

UAB Neonatology Program Outcomes



Visit the UAB Medicine Online Headquarters for Physicians

PHYSICIAN HQ UABMEDICINE.ORG/PHYSICIAN

- Information on how to refer neonatology patients to UAB Medicine
- Information to help your neonatology patients navigate UAB Medicine
- Full digital and downloadable editions of physician publications including all 16 specialty editions of *UAB Medicine Insight*
- News and updates about recent medical and research discoveries, advancements, patient care, events, and seminars
- Links to other helpful resources for referring physicians including Ambassador, UAB School of Medicine CME, and UAB research information.

Register for quarterly news, events, and updates from UAB Medicine at UABMedicine.org/physician.



Left to right: Rune Toms, M.D., Mitchell Cohen, M.D. and Wally Carlo, M.D.

Invitation to a Dialogue...

Dear Colleague,

UAB Neonatology Services has an excellent track record in caring for the newborn infant. We are proud of the stable leadership and depth of research and clinical expertise that have produced outcomes among the world’s best. Many of the protocols developed at UAB are now standard around the country and internationally. In this booklet, we share with you some important details about our program in hopes of stimulating a dialogue and raising the level of care in the perinatal arena. Please contact us with any questions or comments—and if you have an urgent clinical question or concern, we invite you to call our in-house neonatologist, available around the clock.

Sincerely yours,

Mitchell Cohen, M.D.
Chairman, Department of Pediatrics

Wally Carlo, M.D.
Edwin M. Dixon Professor of Pediatrics

Rune Toms, M.D.
Assistant Professor of Pediatrics
Medical Director, Regional Newborn Intensive Care Unit

To Refer a Patient

MIST

MIST (Medical Information Service via Telephone), UAB’s toll-free, 24-hour service, connects physicians anywhere in the country with UAB neonatologists or other specialists for consultations or referrals. Contact MIST at 800-UAB-MIST (800-822-6478) or e-mail mist@uabmc.edu.

Critical Care Transport for Critically Ill Patients

The UAB Critical Care Transport (CCT) Service provides safe and rapid transfer of newborns between hospitals. Sophisticated, uninterrupted intensive care from a community facility to critical care units at UAB is accomplished by air or ground transport, depending on distance. Neonatal nurse practitioners and registered respiratory therapists are an integral part of every neonatal transport team. Critical Care Transport is available at all times. Attending physicians who are accepting the transfer of a newborn from a referring physician will handle all details and organization of a transport.

When you have a premature or sick newborn requiring specialized care, the UAB MIST operators (800-822-6478) will get a UAB neonatologist on the phone with you within minutes, 24/7/365. We accept referrals on an immediate basis from every region of the state and beyond. No baby is ever turned away.



Evidence at the Base of Science

Ignorance eventually yields to the scientific process, and UAB Neonatology Services is playing a major role worldwide in developing evidence-based science to guide women, newborns, and their caregivers toward greater quality of care and better clinical outcomes. This Outcomes booklet is a report to the physicians of our state, region, and nation on our surgical and medical trends and approaches, a review of our volume of patients and how they have fared under our care, an overview of technology and facilities we have developed, and information on our faculty.

UAB endorses transparency of outcomes data and regularly reports process measures and outcomes statistics to government and regulatory bodies which post information publically. For this



booklet, we have selected a few of the most important data sets and share some of the clinical outcomes most commonly asked about by physicians and parents.

Quality improvement is vitally important to us, as it is to you and to our patients. UAB places the highest priority on promoting better quality of care for newborns everywhere.

Survival Rates for Premature Babies	Calendar Year 2012	Calendar Year 2013
<29 weeks gestational age who lived more than 12 hours	80%	80%

UAB’s survival rate for all premature babies significantly exceeds the national average, as does its rate for survival without apparent mental, auditory, and visual morbidity for single as well as multiple births, including quintuplets and sextuplets.

A Legacy of Caring

UAB traces its history of care for infants to the founding faculty of the Medical College of Alabama in 1859, but more specifically to when the college opened the state's first four-year curriculum in Birmingham in 1945 and the Hillman and Jefferson hospitals were deeded to the University of Alabama as clinical teaching sites. Gynecology, pediatrics, and obstetrics departments were established at the new medical school.

