It gives me great pleasure to introduce this year’s annual report for the Department of Pediatrics at the Robert Larner, M.D. College of Medicine and the University of Vermont Children’s Hospital.

2019 ANNUAL REPORT

LEWIS FIRST, M.D.
The University of Vermont
Department of Pediatrics, Chairman and Professor
The University of Vermont Children’s Hospital, Chief of Pediatrics
Children’s Health Care Service, The University of Vermont Children’s Hospital, Physician Leader

It has been an honor and privilege to serve as department chair and children’s hospital chief for the past 25 years. This report highlights the enormous strides we have made not just in the past quarter century but in the past 69 years since the founding of our department by Dr. James McKay. Dr. McKay established the mission of our department, which remains as true now as it did when he served as our first department chair: To improve the health of children through clinical, research, educational, and advocacy activities that make a difference for those living in our community and in turn can be shared with others throughout the world.

2019 marked a year of awards and achievements, as captured in this report, as well as some retirements of notable faculty like Drs. Barbara Frankowski, Eliot Nelson, and Mort Wasserman, all professors of pediatrics who helped make us nationally known for contributions in academic general pediatrics and primary care. The past year was also a sad one, as three individuals from our Division of Neonatal-Perinatal Medicine passed away too soon and unexpectedly—Marilyn Benis and Joe Sorensen, two phenomenal neonatal nurse practitioners, and Dr. Anne Johnston, an associate professor of pediatrics and a superb neonatologist who created a national model for the successful treatment and care coordination of infants born to mothers who used opioids during their pregnancy. We dedicate this year’s annual report to all three of these individuals. We miss them terribly, but we know that their legacies carry on in our neonatal intensive care unit and follow-up programs and in all of us who were fortunate to know and work with them.

This report would not be possible without the editorial assistance of Sue Victory, senior administrative coordinator for our children’s hospital, who has once again done an outstanding job. I want to close by thanking everyone who contributes to the metrics of success as captured in this report. At a time when the term “burnout” seems to be more and more prevalent in the vocabulary of those who are health care professionals, this report is truly an antidote to that term, as it provides a comprehensive array of indicators that demonstrate an ongoing and sustainable culture of wellness and resiliency. I am honored to be part of the incredible team that continues to do extraordinary work improving the health of the children we serve. By reading and learning from our 2019 annual report, you will see just what I mean!

On the cover: Cassandra DeMartino, M.D.
Photography by David Seaver and Andy Duback

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A Quarter-Century of Care

LEWIS FIRST, M.D., RECENTLY celebrated 25 years as chair of the Department of Pediatrics at the UVM Larner College of Medicine and chief of UVM Children’s Hospital. Here, he discusses his department’s accomplishments and major developments in the field of pediatrics nationally.

What do you consider some of the most important accomplishments for the Department of Pediatrics over the last 25 years?

Our department faculty have been and continue to be national leaders in pediatric education, research, clinical care, and advocacy. Innovative programs and services we introduced have improved the health and well-being of children in our region, and many have been shared around the country and the world. We have added over 60 patient/family advisors to ensure we provide the highest quality child-friendly family-centered care possible. Our residents, fellows, and the Larner College of Medicine students we’ve trained sustain the legacy of excellent pediatric care practiced by Dr. Jim McKay, who founded our department in 1950 and served as chair for 33 years.

How has the landscape of pediatrics changed nationally over the last 25 years?

The focus has moved from not just caring for an individual ill child, but to also focusing on populations and finding ways to keep communities of children healthy. The role of genetics and the environment, and a recognition of how some social determinants of health can impact brain development, have been important advances. The field is also now moving towards the integration of behavioral and mental health care into all aspects of pediatrics.

What would you say to pediatricians just entering the field? What do the next 25 years look like?

There has never been a better time to be a pediatrician! In addition to seeing innovations in care developed and then implemented by our department and UVM Children’s Hospital, I read about exciting improvements in child health nationally and internationally every day in my role as editor-in-chief of Pediatrics, the national peer-reviewed journal of the American Academy of Pediatrics. While these discoveries seem to be coming at a record pace, what doesn’t change is the special relationship a pediatrician has with a child, their family, and the community they live in—and that is what grounds us as pediatricians and makes the work we do so meaningful.

FACTS & FIGURES

325 Admissions to the Pediatric Intensive Care Unit per year

2,200 Babies born at UVM Children’s Hospital each year

150 Number of caregivers it takes to run 24/7 NICU care

25,000 Patient visits to the Children’s Specialty Center per year in 20+ specialty programs

Lewis First, M.D., in his office in the Given Building at the UVM Larner College of Medicine
The Neonatal Intensive Care Unit (NICU) at UVM Children’s Hospital has a storied history of providing high quality care to infants who need extra attention in those first critical days and weeks of life. Now, the unit is being redesigned to better meet the needs of families, with leadership from nurses, physicians, staff, and families themselves.

The goal is to make a family’s time in the NICU as supportive and comfortable as possible, says Michele Bouchard, R.N., nurse manager. A NICU Design Committee has worked for months to design every detail of the space, from sound-absorbent flooring and dimmable lighting to a configuration of patient rooms and workstations that improves workflow and patient privacy. The roughly 19,000 square foot NICU will be in a new location within the McClure Building of UVM Medical Center, allowing it to be combined with the step-down unit, a space dedicated to families preparing to go home with their infant. (The two units are currently on different floors.) The new NICU will have a modular design, accommodating 20 single family rooms, four doubles, one triple, and one quad, with space for anywhere from 29 to 35 patients. It will also increase the number of isolation rooms from one to two.

“We’re trying to utilize the footprint to provide the most flexibility,” says Bouchard. For example, two rooms can be combined into a “mega-room” if necessary, for critical patients or for bereavement cases where extended family may wish to be present. All rooms in any configuration will have a pull-out bed and a recliner chair, as well as access to natural light.

Charles Mercier, M.D., chief of the Division of Neonatal Perinatal Medicine, says the new NICU design aims to eliminate as much stress as possible as families transition into bringing their infant home for the first time.

“It’s all about the relationship that families can form with their baby in the circumstances they’ve been handed,” he says. “We’re trying to create a situation where a parent can learn to be effective given the constraints of the care that’s necessary for their newborn.”

The thoughtful design extends to the rest of the unit. On-suite showers, a washer and dryer, and an updated family lounge with a kitchen means families will have space for family members, from sound-absorbent flooring.

Patient rooms in the planned NICU feature space for family members, natural light, and sound absorbent flooring.

Because of the very nature of that care,” says Mercier. Barbara Henke, R.N., assistant nurse manager, says staff identified the need for a dedicated space for breast milk fortification, so the new design includes a “state-of-the-art preparation area.” Workstations specifically for physicians and nurses allow for team-based care, and for the first time, the unit will have a dedicated telemedicine room.

The 27-member NICU Design Committee, a group that includes nurses, physicians, respiratory therapists, physician assistants, dieticians, nurse educators, and patient-family advisors, visited three NICUs across the country to inform the design. They’re also working with the UVM Medical Center facilities team to create mock rooms that allow the committee to walk through the spaces they’re envisioning.

The project has already received strong support from the community. In December of 2018, UVM Children’s Hospital celebrated a $1 million lead gift from New York Federal Credit Union. Fundraising has been ongoing since that kick-off event. As the medical center moves forward with the planning and approval process, families served by the only Level III NICU in Vermont and northern New York can look forward to a unit that provides a home away from home.

“It’s a place that can be considered the domain of the family,” says Mercier. “We’re creating a unit where structure supports function.”

