

Their Journeys



Comprehensive Care Center
for Cancer and Blood Disorders
2010 Hematology/Oncology Annual Report



DAYTON
CHILDREN'S
Just Right for Kids

Emmett H. Broxson, Jr, MD, FAAP (l)

Jeffrey Pence, MD (r)



Chairman's message

The annual report for 2010 has a little different format. Our disease focus is acute myelogenous leukemia. I hope you find it informative and helpful.

There were a lot of activities in 2010 for the Center for Cancer and Blood Disorders. Early in the year we received our recertification by the American College of Surgeons. We remain one of 11 accredited Pediatric Cancer programs. Everyone has worked hard to achieve and maintain our accreditation.

Our hematology/oncology clinic was renovated during the year to increase our number of infusion rooms and examination rooms. It was a welcomed change that has enhanced our ability to care for patients and provide a more comfortable atmosphere.

The renovation gave us an opportunity to prepare for the implementation of EPIC, our electronic medical record. EPIC went live in October with minimal impact on the number of patients we could see each day. Inpatient services had been on EPIC for more than a year. EPIC greatly enhances our documentation and patient safety.

Our inpatient unit began several process improvements; we have already seen benefits for the patients such as starting chemotherapy sooner. The Mills Family Lounge, funded by a generous donation from the Robert Mills family, is a welcomed addition for our families. Our inpatient satisfaction scores are the highest on record and many responders were very complimentary of our excellent staff.

All these achievements required a lot of support and work by people from all parts of the hospital. To everyone who played a role, we say thank you.

Emmett H. Broxson, Jr, MD, FAAP

Director, Hematology Oncology

Professor, Wright State University Boonshoft School of Medicine

Benjamin J. Wegerzyn, Chair for Cancer & Blood Disorders

Cancer liaison physician

Jeffrey Pence, MD, pediatric surgeon and associate professor, Wright State University Boonshoft School of Medicine, has served as cancer liaison physician for Dayton Children's since 2009. As cancer liaison physician, Dr. Pence ensures compliance with the American College of Surgeons Commission on Cancer Standards, promotes outreach activities and supports improving the quality of care delivered to cancer patients and their families.

Dr. Pence has worked to develop community outreach goals and strengthened the relationship between Dayton Children's and the American Cancer Society (ACS). Dayton Children's signed a collaboration agreement with ACS in 2010. The collaboration agreement ensures that all cancer patients at Dayton Children's are informed of resources, programs and services provided by ACS. Thus far, more than 12 Dayton Children's patients have benefitted from ACS programs.

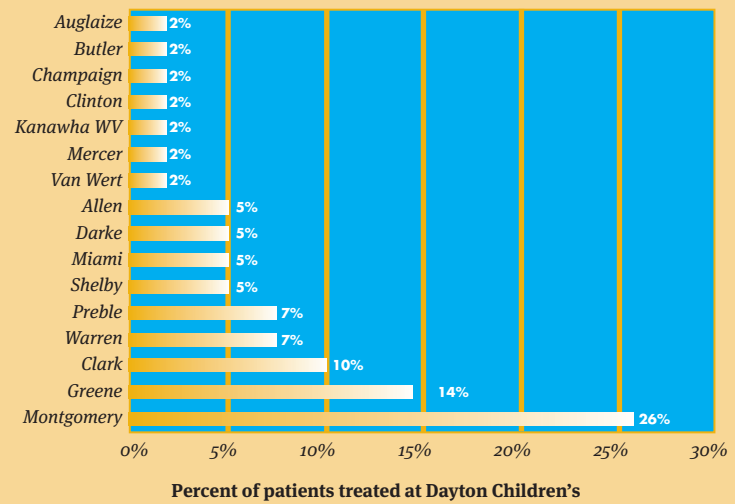
Dr. Pence has represented Dayton Children's at meetings and has shared information related to the Commission on Cancer standards and the role of the liaison physician.

Dr. Pence, along with the hematology/oncology staff, worked diligently to prepare for the cancer program's successful survey by the American College of Surgeons Commission on Cancer earning accreditation with commendation status.

