

Air Currents

Night Vision Technology Assists CareFlight with Night-time Missions

By Marcia Roemer, RN, EMT-P



CareFlight Air and Mobile Services, operating helicopters from 24-hour bases in Dayton, Lebanon and Urbana, has enhanced the safety of their night-time missions through the use of night vision goggles (NVGs).

NVGs use existing ambient light from the moon and stars which can be amplified up to 10,000 times, ultimately raising one's acuity of 20/200 with normal night vision, to 20/30 – essentially turning night into day. Once utilized primarily by the military and law enforcement agencies, this technology has seen progressive advancements since first being introduced during World War II, and has become instrumental in improving the overall safety of night-time air medical transports across the country.

Prior to the implementation of NVGs, a flight crew's evaluation of the landing zone as well as surrounding hazards such as cell towers, trees, light poles or wires in the vicinity of the aircraft's intended path, was based on the

crew's reduced visualization from the air at night, as well as information provided to the flight crew by fire and EMS crews on the ground

CareFlight's primary fleet of Dauphin helicopters underwent modification for the NVGs, and at a cost of approximately \$13,000 each, the ITT Model F4949 Pinnacle system is one of

the most advanced Aviator systems available. Flight crew members completed a comprehensive, FAA-approved training program, and pilots are required to complete additional hours of use in the sky including take-offs, landings, emergency procedures and transitioning between night vision and regular vision.



Unaided

NVG





Safety In-Service

By Linda Sestina-Irvin, NREMT-P

The safety council of CareFlight Air and Mobile Services has redesigned the delivery and presentation of the Aircraft Safety sessions.

Currently, when a safety session is requested, a member of the council will be notified and coordinate a time to present a lecture regarding this topic. The aircraft will also be scheduled to participate in this session.

The goal of this newly implemented program is to provide the most up-to-date safety information in a standardized format so to provide a safe work environment. Our presentation of this safety session is without charge and each participant will receive one continuing education credit.

Areas of concentration will include:

- Landing zone size
- Multiple types of aircrafts
- Interactive landing zone training and setup
- Hot versus cold loading
- Overview of incident response
- “Helicopter Shopping”

To schedule a safety training session please contact the program scheduler, Dennis Broering at (937) 208-2037.

Congratulations to Dr. Marriott

By Jennifer Schueler, RN



Randy Marriott, MD

CareFlight Air and Mobile would like to congratulate Dr. Marriott on receiving the prestigious John P. Pryor Street Medicine Society Award.

The award is named for the late John P. Pryor, an emergency medical physician who got his start as an emergency medical technician (EMT) and paramedic. Pryor was killed in 2008 by an improvised explosive device while deployed overseas. Dr. William “Randy” Marriott, medical director for the Dayton (Ohio) Fire Department, received this award for his dedication to Emergency Medical Services (EMS). Dr. Marriott expanded his pre-hospital career to involve disaster preparedness and response programs which embodies the spirit of the award.

Dr. Marriott received this award as his son, a collegiate EMT stood next to him on the stage. Dr. Marriott was quoted as saying, “It’s clearly very humbling to receive an award like this. There’s no way I will ever feel worthy of this award and am humbled that I can receive it simply for doing what I love.”

The John P. Pryor, MD, Street Medicine Society Award is presented each year to a physician who has progressed through the ranks as an EMS provider and who continuously demonstrates a sincere and on-going dedication to the betterment of EMS. This award applies to both regional and national status as noted by the enhancement of clinical excellence or educational, logistical and/or humanitarian initiatives.

John P. Pryor, MD, FACS, an EMS physician who was killed on Dec. 25, 2008, while serving in Iraq, posthumously received the first award in his name at the 2009 EMS Today Conference. His brother, Richard Pryor, MD, accepted the award from the Journal of Emergency Medical Service (JEMS) Medical Director Ed Dickinson, MD, NREMT-P, FACEP, and Mike McEvoy, PhD, RN, CCRN, REMT-P.

At the award ceremony for Dr. John P. Pryor, Dickinson commented that the award embodies what Dr. John Pryor stood for which is EMS physicians who got their start in the field, who are approachable and will give back to the place where they cut their teeth.



Utilization Review: Scene Response for “Acute Stroke Alert”

By Andrew C. Hawk, MD, Medical Director, CareFlight



I have the honor and privilege in reviewing all CareFlight helicopter and MICU patient transports. Utilization review is part of the package deal. And utilization review asks me the same question for each CareFlight patient: Was the most appropriate mode of transport used?