A Team Approach to Eating Disorder Care

Access to outpatient evaluation in the adolescent medicine specialty clinic for patients with disordered eating is set to expand in May of 2020 through the addition of a part-time psychologist focused solely on this population. Funding through Children’s Miracle Network Hospitals has made the position possible; the national non-profit organization also provided initial funding in 2018 for a part-time social worker. Theresa Emery, dedicated to patients of eating disorders. Adolescent medicine specialist Erica Gibson, M.D., who led efforts to establish the new positions, says both staff members are integral to the team-based approach to care.

“Optimal eating disorder care requires a coordinated multidisciplinary team, which includes primary care providers, registered dieticians, mental health providers and social work support as needed,” says Gibson.

A psychologist for adolescent patients with eating disorders promises to streamline intake and evaluation of patients as well as improve care coordination with community mental health providers. For adolescent patients with an eating disorder who present with medical instability, Gibson, pediatric hospital staff, and the pediatric inpatient Child and Adolescent Psychology and Psychiatry Consult (CAPPCON) team have established an inpatient medical management pathway to stabilize these patients and then transition them to appropriate care.

Creating Resilient Children, Families and Communities

A team led efforts to establish the new position, which includes dieticians, mental health providers and social work support as needed.

One of the most profound aspects of this work is connecting with families who have experienced the most difficult situations: families whose children have a rare genetic condition; families whose children were diagnosed with cancer; families who have had children pass away.

Our Patient/Family Advisors develop a comprehensive framework for their families to communicate and collaborate with healthcare professionals in meaningful ways. For an organization to actively invite patient and family feedback is an act of humility, one that helps to create resilient children, families, and communities.
Improving Care for Newborns Around the World

IN ETHIOPIA, 28 OF EVERY 1,000 babies die within their first four weeks of life, a stark contrast to an infant mortality rate in the United States and other high-income countries of about four deaths for every 1,000 live births.

The Ethiopian Pediatric Society and the country’s Ministry of Health want to cut those infant deaths rates to 12 per 1,000 by 2030 to reach the UN’s Sustainable Development Goal of reducing under-5 mortality to less than 1 per 1,000. Achieving this goal is a challenge for the country, with infant mortality currently reported as the cause of death in approximately half of the NICU deaths in 32 countries. Among babies born in the United States with birth weights less than 1,500 grams, more than 90 percent are under the care of NICU nurses, and more than half of the children in the United States with Crohn’s disease and ulcerative colitis are cared for by a pediatric gastroenterologist at an NICU. Until then, the network’s focus is still on the first low-income country to join VON. In 2017, Ethiopia became the first low-income country to join VON. Until then, the network’s membership came from high- and middle-income countries, leaving a gap in data from countries with fewer resources, says Danielle Ehret, M.D., M.P.H., associate professor of pediatrics at the UVM Larner College of Medicine and VON’s director of global health. “The opportunity to contribute to the dynamic field of global neonatal health is amazing,” says Ehret, who specializes in neonatal medicine. “One of VON’s goals is to close the data gap and the quality improvement gap in neonatal care worldwide.”

VON’s work in Ethiopia caught the attention of the Bill & Melinda Gates Foundation, which works to help all people lead healthy, productive lives. Ehret has received funding from the Bill & Melinda Gates Foundation for a Phase I study to better understand the landscape of neonatal care for premature, or preterm, babies in Ethiopia. In particular, they want to learn more about the NICU environment and currently available treatments for respiratory distress syndrome (RDS)—the main cause of death for preterm babies in Ethiopia—and identify opportunities for improvement. Given the burden of RDS, currently reported as the cause of death in approximately half of the preterm deaths in Ethiopian NICUs, VON has also been selected to provide clinical training and guideline development for the country. The Ethiopian Federal Ministry of Health and UNICEF have given VON funding to train Ethiopian providers on how to use nasal CPAP, or continuous positive airway pressure, which is the most effective treatment for RDS currently available in the country. It can save up to 70 percent of babies with RDS.

VON sent a volunteer team—including doctors, nurses, nurse practitioners and respiratory therapists—to work with supercoach in Ethiopia to develop CPAP treatment guidelines, empower nurses, and train staff in 13 additional hospitals.

“The hope is that the availability of CPAP will continue to spread,” Ehret says. Founded more than 30 years ago by UVM neonatologist Jerold Lucey, M.D., Vermont Oxford Network is the largest data clearinghouse of its kind devoted to information about critically ill newborns. The network now includes more than 1,300 neonatal intensive care units in 32 countries. Among babies born in the United States with birth weights less than 1,500 grams, more than 90 percent are under the care of NICU members of VON. “NICUs are springing up all over the developing world,” says Jeffrey Horbar, M.D., professor of pediatrics at UVM and VON’s chief executive and scientific officer. “Learning what the proper resources and approaches to NICU care should be in resource-constrained countries is extremely important.”

VON’s work in Ethiopia is ongoing, bolstered by continuous analysis of the country’s data. “We know from experience that having the data paired with quality improvement education are two main ingredients for success,” Ehret says. “This has been done mostly in high-income countries and in very well resourced neonatal intensive care units, but those same principals could be applied to many different settings. The benefits would likely even be greater in a low-resource setting, making small no-cost or low-cost changes, and thinking about how we can look at the system in a different way.”

As for left, Dr. Avnet Donna, one of the first three neonatologists trained in Ethiopia, and at far right, Danielle Ehret, M.D., M.P.H., visit with a mother and her preterm infant in the preterm room at Tikur Anbessa Specialized Hospital NICU in Addis Ababa, Ethiopia.

ImprovingCareNow Creates Clinical Trials Network

The ImprovingCareNow network, led by president and executive network director Richard Colletti, M.D., improves the health and care of children with Crohn’s disease and ulcerative colitis. ImprovingCareNow has formed a strategic alliance with IQVIA, one of the largest contract research organizations and data analytics companies in the world, to create the first clinical trials network for pediatric inflammatory bowel disease. More than half of the children in the United States with Crohn’s disease and ulcerative colitis are cared for by a pediatric gastroenterologist at an ImprovingCareNow center. Jillian Sullivan, M.D., leads the UVM ImprovingCareNow team. Colletti gave two presentations at international meetings.

A Focus on Child Health Outcomes

The Vermont Child Health Improvement Program (VCHIP) is dedicated to improving health outcomes for children and adolescents through evidence-based research and quality improvement, including improving care for newborns.

VCHIP is also exploring best practice guidelines to inform school policy updates. Preventing HPV-attributable Cancers Nationwide

In collaboration with the Academic Pediatric Association, VCHIP recently completed a five-year initiative to increase human papillomavirus (HPV) vaccination rates nationwide. Through five consecutive cohorts in VCHIP’s first multi-state, virtual learning collaborative, VCHIP trained 1,185 clinicians at 267 sites in 27 states. The percentage of adolescents initiating the multi-dose vaccine series increased by 33 percent across cohorts. Several practices who participated have been recognized as “HPV Cancer Prevention Champions” by the American Cancer Society.

Educating School Nurses about Vaping and e-Cigarettes

In partnership with the Tobacco Control Program at the Vermont Department of Health, VCHIP began a new project in March to increase the capacity of school nurses to educate students, faculty, and administrators about vaping and e-cigarette use. VCHIP is also exploring best practice guidelines to inform school policy updates.
Bootcamp Prep Students

JUST A FEW MONTHS BEFORE they begin their residencies, future pediatricians in the UVM Larner College of Medicine might meet with panicked parents whose child is having seizures. They’ll stabilize the child, order laboratory tests, consult with colleagues, make a diagnosis, and explain it to the family. They’ll handle the whole case—all within the safe confines of the UVM Clinical Simulation Laboratory and under the guidance of teachers—before they go out in the real world to care for young patients.