The UAB Women & Infants Center

Today, the legacy continues with the UAB Women & Infants Center, a modern, 430,000-square-foot facility housing comprehensive obstetrics and gynecology services and the nation's largest all-private-room Regional Neonatal Intensive Care Unit (NICU) and continuing care nursery (CCN). UAB provides multispecialty integration, family-friendly facilities and services, an emphasis on breastfeeding, and ongoing quality improvement programs.

At a Glance... UAB Women & Infants Center

A 120-bed Level IV NICU/CCN

17 labor, delivery, and recovery rooms

13 maternity evaluation rooms

3 Cesarean-section suites

A 5-room postanesthesia recovery unit

59 antepartum/postpartum rooms

Magnet-certified nursing staff

Wireless telemetry and caregiver communication

MORE INFORMATION: uabmedicine.org/rnicu

UAB Maternal-Fetal Medicine Multidisciplinary Care

UAB closely aligns Neonatology Services with Maternal-Fetal Medicine Services. The two services, working closely with Children's of Alabama hospital system, provide a team approach to care to ensure the best possible outcomes. As a leader in the diagnosis and treatment of abnormalities of unborn infants, UAB's Fetal Diagnosis and Care Center offers the state's only multidisciplinary clinic dedicated to caring for unborn babies with medical or congenital conditions.

Multiples

From twins to sextuplets, many multiple-birth newborns have been cared for in UAB's NICU. In fact, Alabama's first set of surviving sextuplets was born at UAB in 2002. Recently, UAB Maternal-Fetal Medicine Services opened a Multiples Clinic that provides specialized care to moms-to-be who are expecting multiples. Neonatology works closely with this clinic to provide specialized services upon delivery as required. Nowhere else in Alabama and few places in the country is there such a comprehensive team of specialists so well-equipped to provide care for high-risk mothers and seamless continuous care through their delivery for premature and sick infants, as is available at UAB.

Magnet Recognition

In 2011, UAB Hospital was granted recognition as a Magnet hospital for the third time by the American Nurses Credentialing Center (ANCC), signifying its place in an elite group of fewer than 400

hospitals around the world acknowledged as centers for nursing excellence. UAB is the only adult hospital in the state that holds Magnet certification. The ANCC is part of the American Nurses Association.

Children's of Alabama

UAB closely collaborates with Children's of Alabama, one of the nation's largest children's hospitals. The new Children's of Alabama Benjamin Russell Hospital for Children is located adjacent to the UAB Women & Infants Center and connected via sky bridges. UAB and Children's are two separate healthcare systems within the state of Alabama working in affiliation with each other for educational, clinical and research purposes. Children's serves as the primary teaching hospital for the UAB School of Medicine (SOM) Department of Pediatrics, and the UAB SOM chair of pediatrics serves as physician-in-chief of Children's.

The UAB Women & Infants Center, together with Children's of Alabama, offers the only Level IV NICU in Alabama—designated by the American Academy of Pediatrics as the highest and most comprehensive level of care available. Children's of Alabama is ranked among the nation's best children's hospitals by *U.S. News & World Report*.



Children's
of Alabama®

Combined Level IV NICU beds
at UAB Women & Infants
Center and Children's of
Alabama total as many as 175.

Comprehensive Clinical Care for Newborns

Neonatologists are on site 24/7/365, allowing for around-the-clock attending at delivery to provide immediate care for premature and sick infants. A resuscitation hall is steps away from the C-section suites and labor, delivery, and recovery (LDR) rooms. Once a newborn is stabilized, care is provided in the NICU at the UAB Women & Infants Center or at Children's of Alabama. UAB neonatologists, other pediatric subspecialists, and pediatric surgeons provide the following care:

Extracorporeal membrane oxygenation

Therapeutic hypothermia

Permissive hypercapnea

High-frequency jet ventilation

High-frequency oscillatory ventilation

Inhaled nitric oxide

Multidisciplinary care for premature
babies with congenital heart disease

Pediatric cardiac surgery

Neonatal endoscopic surgery

Transplantation of heart, liver, kidney,
and bone marrow

Transcutaneous blood gas monitoring

Most other innovative medical and
surgical therapies



Newborn Follow-Up Clinic

Neonates at UAB are tested after birth for auditory and visual impairment. Speech and occupational therapists and audiologists are on staff. UAB's Newborn Follow-Up Clinic routinely follows infants whose birthweight is ≤1000 grams as well as specific infants at high risk for developmental impairment.