**Did
YOU
Know?**

As a member of the Children's Oncology Group (COG), our team follows nationally approved protocols for cancer treatment. This allows us to provide infants, children and teens the best cancer treatments available. Quality care close to home.

2010 patient distribution by county



Tumor Registry

The tumor registry at Dayton Children's was established in 1994. The registry currently has 914 cases. The data retrieval system allows information gathered by the tumor registrar to be easily accessed and disseminated as appropriate.

Responsibilities of the tumor registrar include accurate data collection on all oncology patients, as well as reporting to the National Cancer Data Base and the Ohio Cancer Incidence Surveillance System. The registry is supervised by the Comprehensive Cancer Care Committee with quarterly quality control audits to ensure accurate and timely abstracting, staging and follow-up reporting.

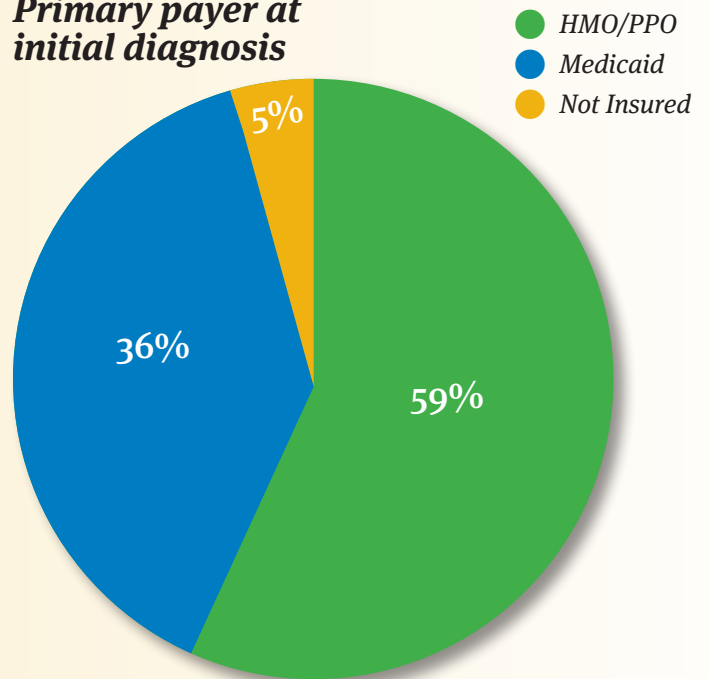
Leukemia and brain tumors continue to be the most common forms of pediatric cancer diagnosed and/or treated at Dayton Children's. Together they represent more than 60 percent of the caseload while these same neoplasms only represent 44 percent of national incidence of pediatric cancers.

The information presented here in the tables, charts and graphs is based on analytical cases, which are cases that are diagnosed or initially treated at Dayton Children's. Pediatric facilities utilize the International Classification of Childhood Cancers allowing categorization of pediatric tumors based on morphology and primary site rather than the primary site alone utilized in adult cancer classification.

All information gathered by the Dayton Children's tumor registry is available via specialty reports and queries through the hematology/oncology department tumor registrar:

Michele Keyes
937-641-3263 or keyesm@childrensdayton.org

Primary payer at initial diagnosis



Registry data items include demographics (age, sex, race, place of residence), medical history (presenting symptoms, date of diagnosis, comorbidities), diagnostic findings (types, dates, staging, results of procedures) and treatment modalities (surgery, chemotherapy, hormonal therapy, radiation therapy and other therapy).

**Dayton Children's
2010 analytic cases**

ICCC Group	Actual cases	Actual cases male	Actual cases female
Leukemias, myeloproliferative, and myelodysplastic diseases	13	7	6
Lymphomas and reticuloendothelial neoplasms	3	2	1
CNS and miscellaneous intracranial/spinal neoplasms	14	9	5
Renal tumors	4	2	2
Hepatic tumors	2	1	1
Malignant bone tumors	2	2	0
Soft tissue and other extraosseous sarcomas	3	0	3
Germ cell tumors, trophoblastic tumors and neoplasms of gonads	1	0	1
Totals	42	23	19

2010 analytic incidence comparative data

ICCC Group	Total DC	Total Ohio¹	Total USA¹
Leukemias, myeloproliferative and myelodysplastic diseases	31%	25%	27%
Lymphomas and reticuloendothelial neoplasms	7%	17%	15%
CNS and miscellaneous intra-cranial/spinal neoplasms	33%	17%	17%
Renal tumors	10%	6%	4%
Hepatic tumors	5%	0%	1%
Malignant bone tumors	5%	4%	5%
Soft tissue and other extraosseous sarcomas	7%	6%	7%
Germ cell tumors, trophoblastic tumors and neoplasms of gonads	2%	5%	6%

0% = Suppressed is displayed when counts fall below the determined "cut-off" value and the conditions for suppression are met.