CareFlight scene response for “Acute Stroke Alert” is a challenge to utilization review. Why? For one thing, there is no clinical confirmation such as a positive STEMI 12-lead EKG in an “AMI Alert.” In addition, the criteria to call an “Acute Stroke Alert” are more complex. They include performing a neurologic exam, obtaining more specific present (and past) medical history, and determining the blood glucose – all of this with significant time constraints. However, for the patient that is experiencing an acute ischemic stroke and fits the right clinical and time picture, CareFlight scene response has the potential to be very worthwhile for improved patient outcome.

Nationally, there is not an abundance of good data yet on helicopter scene response for strokes. I know that prompt and complete stroke care, such as that provided at MVH, can produce remarkable patient outcomes. But in which patients and in what time frame is it appropriate to call CareFlight to the scene? Hopefully, insight to these questions can be discovered as I complete a focused CareFlight utilization review project on this subject in 2011.

Over the years, I have provided guidance for EMS providers on the subject of CareFlight medical scene response. The portion that applies to strokes [at this time](#) is summarized below. Stay tuned – as I learn more, the criteria may change!

“ACUTE STROKE ALERT” – Considerations for requesting CareFlight to the scene.

1. The patient has evidence of an **acute ischemic stroke** – with less than 2 hours since clinical onset or last seen normal, without hypoglycemia, and with substantial one-sided weakness:
Presence of *SIGNIFICANT abnormalities* to the **Cinci Prehospital Stroke Scale** –
 - A. one-sided facial droop.
 - B. one-sided arm drift.
 - C. speech – slurred, inappropriate, absent.
2. Time for CareFlight to respond to the scene and return to MVH is significantly quicker than immediate EMS ground transport to MVH (neurointerventional center) versus consideration of EMS transport to the local hospital for peripheral tPA “window of opportunity” (symptoms less than 3 hours, up to select cases of 4 1/2 hours).
3. EMS request for CareFlight scene response followed by MVH ED contact at **(937) 208-2440**.

Outreach Update

By Jennifer Schueler, RN

“On the Road”

In February, CareFlight Air and Mobile Services presented, “On the Road to Auglaize County.” This event was held at New Bremen High School and approximately 80 people attended the presentation and continuing education event. Thank you to New Bremen High School for their hospitality and to Linda Emmons for her continued organization of this education opportunity.

April 16, 2011, was the date for “On the Road to Clinton County.” Forty people attended that event which provided 7.5 continuing education credits units. Thank you to the staff who assisted in organizing this event and to the many physicians from Miami Valley Hospital for presenting fascinating lectures to the audience.

Drive Smart Program

The Drive Smart program is well underway and to date many programs have been completed. This is an opportunity for the community, local emergency medical services, Miami Valley Hospital’s Trauma Program and CareFlight Air and Mobile Services to demonstrate the cohesive method of working together to promote teen safety and awareness regarding driving decisions while sustaining peer pressure in adverse circumstances. The Drive Smart program is offered each spring, prior to prom events or high school graduations.

(continued on next page)

The Region's Leader

Outreach Update (continued)

Lectures

CareFlight Air and Mobile Services continue to provide medical lectures within the emergency medical community. These lectures are delivered by one of our staff members and are of no cost to the requesting department. If you would like to inquire, request and schedule a medical lecture, please contact Mary Lou Kyne.

For information regarding any of these events and for future scheduling, please contact Mary Lou Kyne, RN, Outreach/PI Manager at (937) 208-4399

Welcome to CareFlight!

By Angela Deere, RN Program Educator

CareFlight Air and Mobile Services would like to welcome three new crew members to our department.

Each nurse who joins our staff is required to have at least three years of full time or five years of part time experience in a critical care setting such as an intensive care unit or emergency department. It is also helpful to be a paramedic however non necessary for hire, just required within a year after employment. The paramedics who join our staff are required to have three to five years of experience, preferably with a busy emergency medical response department or a critical care transport service. Each new employee will encounter a structured eight to ten week orientation that includes multiple lectures, didactic skills and a human cadaver lab with our medical director. Assigned preceptors will assist in the training and teaching of our new staff so they are



Brandi Cogdill, RN, EMT-P



Kim Sargent, RN, EMT-P



Jana Taylor, EMT-P

confident in how to operate in a safe environment. The night shift flight nurses receive their initial night vision goggle training during this time and when orientation is completed, they will have taken a total of five clinical protocol tests, a drug calculation test in which they are not permitted to use a calculator, a safety test and operations test. Upon completion of their orientation and graduation into their positions, each new employee must present a safety session lecture to their peers.

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Mission*

*We will build healthier
communities with
others who share
our commitment to
provide high-quality,
cost-effective health care
services.*