Subspecialty Physicians

UAB offers more than 200 full-time pediatric and pediatric surgery subspecialists, including experts in embryo-fetal and placental pathology.

UAB Division of Neonatology Staff

- 16 full-time neonatologists
- 9 general pediatricians providing care in the mother-baby unit and well-baby nursery
- A board-certified developmental pediatrician directing the Follow-Up Program
- 7 fellows in the fully accredited Neonatal-Perinatal Medicine Training Program

Clinical Services

	Calendar Year 2012	Calendar Year 2013
Annual admissions to RNICU	1,304	1,364

	Calendar Year 2012	Calendar Year 2013
Infants <29 weeks gestational age treated at UAB	191	225



UAB Neonatology Services

In the Galaxy of NIH Neonatal Research, UAB is a Shining Star

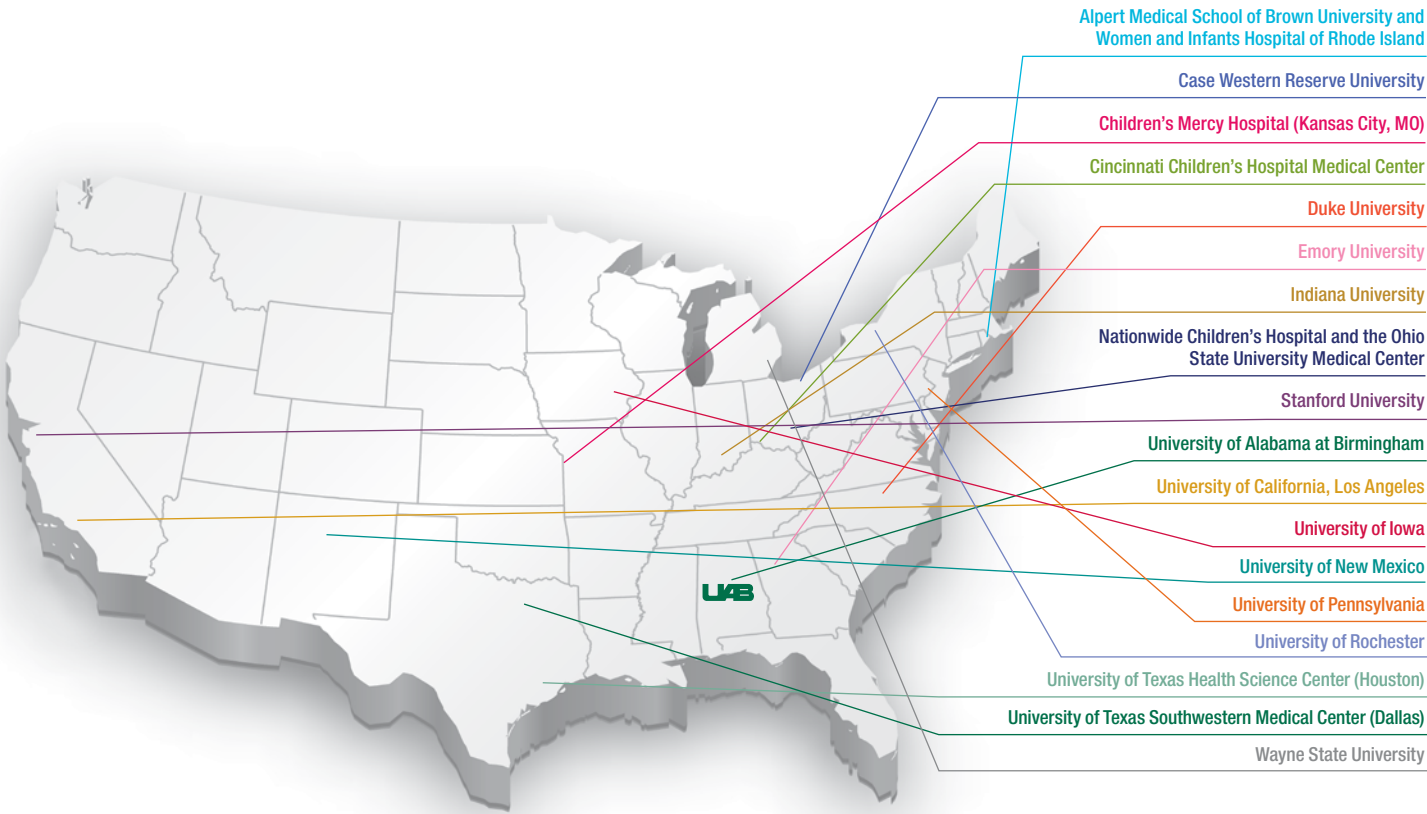
In 1986, the National Institute of Child Health and Human Development (NICHD) chose UAB and seven other centers to initiate its Neonatal Research Network. The network has grown to include 18 clinical sites, and UAB remains a leader in helping determine best practices and develop better therapies through multicenter clinical trials and observational studies in neonatal medicine.