1. National Program of Cancer Registries: 1999 - 2008 Incidence, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2011. Accessed at <http://wonder.cdc.gov/cancermpr-v2008.html> on Jun 28, 2011. Parameters: 0-19 years, 2008, Ohio and USA, Childhood Cancer

*Tyler Sinclair with dietitian,
Shannon Burkett, RD, LD*



Dietary and nutrition services

Malnutrition is present at diagnosis in up to 50 percent of children, and up to 32 percent of children become malnourished during therapy. Protein energy malnutrition increases the risk of mortality and increases the risk of treatment-related complications. Children who become malnourished are also at higher risk of infection and delayed physical and psychological development. Children undergoing chemotherapy have difficulty meeting their nutritional needs due to the problematic side effects from therapy such as anorexia, nausea, vomiting, mucositis and sepsis. The goals of medical nutrition therapy are to prevent, identify early and correct protein energy malnutrition in order to optimize treatment outcomes.

Dayton Children's has a registered dietitian on the hematology/oncology team to provide supportive nutrition care to patients undergoing cancer therapy. Our dietitian works closely with the physician and staff to provide medical nutrition therapy. The dietitian educates families on food safety guidelines to reduce risk of food-borne illnesses. When weight loss becomes problematic, the dietitian has the knowledge to assist with diet, oral supplements and nutrition support to prevent protein energy malnutrition. Dietitians are good resources for physicians, residents and nurses who are working with children with food aversions, anorexia and other side effects that can affect a patient's nutrition status. Obesity is another risk for patients undergoing cancer therapy. Dietitians can help obese or overweight patients eat healthier to prevent excessive weight gain.

Shannon Burkett, RD, LD, provides medical nutrition therapy to our hematology and oncology patients. She may be contacted at 937-641-3679.

Tyler's story

Tyler Sinclair, a very active college student, was diagnosed with acute myelomonocytic leukemia (AMML) in July 2010. During his treatment, Tyler became very ill and was unable to eat which resulted in the need to place a feeding tube. As he improved and was slowly able to eat again, Tyler still faced many challenges but was determined to meet his nutritional needs on his own rather than continuing with the feeding tube. Fortunately Shannon Burkett RD, LD, the registered dietitian on the hematology/oncology team, was able to work closely with Tyler to prevent malnutrition. Tyler's mother Gina Sinclair said:

"The few days that Tyler had to use a feeding tube were the saddest he's ever had because it made his sickness real. He was determined to get back to his normal lifestyle and eating regularly was one way Tyler knew he could get there quicker."

Burkett's initial concern was that without a feeding tube, Tyler was at risk for protein energy malnutrition which would decrease his quality of life and increase the risk of infections and other complications. Burkett worked with Tyler and his family to educate them on proper nutrition and closely monitored his meals to ensure he took in enough calories to prevent protein energy malnutrition.

Tyler followed Burkett's advice and continued on the road to recovery with a positive attitude. He regained his strength and today Tyler is in remission and back on campus for another year of classes. Tyler said:

"I consider myself a professional student. I'm really a big nerd and love school so being away was the hardest part. Throughout this process I've learned so much about patience – patience with doctors, my family and friends. It has paid off though, and now I'm ready to get back to school. I still plan to go to law school one day in the future."

**Did
YOU
Know?**

Overweight and obese children are more likely to become obese adults. Obese adults have an increased risk for many diseases, including type II diabetes, heart disease, some forms of arthritis and several types of cancer.

*Katie Hollingsworth with
Ana Roche, MS, RN, CNP-AC, CPHON,
nurse practitioner*



Katie's long and winding road to remission

When 14-year-old Katie Hollingsworth developed flu-like symptoms, her family physician ordered laboratory tests which revealed an elevated white blood cell count.

