



# InFlight

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A QUARTERLY MAGAZINE  
FOR FRIENDS OF HEALTHNET  
AEROMEDICAL SERVICES, INC.

## Special Issue

**Neonatal and  
Pediatric Critical  
Care Transport**



**HealthNet  
Aeromedical Services**



# On the Cover

A pediatric critical care team transports an infant in a HealthNet Aeromedical Services helicopter.

Special Issue

Neonatal and Pediatric Critical Care Transport

HealthNet Aeromedical Services



# Customer Profile

PRINCETON COMMUNITY HOSPITAL



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## Rob Snuffer, D.O., Named 2017 West Virginia School of Osteopathic Medicine Alumni of the Year

HealthNet Aeromedical Services Physician Advisory Council member Rob Snuffer, West Virginia School of Osteopathic Medicine (WVSOM) class of 2001, was presented with the 2017 Distinguished Alumni of the Year Award by the WVSOM, recognizing his commitment to the WVSOM, the osteopathic profession and rural medicine.

Snuffer began his practice at Weston Family Medical Care in Weston, W.Va., and has served the nation as an active member in the U.S. Army Reserve, including deployment four times in the past 10 years, including duty in Iraq. Snuffer also serves as the medical director for Lewis and Gilmer counties emergency medical services.

After receiving the award, Snuffer commented, “I am fortunate that every day I get to get up and go to work, and one of the best things I do is teach students. I’m proud to be an alumnus of WVSOM and to be part of the WVSOM family”.

HealthNet Aeromedical Services thanks Dr. Snuffer for his continued commitment to teaching students and the influence and support his participation on our Physician Advisory Council provides to our organization.

*This article taken in part from the West Virginia Medical Journal, May/June 2017*

The citizens of southern West Virginia know they can depend on the lifesaving partnership between Princeton Community Hospital (PCH) and HealthNet Aeromedical Services. In the first quarter of 2017, HealthNet Aeromedical Services airlifted 17 patients from the emergency department, the Women’s Center, and other inpatient departments to medical facilities that included Charleston Area Medical Center, Cabell Huntington Hospital, and West Virginia Medicine.

Princeton Community Hospital is a fully-accredited 267-bed hospital system providing acute, psychiatric, and multispecialty care. The system serves a 10-county region in southern West Virginia and southwest Virginia.

PCH was the first hospital in West Virginia to receive breast MRI accreditation from the American College of Radiology (ACR) and is currently one of only two hospitals in the state with breast MRI accreditation. The Cancer Center at PCH provides the highest level of oncology services to their patients. The fully-accredited center diagnoses and treats the full spectrum of breast disease and features 3-D mammography.

PCH is currently renovating nearly 9,000 square feet to accommodate new specialty surgeons and is planning on an additional 14,000 square feet of prime office space for additional recruitment. This space is conveniently located in the hospital directly above our state-of-the-art operating room. In addition, PCH is on track to acquire designation as a Joint Destination Center of Excellence for hip and knee replacement surgery later this year.

A clinical affiliation agreement with Charleston Area Medical Center, approved in 2014, strengthens both organizations and enhances the quality of health care in southern West Virginia, particularly in the areas of oncology and cardiology.

PCH offers advanced medical technologies and procedures, from state-of-the-art diagnostic imaging to minimally invasive surgery with the robotic da Vinci Surgical System. The staff includes the area’s most highly skilled medical and technical professionals who are passionate about the care their patients receive. \*

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# A Message From Our President/CEO

One of the true strengths of our critical care transport program, and one which sets us apart in our region, is our cooperative ownership by our home state's three academic medical centers. For over three decades, Cabell Huntington Hospital, Charleston Area Medical Center and the West Virginia University Health System have worked together to deliver industry-leading transport service to their patients through the HealthNet Aeromedical Services system. Nowhere is this more evident than in the care we provide to critically ill and injured infants and children.