UAB is the only facility in the nation chosen to participate in the three NIH research networks for maternal, child, and family health: the Neonatal Research Network, Maternal-Fetal Medicine Units Network, and the Global Network for Women’s and Children’s Health Research. This indicates that UAB neonatologists and maternal-fetal medicine specialists have expertise in state-of-the-art, cutting-edge science and medicine.

Areas of particular interest for UAB neonatologists:

- Prematurity
- Premature patients with congenital heart disease
- Respiratory disorders of newborns
- Chronic lung disease
- Pulmonary hypertension
- Apnea
- Intraventricular hemorrhage
- Sepsis

NICHD Neonatal Research Network Clinical Centers



UAB Neonatology Services

Selected Outcomes Data

For Babies <29 Weeks Gestational Age	Calendar Year 2012	Calendar Year 2013
Bronchopulmonary Dysplasia (BPD) (36 weeks) By physiologic definition in infants who survived >12 hours	33%	26%
Patent Ductus Arteriosus (PDA) Ligation In infants who survived >12 hours	1%	0%

For Babies <27 Weeks Gestational Age Measured at 2 Years of Age	Babies Born in 2009	Babies Born in 2010
Neurodevelopmental Impairment (NDI)*	19%	17%
Without NDI	81%	83%

*NDI is defined as cognitive composite score <70, or some functional or no vision, or hearing impairment, or severe to moderate cerebral palsy and gross motor function level >=2. This is 18+/-4 month follow-up.

