## Great emergency care

Easier access and expanded space and services at the new EDTC

### In October 2023, the Emergency Department

and Level I Trauma Center (EDTC) moved to the Skywalk Building near the front of the Children's Wisconsin Milwaukee Hospital. The new EDTC is easier to access and has expanded space and services that benefit providers, staff, patients and families.

"Our providers are excited to use their skills in a space specifically designed for our needs," said Jean Pearce, MD, a pediatric emergency medicine physician at Children's Wisconsin and assistant professor of Pediatric Emergency Medicine at the Medical College of Wisconsin.

### EXPANDED SPACE

Children's Wisconsin cares for more injured kids than any other hospital in the state. "We see approximately 75,000 patients yearly in the ED and continue to have record numbers since opening the new EDTC, so this was a much-needed expansion," said Dr. Pearce.

The new EDTC has 50 treatment rooms, including four rooms designated for care initiation. "This is a novel care model that

allows us to have a dedicated nurse and provider who rapidly see certain patients in these rooms and initiate care," said Dr. Pearce. "That care initiation can range from ordering an X-ray for an injured patient to starting a breathing treatment for a patient with wheezing before moving them to a treatment room or prescribing an antibiotic and guickly discharging a patient with an ear infection. These specialized rooms allow us to expedite care for our patients."

### THE HIGHEST LEVEL OF CARE

At the Children's Wisconsin EDTC, patients have immediate access to pediatric experts in more than 70 specialties. Our team works together to ensure that each child receives the right care for their physical, emotional and developmental needs:

- Board-certified pediatric physicians have additional training in pediatrics and pediatric emergency medicine.
- Child life specialists ease anxiety during exams and procedures such as stitches.
- Nurses have specialized experience caring for kids in emergency situations.
- Lab and X-ray specialists ensure families get answers quickly while minimizing radiation and avoiding unnecessary tests.

Dedicated space for X-ray, ultrasound and CT imaging is a key feature of the new EDTC. "As a pediatric level 1 trauma center, we need to quickly identify and treat a multitude of injuries in children," said Dr. Pearce. "Having these modalities within our department helps to expedite care in emergent situations where every minute counts."

The American College of Surgeons only grants the Level I designation to hospitals that provide the highest quality of care and meet certain criteria.

Children's Wisconsin also has a surgeon on call 24/7 to consult with providers at other hospitals.

"We are lucky to have some of the most dedicated and hard-working providers and staff in the country working in our ED." said Dr. Pearce



## Improving interdisciplinary cleft care

Bringing together specialties and resources to support children in Wisconsin and beyond

### **BY SAMEER SHAKIR, MD**



Sameer Shakir, MD, is a plastic surgeon at Children's Wisconsin and an assistant professor of Plastic Surgery at the Medical College of Wisconsin.

Dr. Harkins' and Dr. Koepp-Baker's conference foreshadowed the importance of an interdisciplinary approach to cleft care. Indeed, the efficient delivery of health care today continues to emphasize teamwork involving multiple disciplines. While the concept of multidisciplinarity draws on siloed knowledge from various disciplines, interdisciplinarity synthesizes and harmonizes links between disciplines into a coordinated, coherent whole.<sup>1</sup>

The Emergency

Level I Trauma

Center (EDTC)

is located in the

**Skywalk Building** 

on the Children's

8915 W. Connell Ct.

Wisconsin

Milwaukee

Campus at

Department and

### **INNOVATIONS** Case studies and research for better care

To refer a patient, call (800) 266-0366.

### In the early 1940s, a dentist named Cloyd Harkins, DDS,

partnered with a speech pathologist named Herbert Koepp-Baker, PhD, to offer the first workshop on the nonsurgical management of cleft lip and palate. The course ultimately led to the development of a leading, present-day educational organization known as the American Cleft Palate-Craniofacial Association (ACPA).

### **INNOVATIONS**



This 7-month-old male was born with an incomplete unilateral cleft lip and underwent lip repair during infancy. He is shown one month following surgery with Sameer Shakir, MD.

