Statement from the American College of Emergency Physicians on Air Medical Safety

For

The National Transportation Safety Board

January 23, 2009

The American College of Emergency Physicians (ACEP) is very interested in protecting the safety of our patients, our members, and our colleagues in helicopter emergency medical services (HEMS) programs. ACEP has lost patients, members, and valued colleagues in HEMS crashes. To ACEP's members, this is an issue of patient safety, personal safety and professional urgency. ACEP applauds the National Transportation Safety Board (NTSB) for its recent scrutiny of HEMS safety. ACEP pledges to work with the NTSB to ensure the safety of patients requiring air transport and the HEMS crews.

ACEP represents over 27,000 emergency physicians who most frequently serve as the physicians involved in the dispatch, medical direction and flight crew configuration of helicopters. We are also the receiving physician of patients transported by HEMS. ACEP works closely with other stakeholder groups and associations representing professionals in medicine and the HEMS community on issues of safety.

The improvements to the safety of HEMS fall into three categories: (1) the decision to use air medical transport versus ground EMS, which can be divided into the medical decision and the pilot's discretion for the safety of his passengers and crew; (2) EMS protocols and best practices for regional healthcare delivery; and (3) flight safety standards, best practices and equipment. Medical decisions should be made by physicians or physician extenders solely with the patient's best interest. Pilot discretion regarding safety must be protected from economic pressures and the medical needs of the patient. EMS protocols are the province of the States, overseen by the State Office of EMS. Flight safety standards should be governed by Federal entities without regard to geo-political boundaries.

Medical decision making about dispatch criteria should be based on sound science and thorough study. Although many papers have been published on the subject of HEMS dispatch decision making, research and development of evidence based protocols are incomplete. The medical research community is responsible for the design and conduct of studies on dispatch and utilization for both air and ground critical care transport. The research should include thorough economic analyses of risks and benefits to the patient for both emergency and convalescent transports. There has been no meaningful support for this type of research from

the Federal government agencies responsible. ACEP encourages the Departments of Transportation, Health and Human Services, and Homeland Security, through its representatives to the Federal Interagency Committee on EMS (FICEMS), to identify sources of funding for this type of research. The agencies with research funding must work diligently and quickly to develop requests for proposals to the EMS and medical community for thorough research studies on HEMS efficacy and utilization of air and ground critical care transport.

The HEMS pilot must have ready access to weather data that is accurate and timely. The decision to "go or no-go" must belong solely to the pilot. They must be insulated from the knowledge of the urgency of the patient and should never have economic pressure exerted upon them. Efforts should be made to curtail "helicopter shopping" among HEMS programs by requesting hospitals when transport has been refused for valid weather criteria. The HEMS community should ensure communication between neighboring services when a request for air medical transport is denied because of weather.

The NTSB should develop, through its rigorous public processes, recommendations that will guide State governments in the discharge of their responsibilities to regulate facilities and ambulances, whether they are air or ground units, in order to achieve uniform best practices across the States. The American public expects to be cared for equally well and transported safely, regardless of what State in which they may require critical care transport. Examples of necessary regulations include:

- Specifications for air frames that are suitable for the care of a patient;
- Qualifications of flight crews and in-flight medical staff;
- Assurance of FAA qualifications for flight dispatchers;
- Training for medical staff for flight certification;
- Patient care equipment standards;
- Interoperable communications among helicopters, ground EMS and destination hospitals;
- Protocol and utilization review that is protected from discovery under peer review statutes;
- Regular review of request logs to police "helicopter shopping."

ACEP recommends that States develop EMS protocols and best practices for patient destination based on the best interests of the patient, realizing that regional healthcare delivery does not always respect State boundaries. Often the closest hospital to provide the patient and their family the required specialized healthcare may be in an adjacent state and may be the most appropriate hospital for that patient.

In addition, states should require accreditation to operate a HEMS program. Accreditation standards, such as those developed by the Commission on Accreditation of Medical Transport Services, should be incorporated into State accreditation.

The Federal government must ensure that passengers and flight crews are as protected as any other commercial flights. In fact, patients should be afforded an additional layer of protection, since they unquestionably constitute a *vulnerable population*. Patients receiving emergency transport are not in the position to decide whether or not they wish to take a flight. It is doubtful that even convalescent patients being repatriated to a facility closer to home are uniformly informed of the risks and benefits of flying versus ground transportation. In the United States, vulnerable populations are entitled to a greater level of safety. Yet, even though patients in an emergency are given no choice on the matter, they are often flown on aircraft that often do not meet Federal Aviation Administration (FAA) requirements for other commercial aircraft and by pilots who are not required to be trained to the level of other commercial pilots. It is therefore the Federal government's responsibility (1) to ensure that all FAA requirements and regulations are adhered to for every segment of every flight, (2) that technical specifications and requirements exist for equipment to avoid flying into terrain, fixed objects or other aircraft, and (3) that air frame and avionics standards are promulgated for the special requirements of medical missions, including uncontrolled landing zones and changes in weather during the course of a mission.

The NTSB should develop, though its rigorous public processes, recommendations that will:

- Require the FAA to review its regulations to assure their appropriateness for the special requirements of medical missions,
- Require FAA Part 135 compliance for all segments of medical flight missions;
- Require medical flight dispatchers to meet all FAA requirements for commercial dispatch;
- Completely eliminate helicopter crashes into terrain or fixed objects, or other aircraft as the technology develops;
- Ensure that medical helicopters are equipped with avionics that are equal to other commercial aircraft;
- Ensure that pilots are thoroughly trained in the use of technology to manage weather and terrain and are regularly challenged through simulation;
- Ensure that current accepted weather minimums are appropriate for medical helicopter missions;
- Ensure that helicopter and pilots are equipped and trained for missions into uncontrolled and unlit landing zones.

ACEP and its members are aware that a great many HEMS crashes involve bad weather and incursions into terrain or fixed objects at night, even in good weather. We are also aware that new terrain warning systems are now available that can eliminate such incursions. ACEP members also work with law enforcement air services, most of which are equipped with night vision equipment for night operations. Yet, it is HEMS pilots who are often required to land in fields or on roads without lights in the presence of electrical wires or other objects, but rarely if ever have access to night vision equipment. Often, helicopters are not even equipped for instrument flight rating (IFR), nor are their pilots required to be IFR certified. The NTSB must recognize the unusual nature of HEMS missions and make its recommendations for improvements in equipment and training accordingly.

ACEP stands ready to work with the NTSB and other stakeholders in assisting the Board with its recommendations and with their eventual implementation. ACEP's 27,000 members' medical practices are evidence-based. If the evidence supports it, ACEP will encourage its members' participation only in flight programs that meet best practices for safety of their patients and their colleagues.