



1000 Blythe Blvd. Charlotte, NC 28203  
**MEDCENTER AIR**

## Upcoming Events

Fall 2009

### October

#### Happy Emergency Nurses Week!

October 11 - 17

#### Happy Respiratory Therapist Week!

Thank you MedCenter Air RRT's.

October 18 - 24

#### Air Medical Transport Conference – San Jose, Calif.

The 2009 conference will feature educational sessions from Carolinas HealthCare System and MedCenter Air on topics such as outreach and exchange programs, air safety and neonatal care.

October 25 - 29

### November

#### International Trauma Conference – Charlotte, NC

Visit MedCenter Air at the conference for information on programs and services.

November 5 - 7

For a complete list of events and further details, please visit [www.medcenterair.org](http://www.medcenterair.org) or call 704-355-3996.



## Fixed Wing Transport Takes Off at MedCenter Air

In 1987, MedCenter Air started its fixed wing program to expand its service area. Regionally, MedCenter Air is known for helicopter and critical care ground transports, but not known as well for its national fixed wing capabilities. The fixed wing fleet has grown during the past 20 years and now includes two King Air turbo prop planes and two Cessna 560 series Citation jets. The team averages more than 650 domestic and international patient transports a year, including transports from Hong Kong, Africa, Bermuda, the Caribbean, Mexico and Canada.

Fixed wing aircraft are a vital resource in the transport community. One of the most common reasons is to provide long distance transports that are impractical to complete by ground services. Fixed wing transports

decrease the out-of-hospital time, and the patient is more comfortable. They are comparable in price and even less expensive than ground transport after 150 miles. When weather is not favorable for helicopter transport, the fixed wing aircraft transports patients more efficiently to higher levels of care. MedCenter Air maintains contractual agreements with major hospitals across the nation to transport patients using fixed wing resources.

The MedCenter Air fixed wing fleet is also an important asset for mass casualty events, impending weather and evacuations. The team is able to efficiently move patients to hospitals in safer areas away from the path of inclement weather or to specialty resource centers not affected by the event. MedCenter Air was one of the first groups evacuating patients from New Orleans in the aftermath of hurricane Katrina and spent more than a month in Texas last year with Hurricanes Rita and Ike.

MedCenter Air provides bedside to bedside patient care in both emergent and non-emergent situations with availability 24-hours a day, seven days a week. Every fixed wing flight is staffed by two pilots, provided by

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Landmark Aviation, and two medical crew members, including two dedicated flight nurses or a nurse and a respiratory therapist. A family member is often able to accompany the patient on the flight as weight requirements allow.

Each aircraft is a flying intensive care unit with an LTV 1200 ventilator, lifepack 12 monitors with invasive line monitoring capabilities, IV pumps and a Life-port



system capable of providing oxygen, air and suction. The aircraft are also equipped with the latest aviation equipment including Terrain Avoidance Systems, Color Weather Radar and Outerlink satellite tracking. Communications during flights are available via radio, satellite phones and digital messaging.

For more information on our fixed wing capabilities, please visit our Web site or contact our communication center at 800-421-9195. ■

## Spend a Day with Med-Center Air!

The MedCenter Air Observer Program will resume in October. The program is available to pre-hospital and hospital professionals interested in spending the day with the MedCenter Air crew. All three helicopter bases are available for observers day and night. For more information or to sign up, please visit our Web site and click on “Outreach” and then “Observer Program.” You will be asked to complete an observer packet, including a short summary of your goals or what you would like to learn from the experience. ■



# Hypothermia Induction in Term Neonates

Induced hypothermia is becoming more recognized as the appropriate treatment for moderate to severe hypoxic ischemic encephalopathy (HIE). Hypothermia induction to the neonate is thought to reduce secondary reperfusion injury to the brain that occurs six to 15 hours after a hypoxic ischemic event, improving the neonate’s neurological outcome. This is thought to occur by lowering cerebral metabolism, which protects neurons and delays reperfusion, allowing a reduction in the severity of the overall injury. Hypothermia induction must begin within six hours of life for its’ benefits to be effective. Studies show prompt versus prolonged initiation of treatment yields more favorable results. If the neonate is born outside a Level III neonatal intensive care unit, hypothermia induction should be initiated by the referring facility or the transport team.

Management of hypothermia induction during transport is less controlled than in the NICU. The goal, however, is to initiate/maintain the cooling process and protocol temperature of 33.5°C / 92.3°F. Treatment is maintained by turning the heat source to the infant off and frequently monitoring body temperature and keeping it above 33.5°C. Often this intervention alone will allow the neonate’s body temperature to reach the recommended criteria level. The temperature may fall below criteria and it may become necessary to add heat. Be aware that the patient’s heart rate may drop considerably and although rare, bradycardia can occur.



**Based on research to date, eligibility criteria for hypothermia induction include:**

- Infants 35 weeks or greater gestation, which are exhibiting signs of HIE
- A PH less than 7.0 or base deficit greater than 16 either obtained from umbilical cord gas or a gas from the infant
- Apgar score less than five at 10 minutes with a history of an acute perinatal event such as prolapse cord, uterine rupture, maternal trauma and cardiopulmonary arrest

**Exclusion for hypothermia induction includes:**

- The inability to initiate the treatment within the first six hours of life
- A major congenital abnormality, known chromosomal abnormality
- Infants less than 1800 kilograms ■