### **TEAM APPROACH**

In 1982, U.S. Surgeon General C. Everett Koop, MD, pledged a national commitment to improve access to care and the quality of life for all children with special health care needs. The specific project grant, titled "Development of Standards for Health Care of Infants, Children, and Adolescents with Craniofacial Anomalies," was awarded to the ACPA and helped to formally establish the core principles of interdisciplinary care and team standards in the early 1990s - nearly 50 years after Dr. Harkins' and Dr. Koepp-Baker's cleft workshop. The ACPA membership today includes specialists from more than 20 distinct fields, representing a realized interdisciplinary effort to care for children with orofacial clefting.<sup>2</sup>

At a minimum, the composition of a cleft team must include a surgeon, orthodontist, speech pathologist and coordinator. Existing literature highlights the importance of a team approach, as recommended care tends to be received more often among those patients enrolled in a team.<sup>3</sup>

## **Key points**

- Cleft lip and/or palate represents the most common congenital anomality affecting the head and neck, with an incidence of 1 in 1,000 live births in the United States.<sup>8</sup>
- Interdisciplinary care is critical in the comprehensive management of patients with orofacial clefting.
- The hybrid "medical home" approach offers streamlined and coordinated care while minimizing duplicate services and reducing the burden of care on patients and their families.
- A holistic team approach to cleft care best addresses the needs of the patient and family.
- Longitudinal follow-up through skeletal maturity allows for evaluation of outcome measures to improve evidence-based recommendations.

### **DELIVERING IMPACTFUL CARE**

As one of three ACPA-approved teams in the state, the Cleft Lip and Palate (CLP) team at Children's Wisconsin offers a uniquely comprehensive patient- and family-centered focus that includes team members from multiple additional disciplines to ensure an interdisciplinary focus (Table 1, page 18). The team aims to provide care spanning from birth to adulthood to address the developmental, surgical, dental, speech, hearing and psychosocial needs of patients with orofacial clefting (Table 2, page 19).

Each year, the CLP team treats 40 to 70 new patients born with cleft lip and/or palate and evaluates about 400 to 500 patients. Patients are scheduled on a weekly basis and discussed in an in-person interdisciplinary format highlighting the ability to offer impactful care that is greater than the sum of its individual providers.

The CLP team at Children's Wisconsin offers child psychological services embedded within the program through



months following lip repair (postop photo).



Esti was born with a unilateral incomplete cleft lip and palate with a Simonart's band (preop photo). She underwent lip and palate repairs during infancy and is shown approximately one year following lip repair (postop photo).

LJ was born with a unilateral incomplete cleft lip and underwent repair during infancy (preop photo). He is shown eight

### **INNOVATIONS**

# TABLE 1. Theinterdisciplinarycleft teamcompositionat Children'sWisconsin

Audiology Genetics

Nursing

Orthodontics\*

Otolaryngology

Dentistry

Plastic/Craniofacial Surgery

Psychology\*

Social Work

Speech Language Pathology

\*REPRESENT THE STATE'S ONLY INSTITUTION-BASED, ACPA-AFFILIATED PROVIDERS the sole ACPA-affiliated psychologist in the state. Moreover, Children's Wisconsin recently added the state's only full-time orthodontist with specialized fellowship training in cleft and craniofacial pathology in 2022. Despite a recent study highlighting a positive correlation with the presence of a full-time craniofacial orthodontist and the offering of advanced services such as nasoalveolar molding (NAM)/presurgical infant orthopedics (PSIO), only a minority of cleft teams nationally (<23 percent) offer this level of care.<sup>4</sup>

The cleft and craniofacial orthodontic service at Children's Wisconsin will soon offer a nonsurgical alternative to improving the airway in patients with severe Robin Sequence, who historically have required invasive treatments, including tongue-lip adhesion, mandibular distraction and tracheostomy. Known as the orthodontic airway plate (OAP), this treatment modality is sparingly offered in the United States based on the prerequisite orthodontic expertise.<sup>5</sup>

Collectively, these resources ensure streamlined, contemporary cleft care



The Milwaukee Medical Mission has sent volunteers from the Greater Southeastern Wisconsin area to provide surgical care to underserved areas of Latin America since 1986. For more than 38 years, plastic surgeons from Children's Wisconsin have provided comprehensive cleft/craniofacial, general reconstructive and hand surgery care. Pictured from left to right: Robert Havlik, MD (plastic surgeon and past president of the ACPA); Sarah Sasor, MD (plastic surgeon); and Sameer Shakir, MD (plastic surgeon), at the end of a rewarding day in Bucaramanga, Colombia, in February 2024.



Mixed bilateral cleft lip and palate can be among the most challenging presentations of orofacial clefting (preop photo). This patient underwent nasoalveolar molding under the direction of Children's Wisconsin craniofacial orthodontist Cleo Yi, DMD, prior to cleft lip repair at 6 months of age (NAM photo). He is shown five months postoperatively with improved nasolabial symmetry (postop photo).