In Support of Our Patients, Families, and Referring Physicians

Family Friendly

- The UAB Women & Infants Center offers an all-private-room RNICU, including special rooms for twins and triplets; all rooms offer sleep space for a family member, and the continuing care nursery step-down unit rooms offer private bathrooms and showers.
- The UAB Women & Infants Center is the city's only NICU offering family visitation 24 hours a day to facilitate the bonding between family and baby in the first months of life. Visitation also is allowed for siblings.
- Neonatal social workers provide assistance in finding lodging and services during and following hospitalization. The Ronald McDonald House® is located only two blocks from the center and is among the facilities that provide a home away from home to families that meet eligibility criteria.
- A family liaison nurse and a discharge coordinator provide support for families during a stay and in transitioning to home. A food pantry is available for families in need who are staying in the hospital with their infant.
- Breastfeeding support is provided through a lactation center staffed by Internationally Board Certified Lactation Consultants. For infants unable to go to the breast, pumps are available for Mother's use in each patient room. Breastfeeding support group meetings are held weekly.
- The hospital-based Family Support Program, unique in Birmingham, is offered jointly with the March of Dimes to provide education and support for breastfeeding and lactation, baby care, community resources, and social interaction and support.
- Music therapy is offered weekly in the RNICU and CCN.
- The center provides both valet and secure, connected self-parking, wireless Internet access, showers, laundries, parent sleep rooms, family lounges with computer centers, snack kitchens, and playrooms for siblings.
- UAB is the site of the Junior League volunteer program of patient support.
- Scrapbooking and educational sessions including a meal are provided weekly. Family-friendly special events are held monthly.
- A monthly meet-and-greet educational session is held with the medical director.
- Beads of Courage is offered to each family in the RNICU and CCN, helping the family to tangibly document the infant's progress through an Arts in Medicine beading program.
- UAB offers CarePages, a free, private Web site for families to easily update information, share photos, and receive messages of support.
- The center provides wireless monitoring and communication systems and advanced security.
- Pastoral care and a chapel are available to families 24 hours a day. The chapel is located on the second floor of the Women & Infants Center, and dedicated quiet spaces are available within each unit. Various denominational services are offered weekly.
- An interdisciplinary team works with bereaved families to provide comfort and to help guide them through difficult decisions to ensure their unique needs are met.
- RNICU reunions are held every few years and offer a fun opportunity for families to renew friendships and keep in touch with us and other families they have met during a stay.



MORE INFORMATION: uabmedicine.org/rnicu

For Our Physician Colleagues

UAB Physician Services

UAB Physician Services works with physicians to enhance the continuity of care for their patients. Physician Services staff expedites the referral process, communicates pertinent information regarding a patient’s visit to UAB, and provides timely information about UAB Health System programs and services. For more information regarding programs offered by UAB Physician Services, call 800-822-6478 or e-mail physicianservices@uabmc.edu.

Continuing Medical Education

Attendance is open and welcomed at the UAB Perinatal Grand Rounds, which are held every Wednesday of each month from 3:00-4:00 p.m. in room 9390 at the UAB Women & Infants Center, 1700 6th Avenue South. Please contact Becky Brazeel at (205) 934-4680 or brazeel@uab.edu for more information. The University of Alabama at Birmingham School of Medicine designates this regularly scheduled series for a maximum of **1 AMA PRA Category 1 credit™**. Registration is not required, but physicians do need to sign the attendance sheet available at the Grand Rounds meetings. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Pediatric Medical Grand Rounds are held each Thursday at 12:00 p.m. in the Bradley Lecture Center, 1600 6th Avenue South. To view the Grand Rounds schedule and to see live rounds for **1 AMA PRA Category 1 credit™**, visit www.childrensal.org/cme.

On-site Learning Opportunities

UAB Neonatology Services welcomes neonatology teams from around the nation and the world to visit with us to learn about rounding, quality improvement, crisis management, and other processes we have put in place to ensure quality outcomes. To learn more about this opportunity, please contact MIST at 800-822-6478.

Annual Conference

UAB Neonatology and Children’s of Alabama host an annual neonatology conference. Visit uab.edu/medicine/peds/neo or call MIST at 800-822-6478 for information.

MD Learning Channel

UAB Medicine’s MD Learning Channel is an online resource that enables medical professionals worldwide to tap into the knowledge and expertise of University of Alabama at Birmingham physicians. The site offers both accredited, Continuing Medical Education or Continuing Education Units, and non-accredited video and web-based learning opportunities on a variety of clinical topics. Visit learnmd.uabmedicine.org.

UAB Neonatology Faculty



Waldemar A. Carlo, M.D.
*Director,
Division of Neonatology*



Rune Toms, M.D.
*Medical Director,
Regional Newborn
Intensive Care Unit*



Namasivayam
Ambalavanan, M.D.



Allison Black, M.D.



Carl H. Coghill III, M.D.



Reed A. Dimmitt, M.S.P.H., M.D.



George El-Ferzli, M.D.



Hannah Hightower, M.D.



Virginia A. Karle, M.D.



C. Vivek Lal, M.D.



Joseph B. Philips, M.D.



Maran Ramani, M.D.



Brian Sims, M.D., Ph.D.



Elaine B. St. John, M.D.



Trent Tipple, M.D.



Lindy Winter, M.D.