Emmett H. Broxson, Jr, MD, FAAP, a pediatric hematologist/oncologist at Dayton Children's, was consulted. When Dr. Broxson met with Katie and her family, he explained that a bone marrow aspirate and biopsy would be necessary to determine the cause of the elevated white blood cell count. Katie's bone marrow was sent for flow cytometry which revealed acute myelocytic leukemia.

Dr. Broxson explained treatment options for acute myeloid leukemia include chemotherapy and possibly a bone marrow transplant. Katie's family underwent testing to see if anyone was a possible match for a bone marrow transplant, but none of the family was a potential donor, hence only chemotherapy was planned for Katie.

Katie and her parents agreed to participate in a Children's Oncology Group (COG) clinical trial. COG is the world's largest cooperative children's cancer research entity. Katie's treatment consisted of five very intense courses of chemotherapy which started in January. The first three courses of chemotherapy were well tolerated. However, in April when Katie started her fourth course, she developed pneumonia which required a week's stay in Dayton Children's pediatric intensive care unit (PICU).

When the fifth and final course of chemotherapy was started in May, Katie again developed another severe infection which led to septic shock and another prolonged stay in the PICU. Through collaborative efforts between hematology/oncology and PICU physicians, Katie's condition stabilized.

Unfortunately, Katie's bone marrow function did not recover as anticipated. Dr. Broxson tested Katie's bone marrow again and discovered she had developed a rare secondary blood disease called hemophagocytic lymphohistiocytosis (HLH). Dr. Broxson collaborated with physicians at Cincinnati Children's to treat Katie's HLH. Fortunately with teamwork between Dayton Children's and Cincinnati Children's, Katie beat the odds and survived. Katie's mother, Samantha Alcom, said:

"When Katie was at Cincinnati Children's, Dr. Broxson came all the way to see her and worked with Cincinnati doctors to decide what the best plan would be. Their working together truly saved her life."

While Katie's battle with acute myeloid leukemia has been very difficult and challenging, she has overcome the 40 percent survival odds. Today at age 15, Katie enjoys a normal teenage life — attending school; rooting for her favorite baseball team, the Cincinnati Reds; and rocking to her favorite band, The Beatles.

**Did
YOU
Know?**

All RN staff who administer chemotherapy at Dayton Children's must successfully complete the APHON (Association of Pediatric Hematology and Oncology Nurses) Pediatric Chemotherapy and Biotherapy Provider course. This course teaches the most current and highest standard practices for pediatric chemotherapy and biotherapy administration. After successful completion of the initial course, RNs must meet additional APHON educational requirements and maintain an annual competency.

Austin Kline receiving treatment for osteosarcoma, with Whitney Pierce, RN



Acute myelogenous leukemia

Each year approximately 3,250 cases of newly diagnosed leukemia occur in children and adolescents in the United States. Acute lymphoblastic leukemia (ALL) is the most common childhood cancer and accounts for almost 80 percent of these cases. Acute myeloid leukemia, also known as acute myelogenous and acute non-lymphocytic leukemia (ANLL), represents 15 to 20 percent or 500 to 600 cases each year, but is responsible for almost 30 percent of yearly childhood deaths from leukemia. However, with pediatric cooperative cancer groups collaborating in clinical research, there has been a significant improvement in survival rates since the late 20th century. The five-year overall survival rate increased from 23 percent in the 1975-1984 period to 41 percent in the 1985-1994 period. Currently the overall survival rates are now 45 to 60 percent.

Peak incidence occurs at 2 years of age, steadily declines to a low point at approximately 9 years, and then increases in adolescence to almost 50 percent of newly diagnosed acute leukemias. Incidence is equal in males and females and black and white populations. However, the subgroup acute promyelocytic leukemia (APL) has a higher incidence among children of Latino and Hispanic ancestry.