### TABLE 2. Recommended timeline for cleft care\*

Prenatal-birth	Family education
	Genetics evaluation
	Nutrition and feeding
	Hearing assessment
0-9 months	Nutrition and feeding
	Oral hygiene
	Presurgical infant orthopedics (PSIO)
	Cleft lip/nose repair (3-6 months)
6 months-3 years	Oral hygiene
	Dental care
	Speech and language development
	Hearing and ENT services
	Cleft palate repair (9-18 months)
3-5 years	Speech/resonance and velopharyngea
	VPD surgery
	Speech therapy
	Palatal fistula management
6-12 years	Orthodontic palatal expansion
	Orthodontic care (Phase I)
	Alveolar bone graft
15-20 years	Orthodontic care (Phase II)
	Orthognathic surgery (15-19 years)
	Speech/resonance assessment
	Lip/nose revision
Ongoing	Psychosocial support
	Oral hygiene and dental care
	Regular cleft team visits

\*ADAPTED FROM SMILETRAIN'S COMPREHENSIVE CLEFT CARE RECOMMENDED TIMELINE

that holistically assess an individual's psychological and medical needs, the effects of middle-ear disease on hearing, surgical outcomes and resultant appearance and facial growth, speech development, dentistry and orthodontics.<sup>6</sup>

### LOOKING AHEAD

In his seminal three-volume text "Cleft Craft," published in 1976, D. Ralph Millard Jr., MD, challenged plastic surgeons to "look into the puzzle of a cleft beyond surgical stage, growth, heredity and time to a specific ideal normal end result."<sup>7</sup> He stated, "By sorting out and fitting together A portion of the Children's Wisconsin interdisciplinary cleft team is pictured at the 2024 annual meeting of the American Cleft Palate Association. The team was awarded the prestigious Junior Investigator Award for their novel translational work regarding alternative alveolar bone grafting strategies in collaboration with the Tissue Regenerative Engineering Laboratory at the Medical College of Wisconsin/ Marquette University. Pictured from left to right: Austin Stellpflug, PhD (biomedical engineering postdoctoral researcher); Sameer Shakir, MD (plastic surgeon); Cleo Yi, DMD (craniofacial orthodontist); Oksana Jackson, MD (president-elect of the ACPA); Tracy Piette, MS, CCC-SLP (speech-language pathologist); and Patricia Marik, PsyD (psychologist).

PAGE 18 PEDIATRIC ROUNDS VOL.23\ISS.1 al dysfunction (VPD) assessments



### **INNOVATIONS**



Tucker initially presented with a bilateral complete cleft lip and palate (preop photo). He underwent nasoalveolar molding under the direction of craniofacial orthodontist Pam Hanson, DDS, MS. The aesthetic outcomes following cleft lip repair often can be enhanced by the time-intensive molding process when performed by experienced providers (NAM photo). Shown four months postoperatively, he demonstrates a well-balanced lip and nose repair (postop photo).

> the missing pieces of the puzzle, the final picture is complete, normal and happy in function and appearance."

While the puzzle pieces representing operative techniques and surgical advances in cleft care remain well assembled, the continued evolution of the interdisciplinary team will undoubtedly help to decipher the remaining puzzle pieces for children with orofacial clefting in Wisconsin and beyond.

### REFERENCES

- 1. Choi BC, Pak AW. Multidisciplinarity, interdisciplinarity and transdisciplinarity in health research, services, education and policy: 1. Definitions, objectives, and evidence of effectiveness. Clin Invest Med. Dec 2006;29(6):351-64.
- 2. Parameters for Evaluation and Treatment of Patients With Cleft Lip/Palate or Other Craniofacial Anomalies. American Cleft Palate Association. 2023. https://acpacares.org/standards-of-approval-for-team-care

3. Austin AA, Druschel CM, Tyler MC, et al. Interdisciplinary craniofacial teams compared with individual providers: is orofacial cleft care more comprehensive and do parents perceive better outcomes? Cleft Palate Craniofac J. Jan 2010;47(1):1-8. doi:10.1597/08-250.1