This simulation is one example of how the pediatric bootcamp for fourth-year medical students prepares them for the next phase of their education: residency training and a more hands-on role in patient care. Launched in 2016, the two-week program takes place in April for the 12 to 15 students each year who plan to pursue careers in pediatrics.

“It’s a very safe place to make mistakes,” Rideout says. “For Nathaniel White, M.D., a Class of 2019 graduate and now a pediatric resident at UVM Medical Center, the pediatric bootcamp boosted his confidence and alleviated some anxiety about treating real patients. “It’s a reminder of those clinical things that you might not have done in a while,” he says. Within the pediatric bootcamp, students practice common procedures such as lumbar punctures, skills including medication and fluid calculations, and “what the nurses are going to call you for at 2 o’clock in the morning”—all of which he has experienced since then in residency.

Rideout points to the more than 30 faculty and residents who contribute to the bootcamp each year as key to its success, as the two weeks cover a range of topics. Each morning, small groups rotate through different clinical scenarios and procedure stations in the sim lab. In the afternoon, students practice skills and participate in case-based discussions with pediatric sub-specialists. At the end of the day, they teach each other about current guidelines for many clinical diagnoses as well as about parenting resources to address common concerns.

Rideout’s ongoing research examines how participating in a pediatric bootcamp correlates with performance early on in residency, important work to improve training for pediatricians nationally. She is the principal investigator for a study with 17 U.S. residency programs who are collecting faculty evaluations of residents in the first months of internship. She has also helped to develop a national pediatric bootcamp curriculum for the Council on Medical Student Education in Pediatrics, with a goal to ensure that mental health teaching occurs across all residency rotations as opposed to a behavioral pediatrics “block.” In the graduating class, four residents are going into primary care pediatrics and two are entering competitive fellowships. Jill Rinehart, M.D., has been named director of the UVM Medical Center Pediatrics Residency Program, replacing Jerry Larrabee, M.D., who has moved to New Mexico with his family.  

Above, at left: Molly Rideout, M.D.; Above, at right: Fourth-year medical students hone their skills in the UVM Clinical Simulation Laboratory. Below: Jill Rinehart, M.D., residency program director.  

Residency Program: Emphasis on Advocacy

The pediatric residency program has a long history of teaching excellent general pediatrics with a collaborative community faculty of pediatricians, and it has developed an outstanding national reputation for the caliber of its graduates. By the end of their three-year residency, each trainee completes an advocacy project. Current advocacy projects include the creation and maintenance of a school-based health clinic in Winooski, Vt., the creation of a longitudinal child development curriculum that connects residents to early childhood learning centers, and a project to ensure that mental health teaching occurs across all residency rotations as opposed to a behavioral pediatrics “block.” In the graduating class, four residents are going into primary care pediatrics and two are entering competitive fellowships. Jill Rinehart, M.D., has been named director of the UVM Medical Center Pediatrics Residency Program, replacing Jerry Larrabee, M.D., who has moved to New Mexico with his family.  

Neonatal-Perinatal Medicine Fellows

Advance Research

The UVM Medical Center Neonatal-Perinatal Medicine Fellowship Program combines clinical training in newborn intensive care with individualized research mentoring to prepare fellows for careers in academic medicine. Fellows receive training in quality improvement and systematic reviews and meta-analyses through work with the Vermont Oxford Network and the Cochrane Neonatal Collaboration. All fellows participate in one-month rotation in the cardiac intensive care unit at Boston Children’s Hospital, where they obtain experience with cardiac surgery and extracorporeal membrane oxygenation (ECMO). In cooperation with the neonatal-perinatal fellowship at Dartmouth-Hitchcock Medical Center, semi-annual joint fellow conferences focus on simulation skills, communication, and fundamental knowledge for clinical practice. Fellows tailor their research and scholarly activity to match career goals. Recent efforts have included training in point-of-care ultrasound diagnostic techniques, non-pharmacologic care for opioid-exposed newborns, and global health.
When Rebecca Bell, M.D., testified to Vermont legislators in 2015 about the importance of childhood vaccinations, she found herself in a large room crowded with people who had strong opinions on the topic.

Bell, a pediatric critical care specialist, knows how to handle an emotionally charged environment. In the intensive care unit of the University of Vermont Children’s Hospital, she counsels distraught parents while tending to their very sick children.

“Staying very calm, being thoughtful, not rushing to answer a question without thinking it through a little bit, understanding the perspective of the person that you’re speaking to,” she says of her approach to her work in both pediatrics and the statehouse. “Not just in the ICU, but anyone in pediatrics is well-trained to do this.”

Bell, an assistant professor of pediatrics at the UVM Larner College of Medicine, has become the Advocate of the Department of Pediatrics’ most public voice on topics including firearm safety, vaping, delinquency at Massachusetts General Hospital. She completed her pediatrics residency at Massachusetts General Hospital. She stayed there for a three-year pediatric critical care fellowship while simultaneously earning her master’s degree in public health from the Harvard School of Public Health. This dual training—in policy and patient care—helps her to see the big picture when it comes to advocacy.

In 2018, she spoke in support of legislation known as an ERPO, which allows a judge to order the temporary removal of firearms or extreme-risk protection order, of Vermont residents who are found to be a danger to themselves or others. She also urged Vermont lawmakers to raise the legal age for firearm purchases from 16 to 21. Both measures were approved.

“We can, as physicians, talk about issues in a nonjudgmental, compassionate, evidence-based way that can actually change someone’s behavior.” — Rebecca Bell, M.D.
A Campaign for Children’s Health

High-quality healthcare is vital to the wellbeing of our community. To improve children and families’ care experience today and prepare for tomorrow, UVM Children’s Hospital has designated three areas in particular where charitable investments will have a transformative impact.

1 A NEW NEONATAL INTENSIVE CARE UNIT
The current NICU, while technologically advanced, offers a constraining lack of space and privacy. With some of the best neonatal caregivers in the country, families and infants deserve a space to match.

2 SPECIALIZED SERVICES AND COMMUNITY INTERVENTIONS
Programs to prevent child abuse, provide care to immigrant and refugee populations and ensure access to mental health services for all who need them are top priorities. Proven to elevate children’s lives, services like these and others can be enhanced and sustained through charitable support.

3 TOMORROW’S PEDIATRIC LEADERSHIP
Superb health care requires the brightest minds in medicine. Faculty endowments will help to attract and retain top-flight talent capable of sustaining the work of current world-renown pediatric caregivers.

PHILANTHROPIC SUPPORT

Schumacher Family Fund
• The fund supports students, residents, fellows and faculty “in their personal wellness, in the continued search for best practices in care and teaching, and in the commitment to the health of the children and families in our beloved Vermont.”
• Founded by the Schumacher family. Caia J. Schumacher, M.D.’74 and Jeffrey Schumacher, M.D.’74, are pediatricians, as are two of their children, Erik Caja Schumacher, M.D.’08 and Heidi K. Schumacher, M.D.’10. Their son, Ryan Schumacher, is a doctor of osteopathic medicine student.

Cancer Survivor and UVM Alum
Rallies for Children’s Hospital

At UVM’s annual RALLYTHON, an all-night dance marathon to benefit the UVM Children’s Hospital, there’s always a moment when the music quiets, and glow sticks begin to light up the room. First, the participants who have been treated at UVM Children’s Hospital light their sticks. Then, those with family members who have received care crack their lights, followed by those with best friends, neighbors, and classmates—until the entire room is flickering in light.

For Madison McKinley, a 2016 cancer survivor herself, diagnosed with lymphoma at the age of four, McKinley has endured years of chemotherapy, a failed stem cell transplant and several relapses, including one in college when she was treated at UVM Children’s Hospital. Now in remission, she’s a nuclear medicine technologist in New Hampshire, where she forges deep bonds with patients facing their own life-threatening illnesses.