Although factors are associated with developing acute myeloid leukemia, the cause in most patients is unknown and most people exposed to the same factors do not develop leukemia. There are two general categories of risk factors for predisposition of acute myeloid leukemia: environmental or toxic and genetic or inherited. Environmental exposures that

predispose to acute myeloid leukemia include exposure to chemicals such as petroleum products, organic solvents (benzene), herbicides and pesticides (organophosphates). Other risk factors include maternal alcohol consumption during pregnancy, and exposure to pesticides, prenatally, postnatally or up through 3 years of age. Acute myeloid leukemia as a secondary malignancy after intensive chemotherapy is often seen in older children and adults.

Genetic risks for acute myeloid leukemia include a high concordance rate in identical twins and a two-fold to fourfold risk for fraternal twins up to about 6 years of age. Multiple inherited and acquired conditions that contribute to increased incidence include: Kostmann syndrome, Schwachman-Diamond syndrome, Diamond-Blackfan anemia, Fanconi anemia, and Bloom syndrome. Down syndrome patients are also at a higher risk for acute myeloid leukemia and have a 10 to 20 times higher-than-average risk of developing acute leukemia. It is estimated that one in 500 Down syndrome children younger than 4 years of age develop acute myeloid leukemia and in this group it is more common than ALL. However, Down syndrome children with acute myeloid leukemia have an excellent response to treatment with cure rates of 80 to 100 percent.

Did
YOU
Know?

There are only 11 American College of Surgeons Commission on Cancer accredited pediatric cancer facilities and Dayton Children's is one of them!

Children may present with mild constitutional symptoms or be extremely ill with life-threatening hemorrhage or infection. Diagnosis is suspected if a complete blood count shows pancytopenia with blast cells and is confirmed by bone marrow examination. The white blood cell count is variable, although 25 percent have a count greater than $100,000/\text{mm}^3$ and circulating granulocytes are often critically decreased. Hemoglobin may be normal but is usually less than 9 g/dL and half the children have platelet counts of $50,000/\mu\text{L}$ or less.

Many of the symptoms reflect the degree of infiltration of bone marrow and extramedullary sites by leukemic blasts. Replacement of normally functioning cells results in neutropenia, anemia and thrombocytopenia causing pallor, fatigue, tachycardia, easy bruising, petechiae and bleeding. Recurrent unexplained fevers and infections not responding to antibiotic therapy are also seen. Bone pain, caused by infiltration of bone and periosteum, is a common symptom and usually presents as a limp or pain arising from the rib cage or spine.

Leukemic infiltration of extramedullary sites may result in hepatosplenomegaly (occurring 50 percent of the time), lymphadenopathy (25 percent) and chloromatous tumors (myeloblastomas and granulocytic sarcomas). Skin infiltration, seen as a slightly purple lesion or “blueberry muffin” spot, may be the initial sign of disease and is more common in infants. Leukostasis, the clumping of leukemic blasts intravascularly, is seen in children with high white cell counts and usually affects the lung and brain.

Prognosis for children with acute myeloid leukemia depends on age, initial presentation and subtype of acute myeloid leukemia. Treatment outcome for children with acute myeloid leukemia has improved considerably with risk-directed therapy and improved supportive care. Standard therapy for acute myeloid leukemia is four to five very intensive courses of combination chemotherapy in the first few months. Children are hospitalized for three to four weeks to administer the chemotherapy and supportive therapy. Supportive care includes prophylaxis (antibiotic, antiviral and antifungal) and hematopoietic growth factors until evidence of bone marrow recovery to reduce morbidity and mortality. Induction therapy consists of two courses of intensive chemotherapy to achieve remission using cytarabine, anthracyclines and other chemo agents along with intrathecal chemotherapy for central nervous system prophylaxis. Post-remission therapy includes continued courses of chemotherapy to destroy residual blasts or hematopoietic stem cell transplantation (HSCT) in high-risk patients if a suitable donor is available.

Acute promyelocytic leukemia (APL) is the only type of acute myeloid leukemia that is treated differently. Daunomycin and cytarabine along with retinoic acid or arsenic as maturational agents are used. These patients do not need HSCT and their prognosis is good with a five-year overall survival rate of 87 percent.

Classification has diagnostic and therapeutic implications allowing for confirmation of the diagnosis and providing some guidance with the prognosis. There are two classification systems for subtyping

Did
YOU
Know?