- 4. Khavanin N, Jenny H, Jodeh DS, Scott MA, Rottgers SA, Steinberg JP. Cleft and Craniofacial Team Orthodontic Care in the United States: A Survey of the ACPA. Cleft Palate Craniofac J. Aug 2019;56(7):860-866. doi:10.1177/1055665618822235
- 5. Choo H, Kim SH, Ahn HW, Poets CF, Chung KR. Split orthodontic airway plate: An innovation to the utilization method of conventional orthodontic airway plate for neonates with Robin sequence. Korean J Orthod. Jul 25 2022;52(4):308-312. doi:10.4041/kjod21.238 6. Cohen MA. Fundamentals of Team Care. In: Losee J KR, ed. Comprehensive Cleft Care. McGraw Hill; 2008:chap 1.
- 7. Millard Jr. DR. Cleft Craft; The Evolution of Its Surgery. Little, Brown, & Co.; 1976.
- 8. Mai CT, Isenburg JL, Canfield MA, et al. National population-based estimates for major birth defects, 2010-2014. Birth Defects Res. Nov 1 2019:111(18):1420-1435. doi:10.1002/bdr2.1589

### PAGE 20 PEDIATRIC ROUNDS VOL.23\ISS.1

## **Continuing medical education**

**Midwest Pediatric Cardiology Society Annual Meeting** SEPT. 12-13, 2024 childrenswi.org/mwpcs

**10th Annual Pediatric Cancer** Symposium OCT. 21, 2024

childrenswi.org/cancer

### **Pediatric, Adolescent & Young Adult Survivorship Conference** NOV. 1, 2024 childrenswi.org/AYAsurvivorship

### **SMART Series**

NOV. 20. 2024 childrenswi.org/SMART

## **5th Annual Advanced Practice Provider Virtual Conference** JAN. 24, 2025 childrenswi.org/cme

MAY 14-16, 2025



**LEARN & DISCOVER** Medical education and research opportunities

To refer a patient, call (800) 266-0366.

### **Best Practices in Pediatrics** Conference MARCH 7-8, 2025 childrenswi.org/cme

## Weinstein Cardiovascular **Development and Regeneration Conference**

childrenswi.org/weinstein



Register for upcoming events and find recorded events at childrenswi.org/cme.

**Questions? Email** mdconnect@childrenswi.org

### NEW ON STAFF

### Anesthesiology



Rachel Cambray, MD, is a pediatric anesthesiologist at Children's Wisconsin and assistant professor of Pediatric Anesthesiology at the Medical College of Wisconsin. Muniversity of

Wisconsin, MD Dniversity of Wisconsin Anesthesiology 😣 Monroe Carell Jr. Children's Hospital at Vanderbilt, Pediatric Anesthesiology R Anesthesiology, Pediatric Anesthesiology

### **Critical Care**



Lauren Burgunder, MD, is a pediatric critical care physician at Children's Wisconsin and assistant professor of Critical Care at the Medical College of Wisconsin. 🐼 Marshall University School of Medicine, MD 👝 Johns Hopkins Hospital Bloomberg Children's Center 😣 University of Utah Medical Center, Pediatric Critical Care Pediatrics

### Anesthesiology



Megan Jablonski, MD. is a pediatric anesthesiologist at Children's Wisconsin and assistant professor of Pediatric Anesthesiology at the Medical College of Wisconsin. Medical College of Wisconsin, MD

Boston Children's

Brigham and

Hospital. Pediatrics:

Wisconsin, Pediatric

Women's Hospital,

Anesthesiology

😣 Medical College of

Anesthesiology

**Critical Care** 

Daniel Chilcote, MD

is a pediatric critical

Children's Wisconsin

of Critical Care at the

Baylor College of

Medicine, MD

Baylor College of

😣 The Children's

Hospital of

Pediatrics

Philadelphia,

Pediatric Care

Medicine, Pediatrics

Medical College of

Wisconsin.

and assistant professor

care physician at



is a pediatric anesthesiologist at Children's Wisconsin and assistant professor of Pediatric Anesthesiology at the Medical College of Wisconsin

Anesthesiology

🐼 Edward Via College of Osteopathic Medicine, DO 🕒 Medical College of Wisconsin 🙁 Cincinnati Children's Hospital Medical Center

R Anesthesiology, Pediatric Anesthesiology

**Critical Care** 

Kayla Duvall, MD, is

Children's Wisconsin

and assistant professor

University School of

University School of

Medicine, Pediatrics

Chicago Children's

Hospital, Pediatric

of Critical Care at the

Medical College of

🐼 West Virginia

🕒 West Virginia

😣 University of

Pediatrics

Critical Care

Medicine, MD

Wisconsin.

a pediatric critical

care physician at





Rushi Patel, MD is a pediatric anesthesiologist at Children's Wisconsin and assistant professor of Pediatric Anesthesiology at the Medical College of Wisconsin

🐼 Chicago Medical School at Rosalind Franklin University, MD

👝 Medical College of Wisconsin, Anesthesiology

😣 Medical College of Wisconsin, Pediatric Anesthesiology Ŗ Anesthesiology

**Critical Care** 

Daniel Hassumani, MD, is a pediatric critical care physician at Children's Wisconsin and assistant professor of Critical Care at the Medical College of Wisconsin.