Each of our member hospitals possesses robust capabilities to care for the most critical of pediatric patients. Given the rugged and rural nature of our region, simply accessing these advanced services can be daunting. That is where our organization comes in. Working hand-in-hand with specialty transport team members and physicians at these regional pediatric centers, HealthNet Aeromedical Services and our team members serve as the critical link to reach these children, stabilize them and safely transport them to these state-of-the-art facilities. It is a big part of what we do, and we do it every day.

Caring for sick kids is difficult on everyone. The mental toll on clinical providers, family members and parents alike can be difficult. By having aircraft large enough to allow a parent to accompany the child, our teams are able to reduce the stress and anxiety that comes with having a child flown to far away intensive care unit. Not every medical transport helicopter has these capabilities, but thanks to the long-term aircraft fleet investment by our member hospitals, each of our eleven aircraft do. It's important and it makes a big difference for the families we serve.

The speed of the helicopter is one factor in saving children, but the aircraft is only as good as the people in it. The neonatal and pediatric intensive care transport teams at our member hospitals are second to none. Highly trained physicians, nurses and respiratory therapists make up these teams. They work alongside our flight paramedics and flight nurses, connecting the advanced care available in their respective units and hospitals to the most rural corners of central Appalachia. In essence, we work together to bring the pediatric or neonatal intensive care unit to the patient. The kids in our region deserve nothing less.

Throughout this issue of InFlight you'll have the opportunity to read about the great things happening across our region in pediatric critical care and transport. These are important stories and they shed light on the depth of infrastructure available to save some of our most vulnerable patients. I hope you invest the time to learn more about how a not-for-profit, cooperative transport structure impacts the lives of infants and children. It's a humble calling and we're honored to have your confidence and make it happen for our neighbors. \*

**Clinton V. Burley**  
HealthNet Aeromedical Services, Inc.  
President/CEO

# BEHIND THE SCENES

## In Neonatal and Pediatric Critical Care Transport

Photos by Jason Spears

Since 1986, HealthNet Aeromedical Services has been the premier provider of critical care transport within its service area. To date, the program has safely completed over 75,000 transports. We tend to think these transports involve adults who become critically ill or injured, sadly however, newborns, infants and small children often require the life savings skills provided by HealthNet Aeromedical Services and transport nurses.

Tammy Zornes, CFRN, a flight nurse for over 12 years with HealthNet Aeromedical Services and a Pediatric Intensive Critical Care Transport Nurse at Hoops Family Children's Hospital, talked with us to explain the neonatal and pediatric transport care HealthNet Aeromedical Services provides.



### Briefly describe the decision-making process leading to NICU/PICU transport?

The process that leads to the decision to transport a NICU/PICU patient is multi-faceted. First, there has to be a service that our member hospital, either Charleston Area Medical Center, WVU Medicine or Cabell Huntington Hospital, can provide that the transferring facility cannot. Once we receive the call from the facility we dispatch the specialty nurse and flight team to the patient and provide necessary treatment. The specialty nurse, flight nurse and flight paramedic may need to spend a lengthy amount of time bedside with the young patient to provide services to stabilize the child's condition. Once the patient is stabilized, the flight team is responsible to speak with the physicians to determine if the patient needs to be admitted to the pediatric floor, the PICU or the NICU.

### What is the relationship between the hospital physicians and the flight teams?

The relationship between flight teams and pediatric specialists has become one of great respect. In fact, over the last few years, flight teams, at the invitation of the pediatrics doctors and on their own request, have begun accompanying physicians during his or her pediatric patient rounds. This allows flight teams to become more familiar with the pediatric patients and raises awareness of the types of care the pediatric patient may require.

### How is a small child or infant transported via helicopter and what equipment or accommodations are needed to transport these young patients?

Typically, the small child is transported on the cot and certain devices such as a Pedimate may be used, depending on the child's size. If the child is a neonate, all of our helicopters have the capability to transport the baby in an isolette. The isolette also has a ventilator and critical care monitor built into it.

### If a transport nurse is not available and the pediatric patient is under the care of the flight team, briefly describe the types of life-saving procedures available?