“I see someone down and I have knowing that should any one of my children need care, they will be in the best hands.”

– Emilie Paquette, a member of the UVM Children’s Health Campaign Committee
PEDIATRIC PRIMARY CARE

Logan Hegg, PsyD, Cathy Kelley, LICSW, Kate Cappleman-Sinz, LICSW, and Krissa Jamieson, RN, led Vermont’s 2019 Innovation Fund grant.

Pediatric Primary Care

Pediatric Primary Care is a nationally recognized comprehensive, family-centered medical home for a diverse population of children and adolescents. A faculty of 13, situated across two sites in Burlington and Williston, serve as the primary teaching location for ambulatory pediatrics at the UVM Larner College of Medicine. Jill Rinehart, M.D., has joined the division as the pediatric residency coordinator.

Matt Saia, M.D., Heather Link, M.D., and Libby McDonald, PNP, provide care for patients at six school-based health clinics. Stanley Weinberger, M.D., and Heather Link, M.D., provide medication-assisted therapy to adolescents with opiate use disorder. Telehealth is available and expanding, led by Dr. Saia.

The Pediatric New American Program, directed by Andrea Green, M.D., is a nationally recognized, equity-oriented medical home for all new refugee children in Vermont. Recently, Dr. Green founded the Building Strong Families Clinic in partnership with the Janet S. Munt Family Room, with funding from OneCare Vermont’s 2019 Innovation Fund grant.

QUALITY INITIATIVES

- Stanley Weinberger, M.D., and Michelle Shepard, M.D., are the Vermont Child Health Improvement Program (VCHIP) faculty lead for this year’s VCHIP Child Health Advances Measured in Practice (CHAMP) quality improvement project addressing children and adolescents with ADHD.
- Logan Hegg, PsyD, Cathy Kelley, LICSW, Kate Capplesman-Sinz, LICSW, and Krissa Jameson, R.N., led the division’s work in the national Pediatric Integrated Care Collaborative to improve trauma-informed integrated care in pediatrics.
- Pediatric Primary Care is participating in a YSBIRT (youth screening, brief intervention, referral and treatment) initiative to improve screening and treatment for adolescents with substance use and mental health concerns.

ADOLESCENT MEDICINE

Erica Gibson, M.D., provides outpatient and inpatient adolescent medicine specialty care as well as some adolescent primary care. She has funding from the Vermont Child Health Improvement Program and the Vermont Department of Health to promote adolescent health and well-being. Dr. Gibson’s outpatient adolescent specialty care has a strong focus on eating disorders and sexual and reproductive health care. In 2019, social worker Theresa Emery joined the team and in 2020, Dr. Gibson will welcome a part-time psychologist devoted to eating disorder care. Both of these positions have initial funding from the Children’s Miracle Network Hospitals. Dr. Gibson provides adolescent primary care at the UVM Primary Care Pediatric Clinic and at the Woodside Juvenile Rehabilitation Facility. She is one of the few pediatric primary care providers in Vermont trained to prescribe Suboxone for young people struggling with opioid abuse.

In collaboration with other services, Dr. Gibson supports eating disorder patients admitted for medical stabilization through the Medical Mainstreaming Pathway. Dr. Gibson is medical director of the outpatient Transponder Youth Program, which will become part of Adolescent Medicine in 2020. The TYP team includes Theresa Emery, MSW, Candace Bedard, R.N., and psychologists Kimberly Roy, Ph.D., and Marlene Maron, Ph.D. Libby McDonald, APRN, will join the TYP team in 2020 through initial funding from the Children’s Miracle Network Hospitals. Dr. Gibson works with the Vermont Child Health Improvement Program and the Vermont Department of Health on a variety of grants addressing teen pregnancy prevention, prescription opioid use prevention, adolescent well-visits and youth advocacy.

CARDIOLOGY

The Division of Pediatric Cardiology provides a full range of clinical services, including fetal diagnosis, outpatient and inpatient management of congenital and acquired heart abnormalities, and outreach clinics. Several quality initiatives are ongoing. Nancy Drucker, M.D., collaborates with the Vermont Child Health Improvement Program on projects addressing assessment, documentation and intervention in childhood obesity, and on programs for transitioning adolescents from pediatric to adult services. Niels Giddins, M.D., works with a regional group to create a New England-wide pacemaker registry and monitoring service. The division recently completed a quality project to increase patient and physician compliance with national cholesterol screening guidelines, and to provide educational materials to families regarding heart-healthy lifestyle choices. Scott Yaeger, M.D., and Jonathan Flyer, M.D., serve as board members of the New England Congenital Cardiology Association, and the New England Congenital Cardiology Research Foundation (NECCRF). Dr. Yaeger also serves as president of NECCRF. The division welcomed Caitlin Haxel, M.D., in October of 2019. She completed her pediatric cardiology fellowship at Columbia and an additional year of imaging training at Denver Children’s Hospital, with a focus on fetal cardiology.
Children’s Developmental Evaluation Services

This program offers comprehensive developmental evaluations for children with a chief concern of developmental delay, autism spectrum disorder and/or intellectual disability. The program is a partnership between three clinical services: Developmental Behavioral Pediatrics, the Vermont Center for Children, Youth and Families’ Autism Assessment Clinic, and the Child Development Clinic at the Vermont Department of Health. An individualized intake process allows children to be referred to the program that best meets their needs. In addition to evaluation services, the Developmental Behavioral Pediatrics Program also offers telemedicine, care coordination and short term follow-up care.

Publications and Presentations


Child Protection Team/Child Safe Program

The Child Safe Program is committed to improving the health and well-being of children by addressing child maltreatment, including physical, medical and sexual abuse and neglect. The Child Protection Team includes a board-certified child abuse pediatrician, James Metz, M.D., M.P.H., FAAP; a board-certified pediatric forensic nurse examiner, Tracey Wagner, R.N.; and a social worker with expertise in child abuse and neglect, Mary-Ellen Rafuse. In the past year, the protection team has consulted on over 200 cases in Vermont and eastern New York. We have provided multiple trainings to law enforcement, the Vermont Department for Children and Families, early childhood professionals, and medical providers on recognition of sentinel injuries and work-up for child maltreatment. Members of the Child Protection Team serve on the Vermont Citizen’s Advisory Board, VT SANE Board, Child Fatality Review Committee, Prevent Child Abuse Vermont Board, the Pediatric Trauma Council, and the Human Trafficking Task Force.

Publications


Endocrinology

The Division of Pediatric Endocrinology provides ambulatory and inpatient care for patients with a variety of complex endocrine disorders. Using a family-centered approach, patients and their families receive the highest quality of care from a multidisciplinary team consisting of two physicians, three certified diabetes educators, an endocrine nurse, a pediatric dietitian, a social worker and a pediatric psychologist. The American Diabetes Association recognizes the Pediatric Diabetes Clinic as a center of diabetes education.

In collaboration with the pediatric psychology department, the diabetes clinic is participating in a pilot study exploring telemedicine to provide psychological support for children with diabetes. Jennifer Todd, M.D., was named co-medical director at the Barton Center for Diabetes Education, overseeing diabetes summer camp programs in Vermont and Massachusetts. Division endocrinologists work with the Vermont Department of Health Newborn Screening Advisory Committee to develop and maintain guidelines for screening of congenital endocrine disorders, including X-linked adrenoleukodystrophy, a new addition to the newborn screening panel. With the Vermont Child Health Improvement Program, this program has developed a comprehensive database registry for patients with diabetes mellitus. The collaboration has produced several quality improvement projects.