🔗 St. George's University School of Medicine (Grenada), MD



Anesthesiology



Adam Striker, MD. is a pediatric anesthesiologist at Children's Wisconsin and assistant professor of Pediatric Anesthesiology at the Medical College of Wisconsin 🔗 Indiana University

School of Medicine, MD 😑 Indiana University School of Medicine 😣 Northwestern

University School of Medicine R Anesthesiology, Pediatric

Anesthesiology



Diane Peng, MD, is a pediatric critical care physician at Children's Wisconsir and assistant professor of Critical Care at the Medical College of Wisconsin. 🔗 George Washington

University School of Medicine, MD University of Michigan C.S. Mott Children's Hospital, Pediatrics

😣 University of Colorado Children's Hospital Colorado, Pediatric Critical Care Pediatrics

Anesthesiology



James Yawn, MD is a pediatric anesthesiologist at Children's Wisconsin and assistant professor of Pediatric Anesthesiology at the Medical College of Wisconsin. 🐼 Medical University of South Carolina, MD 🖿 Texas A&M University, Anesthesiology 😣 Medical College of

Wisconsin, Pediatric Anesthesiology Anesthesiology, Pediatric

Anesthesiology

Critical Care



Lauren Reiter, DO is a pediatric critical care physician at Children's Wisconsin and assistant professor of Critical Care at the Medical College of Wisconsin. 🔗 Midwestern University Chicago College of Osteopathic Medicine, DO 👝 Advocate Children's Hospital, Pediatrics 😣 University of Utah, Pediatric Critical Care; Northwestern University Medical Center, Pediatric Neurocritical Care 📯 Pediatrics, Pediatric Critical Care

Medicine

Cardiology



David Segar, MD, is a pediatric cardiologist at Children's Wisconsin and assistant professor of Pediatric Cardiology at the Medical College of Wisconsin.

**Pediatrics** 

Cardiology

Pediatrics

Emergency

Medicine

🔗 University of Iowa Carver College of Medicine, MD 😑 University of Iowa College of Medicine,

😣 Medical College of Wisconsin, Pediatric

### Emergency Medicine



Amanda Dupont, DO is a pediatric emergency medicine physician at Children's Wisconsin and assistant professor of Pediatric Emergency Medicine at the Medical College of Wisconsin. 🔗 Midwestern

University Chicago College of Osteopathic Medicine, DO 😑 William Beaumont

Hospital, Pediatrics 😣 Children's Hospital of Wisconsin, Pediatric Emergency Medicine 횑 Pediatrics

Jane Rivas, MD, is a pediatric emergency medicine physician at Children's Wisconsin and assistant professor of Pediatric Emergency Medicine at the Medical College of Wisconsin. 🔗 University of Chicago, MD 😑 Ann & Robert H. Lurie Children's Hospital of Chicago, Pediatrics 😣 Medical College of Wisconsin, Pediatric Emergency Medicine Pediatrics

PAGE 22 PEDIATRIC ROUNDS VOL.23\ISS.1



### **Child Protection**



Rachel Segal, MD. MPH, is a pediatrician at Children's Wisconsin and assistant professor of Pediatrics at the Medical College of Wisconsin 🔗 Southern Illinois University School of Medicine, MD 🕒 University of Iowa, Pediatrics 😣 Children's Mercv Hospital, Child Abuse Pediatrics

## **NEW ON STAFF** Specialists in our network ready to help

To refer a patient, call (800) 266-0366.

### Gastroenterology



Ifunanya Agbim, MD. is a pediatric gastroenterologist at Children's Wisconsin and assistant professor of Pediatric Gastroenterology at the Medical College of Wisconsin.