The life-saving procedures a flight nurse or flight paramedic may perform could be maintaining an airway with intubation. Our teams are trained to use special tools, like a Glidescope, to deal with a difficult airway. The Glidescope allows the flight nurse or flight paramedic to visualize the airway with a video. HealthNet Aeromedical Services flight nurses and flight paramedics are also trained to perform needle decompressions, insert intraosseous lines and administer critical care medications. All HealthNet Aeromedical Service's aircraft carry ventilators; blood; and fresh, near frozen plasma. They are flying intensive care units.

### What training do flight crews receive to be qualified to provide these services to the smallest of patients?

Flight teams undergo extensive training and education to train to transport infant/pediatric patients. During annual competencies, flight crews "practice" their skills on infant and child-size simulator patients. Flight crews complete rounds with pediatric physicians at our member hospitals, and during regular base staff meetings further, pediatric related educational opportunities are presented.



# WVU MEDICINE CHILDREN'S



## Doctor Implants Tiny Heart Valve in Child Born With Rare Disorder

By Amy Johns  
Director of Public Affairs  
Planning, Marketing & Communications  
WVU Healthcare & Health Sciences

Emma Soustek, 14 months, of Berkeley Springs, WV, may look just like any other little girl, but she's got a secret. Her heart beats with the help of a tiny mechanical valve that was implanted at WVU Medicine Children's in Morgantown, WV.

Emma's mother, Alexis Moore, had a normal pregnancy and gave birth to Emma on February 28, 2016. But two days later, just before Emma and Alexis were to be discharged from WVU Medicine Berkeley Medical Center, hospital staff discovered that the oxygen levels in Emma's extremities were abnormal. The results of a subsequent echocardiogram revealed that Emma had coarctation of her aorta, which is a narrowing of the aorta. She was then flown by HealthNet Aeromedical Services to WVU Medicine Children's.

After a six-day stay in the Neonatal Intensive Care Unit, Emma underwent her first open heart surgery, which was performed by Robert Gustafson, M.D., known by his patients and colleagues as "Dr. Gus."

At home after discharge, Emma was thriving. She gained weight and she started to crawl and roll over, just like normal babies do. But then, things took a turn. She stopped growing and started losing weight. She had no interest in eating and tired out easily. In addition, no matter what her core body temperature was, her hands and feet were always cold. It was then that she was diagnosed with mitral valve stenosis, a narrowing of the mitral valve.

The surgery to repair Emma's mitral valve was scheduled for Jan. 10, 2017, but she developed pneumonia. It was rescheduled for Feb. 2, but she contracted roseola, a viral infection. On March 21, she finally underwent her second open heart surgery, this time to repair her mitral valve. The operation's success was short lived. Emma went into heart failure and had to be put on a ventilator.

Prior to Emma's second surgery, Fawwaz Shaw, M.D., pediatric cardiothoracic surgeon at WVU Medicine Children's, suggested a plan B that included implanting a new mechanical valve into Emma's heart. The 15-m.m. mechanical heart valve is so new that it is not yet available for commercial use. Fewer than two dozen have been implanted in the U.S. as part of a clinical trial and a handful of others as part of a humanitarian device exemption from the U.S. Department of Health and Human Services. Emma fell into the latter category. Dr. Shaw handled the request and filed the paperwork. Emma was approved for the exemption.

With time and options running low, Shaw performed emergency surgery to implant the valve on March 27. To date, the valve replacement has been deemed a success.

"Now, because of the surgery, she's not wanting to crawl. But, if I put my hands down, she'll hold onto my hands and walk right along with me. She just won't let go. She is getting strength back and she's getting more confident. She seems to me that she feels way better," Alexis said. "I never really noticed how bad she felt because she was always happy before, but now that I see her like this, it's amazing."



Dr. Fawwaz Shaw, M.D.  
and Emma Sousek

Shaw explained that Emma was born with a rare congenital heart condition called Shone's Syndrome. While the valve replacement is working now, Emma will undergo future surgeries, including those to replace the current valve as she outgrows it. In the meantime, she will return to WVU Medicine Children's for close follow-up.