Publication

- Salem RM, Todd JN, Sandholm N, Cole JB. Genome-Wide Association Study of Diabetic Kidney Disease Highlights Biology Involved in Glomerular Basement Membrane Collagen. JASN October 2019, 30 (10) 2000-2016; DOI: https://doi.org/10.1681/ASN.2019030396
Gastroenterology, Hepatology and Nutrition

The Division of Pediatric Gastroenterology, Hepatology and Nutrition provides care for disorders of the GI tract, liver and pancreas, as well as problems with feeding, nutrition and growth, obesity, and lipid disorders. Michael D’Amico, M.D., heads the Healthy Living Program, a weight management clinic for overweight children and adolescents. He also co-directs the Pediatric AeroDigestive Program and is involved with the Pediatric Spina-Bifida Program. The division is active in research and the clinical care of cystic fibrosis and inflammatory bowel disease, as well as medical student and resident training initiatives. Jill Sullivan, M.D., co-directs the Pediatric Cystic Fibrosis Program and is the site leader for ImproveCareNow, an international, multi-centered collaborative chronic care network focusing on Crohn’s disease and ulcerative colitis in children and adolescents. This award-winning program, founded and directed by the division’s Richard Colletti, M.D., is considered one of the premier quality improvement initiatives nationally. Our nursing staff remains involved in nursing education, particularly with the Vermont School Nurses Association.

Genetics and Dysmorphology

The University of Vermont Medical Center Clinical Genetics Program provides genetic and metabolic services, and remains committed to staying abreast of the rapid changes in genetics and genomics. Robert Wildin, M.D., worked with the Genomic Medicine Laboratory to develop a pilot program in whole genome sequencing as a preventative health measure. He continues to direct and teach an online course in genetics and genomics for nursing students, and teaches medical students and residents. Leah Burke, M.D., began her tenure as the chair of the Council on Genetics for the American Academy of Pediatrics. Dr. Burke also acts as the American College of Medical Genetics and Genomics advisor to the American Medical Association Specialty RVS Update Committee. Through a collaborative effort between the New England Regional Genetics Network and the Weissman Institute, Dr. Burke provides didactic education and case-based learning as a core faculty member in Project ECHO on their Complex Integrated Pediatrics Program. She also gives nationally broadcast webinars on genetics and genomics through the Weissman Institute. She collaborated with molecular geneticists on a report of RNA studies on a sibling pair that helped to further identify the genetic cause of a progressive spastic paraplegia.

Hematology/Oncology

The Division of Pediatric Hematology/Oncology provides specialized care for children and adolescents with a wide range of blood disorders and cancers. The division is an active member of Children’s Oncology Group, a research consortium dedicated to curing childhood cancer supported by the National Cancer Institute. With this collaboration, we are able to offer the latest clinical trials to patients locally. Jessica Heath, M.D., continues to grow a translational research program studying the molecular biology of acute lymphoblastic leukemia and potential therapeutic targets. Her work is supported by the Lyman Pediatric Leukemia Research Fund, the Waldron Lymphoma Malignancy Fund, and the Barbara Bailey Heinz and Gayl Bailey Heinz Fund. Alan Homans, M.D., serves as the executive chair of the Institutional Review Board.

Infectious Disease

The Division of Pediatric Infectious Disease provides inpatient, outpatient, and telephone consultation services for acute and chronic infectious disease issues, as well as in-person and telehealth travel medicine consults. The division participates in setting and monitoring infection control policies and antibiotic stewardship programs, and consults with the state health department regarding outbreaks. Members testify before the state legislature on a variety of issues, including vaccine safety and vaccine requirements for school entry. Division members are active at all levels of undergraduates and graduate medical education. Benjamin Lee, M.D., conducts vaccine research with the University of Vermont Vaccine Testing Center and Translational Global Infectious Diseases Research Center, where he has an active research program studying rotavirus. Dr. Lee is principal investigator on a rotavirus vaccine trial underway in Dhaka, Bangladesh. Closer to home, he is working to characterize the human B lymphocyte response to rotavirus. His work is supported philanthropically by the Barbara Bailey Heinz and Gayl Bailey Heinz Fund. In 2019, Dr. Lee was awarded the 2019 UVM Larner College of Medicine Rising Star New Investigator Award.
Pediatric Critical Care Medicine

The Pediatric Critical Care Medicine Division, staffed by five board-certified pediatric intensivists, provides care for children with life-threatening illnesses or injuries 24 hours a day. Amelia Hopkins, M.D., and Iris Toedt-Pingle, M.D., share medical directorship of the Pediatric Intensive Care Unit (PICU). Division members participate in multi-center research projects, engage in medical student and resident education, and present Continuing Medical Education sessions locally and nationally. Elizabeth Ulano, M.D., is the site leader for The Virtual PICU Systems, LLC database, which has continued to demonstrate that for a PICU our size, we consistently take excellent care of very ill children with a lower than expected mortality rate. Dr. Toedt-Pingle was recently awarded a Frymoyer Scholarship for an interprofessional pediatric advanced communications course. TalkVermontPEDS. Rebecca Bell, M.D., now serves as president for the Vermont chapter of the American Academy of Pediatrics. Dr. Hopkins is the associate program director for the pediatric residency program, and Barry Heath, M.D., continues his involvement with ThinkMD to develop solutions for the shortage of healthcare professionals around the world.

Pediatric Hospital Medicine

The Pediatric Hospitalist Program includes thirteen full- and part-time pediatric hospitalists who provide hospital-based care 24 hours a day, seven days a week for pediatric inpatients and newborns at the University of Vermont Children’s Hospital and the University of Vermont Health Network Champlain Valley Physicians Hospital in Plattsburgh, N.Y. Valerie Riss, M.D., and Abigail Adler, M.D., worked with a multidisciplinary team to develop a new guideline for the medical management of pediatric patients with eating disorders on our inpatient unit. Dr. Riss is presenting at a national conference her collaborative work on a clinical guideline for the use of high-flow nasal cannula oxygen on our pediatric floor. Karin Gray, M.D., and Stephanie Ryan, M.D., have spearheaded the implementation of multiple newborn quality initiatives. The pediatric hospitalist group has worked with the pediatric hematology team to reduce hospital-acquired venous thromboembolism (VTE) through the development of a VTE risk assessment protocol. In medical education and research, Molly Rideout, M.D., is developing innovative training for fourth-year medical students in pediatrics, and has presented this work at several national conferences. Jana Lichtenfeld, M.D., is expanding her work on a popular teaching kitchen elective. Leigh-Anne Cioffredi, M.D., received a clinical innovation grant for her health services research on adolescent substance use and mental health disorders. Karen Leonard, M.D., was invited to participate in a plenary talk on health care reform at the national pediatric hospitalist conference. Molly Moore, M.D., received the 2019 Global Health Education Award from the Larner College of Medicine.

Neonatology

The Division of Neonatal Perinatal Medicine provides medical care to premature and sick newborns. In 2019, the division welcomed Nicole Cloutier, NNP, and Brittany Accavallio, NNP. Three division members, Anne Johnston, M.D., Joseph Sorensen, NNP, and Marilyn Benis, NNP, passed away this past year. They will be dearly missed.