- 🔗 Howard University School of Medicine, MD
- 🕒 Johns Hopkins University School of Medicine
- 😣 Boston Children's Hospital, Pediatric Gastroenterology

### Gastroenterology



Brianna McSorley, MD, is a pediatric gastroenterologist at Children's Wisconsin and assistant professor of Pediatric Gastroenterology at the Medical College of Wisconsin. Medical College of

Wisconsin, MD

Medical University of South Carolina, Pediatrics

😣 Medical College of Wisconsin, Pediatric Gastroenterology

### NEW ON STAFF

### Gastroenterology



Joann Samalik. **MD**, is a pediatric gastroenterologist at Children's Wisconsin and assistant professor of Pediatric Gastroenterology at the Medical College of Wisconsin. 🐼 Michigan State University College of Human Medicine, MD 🕒 University of Michigan 😣 University of Michigan, Pediatric Gastroenterology Pediatrics



**General &** 

**Thoracic Surgery** 

Caroline Maloney, MD, **PhD**, is a pediatric surgeon at Children's Wisconsin and an assistant professor of Pediatric General and Thoracic Surgery at the the Medical College of Wisconsin. 🔗 Stony Brook University School of Medicine, MD Northwell Health. Surgery 😣 Medical College of Wisconsin, Pediatric Surgery



Nicole Liberio. MD. is a pediatric blood and marrow transplant specialist at Children's Wisconsin and assistant professor of Hematology-Oncology at the Medical College of Wisconsin.

🔗 University of Illinois College of Medicine, MD 👝 Medical College of Wisconsin, Pediatrics

😣 Medical College of Wisconsin Pediatrics





DeMarco Bowen, MD. is a pediatric hospitalist at Children's Wisconsin and assistant professor of Pediatrics at the Medical College of Wisconsin 🐼 University of

- Wisconsin School of Medicine and Public Health, MD 😑 Baylor College of
- Medicine/Texas Children's Hospital, Pediatrics
- 😣 UC San Diego/Rady Children's Hospital, Pediatric Hospital Medicine 👰 Pediatrics

### **Hospital Medicine**



S. Eli Harman. MD. is a pediatric hospitalist at Children's Wisconsin and assistant professor of Pediatrics at the Medical College of Wisconsin 🔗 Indiana University

- School of Medicine, MD Medical College of
- Wisconsin Affiliated Hospitals, Pediatrics Pediatrics

**Hospital Medicine** 



Lauren Titus, MD, is a pediatric hospitalist at Children's Wisconsin and assistant professor of Pediatrics at the Medical College of Wisconsin A Medical College of Georgia, MD 😑 Medical College

of Wisconsin, Pediatrics R Pediatrics

Nephrology

**Hospital Medicine** 



Michael Wedoff. MD. is a pediatric hospitalist at Children's Wisconsin and assistant professor of Pediatrics at the Medical College of Wisconsin 🔗 University of Illinois

Chicago, MD 🚍 Medical College of Wisconsin Affiliated Hospitals 😣 Medical University of South Carolina, Pediatrics, Hospital Medicine \, Pediatrics

Nephrology

Edinburgh

Pediatric

Nephrology

(Scotland), MD

Children (Canada),

Hospital Medicine

## Neurology

Katie Sullivan, MD, is a pediatric nephrologist at Children's Wisconsin of Wisconsin. 🐼 University of Children (Canada),

Neonatology



Kathryn Berlin, DO is a neonatologist at Children's Wisconsin and assistant professor of Neonatology at the Medical College of Wisconsin. 🔗 West Virginia School of Osteopathic Medicine, DO 👝 Medical College of Wisconsin, Pediatrics, Internal Medicine 😣 Medical College of Wisconsin, Neonatal-Perinatal Medicine \, Pediatrics, Internal Medicine



Ashley Bolin, MD, is a neonatologist at Children's Wisconsin and assistant professor of Neonatology at the Medical College of Wisconsin. Medical College of Wisconsin, MD 👝 McGaw Medical Center of Northwestern University,

Pediatrics

Pediatrics



Katherine Carlton, MD, is a neonatologist at Children's Wisconsin and assistant professor of Neonatology at the Medical College of Wisconsin. Medical College of Wisconsin, MD 👝 Medical College of Wisconsin,

Pediatrics 😣 Medical College of Wisconsin, Neonatal-Perinatal Medicine Pediatrics



Emily Mooers, MD, is a neonatologist at Children's Wisconsin and assistant professor of Neonatology at the Medical College of Wisconsin Medical College of

Wisconsin, MD 😑 Medical College of Wisconsin Affiliated Hospitals, Pediatrics 😣 Medical College of Wisconsin Affiliated Hospitals, Neonatology



Victoria Besser, MD. is a pediatric nephrologist at Children's Wisconsin and assistant professor of Pediatric Nephrology at the Medical College of Wisconsin. 🐼 University of

of Medicine, MD Hospital Medical Center Hospital Medical Center, Pediatric Nephrology