Dayton Children's 14-bed inpatient hematology/oncology unit is specially designed to meet the needs of patients and their families. The newly renovated Mills Family Lounge provides many amenities so patients and their families can relax in a comfortable environment.

Alexandria (Allie) Cooper receiving Wilms tumor treatment photographed with inpatient staff, Rachele Musselman, RN, (r) and Jessica Clark, PCA, (l)



acute myeloid leukemia: the French-American-British (FAB) and the World Health Organization systems. FAB was the first system developed and categorizes acute myeloid leukemia based on morphology and histochemical staining patterns. The World Health Organization system provides a more clinically relevant classification of acute myeloid leukemia based on immunophenotyping along with the analyses of cytogenetic and molecular abnormalities to differentiate the subclasses of acute myeloid leukemia.

Various molecular abnormalities have been shown to impact outcome. The presence of specific gene mutations is predictive of outcome. The most common mutations include FLT3, FLT3/ITD, NPM1, MLL, and Wilms tumor genes. FLT3/ITD alone or combined with NPM1, MLL and the Wilms tumor gene are predictors of worse outcome. The NPM1 mutation is a favorable predictor of event-free survival.

In Children's Oncology Group (COG) trials, a combination of cytogenetic, molecular and minimal residual disease information is used to stratify patients into two groups (low risk and high risk) for risk directed therapy. Molecularly targeted drugs can be tested in both risk groups with the goal of reducing toxic therapy in the low-risk group and improving survival in the high-risk group. Dayton Children's participates in COG trials and currently has six open trials for acute myeloid leukemia treatment. Over the last five years, Dayton Children's treated 12 children diagnosed with acute myeloid leukemia and the overall survival was 75 percent. Our 10-year total of children treated with acute myeloid leukemia is 23 with an overall survival of 69 percent.

References

- Clark JJ, Berman JN, Look AT. Myeloid leukemia, myelodysplasia and myeloproliferative disease in children. In: Orkin SH, Fisher DE, Look AT, Lux IV SE, Ginsburg D, Nathan DG, eds. *Oncology of Infancy and Childhood*. Philadelphia, PA: Saunders. 2009:331-363.
- Ching-Hon P, Carroll WL, Meshinchi S, Arceci RJ. Biology, risk stratification, and therapy of pediatric acute leukemias: An update. *Journal of Clinical Oncology*. 2011;29:551-565.
- Imbach P. Acute myelogenous leukemia. In: Imbach P, Kuhne T, Arceci R, eds. *Pediatric Oncology – A Comprehensive Guide*. New York, NY: Springer. 2005:29-39.
- Weinblatt ME, Arceci RJ. Pediatric acute myelocytic leukemia. *Medscape*. <http://emedicine.medscape.com/article/987228-overview>. Accessed May 22, 2011.
- Rubnitz JE, Gibson B, Smith FO. Acute myeloid leukemia. *Hematology Oncology Clinics of North America*. 2010; 24:35-63.
- Childhood acute myeloid leukemia/other myeloid malignancies treatment (PDQ®). National Cancer Institute. <http://cancer.gov/cancertopics/pdq/treatment/childAML/HealthProfessional>. Accessed May 23, 2011.

Did
YOU
Know?

Dayton Children's' is one of more than 200 COG hospitals worldwide. COG research has turned children's cancer from a virtually incurable disease 40 years ago to one with an overall cure rate of 78 percent. COG hospitals treat 90 percent of children with cancer in the United States, providing the unmatched combination of global expertise and local care. This means that every child and care team has complete access to the latest research and world-class treatments at hospitals within their region.

*Sky and Austin Adkins with research nurse
Sandy Hibner, BSN, RN*

The West Central Ohio Hemophilia Treatment Center at Dayton Children's

Only 12 hours after their daughter Sky was born, Merissa and Mike Adkins noticed a purplish color that resembled deep bruising on their daughter's left foot. A Dayton Children's hematologist was consulted and Sky was transferred to the Dayton Children's newborn intensive care unit (NICU). Sky was diagnosed with a rare clotting disorder, protein C deficiency. Initially Sky was treated by James A. French II, MD, FAAP with fresh frozen plasma and Lovenox® anticoagulant therapy. Dr. French investigated other treatment options and obtained protein C concentrate on emergency investigational new drug basis. Subsequently, he opted to enroll Sky in a clinical trial to determine the efficacy and safety of protein C concentrate.