Our 29-bed NICU is the only level III unit in Vermont. Planning for renovations to create a single family room-based unit is underway, with a goal to support exemplary family-centered care and high staff satisfaction. Our NICU is the training site for fourth-year medical students and pediatric residents, with educational programming coordinated by Whitney Barkhuff, M.D. Deirdre O’Reilly, M.D., M.P.H., directs the neonatal perinatal fellowship training program. In 2019, we welcomed Delia Horn, M.D., and Adrienne Pahl, M.D., to their third year of fellowship, and Anna DiCarlo, M.D., to her second year of fellowship. Roger Soll, M.D., remains editor of the Cochrane Neonatal Collaborative Review Group, and is the president and director of clinical trials at Vermont Oxford Network (VON). Danielle Erist, M.D., director of global health at Vermont Oxford Network, has developed a VON database for resource-limited settings, and UVM Medical Center Graduate Medical Education has endorsed a newborn global health focus within the neonatal perinatal medicine fellowship program.

Leslie Young, M.D., is on the leadership team for the NIH-supported Advancing Clinical Trials in Neonatal Opioid Withdrawal Syndrome Collaborative, and serves as principal investigator for a multicenter clinical trial assessing a new regional care model for neonatal opioid withdrawal syndrome management. Dr. O’Reilly is implementing real-time teledemidicine at community hospitals to help assess newborn infants at risk for hypoxic encephalopathy. Chuck Mercier, M.D., continues as director of the Vermont Regional Perinatal Project at VCHIP, presenting work at the American Public Health Association meeting.
Nephrology

The Division of Pediatric Nephrology treats children with kidney disease, hypertension, incontinence, genitourinary malformations, and acute kidney injury, and manages pediatric kidney transplant patients. We provide dialysis and apheresis services for children. The Spina Bifida Coordinated Care Clinic continues to be organized out of our division. The division continues to participate in the North American Pediatric Renal Trials and Cooperative Studies group as well as the Pediatric Nephrology Research Consortium. We are working to improve access to and reimbursement for ambulatory blood pressure monitoring, and we continue to improve coordination and support for children with kidney disease and their families.

Palliative Medicine

During this past year, the Palliative Medicine team was consulted more than 1,500 times to care for seriously ill adults and children. We also offer teleconsult follow-up home visits and outpatient consultations at Milton Family Practice and UVM Cancer Center. Our teaching programs include inpatient observanceships for first-year medical and nursing students, elective clinical rotations for medical students and residents, and a required 40-hour palliative medicine course for medical students. The Vermont Conversation Lab seeks to understand and promote high quality communication in serious illness. More than 200 clinicians and 200 medical students and residents completed a workshop through TalkVermont, a UVM Health Network serious illness conversation training initiative. Iris Toadt-Pingel, M.D., Kaitlin Ostrander, M.D., and Stephen Berns, M.D., were awarded a Frymoyer Scholarship to develop TalkVermontPEDS. We also obtained three extramural grants to study the effectiveness of palliative care teleconsultation and telecoaching in a large rural setting.

Publications


Pulmonology

The Pediatric Pulmonology Division provides outpatient and inpatient care to children with a variety of respiratory and airway disorders. The division participates in several multidisciplinary clinics to treat aerodigestive disorders, neuromuscular diseases, and patients with tracheostomies and those who require non-invasive and invasive assisted mechanical ventilation. Approximately 150 bronchoscopy procedures are performed each year. The Pediatric CF Program is one of the top centers in the United States for pediatric lung function and for meeting recommended guidelines as reported in the national CF Foundation (CFF) Patient Registry. The division continues to participate in several multi-center CF clinical research trials as a Therapeutic Development Center as awarded by CFF Therapeutics, Inc. Participation is also ongoing in asthma trials through the American Lung Association in conjunction with the Vermont Lung Center and the ECHO IDeA States Clinical Trials Network.

Highlights

• Kelly Cowan, M.D., is the principal investigator for the NIH-funded ECHO IDeA States Clinical Trials Network as well as the principal investigator for a phase 1 adjuvant polio vaccine study in collaboration with the Vaccine Testing Center.
• Keith Robinson, M.D., was named UVM Children’s Hospital Vice Chair for Quality Improvement and Population Health.
• Thomas Lahiri, M.D., is president of the Pediatric Pulmonology Division Directors Association of the American Thoracic Society.
• LE Faricy, M.D., launched a clinical study to investigate airway risk factors and the role of noisy breathing in infants admitted to the hospital with bronchiolitis.

Publications and National Presentations


https://doi.org/10.1007/s10624-019-04359-8
Rheumatology

The Division of Pediatric Rheumatology provides subspecialty care to children and adolescents with a variety of rheumatic diseases. Quality improvement is core to our mission. Current efforts include ensuring families have a positive experience during and after their appointment, and partnering with our patients so they have the knowledge and confidence for a successful transition to an adult system of care. We are also working with our regional primary and specialty care teams to screen for influenza coverage. The division recruits patients for national study groups and cohorts. These activities help to develop effective treatments for childhood arthritis, facilitate long-term medication safety surveillance, and advance collaboration with centers nationally to provide state-of-the-art care. Matthew Hollander, M.D., is a researcher for the Vermont Child Health Improvement Program, and is a member of the UVM Children’s Hospital Quality Council, Vermont Medical Society, American Academy of Pediatrics, Pediatric Academic Society, and the Childhood Arthritis and Rheumatology Research Alliance Steering Committee.

Publications


OTHER PEDIATRIC SPECIALTIES

Anesthesiology

The Department of Anesthesiology, Division of Pediatrics, provides anesthetics care to children of all ages and medical complexities. In the pediatric preoperative area and in our pediatric sedation center, we cultivate a family-friendly atmosphere through a dedicated team of pediatric-trained nurses and child-life specialists. We combine the use of cutting edge technology, such as virtual reality goggles, with simple techniques in mindfulness to give our patients and their families the best possible experience. The same family-centered approach is used in the operating room, with parental presence endorsed for many pediatric patients over the age of 1. Our faculty now includes 10 board-certified pediatric anesthesiologists.

Highlights

• Robert Williams, M.D., was named the Chris Abajian, M.D.’69 and Margaret Abajian Green & Gold Professor in Pediatric Anesthesiology.

• Emmett Whitaker, M.D., published articles in prominent journals such as J Pediatr Urol, J Anesth, and Clin Perinatol. He also published a chapter on perinatal stroke with his mentor, Marilyn Cipolla, Ph.D., in Clinics of Perinatology.

• Becky Evans, M.D., was named course director for the Perioperative Bridge Week.

• Ann Lawrence, D.O., and Becky Evans, M.D., facilitate UVM Medical Center’s perioperative transformation by serving as leaders to improve the safety, comfort, and flow of pediatric patients coming to UVM Children’s Hospital for surgery and procedures.

• Brian Waldschmidt, M.D., was named the Department of Anesthesiology Director of Informatics.

Emergency Medicine

The Pediatric Emergency Department (ED) provides a dedicated space for children, including specialized equipment, treatment protocols, and staff focused on child-centered care. Joseph Ravera, M.D., continues as the director of pediatric emergency medicine. Dave Nelson, M.D., joined the group as our second pediatric emergency medicine attending physician. Dr. Nelson relocated from Las Vegas, Nev., with over 25 years of clinical experience in pediatric emergency medicine. Recognized as a preeminent clinical educator and engaging speaker on a variety of topics, with a particular interest in pediatric stroke, we look forward to integrating him into our pediatric emergency medicine practice. The emergency medicine residency program began in July 2019 with six residents in the first cohort. Dr. Ravera has given several lectures to ED residents and faculty, pediatric residents, and medical students on topics including pediatric dysrhythmia, the use of point-of-care ultrasound in pediatric patients, and the approach to the febrile child. He also updated the orthopaedic section of Minor Emergencies, 4th edition, by Philip Buttaravoli, M.D., Stephen LaFlair, M.D., and Ramsey Herrington, M.D. Next year we hope to hire another pediatric emergency medicine faculty member, move into a dedicated pediatric ED space, and possibly expand coverage hours.