- Cincinnati College 😑 Cincinnati Children's 😣 Cincinnati Children's
- Pediatrics





pediatric nephrologist at Children's Wisconsin and assistant and assistant professor of Pediatric professor of Pediatric Nephrology at the Nephrology at the Medical College of Medical College of Wisconsin. 🐼 University of 😑 Hospital for Sick Colorado Anschutz ጰ Hospital for Sick

Center, Pediatric Nephrology





PAGE 24 PEDIATRIC ROUNDS VOL.23\ISS.1

### Infectious Diseases



Brittany Player. DO. is a pediatric infectious diseases specialist at Children's Wisconsin and assistant professo of Pediatric Infectious Diseases at the Medical College of Wisconsin. 🔗 Chicago College of Osteopathic Medicine, DO 😑 Advocate Lutheran General Hospital. Pediatrics 😣 Medical College of Wisconsin Affiliated Hospitals -Infectious Disease Pediatrics. Pediatric



Kaylene Fiala, MD, is a pediatric neurologist at Children's Wisconsin and assistant professor at the Medical College

Wisconsin School of Medicine and Public Health, MD 😑 University of Chicago Medicine, Child Neurology 😣 Medical College of

Wisconsin Affiliated Hospitals, Sleep Medicine \, Neurology

### **NEW ON STAFF** Specialists in our network ready to help

To refer a patient, call (800) 266-0366.

### Neurology



Shamshad Shahrukh, MD, is a pediatric neurologist at Children's Wisconsin and assistant professor at the Medical College of Wisconsin.

- 🔗 Ayub Medical College (Pakistan), MBBS
- 😑 Medical College of Wisconsin, Pediatrics, Pediatric Neurology
- 😣 Pediatric Neurology Fellowship, Pediatric/Child Neurology

### Ophthalmology



Samantha Czerniak, **OD**, is a pediatric optometrist at Children's Wisconsin and an assistant professor of Pediatric Ophthalmology at the Medical College of Wisconsin.

🔗 Pennsylvania College of Optometry at Salus University, OD 😑 Medical College of Wisconsin,

Children's Wisconsin

### NEW ON STAFF

### Ophthalmology



Aparna Ramasubramanian. **MD**, is a pediatric ophthalmologist and director of the Retinoblastoma Program at Children's Wisconsin and an associate professor of Pediatric Ophthalmology at the Medical College of

Wisconsin Medical College Thiruvananthapuram (India), MBBS 🔚 Indiana University, Ophthalmology; Drexel University, Ophthalmology 😣 Wills Eye Institute, Ocular Oncology; Children's Hospital Boston, Pediatric Ophthalmology Ophthalmology



is a pediatric

orthopedic surgeon at

and assistant professor

Surgery at the Medical

College of Wisconsin.

🐼 Perelman School

of Medicine at

😑 Hospital for

Pediatric

the University of

Pennsylvania, MD

Special Surgery,

😣 Children's Hospital

of Philadelphia,

Orthopaedics

Orthopedic Surgery

Children's Wisconsin



Mitchell O'Neill, MD is a pediatric rehabilitation medicine physician at Children's Wisconsin and of Pediatric Orthopedic assistant professor of Pediatric Rehabilitation

Medicine at the Medical College of Wisconsin. 🐼 Caribbean Medical University (Curacao), MD 😑 Detroit Medical Center, Physical Medicine Rehabilitation 😣 Detroit Medical

Center,

Pediatric

Medicine

Veronica Juan

(Korthals), MD

**Emergency Medicine** 

Zahida Khan, MD

Gastroenterology

Neurophysiology;

of Philadelphia.

Rehabilitation

Physical Medicine

Rehabilitation

Children's Hospital





Erin Long, PhD, is a pediatric psychology and developmental medicine specialist at Children's Wisconsin and assistant professor of Pediatric Psychology and Developmental Medicine at the Medical College of Wisconsin. 🐼 University of Illinois, PhD

😣 Medical University of South Carolina, Developmental Behavioral Pediatrics

Psychology and **Developmental** Medicine



Katherine Sage, PhD, is a pediatric psychology and behavioral health specialist at Children's Wisconsin and assistant professor of Pediatric Psychology and Behavioral Health at the Medical College of Wisconsin. 🔗 East Carolina

University, PhD

### Rheumatology



Emma Austenfeld, MD. **MPH**, is a pediatric rheumatologist at Children's Wisconsin and assistant professor of Pediatric Rheumatology at the Medical College of Wisconsin