"The outstanding care provided by each of the components of our transport teams; Pediatric Heart Program, including cardiac anesthesia, perfusion, critical care, cardiology, nursing; and our operating room team, is the primary reason that we are able to successfully bring the most current cardiac technologies to the children of West Virginia," Shaw said. "We are thrilled with Emma's short-term outcome and look forward to following her progress closely."

"Every time I see Dr. Shaw, I just want to hug him. The team here has been absolutely amazing. They handled everything very professionally; they were very understanding; they comforted us; they laughed with us; they cried with us; they reassured us; and they did everything that they could to help us," Alexis said. "Even though I'm scared, I'm pretty confident whenever she goes back there that she's going to be OK because they do a great job. They treat the patients here like their own kids, and that's very special to me."

The family is so grateful for the care they received that they made a thank-you card before they left the hospital. The card now resides in the Pediatric Intensive Care Unit (PICU), where Emma spent more than three weeks after her most recent surgery.

"It was funny. The first day that she walked in the PICU after surgery, everybody was lined up clapping and cheering her on," Alexis said. "We just got so much support from them; that was really amazing." ■



# HOOPS FAMILY CHILDREN'S HOSPITAL

## Providing Critical Care Services for Infants and Children

By Shawn Jordan, MBA, ABC  
Production and Media Relations Manager  
Cabell Huntington Hospital



**A**t the Hoops Family Children's Hospital, a commitment to the region's children starts with those who are most vulnerable — the critically ill.

In the 10-bed Pediatric Intensive Care Unit (PICU), pediatric intensivists and other specialists work together to care for children in life-threatening situations.

"Cabell Huntington Hospital has always made children a priority, and the Pediatric Intensive Care Unit is evidence of that," said Eduardo Pino\*, MD, FAAP, Pino, a board-certified, fellowship-trained pediatric intensivist and the medical director of the Hoops Family Children's Hospital and a member of the HealthNet Aeromedical Services Physician Advisory Council, commented, "Our technology and equipment have changed over the years, but our mission has remained the same: we're here to make a difference in the lives of children and their families."

The highly trained, experienced PICU staff cares for critically ill and injured infants, children and adolescents, as well as those recovering

from high-risk surgeries. The newly renovated unit includes four beds with step-down capabilities and a state-of-the-art computer monitoring system.

"When we designed the new PICU, our goal was to create a child-friendly, family-friendly environment," Dr. Pino said. "We want our children to feel safe and comfortable. We want our families to have privacy and be able to spend time together. We want children to see that everything we do here is just for them. Children have a place of their own at Hoops, and that helps get them through very difficult circumstances."

For premature and critically ill newborns, the board-certified, fellowship-trained neonatologists in the Level III Neonatal Intensive Care Unit (NICU) have the technology, skill and expertise to care for babies as small as 455 grams — just over a pound. A team approach to care includes pediatric specialists in ophthalmology, cardiology, gastroenterology and other disciplines.

The Hoops Family Children's Hospital NICU is the only facility in the region to provide private rooms, designed to allow parents to sleep, breastfeed and pump breast milk at their baby's bedside. A shared family room called Zaine's Room provides space for parents to eat, shower, use the Internet and relax. After newborns are discharged, the NICU Follow-Up Clinic provides ongoing care and therapy to reduce long-term developmental issues.

"We have top-notch facilities, but more importantly, we have top-notch people who are committed to our mission," Dr. Pino said. "There's a clear difference between a hospital that admits children and a true children's hospital, and we are very proud to be the latter."

For more information about Hoops Family Children's Hospital, call 304.526.2111. ■

**“Our technology and equipment have changed over the years, but our mission has remained the same: we’re here to make a difference in the lives of children and their families.”**

**— Eduardo Pino, M.D.**

Department of Pediatrics at the Joan C. Edwards  
School of Medicine at Marshall University





# LATEST TECHNOLOGY PROVIDES Better Outcomes for Children Born With Cleft Palate

By Dale Witte  
Marketing & Public Affairs  
Charleston Area Medical Center

**W**yatt Miller was born Nov. 11, 2015. His mother, Sameria Brown, remembers it well. “He weighed 7 pounds, 10 ounces, and he was 21 and ¾ inches long,” she said. “As soon as he was born, they took him back for an examination. When they brought him to me, they told me he had a soft cleft palate.”