One year later, when they were expecting their son, Austin, the doctors identified blood clots by ultrasound in his brain, spleen, liver and kidney. Austin was delivered via emergency C-section and at birth, purpura fulminans was noted over one-third of his body. Austin was transferred to Dayton Children's and was also diagnosed with protein C deficiency. Austin required intensive treatment in the NICU for eight weeks.

Protein C concentrate was obtained by Dr. French and Sandra Hibner, BSN, RN, hematology research nurse, through collaboration with the manufacturer



and the Food and Drug Administration (FDA). Subsequently, Ceprotrin became the first FDA-approved drug for the treatment of patients with severe protein C deficiency.

Both Sky and Austin have experienced numerous clotting episodes since birth; however, close monitoring and prompt treatment have been very effective in preventing further complications. Sky has had minimal problems, but Austin has faced more challenges. Both children require lifelong anticoagulation monitoring and treatment.

Merissa believes the staff at the Hemophilia Treatment Center and Dayton Children's was integral in helping her children recover and feels blessed to have her children taken care of in such a welcoming, family-friendly hospital. She says:

"Dayton Children's helped us get through so much during all of this. I can't imagine what we would have done without them. They are there if we need anything, be it a late night phone call or a word of support. They are unlike any hospital our children have been to and it's the best fit for us."

**Did
YOU
Know?**

The West Central Ohio Hemophilia Treatment Center (HTC), located at Dayton Children's, provides comprehensive coordinated care in a multidisciplinary fashion for more than 600 patients with bleeding and clotting disorders.

Amani and Antonio Taylor



Region II West Central Ohio Comprehensive Sickle Cell Center

Raising a family of five children, two who have sickle cell disease, has been very challenging for Ciara Sanford. In 1996, her son Antonio was diagnosed at birth with sickle cell disease and has been treated by Mukund Dole, MD, FAAP at Dayton Children’s. Initially Antonio required hospitalization for vaso-occlusive pain episodes. However, since being placed on hydroxyurea, a medication used to help decrease pain episodes by increasing the patient’s hemoglobin F levels, his health has improved tremendously. Currently, Antonio enjoys a normal adolescence, including sports and straight A’s.

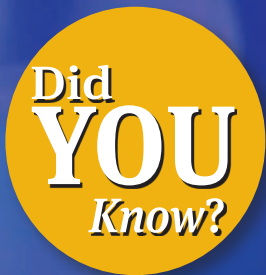
Five years later, Ciara’s daughter Amani was also born with sickle cell disease. Amani’s condition, however, was more severe than her brother’s and she required multiple hospitalizations. In August 2010, when Ciara attempted to awaken Amani for school, she discovered that her 9-year-old daughter had a stroke during the night.

Children with Hb SS (sickle cell anemia) have a 10 percent increase in risk for strokes, especially between 4 and 10 years of age. Currently, Amani receives monthly blood transfusions (chronic transfusions) which is the standard of care for sickle cell patients who have had a stroke or an abnormal transcranial doppler (TCD). Amani is a candidate for a bone marrow transplant due to the progression of her disease and having a matched related donor.

Although their childhoods have been hard, Ciara has been proud of how well her five children have stuck together and supported each other. She is especially proud of Antonio who comforts and encourages his little sister as they both face the challenges of living with sickle cell disease.

In addition to family support, Ciara feels blessed that Antonio and Amani are able to become part of the Dayton Children’s family, where she continuously feels confident in knowing her children are receiving state-of-the-art care. Ciara says:

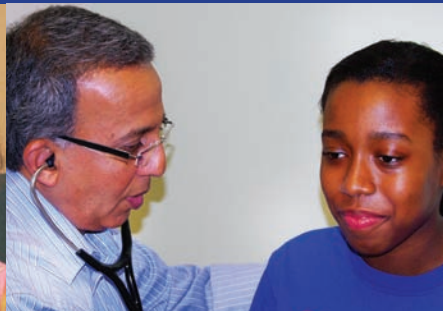
“Antonio and especially Amani come to Dayton Children’s often and we all love it here. When they talk about their experiences I almost feel like they get a little spoiled here, but that’s what they deserve. I always know my children won’t be home until they’re better, and when I bring them here I know that their health is in the best hands.”