🔗 University of Kansas School of Medicine, MD

😑 Medical College of Wisconsin, Pediatrics 😣 Medical College of Wisconsin, Pediatric

Rheumatology

Pediatrics

Development

**EXPERIENCE:** 30 years in pediatric health care, including 18 as a pediatric nurse practitioner

**AT A GLANCE** 

RN, CPNP-BC

**EXPERT CARE:** Brown provides pediatric care for children with developmental, cognitive and behavioral concerns.



## **Departures**

Children's Wisconsin would like to thank the following providers for their contributions. We wish them well in future endeavors.

Kyle J Van Arendonk, MD Pediatric Surgery

Lisa Conant, PhD Neuropsychology

Matthew Levy, MD Timothy Corden, MD Special Needs General Medicine

Erica lafelice, DO Emergency Medicine Andrea Morrison, MD Emergency Medicine

> Erin O'Donnell, MD Emergency Medicine

Lia Sabalo. MD Neonatology

## Amy Ridley Meyers,

MD Pediatrics Psychology and Developmental Medicine

Children's Wisconsin

for his years of service.

1998-2023 Anesthesiology

thanks Dr. Walbergh

## Retirement

Eric Walbergh, MD

**Child Advocacy and Protection** Brittany Eminger, APNP Ashley Good, NP Megan Koller, NP

Anesthesiology

Amy May, NP

**Critical Care** Ella Dublin, PAC Abigail Ullman, APNP

Emergency Medicine Hope Orvold, NP Isabella Stechschulte, APP

Gastroenterology Annemarie Hengel, APP Paige Kokta, NP

Hematology-Oncology Valerie Lohse, APP

**Hospital Medicine** Julia Blumenshine, PA Alaina Gussert, NP

**Physical Medicine and** Rehabilitation Renee Barany, NP

Psychiatry Monica Rios, NP

Radiology Ashley Veale, PA

PAGE 26 PEDIATRIC ROUNDS VOL.23\ISS.1



NAME: Michele K. Brown, MSN,

**POSITION:** Advanced Practice Nurse Practitioner

**DEPARTMENT:** Center for Child



# **Nurse practitioner** spotliaht

Skilled provider joins Center for Child Development

## Michele K. Brown, MSN, RN, CPNP-BC,

is a pediatric nurse practitioner (NP) at the Children's Wisconsin Center for Child Development. She works alongside a team of pediatric developmental-behavioral specialists to care for children with developmental and cognitive concerns, learning disorders, autism spectrum, attention/behavior concerns, and psychological and developmental concerns secondary to trauma.

## BACKGROUND

Brown started her medical career in 1994 as a pediatric nurse at Children's Wisconsin. She then spent 14 years serving in the U.S. Air Force Nurse Corps. In 2004, she was one of only two candidates selected for an Air Force Institute of Technology program, where she earned her graduate degree and certification as an NP in 2006.

In 2017, she returned to Children's Wisconsin, bringing her expertise in specialized pediatric care to the Jane B. Pettit Pain and Headache Center before joining the Center for Child Development this year.

## **GUIDING STUDENT NPs**

Brown volunteers as a preceptor for student NPs in pediatric specialties, including primary care, acute care, psychiatry and psychology. In this role, she supervises and guides students, helping them develop practical and real-world clinical skills.

Staying on top of the latest in evidencebased care is just as important to Brown as sharing her knowledge. She embraces the learning opportunities that every day brings to provide her patients with the expert care they deserve.



Children's Wisconsin PO Box 1997 Milwaukee, WI 53201-1997



CHW-085

# **Keeping you informed**

CONNECT WITH PHYSICIAN LIAISONS IN PERSON OR VIRTUALLY

The Children's Wisconsin physician liaison team is here for referring physicians whenever and wherever you need us.

In addition to serving as a link between Children's Wisconsin and referring physicians, your liaisons can:

- Provide information about services and programs offered by Children's Wisconsin
- Direct you to continuing education opportunities
- Facilitate solutions to referral issues

## PHYSICIAN LIAISONS



METRO MILWAUKEE Lisa Magurany, manager, Physician Relations (414) 266-4743 Imagurany@childrenswi.org



SOUTHEAST WISCONSIN Margie Berg (414) 336-1342 mberg2@childrenswi.org



NORTHEAST WISCONSIN Diane Dorow (920) 370-9381 ddorow@childrenswi.org