About one in every 1,500 babies is born with a cleft palate in the U.S. every year. The palate is both the hard and soft part of the roof of the mouth. When the palate is not completely formed, it results in a split-like opening from the roof of the mouth to the

nose, which is called a cleft palate. Similarly, a cleft lip occurs when there is a split in the baby’s lip. Most babies born with a cleft have both a cleft lip and a cleft palate, but they can occur separately.

Cleft lip and palate occur very early, between week 6 and week 12 of pregnancy, but what exactly causes the clefts to form is still unknown.

“It’s a multi-factorial anomaly, and we don’t really understand everything that’s responsible for cleft palate forming,” said Paul Kloostra, MD, DDS, co-director of the CAMC Cleft Center. “There are a number of syndromes that are associated with the cleft palate, and we know that it’s something to do with the fusion of the jaw coming together, but exactly what is happening that’s causing the problem to happen, we don’t know.”

Cleft lip and palate can cause feeding difficulties, ear infections and hearing loss, as well as dental problems. If the palate is not repaired,

the child will not have the tools he or she needs to speak correctly. The extent of these issues depends on the condition’s severity. A team of experts that specializes in cleft cases can help patients and families overcome these challenges by providing helpful tools, like special bottles for feeding, reassurance and counseling, as well as performing procedures to treat middle ear infections, straighten teeth and address other dental conditions.

When a cleft palate is repaired, the surgery is called a palatoplasty. During the surgery, the hard and soft parts of the roof of the mouth, which are made up of very delicate tissue, are carefully reconstructed. This involves careful dissection, then rearranging of the muscle bundles to provide a soft palate that functions properly, allowing the child to develop normal speech.

Traditionally, surgeons performed palatoplasties wearing a pair of glasses that contain magnifying lenses. However, advancing technology has enabled surgeons to perform the surgery using a highpowered microscope that provides more light and magnification. This makes the dissection and reconstruction of the palate easier and allows the rest of the surgical team to see and better assist the surgeon in the operating room. In addition, the microscope allows the surgeon to maintain a straighter posture to avoid fatigue during the procedure, which can take several hours to complete.

## The CAMC Cleft Team

Directed by Bruce Horswell, MD, DDS, and Paul Kloostra, MD, DDS, the Cleft Center at CAMC is both the only cleft team in the region and the only cleft team accredited by the American Cleft Palate & Craniofacial Association in West Virginia. ■

“For some reason, here in West Virginia, we see a higher number of isolated cleft palates, and we’re not really sure why that is.”

– Paul Kloostra, M.D.  
Emicroscopic Palatoplasty Group



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# A CELEBRATION OF A CHILD'S LIFE



*HealthNet Aeromedical Services Base 5 patient Addison Hodges and her mother meet the flight team who cared for her in April 2017.*

**O**n April 23, 2017, eight-year-old Addison Hodges was flown by a team from HealthNet Aeromedical Services' Beckley, WV, base to Charleston Area Medical Center's Women and Children's Hospital in Charleston. Addison had been a patient at Princeton Community Hospital and her condition was deteriorating.

Flight Paramedic Micah Kuhn and Flight Nurse David Adkins provided pediatric advanced critical care services to Addison in Princeton while Pilot Scott Morgan prepared the aircraft for the flight in instrument conditions to Charleston. A short time later, Addison, her mother and the flight team were on their way to the Pediatric

Intensive Care Unit in Charleston.

Addison remained on the ventilator for over one week and remained in the hospital for several additional days. Slowly, she stabilized and was able to return home with her family.

Addison's family credits the flight team in playing a big role in her survival. To get reacquainted, the family visited our Beckley base to allow Addison to meet with the crew who was by her side that pivotal morning. It was a celebration of life. A celebration of a child who is doing well because our region is served by a state-of-the-art pediatric critical care transport system. ✨