

Wisconsin Helicopter Emergency Medical Services (HEMS)

Utilization Guidelines



Wisconsin Department of Health Services
Bureau of Communicable Diseases and Emergency Response
EMS Program
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Introduction

In June 2012, the National Highway Transportation Safety Administration did a reassessment of the Wisconsin EMS System. The final report recommended the development of helicopter emergency medical services (HEMS) utilization guidelines for Wisconsin. In response, the Wisconsin EMS Board collaborated with the Wisconsin Air Medical Council to create general guidelines for helicopter utilization.

In December 2013, the Wisconsin EMS Board and the Wisconsin State Trauma Advisory Committee approved the general guidelines presented in this document.

Wisconsin Helicopter Emergency Medical Services (HEMS) Utilization Guidelines

General Guidelines

- A. HEMS utilization is a medical decision requiring appropriate oversight and should be integrated within regional systems of care.
- B. HEMS may provide a time savings benefit to patients with time-sensitive emergencies¹ in reaching hospitals that can provide interventions IF the patient can be delivered during an interventional window² AND Ground Emergency Medical Services (GEMS) are not able to appropriately deliver the patient to definitive care within that interventional window.

Examples include:

1. Injured patients meeting the State of Wisconsin Field Trauma Triage Guidelines Category 2 or 3 who are more than 30 minutes of ground travel to the closest American College of Surgeons (ACS) verified Level I or Level II trauma center.
 - a. HEMS utilization for mechanism of injury or special population alone (Category 4 or 5) lacks clear evidence of benefit. Since these patients may not need the resources of the highest trauma level facility in a region, use of HEMS should be carefully considered. Standing protocols or online medical consultation may offer individual guidance.
 2. Patients with acute STEMI needing transportation to a regional percutaneous coronary intervention (PCI) capable hospital where ground transportation exceeds an interventional window.
- C. HEMS may provide clinical resources to patients needing critical care services if unable to obtain critical care services by ground emergency medical services (GEMS) (e.g., inter-facility transfer).
 - D. HEMS may provide a mode of transport for geographically isolated, remote patients independent of medical urgency (e.g., from an island) although this mode should be carefully considered.
 - E. HEMS may provide a resource to local GEMS systems during disasters and times of low community resources.
 - F. HEMS have unique risks of transport, including economic.
 - G. Hospital destination and mode of transport are two separate and distinct clinical issues.
 - H. Mode of transport decisions pose unique challenges in developing evidence-based transport guidelines.

¹ A time-sensitive emergency can be defined as an acute, life-threatening medical or traumatic event that requires a time-critical intervention to reduce mortality and/or morbidity. Examples include major systems trauma, ST elevation myocardial infarction (STEMI), and stroke.

² An interventional window can be defined as the period of time during which mortality or morbidity is likely to be reduced by the administration of pharmaceutical agents, medical procedures or interventions. An interventional window should be based on available national consensus guidelines such as the American Heart Association's first medical contact or door to balloon time. The "Golden Hour" of trauma refers to the core principle of rapid intervention in trauma cases, rather than the narrow meaning of a critical one-hour time period. There is no evidence to suggest that survival rates drop off after 60 minutes.

REFERENCES

- Association of Air Medical Services. [Early Activation of an Air Medical Helicopter and Auto Launch Recommendations: Position Statement of AAMS \(2006\).](#)
- National Association of EMS Physicians. [Position Paper: Guidelines for Air Medical Dispatch \(2002\).](#)
- [State of Wisconsin Trauma Field Triage Guidelines \(2013\).](#)