Dermatology

The Division of Pediatric Dermatology, now in its third year, continues to serve children with a variety of skin conditions. Procedural services have expanded to include pulsed dye laser treatment of vascular blemishes, simple excisions, and diagnostic skin biopsies. Dermatology and pediatric residents, fellows, and medical students are exposed to outpatient and inpatient pediatric dermatologic issues and didactics, with the addition of Friday morning pediatric clerkship rotations in pediatric dermatology. We are implementing Eczema Action Plans as part of ongoing quality improvement projects. The division maintains a close relationship with the American Academy of Dermatology and their Camp Discovery program, which provides children with chronic skin conditions an all-expense paid week-long summer camp experience.

Publications


Neurology

We provide family-centered care for children with known or suspected neurologic conditions. While Lisa Annie Rasmussen, M.D., has left our group to focus her expertise on palliative care, Deborah Hirtz, M.D., Rodney Scott, M.D., Gregory Holmes, M.D., and Brad Clifton, CNP, continue to collaborate in the care of children with headache, epilepsy, neuropsychiatric conditions, tics and Tourette syndrome, muscular dystrophy, and developmental delay with or without associated behavior difficulties. We provide initial evaluations for children with sleep problems, and we collaborate with child psychiatry to provide training for psychiatry residents. Telemedicine has been added to improve access and travel safety for families. One quality improvement initiative focuses on the optimal use of neuro-imaging for infants to minimize radiation. The neuromuscular clinic serves over 70 children with muscular dystrophy and other neuromuscular conditions. Advocacy work includes education to counter stigma associated with chronic pain and epilepsy. We continue to expand integrative health coaching for children with chronic pain or neuropsychiatric disorders. In addition to laboratory and clinic-based research into epilepsy and cognitive impairment associated with epilepsy, other research has focused on effects of music on brain waves (EEG), and game-based breathing techniques to improve respiratory health for young people with muscular dystrophy.

Psychiatry

The Vermont Center for Children, Youth, and Families (VCCYF), an internationally known Division of Child and Adolescent Psychiatry, is home to the Vermont Family Based Approach—a health promotion, illness prevention, and family wellness approach to the care and well-being of all families. We welcomed two new faculty this year: Haley McGowan, D.O., who graduated from our child psychiatry fellowship in 2019, and Yasmeen Abdul-Karim, M.D., from the University of South Florida Child and Adolescent Psychiatry Fellowship Program. Andrew Rosenfeld, M.D., was appointed VCCYF Clinic Director. We also welcomed three new first-year fellows, a new family-focused licensed clinical mental health counselor, and several master of social work interns.

This year, we launched a new collaboration with psychology colleagues co-directed by Haley McGowan, D.O., and Courtney Fleisher, Ph.D. Called CAPPCON, the program aims to increase access to psychiatry and psychology for children hospitalized in the emergency department, and provide family-centered, trauma-informed care. Our VCCYF Director of Research, Bill Copeland, Ph.D., has been named to the Clarivate Analytics list of most influential researchers in the world based on the number of times his published studies have been cited over the past decade. At this year’s American Academy of Child and Adolescent Psychiatry meeting, we hosted 10 posters, three ticket presentations, two symposiums, and a debate. Several faculty had presenter and co-presenter roles.

The Pediatric Psychology Service collaborated with Child Psychiatry to form a newly-designed Child and Adolescent Psychiatry and Psychology Consultation (CAPPCON) service to address mental health needs of children, adolescents and their families in the hospital and emergency department. We provide staff and family consultation, hospital-based psychotherapy, psychiatric evaluation and support, and education. Our psychologists continue to serve families in pediatric specialty clinics, as well as provide outpatient psychological services in pediatric primary care and outpatient settings. We train clinical psychology practicum students and interns and child psychiatry fellows, with the goal to increase access to much-needed mental health services in the region. Our internship participated in a successful accreditation site visit. A particularly exciting aspect of the training program is a strong emphasis on equity, diversity, and inclusion training.

Highlights

• Courtney Fleisher, Ph.D., and Marlene Maron, Ph.D., collaborated with pediatric hospitalists, nurses, and adolescent medicine physicians to develop a clinical care plan for young people admitted to the hospital for nutritional deficiency. This care plan will be evaluated as a QI project.
• Marissa Coleman, PsyD, initiated and co-led a parent support group for families in the NICU with intern Tessa Breedlove.
• Dr. Fleisher collaborated with Jill Sullivan, M.D., to expand mental health screening and service delivery to patients newly diagnosed with irritable bowel syndrome.

Pathology

The Department of Pathology welcomes a newest team member and pediatric pathologist, Amelia Sybenga, D.O. Pediatric and perinatal specimen management procedures are being evaluated to identify ways to improve diagnosis time for some of UVM’s more critical pediatric patients. We are also re-evaluating COG gross-exam protocols to improve specimen management and clarify tissue triage procedures. Pathology is partnering with neonatal-perinatal medicine in a series of multidisciplinary conferences to share knowledge and improve patient care.

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Radiology

Pediatric Radiology is a distinct subset of radiology that focuses on the unique needs of children who require medical imaging. Various imaging techniques are used, including ultrasound and regular x-rays, as well as advanced imaging studies such as MRI, CT scan, or nuclear medicine studies. The most current ultrasound technology is used in our department with the acquisition in 2019 of new, state-of-the-art ultrasound machines. Teaching of both radiology residents and pediatric residents on elective is central to the division’s mission. In 2019, Timothy Higgins, M.D., was voted Pediatric Subspecialist of the Year by the pediatric residents. Outreach to Angkor Hospital for Children in Siem Reap, Cambodia, continues through frequent consultation with pediatric radiologists there via the internet. Quality improvement initiatives include shortened MRI protocols to decrease or eliminate sedation time. Pediatric Radiology participates in multiple oncology study protocols in conjunction with Pediatric Hematology and Oncology.

Pediatric Outpatient Services

Pediatric outpatient services provide primary care and specialty care using a patient- and family-centered approach.

Children’s Specialty Center

The Children’s Specialty Center provides outpatient care in 15 pediatric specialties for about 100 patients per day. In the past year, we have developed a strong social work support team, updated our check-in and check-out process to be more consistent for patients and families, and operationalized the use of a new patient welcome guide, which was developed by patients and families, and worked closely with our infusion team, along with patients and families, to streamline our work and services.

Pediatric Primary Care – Burlington and Williston

This past year has focused on enhancing care and services related to social determinants of health, developmental screenings, behavioral health, and ensuring that well care occurs as recommended. In the fall of 2019, we implemented a new program in collaboration with the Jan and Sunt Family Room that brings Andrea Green, M.D. and Stanley Weinberger, M.D., to the family room one day per week to provide well-child care along the continuum from birth to adolescence. The division treats a range of congenital, oncologic, and acquired surgical conditions of the head and neck, chest, abdomen, and genitourinary system. We work closely with pediatric residents on these projects at the VON Quality Congress in Chicago, Ill.

Women’s Care and Pediatric Service

The Women’s Care and Pediatrics professional nursing service line provides patient- and family-centered care along the continuum from birth to adolescence. The nurses are involved in decision making at the bedside as they work with the physician team to ensure that the highest level of care is delivered, with particular focus on quality and safety measures.

Inpatient Pediatric Unit

The Inpatient Pediatric Unit completed its renovation of the playroom and teen/tech room. We are eagerly anticipating a new mural with funding assistance from Children’s Miracle Network Hospitals. Beginning September 3, 2019, Baird S became a secure unit 24/7, based on recommendations by the Joint Commission and our Child Abuse Prevention Team.