The sickle cell center provides comprehensive care using a multidisciplinary team approach, which includes the medical director, sickle cell nurse coordinator, social worker, dietitian and genetic counselor. The program participates in research studies to improve the quality of life and decrease morbidity and mortality in patients affected by sickle cell disease.



James A. French, II, MD, FAAP, medical director, West Central Ohio Hemophilia Center at Dayton Children's and associate professor, Wright State University Boonshoft School of Medicine with Paige Stewart, diagnosed with acute lymphoblastic leukemia in 2008.



Mukund Dole, MD, FAAP, medical director, West Central Ohio Comprehensive Sickle Cell Center and associate professor, Wright State University Boonshoft School of Medicine with Shayla Ellington. Dr. Dole manages Shayla's treatment for sickle cell disease.



Emmett H. Broxson, Jr, MD, FAAP, medical director, Hematology/Oncology at Dayton Children's and professor, Wright State University Boonshoft School of Medicine with Bill Bach, long-term follow-up patient who has been cancer-free more than ten years.

2010 Comprehensive Cancer Care Committee and Coordinators

Nancy Bangert, RN, BSN, CCRP
Data Coordinator,
Hematology/Oncology

Christie Banford, RN, BSN
Administrative Manager,
Hematology/Oncology Inpatient Unit

Karen Braun, MHA
Director, Ambulatory Administration

John Breneman, MD
Director, Radiation Oncology

Emmett H. Broxson, Jr, MD, FAAP,
Chairman*
Director, Hematology/Oncology

Shannon Burkett, RD, LD
Clinical Dietitian

Pam Byer, MSW, LISW
Social Worker, Social Services

Mary Beth DeWitt, PhD
Psychology

Jenny Dillon, RN, BSN, CCRP*
Quality Improvement Coordinator
Research Coordinator,
Hematology/Oncology

Mukund Dole, MD, FAAP*
Quality Data Coordinator
Hematology/Oncology

Elizabeth Ey, MD
Medical Director,
Medical Imaging

James A. French II, MD, FAAP
Hematology/Oncology

Kim Hadley, RN
Team Leader, Hematology/Oncology
Inpatient Unit

Linda Hollen, RN, MS, FNP
Pediatric Surgery

Michele Keyes*
Committee/Tumor Board Coordinator
Tumor Registrar, Hematology/Oncology

Laurence Kleiner, MD
Director, Neurosurgery

Ruth Lavigne, MD
Radiation/Oncology

Linda McGinnis, MACC-A
Therapist, Rehabilitation

David Meagher, MD
Director, Pediatric Surgery

Marvin Miller, MD
Medical Director, Medical Genetics

Mary Miller, RN, BSN
Administrative Manager,
Outpatient Hematology/Oncology

Robbie Mirisciotti, RN
Team Leader,
Hematology/Oncology Clinic

David Mirkin, MD
Medical Director, Pathology

Karen Muller, BS, CCLS
Manager, Child Life

Thomas O'Neill, MRC, LSW
Family Support Specialist,
Care and Comfort Program

Rae Jean Parrish, RN
Resource Care Coordinator

Jeffrey Pence, MD*
Cancer Liaison Physician
Pediatric Surgery

Holly Pendleton, RN, MS
Director, Inpatient Pediatrics

Jani Rice, RN*
Long Term Follow-up Coordinator,
Hematology/Oncology

Mariana Roche, RN, MS, CPNP-AC
Pediatric Nurse Practitioner,
Hematology/Oncology

Gerri Sheehan, RN, MS
Director, Clinical Services/
Children's Home Care of Dayton

Cecelia Sledge, Rev
Chaplain Services

Heather Tallet, RN
Nurse Coordinator, Neuro-oncology

Laura Vondenhuevel, RHIT, CTR
CTR Hematology/Oncology

Sharon Watkins
RMDH Representative

Della Zona, RPh
Pharmacy

* Designates coordinators



Just Right for Kids



childrensdayton.org