Comfort Zone

The Comfort Zone serves as an outpatient pediatric sedation home, providing outpatient pediatric procedural support. We offer family-centered, individualized and coordinated care. The Comfort Zone staff has been involved in planning for changes related to periperaoperative transformation and for extending pediatric IV training throughout the hospital.

Mother Baby Unit

The Mother-Baby Unit provides experienced nursing care and support to newborns, post-partum patients, and their families, as well as skilled nursing care to high-risk antepartum patients. International Board Certified Lactation Consultants provide specialized breastfeeding consultation, support and education. When a mother’s milk is not immediately available or there is a medical indication to supplement, donor human milk is used as a provisional measure supporting a parent’s decision to exclusively breast feed. The Eat, Sleep, and Console Initiative and care tool continues to be utilized to provide care and support to the intra-uterine opioid-exposed infant. The Mother-Baby Unit remains a Gold Standard Safe Sleep Hospital. Our Safe Sleep nurse champions also coordinate childbirth education and outreach in the community, with support from Cribs for Kids, Children’s Miracle Network Hospitals, and The Fraternal Order of the Eagles.

Neonatal Intensive Care Unit

Our 20-bed Level III NICU and nine-bed step-down unit is a regional referral center that provides quality, family-centered care to premature and critically ill newborns using a multidisciplinary team approach. The NICU is participating in a two-year collaborative with the Vermont Oxford Network focused on improving the efficiency of and family satisfaction with the discharge process for very low birth weight babies, titled Critical Transitions. PDCA (Plan-Do-Study-Act) cycles of better practices are being trialed in the NICU, as well as in the Neo-Med Follow-Up Clinic. Developments have included a standardized process for neo-med consults prior to discharge; a food, housing, and transportation security screening for all families; and a “Pathway Home Tree” that details important steps to discharge. Our team recently hosted a poster presentation on these projects at the VON Quality Congress in Chicago, Ill.

Pediatrics Surgical Specialties

General Surgery

Staffed by two board-certified pediatric surgeons, James Murphy, M.D., and Kenneth Sartorelli, M.D., the Division of Pediatric Surgery provides comprehensive surgical care for children from the newborn period through early adolescence. The division treats a range of congenital, oncologic, and acquired surgical conditions of the head and neck, chest, abdomen, and genitourinary system. We work closely with our pediatric anesthesia colleagues to provide surgical care for infants under regional anesthesia when appropriate, avoiding the need for general anesthesia. The pediatric surgical team oversees trauma care for injured children in our American College of Surgeons-verified pediatric trauma center. On June 20, 2019, Jacob Langer, M.D., professor of general surgery at the University of Toronto Hospital for Sick Children, hosted the 2019 Arnold H. Colodny Lecture in Pediatric Surgery.
Neurological Surgery

Pediatric Neurosurgery provides comprehensive, patient- and family-centered care for conditions such as brain and spine tumors, craniosynostosis, tethered spinal cord, Chiari malformation, peripheral nerve injuries and tumors, hydrocephalus, and spina bifida. Pediatric neurosurgery participates in multidisciplinary clinics for pediatric neuro-oncology, spina bifida, and concuss. The division is part of a multi-center clinical trial on the surgical treatment of Chiari malformation. Topics for recent publications include a systematic review of the management of isolated skull fractures in children, clinical guidelines on the treatment of spina bifida, and pediatric neurosurgery fellowship training in the United States. Selected recent presentations have focused on novel techniques for localization of scalp and skull lesions using intraoperative frameless navigation, and pediatric neurosurgical education in ACGME-accredited neurosurgery residency training programs.

Ophthalmology

The UVM Pediatric Ophthalmology and Strabismus Clinic provides comprehensive ophthalmic evaluations, amblyopia therapy, and surgical treatment for pediatric ophthalmic diseases. The service continues a partnership with the eye health care service of the West African nation of The Gambia by serving as clinical preceptors and didactic lecturers. We also plan to develop a mandated national vision screening program in that country. Additionally, pediatric ophthalmology providers are standardizing the vision screening protocol for pediatric primary care providers in Vermont. The UVM Department of Pediatrics and Vermont Department of Health Division of Maternal and Child Health have provided support for this effort to reduce the rate of amblyopia in the state.

Otolaryngology

The section of Pediatric Otolaryngology in the Division of Otolaryngology includes two fellowship-trained pediatric otolaryngologists, Richard Hubbell, M.D., and Heather Herrington, M.D. Several quality projects are ongoing, including a multidisciplinary initiative to improve the care of children with tracheostomies in and out of the hospital. With the Department of Pediatrics, we hosted a Grand Rounds on congenital cytomegalovirus (CMV) with national experts David Kimberlin, M.D., and Albert Park, M.D. UVM Medical Center now screens children for CMV who refer on newborn hearing screens. We’ve also implemented a provider and patient CMV education program in conjunction with the Vermont Department of Health. Dr. Herrington now provides cochlear implantation to select children with unilateral severe to profound hearing loss. Dr. Hubbell is implementing telemental follow-up visits.

Publications and Presentations

- Disciullo A, Gerges D, Herrington H. Bilateral lateral sinus thrombosis secondary to acute mastoiditis. Poster presentation at the American Society of Pediatric Otolaryngology summer meeting, July 2019

Pediatric Plastic Surgery

The Division of Plastic, Reconstructive, and Cosmetic Surgery provides care to children with facial and other congenital differences, children who have suffered facial and other trauma, and children with general reconstructive needs. We have transitioned cleft and craniofacial care from the Vermont Department of Public Health to UVM Children’s Hospital. The Cleft & Craniofacial Clinic is in the process of obtaining approval from the American Cleft Palate Association. The Heads Up Clinic provides comprehensive care to children with skull and spinal differences. In collaboration with other specialties, we have expanded the range of treatments available to include pediatric free tissue transfers, cranial vault distraction procedures, maxillary distraction, and the multidisciplinary management of a number of neonates with rare conditions. Pediatric neurological surgery and plastic surgery presented at the International Society of Craniofacial Surgery a technique for mapping scalp veins in vascular malformations of the skull and scalp. We published two articles on the use of intraoperative navigation in craniofacial surgery.

Urology

Pediatric Urology diagnoses and treats children with a wide range of congenital and acquired conditions involving the genitourinary tract. The team now consists of two fellowship-trained, board-certified pediatric urologists. This expansion improves access to services, including a multi-specialty voiding dysfunction clinic with a special emphasis on children with developmental disabilities such as autism, a multidisciplinary myelomeningocele clinic, and robotic minimally invasive surgical treatment for routine problems and complex reconstructive procedures. We have a robust relationship with pediatric urology at Children’s Hospital of Philadelphia. This includes participation in clinical care conferences and access to world-class expertise for the most complex urologic conditions. Pediatric Urology received a prestigious NIH R01 award to study the effect of stress on bladder function in children.

Publication

Faculty

Adolescent Medicine
Erica Gibson, M.D.

Anesthesiology
Kevin Abnet, M.D.
Melissa Davidson, M.D.
Rebecca Evans, M.D.
Ann Lawrence, D.O.
Monika Modinski, M.D.
Marian Murphy, M.D.
Emily Stebbins, M.D.
Brian Waldschmidt, M.D.
Emmett Whittaker, M.D.
Robert Williams, M.D.

Cardiology
Nancy Drucker, M.D.
Jonathan Flyer, M.D.
Niel Giddings, M.D.
Scott Yaeger, M.D.

Child Abuse
Joseph Hagan, M.D.
James Matz, M.D.

Child Development
Elizabeth Forbes, M.D.

Child Psychiatry
Robert Atthoff, M.D., Ph.D.
Jenaeurn Dickerson, M.D.
Sarah Guth, M.D.
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Heather Link, M.D.
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